Political Economy Analysis of the Expansion of the National Health Insurance Fund in Sudan

Analyzing the Resistance to Implementing Health Financing Reforms That Support Expanding the Role of the NHIF

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by

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Abbreviations

GGHE	General government health expenditure
THE	Total health expenditure
NHIF	National Health Insurance Fund
FMOH	Federal Ministry of Health
FCP	The National Free Care Program
MOF	Ministry of Finance
NMSF	National Medical Supplies Fund
WB	The World Bank
GPD	Gross Domestic Product
OOP	Out-of-Pocket
UHC	Universal Health Coverage
LMICs	Low and Middle-income countries
PHI	Private Health Insurance
KI	Key informant
CSO	Civil Society Organization
TMC	Transitional Military Council
FCC	Forces for Freedom
NHCC	National Health Coordination Council
MENA	Middle East and North Africa
GCHI	General Corporate of Health Insurance
SSA	Sub-Saharan Africa
TB	Tuberculosis
IDPs	Internally Displaced persons
CPA	Comprehensive Peace Agreement
HIKS	Health Insurance Khartoum State
UN	United Nations
INGOs	International non-governmental organisations
SMOH	State Ministry of Health
US	United States of America
SAP	Structural Adjustment Program
MWSS	Ministry of Welfare and Social Security
SDGs	Sustainable development goals
IMF	International Monetary Fund
EU	European Union
PHC	Primary Health Care

Abstract

Background: Sudan's health system faces significant fragmentation, with multiple public financing schemes, such as the NHIF, Free Care Program, and Zakat Fund, operating in parallel. Despite NHIF's mandate as the main insurance provider, independent purchasing and the implementation of reforms persist. Weak governance, political instability, conflicting stakeholder interests, and policy incoherence slow progress toward Universal Health Coverage.

Objective: This study examines the political economy dynamics that hinder the integration of major public funding pools into the NHIF and limit the implementation of health financing reforms. It aims to provide actionable recommendations to reduce fragmentation, expand risk protection through Sudan's primary health insurance mechanism, and address a gap in the existing literature.

Methodology: The study employed a mixed method, including a literature review, analysis of policy documents, and key informant interviews. The analysis was guided by Campos and Reich's political economy framework.

Findings: The main findings show that top and mid-level managers and medical doctors linked to the free care committee are key sources of resistance to the NHIF expansion. Although political leadership across different regimes has expressed a willingness to pursue reforms, they have lacked the strong commitment necessary for effective implementation. As a result, the system remains fragmented, with insufficient public funding and high out-of-pocket expenses, hindering progress towards Universal Health Coverage (UHC).

Conclusion and Recommendations: Health financing fragmentation in Sudan is shaped by complex political economy factors. To address these, the study recommends engaging political leadership, building strategic alliances to support NHIF expansion, and strengthening beneficiary engagement through targeted communication and education.

Keywords: Political economy analysis, Health policy, Politics, Sudan.

Word count: 11,989

Key Terms

Universal Health Coverage: Is the commitment to provide all individuals with access to essential promotive, preventive, curative, and rehabilitative health services that are of sufficient quality to be effective while also protecting them from financial hardship when using these services (1).

Catastrophic out-of-pocket health expenditure: Is the burden of healthcare payments, with expenditure that exceeds 10% of total household income or 40% of non-food household expenditure (2).

Risk-pooling: Accumulating and managing funds in a way that ensures the financial burden of healthcare is shared by all members of the pool rather than being shouldered by each contributor alone (3).

Financial risk protection: Having access to all necessary quality health services without experiencing financial hardship (4).

Zakat: is one of the five fundamental pillars of Islam and is mandated by the Holy Quran, viewed as both a religious obligation and a means to purify wealth. It also serves as a mechanism for wealth redistribution to support those in need (5).

Zakat is defined as "*a portion of an individual's wealth allocated for the benefit of the poor*" (6)**.** It helps to strengthen social bonds and solidarity among Muslims and promote social justice. In Islamic LMICs, Zakat also plays a crucial role in alleviating poverty by funding healthcare for impoverished populations in both rural and urban areas (6), (7)**.**

The term 'zakat' in Arabic conveys meanings such as growth and purification. In countries where Muslims form the majority, zakat has traditionally played a key role in offering financial support, essential goods, and basic services like healthcare and education to disadvantaged and marginalized communities (7).

Introduction

The health system in Sudan faces significant challenges that hinder its ability to achieve Universal Health Coverage (UHC) targets and reduce national mortality and morbidity rates (8), (9). One of the most pressing issues is the fragmentation of the financial pooling system. Multiple public funding pools operate concurrently, making it difficult to manage public finances effectively, especially at lower levels of government, where capacity is limited and there is no clear purchaser–provider split. The major civil public funding pools include the National Health Insurance Fund (NHIF), the Zakat Fund, and the Free Care Program. These schemes are open to the entire population and are domestically funded, with no reliance on international support. This characteristic makes them the primary focus of the study (10), (9), (11)**.**

In a country striving to provide healthcare for all, the journey toward UHC has been marked by both hope and significant challenges. Despite the NHIF being mandated as the primary insurance mechanism and the existence of supportive policies, its implementation and expansion remain limited. As a result, tens of millions of internally displaced people, vulnerable and poor people, remain financially unprotected (10), (13), (12)**.**

The author is deeply passionate about policy and politics, and firmly believes that with the right reforms, if properly implemented and carried forward, real change is possible. These reforms have the potential to transform the lives of tens of millions of Sudanese people for the better. Guided by this belief, the author dedicated their MSc thesis as a sincere contribution to any future reform efforts, whether during peaceful times or in the aftermath of the war in Sudan.

Understanding that shaping a better future begins with learning from the past, the author chose to conduct a retrospective policy study. As such analysis looks back at how policies were made, explores the factors and stakeholders that influenced key decisions, for a better implementation and future rebuilding when the war comes to an end (14).

This study examines the complex political economy dimensions of health financing and policy reform in Sudan from 1990 to March 2023, offering recommendations intended for implementation in the post-conflict context.

Chapter 1: Background of Sudan

1.1 Geography and Administrative Structure

Sudan is a low-income federal state in East Africa (15). It ranks as the third-largest country in Africa and the Arab world (16). Covering an area of 1.8 million square kilometres, Sudan is traversed by the Nile and its tributaries, and it borders seven countries: South Sudan, the Central African Republic, Chad, Libya, Egypt, Eritrea, and Ethiopia (10).

1.2 Population and Socio-Economic Profile

Sudan is a predominantly Muslim country with a young population (17), (18). In 2023, the total population was estimated at 48,109,006, with a population growth of 2.6 (19), (20). The median age is 19.6 years (17), with 62% of the population under 25, and about 33.7% of the population lives in urban areas (10), (17).

The life expectancy at birth is approximately 62 years for men and 66 years for women (17). As of October 2024, approximately 10.9 million people were internally displaced (IDPs), and 3.2 million had fled to neighbouring countries (21). This substantial displacement is primarily due to forced migration resulting from the war outbreak in April 2023 (22).

Sudan is rich in natural resources, including fertile land and oil (10), (23). Agriculture, which contributes one-third of the Gross Domestic Product (GDP), is central to the economy and rural livelihoods, employing over 50% of the workforce, mainly in rural areas(23). Despite this wealth, Sudan remains a low-income country with a low Human Development Index, ranking 171st globally (16).

Approximately 46.5% of the population lives in poverty, with 14% in extreme poverty; these figures are likely worsened by the war that began in April 2023 (15), (10). Poverty is more severe in rural areas, especially among those in the informal sector, which poses challenges for equitable health financing and service access (24), (25).

Sudan's national revenue is derived from both tax and non-tax sources, with non-tax revenues primarily coming from agriculture and oil (23). Indirect taxes are a significant source of tax revenue, whereas direct taxes have a relatively narrow base (10), (13).

The country's fiscal and public financial management systems are weak, reflected in a low tax-to-GDP ratio of just 8%. Tax evasion is also substantial, accounting for about 53% of actual tax revenue (10),(26)

Sudan experienced an economic boom in 1999 driven by oil production, high oil prices, and foreign investment (13), (23). However, following South Sudan's secession in 2011 after the Comprehensive Peace Agreement (CPA), Sudan lost 75% of its oil resources and nearly half its revenue (figure 1), leading to economic decline, and GDP growth dropped from 7.8% in 2008 to 3.1% in 2014 (17). The loss of oil income triggered an economic crisis and rising inflation (23). Inflation reached 44.4% in

2012 amid fiscal deficits and currency devaluation, eventually reaching 382.8% by 2021, which severely limited public spending, including on health services (27), (28).

Figure 1: The secession of oil exports after South Sudan's independence.

Source: Ali H, et al 2022 (P.5)

1.3 Political Context of Sudan and Wars

The political context in Sudan is marked by a long history of instability and ongoing complex conflicts (16). Sudan gained independence from Britain in 1956, the same year it established diplomatic relations with Western countries and the United States (US) (27). Since then, Sudan has struggled with poor governance, ineffective institutions, and a lack of dedication to long-term, sustainable economic development (16) .

Omar Al-Bashir came to power through a coup in 1989 (18) (29). During his rule, the country struggled with widespread corruption, ranking 5th most corrupt out of 180 nations in 2017 (30). During Omar Al-Bashir's three-decade rule, major economic and social changes took place, especially after the early 1990s implementation of the Structural Adjustment Program (SAP) and free-market policies, which adversely affected health service delivery and access (31).

In 1990, U.S.-Sudan relations deteriorated when Sudan supported Iraq's invasion of Kuwait (27). In October 1997, the U.S. imposed comprehensive economic sanctions on Sudan due to accusations of state sponsorship of terrorism. These sanctions severely affected key sectors, including health, limiting Sudan's capacity to finance and deliver quality health services (27),(32), (33).

The December 2018 revolution sparked protests in Sudan (34). On April 11, 2019, Sudan's military removed President Omar Al-Bashir, ending his three-decade rule, and established the Transitional Military Council (TMC). The Forces for Freedom and Change (FFC), a coalition of opposition groups, signed a constitutional charter with the TMC. The TMC was subsequently dissolved and replaced by a joint military-civilian Sovereign Council. Abdalla Hamdok, nominated by the FFC on 21st August 2019, was appointed as prime minister to lead a civilian cabinet, raising hopes for health financing reforms (18),(34).

On 25th October 2021, escalating tensions between the military and civilian components of the government resulted in a coup led by General Abdel Fattah Al-Burhan, which disrupted the ongoing health reforms (34), (35), (36).

In April 2023, Sudan faced a deeper crisis when fighting erupted between the Sudanese Armed Forces (SAF) and the paramilitary Rapid Support Forces (RSF) in Khartoum. The conflict has severely disrupted public services and further strained the country's already fragile health financing system (34), (36).

1.4 Health System Organization and Policymaking

The governance and administration of Sudan's healthcare system are decentralized, operating through a three-tier structure: the Federal Ministry of Health (FMOH) at the national level, State Ministries of Health (SMOH) across the eighteen states, and local health authority units (municipalities) (31), (37). And healthcare services are provided at three levels: primary, secondary, and tertiary (13).

Since the mid-1990s, under the federal system, the responsibility for financing and managing most aspects of health services has been devolved to the states and localities (37), (38). FMOH sets national health policies, develops major plans and strategies, provides technical guidance, evaluates the performance of the health system at both national and state levels, oversees the training of medical practitioners and health cadres, and coordinates with international health organizations (17), (31), (36). The provision of healthcare services, including hospitals and other health facilities, falls under the responsibility of the states (10).

In alignment with the FMOH's plan, the SMOHs develop their plans, strategies, and training programs to execute the proposed policies. Similarly, local health authorities implement national and state policies and deliver primary healthcare services to the population (31).

Health services in Sudan are delivered by both the public and private sectors (for-profit and not-for-profit) (10). The private for-profit is mainly found in major cities and focuses on curative care (36).

The decentralized structure of Sudan's health governance presents opportunities and challenges in health service delivery. As we delve into health financing in Sudan, it becomes essential to consider how financial allocations and policies influence the effectiveness and accessibility of the healthcare system.

1.6 Health Financing in Sudan

The country has been found to allocate approximately 6.5% of its GDP and 8.2% of its general government expenditure to health, which is significantly lower than the 15% budget commitment to health outlined in the Abuja Declaration (10), (39), (40).

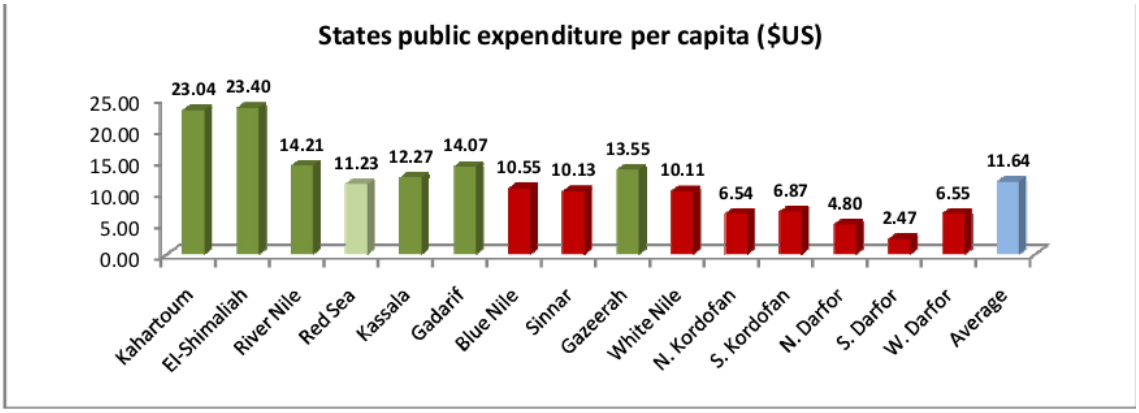
The out-of-pocket (OOP) expenditure is one of the highest in the region and the Arab world, ranging from 66.95% to 80% of total health expenditure (THE), indicating a low level of government spending on health (15), (10), (39), (41). The government accounts for approximately 1/5th of THE (10). The primary sources of general government health expenditures (GGHE) are federal contributions (5.49%), state shares (20.84%) and households remain the main financiers (39). This high OOP expenditure for healthcare services in Sudan diminishes access to essential care and reduces funds available for other crucial life necessities (42).

In general, Sudan's health financing encounters numerous challenges across all its components, and it is highly inequitable (10), (17), (13), (8). The current financing system has not effectively shielded individuals from financial disaster and poverty caused by illness. The ratio of GGHE to THE fell from 28.9% in 2008 to 22.34% in 2011, indicating a decrease in the public share. As a result, the proportion of households facing catastrophic health expenditures and those driven into poverty due to OOP health costs rose from 64% in 2008 to 70% in 2011 (10).

Furthermore, government expenditures have been predominantly focused on urban centres and curative care (26), resulting in highly inequitable public spending. The poorest 20% of the population receive only 13% of the funding, while the richest 20% receive 26% of the public expenditure (9). In addition, the richest quintile utilized ambulatory care services nearly four times more than the poorest quintile (10), (13).

The lack of equity is not just among the population; it's also within the states and different localities (13). The national average allocation of public health funds in 2011 was $11.64 per person, but this distribution was unequal across states. It ranged from $2.47 per person in South Darfur to $23.40 per person in El-Shimalia (Northern state) (10). Political decisions and conflicts contribute to low health expenditure in some states, such as South Darfur, with no clear cross-subsidy between the states (44).

Figure 2: the disparities in government health expenditure among the states



Source: Awad et al (2014)

Chapter 2: Problem Statement, Justification and Objectives

2.1 Problem Statement and Justification

Low- and middle-income countries (LMICs) are striving to achieve Universal Health Coverage (UHC) by 2030, in line with SDG Target 3.8. To reach this goal, many have implemented reforms by strengthening primary health care (PHC), and adopting single-payer systems (45), (46), (47), (48).

In contrast, Sudan's health financing system remains fragmented and underperforming, hindering progress toward national and global UHC goals and efforts to reduce morbidity and mortality (8), (9). Achieving these objectives requires strategically allocated resources and effective risk pooling. However, Sudan lacks a clear purchaser–provider split, suffers from inadequate public funding, inefficient allocation, weak pooling and purchasing mechanisms, and high OOP expenditure estimated at 69% to 80% of THE (15), (10), (40), (42), (8).

This fragmentation limits risk-sharing, reduces the redistributive capacity of prepaid funds and undermines the financial goals of UHC (12). The resulting inefficiencies lead to poor quality care, inequities in access, and heavy financial burdens on households. High OOP costs restrict healthcare access, especially for the poor, and force families to cut spending on food, education, and preventive care, and push many below the poverty line due to catastrophic health expenditures (10), (13), (12), (49).

To address these challenges, Sudan introduced the National Health Insurance Fund (NHIF), a national scheme focused on primary health care (PHC) and revenue generation. However, its implementation and expansion have remained limited (17). Parallel programs, such as the National Free Care Program (FCP), which offers hospital-based services without mobilizing funds, operate alongside the NHIF, leading to fragmentation and inefficiency (58). The persistent involvement of multiple state and non-state actors, as well as competition from less equity-focused reforms, has undermined the expansion of the NHIF and its capacity to work towards UHC objectives (15).

Health financing reforms and progress toward UHC are not purely technical processes; they are fundamentally political decisions shaped by Political economy factors, such as stakeholder interests, and power dynamics (50), (51), (52). As stated by World Health Organization (WHO) Director-General Tedros Adhanom: '*universal health coverage is ultimately a political choice*' (51).

This retrospective study fills a significant gap in the literature by analysing the political economy dynamics influencing the expansion of the NHIF's scheme. To our knowledge, it is the first study in Sudan to examine how political and institutional factors contribute to the fragmentation of financial mechanisms and hinder UHC reform implementation.

By uncovering these dynamics, the study aims to provide practical recommendations to strengthen and expand the NHIF, reduce fragmentation, and support implementation efforts toward the intermediate performance goals of UHC: quality, access, efficiency, and equity. Ultimately, these efforts contribute to improved health outcomes, user satisfaction, and financial protection.

Despite it is retroactive focus, the results from this study are still likely to be relevant for future post-conflict health financing reforms. As in many conflict settings, the institutional structures, setups and governance arrangements in Sudan's health sector persist (at least formally) and continue to shape the current system (86). Thus, any post-conflict reform must account for the entrenched strengths, weaknesses, and stakeholder incentives relative to the old system.

2.2. Objectives

Overall objective:

The aim is to examine the political economy factors hindering the integration of the Free Care Program & Zakat Fund into the National Health Insurance Fund (NHIF) and limiting the implementation of related health reform policies. It also seeks to develop and share recommendations with policymakers to support the integration of these financial pools and strengthen the expansion of the NHIF, thereby enhancing risk protection, advancing towards UHC, and addressing the key gap in the existing literature.

Specific objectives:

1) To explore the origins and evolution of health financing fragmentation in Sudan.

2) To identify the key actors involved in fragmented pooling mechanisms and health financing policy reforms, and their implementation.

3) To understand the power, positions, and motivations of different interest groups and various stakeholders, including government and non-government actors, towards expanding the NHIF's role.

4) To develop and provide evidence-based recommendations to policymakers in Sudan for expanding the role of the NHIF.

Chapter 3: Methodology and Conceptual Framework

3.1 Study Type and Design

This study employed a mixed-methods approach, which included reviewing existing literature, analysing grey literature, conducting desk reviews of public documents in Sudan, and conducting key informant interviews (KIIs).

This study primarily utilized the political economy framework developed by Campos and Reich, which consists of six domains of stakeholder politics about policy implementation, as detailed below (51).

Campos and Reich's political economy analysis framework for health financing reforms informed the search strategy, data analysis from documents and literature, development of the interview topic guide, and presentation of findings in this study.

3.2 Methods, Data collection, Data analysis and Literature Search Strategy

To achieve the study objectives and ensure data triangulation, the research employed three methods: a literature review, a desk review, and key informant interviews.

Literature Review Analysis: A comprehensive peer-reviewed literature review investigated UHC, health financing, political and economic challenges, policy developments, implementation, stakeholder involvement, funding, key political actors, and reforms in Sudan and comparable contexts. (See annexe 4).

Desk Review Analysis: The desk review was done on various documents, including those from FMOH and NHIF. Its benefit is that it analyses specific, localized documents, such as legislative documents, strategies, policies and reports from Sudan's FMOH and NHIF, providing practical insights into the country's health financing reforms and their implementation. Further, it gathered data that was not found in the literature.

The public documents were selected based on their relevance to the research scope and objectives, with some also recommended by interviewees. However, some of these documents were inaccessible, as they were unpublished and difficult to obtain due to the ongoing conflict.

The obtained documents helped gather additional data on the health financing system, health policy, policymaking processes, budget allocation, and stakeholders involved, as well as to explore the role of current health policies in the existing fragmented pooling arrangements in Sudan.

Table 1: The government documents reviewed and analyzed

Document name	Year
1. **The Joint Financial Management Report 2021**	2021
2. **Sudan's Health Sector Country Overview Report 2021**	2021
3. **The Alternative Health Policy 2019**	2019

4. **The Free Care Policy 2017**	2017
5. **The National Health Sector Strategic Plan (2017 -2020)**	2017
6. **Health Financing Options for Sudan 2016**	2016
7. **The National Health Financing Policy 2016**	2016
8. **National Health Insurance Fund Law 2016**	2016
9. **Health Financing Policy 2016**	2016
10. **Sudan Health System Financing Review Report 2014**	2014

Semi-Structured Interviews:

Five interviews were conducted: three via the online platform Zoom and two through WhatsApp calls due to unstable internet connections in Sudan. The respondents were chosen using a purposeful sampling technique based on their current or historical professional roles in setting and implementing health financing policies and/or agendas in Sudan (see Table 3).

A snowball sampling method was used, where participants were asked to suggest stakeholders, they typically collaborate with, including relevant government agencies such as Zakat and international organizations like the WHO. However, due to the ongoing conflict, they were not reachable.

Written informed consent was presented, and verbal consent was obtained from the respondents due to their busy schedules, as they were leading the health provision and financing response to the emergency in Sudan.

The interview topic guide included open-ended questions for key informant interviews (see annexe 2). Each interview lasted approximately forty-five minutes to one hour. The interviews were recorded, translated from Arabic to English, and then transcribed and coded according to the topic guide.

The topic guide for key informant interviews was developed using the six categories from Campos and Reich's political economy framework. The findings were extracted by manual coding and thematic analysis of the interview data.

Table 2: Characteristics of the respondents.

Respondent	**Organization**	**Number of respondents**
Policymaker + Senior staff	National Health Insurance Fund	2
Policy maker + Senior staff	Federal ministry of health	2
Senior staff	Federal ministry of finance	1

3.3 Conceptual Framework

After defining the study scope and objectives, I reviewed the literature to identify a framework that could effectively address the study objectives. Initially, I considered Walt and Gilson's (1994) framework for policy analysis (53)**,** but I concluded that Paola Abril Campos and Michael R. Reich's political economy framework was more appropriate for the study's scope and objectives (51)**,** and a more effective approach to address the political economy challenges associated with health financing reforms implementation and expanding the NHIF (51)**.**

Campos and Reich identify six major domains of stakeholder groups likely to influence health reform implementation: interest group politics, bureaucratic politics, budget politics, leadership politics, beneficiary politics, and external actor politics (52). This study employed these interconnected domains to examine the political economy dynamics of health financing policy implementation in Sudan.

This framework is useful for change teams, groups of people responsible for planning and managing health policy implementation, whose success often depends not only on their technical expertise but also on their ability to navigate the political challenges posed by various implementation stakeholders. Political dynamics are therefore central to the implementation process (87).

The political economy framework helps analyse how political and economic dimensions influence progress toward UHC across different actors, and its employment is crucial for implementing health financing reforms to meet their intended goals (54)**,** (55)**.**

Political economy factors have been key determinants of both the trajectory of reform efforts and the strategic approaches used by change teams and political leaders to advance health financing reform (52), (56).

This approach systematically examines stakeholders' motivations, positions, and power dynamics throughout the stages of policy formulation, adoption, and implementation (54), (55), (52)**.** These dynamics are defined as follows.

Motivation: Refers to the underlying factors that drive stakeholders and their perceptions of how the policy implementation impacts their organization (88).

Position: The extent to which stakeholders support or oppose a policy implementation, demonstrated by their use of available power or resources (88).

Power: The stakeholder's potential to influence policy implementation based on resources such as political authority, financial capacity, technical expertise, or leadership (88)**.**

The framework analyses six categories of stakeholder politics related to health policy implementation, as detailed below (51). (57)**.** This study uses these categories to examine the political economy factors that influence health financing reforms implementation in Sudan.

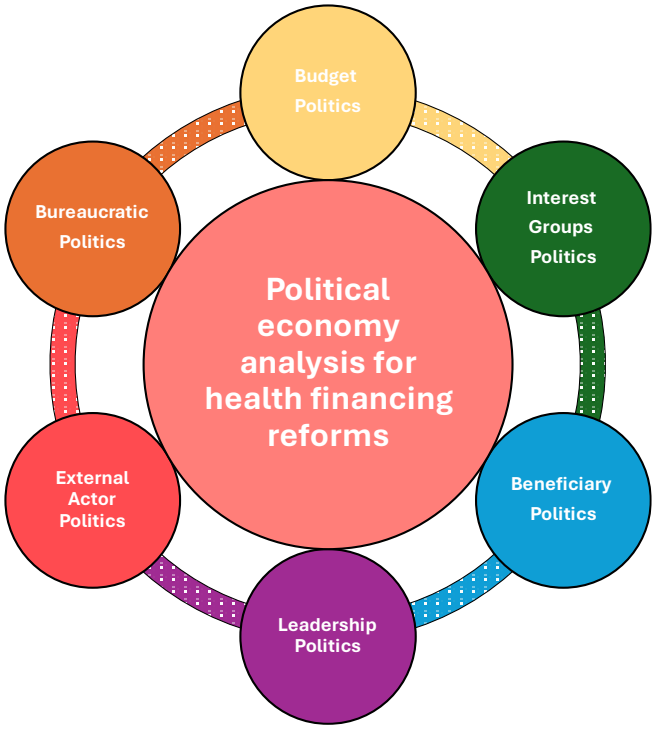
The detailed framework is outlined below:

1. **Interest Group Politics**: involve stakeholders who are organized around common interests, including health provider associations, health workers unions, industry groups (such as hospitals and pharmaceutical companies), insurers, employers' associations, and consumer organizations (57)**.**
2. **Bureaucratic Politics**: Bureaucratic politics examines the relationships among various government agencies involved in health financing reform. Different agencies may seek to

influence the reform to protect or expand their authority, interests, budgets, personnel, or overall influence (52,57).

3. **Financial Decision Makers Politics (Budget Politics)**: focuses on budget allocation and expenditure mechanisms and their impact on policy implementation. It recognizes that resource mobilization and allocation at both national and local levels (52).
4. **Leadership Politics**: including the commitment of political leaders, typically from the executive or legislative branches of government, and how health financing reform is prioritized relative to other policy issues (57).
5. **Beneficiary Politics**. This category addresses the ideas and ideologies that support health financing reform, such as how the reform aligns with national values, identities, or worldviews, and the influence of public opinion (57).
6. **External Actor Politics**: External actor politics acknowledges that funding and ideas for the health sector can originate from external sources. Consequently, health policy decisions may involve external actors, commonly referred to as "donors" or "partners", such as bilateral and multilateral agencies, international financial institutions, as well as non-governmental organizations, foundations, and international private for-profit entities (57), (2).

Figure 3: Illustration of the Political Economy Analysis Framework



Source: Self-drown illustration 2025.

Chapter 4: The Findings

4.1. Health Financing: Historical Trends and Evolving Dynamics

4.1.1 Historical Trends and Origins

Historically, the British colonial rulers established a tax-based health system in Sudan, where the state plays the role of the sole provider of healthcare (31), (49). Under that system, healthcare services and medical supplies were provided at no cost to all segments of the population (15), (49). This tax-based health system persisted throughout the entire period after colonial rule and concluded at the start of the 1990s (31), (38).

Following the implementation of the SAP in 1992, there was a sharp decline in the GGHE (15), (31), (38). To address the funding shortfall, the government introduced user fees in 1992, aiming to generate revenue for a more sustainable health system and maintain service quality (15), (38), (49).

Despite the introduction of user fees, there was little to no improvement in the availability or quality of care in public facilities, while the policy led to catastrophic health expenditures and significantly reduced access to and utilization of health services (15), (49). To address and mitigate the severe drawbacks of the user-fee system, the government introduced its first public health insurance scheme in 1995 (15), (31).

4.1.2. Evolving Dynamics of the Health Financing Fragmentation

Understanding Sudan's fragmented pooling mechanisms requires exploring its overall health financing system, where resources are spread across multiple schemes (summary in Annexe 5). The different funding mechanisms are detailed as follows.

4.1.2.1. The National Free Care Program (FCP) Provided by FMOH

FMOH primarily provides and regulates health services and acts as the financing agent for public health activities. The FCP within FMOH, created by a presidential decree in 1996, initially provided free treatment for accidents and emergencies (58).

By 2008, the program expanded to provide services including the first 24-hour emergency care at public facilities, and selected tertiary services like cancer care, open-heart surgery, haemodialysis, and kidney surgery; all entirely free of charge (see annexe 9) (13), (58). In 2013, the government expanded the program by introducing free maternal and under-five child health care and medications to the entire population (9).

The interview findings suggested that the FCP comprises sub-programs responsible for implementing the hospital-based services and tertiary care components. These include, but are not limited to, the National Kidney Diseases and Transplant Centre, the National Heart Centre, and the National Oncology Centre.

This emphasis on tertiary and hospital-based care over PHC services increases inequities, reduces efficiency, and compromises the quality of care and undermines the progress towards UHC (89).

4.1.2.2 The Free Care Program Committee:

Interview findings also reveal that the FCP is managed by the FCP committee and the state's corresponding committees. The federal-level technical committee is particularly influential in shaping the policy of the FCP, proposing new services and recommending program expansion to the senior officials (such as federal ministers of health and finance) for approval. It also calculates the program's

budget and submits it to the federal Minister of Health for endorsement before being forwarded to the Ministry of Finance (MoF) for negotiation and final approval.

The interview findings indicated that the FCP committee brings together diverse actors from various government agencies. These include the Undersecretary of FMOH as a chair, directors general from the FMOH, representatives from the National Medical Supplies Fund (NMSF), the MoF, and SMOHs, the National Council for Drugs and Poisons (NCDP), the Ministry of Justice and Medical doctors from tertiary facilities. This wide representation within the committee reflects a complex bureaucratic structure marked by strong inter-agency collaboration.

4.2.3 Involvement of the Medical Doctors at the Tertiary Healthcare level in the FCP Committee:

According to the interviews, medical doctors are key stakeholders in the FCP committee. As directors general of tertiary public hospitals, they play an active role in shaping and implementing FCP policy, collaborating with other committee members to expand program services and allocate budgets for tertiary care. Their influence stems from their central role in delivering curative services and their direct engagement with beneficiaries.

4.1.3. The NHIF and Zakat Fund, under the Ministry of Welfare and Social Security (MWSS)

The Ministry of Welfare and Social Security (MWSS) plays a key role in both providing and purchasing health services through public schemes such as the National Health Insurance Fund (NHIF) and the Zakat Fund.

4.1.3.1. The National Health Insurance Fund (NHIF)

Established in 1995, the General Corporation for Health Insurance (GCHI) in Sudan aimed to provide financial risk protection against user fees, improve access to healthcare services, and respond to public dissatisfaction with the previous user-fee system in public facilities (15), (10)**,** (59)**,** (60)**.** Initially focused on the formal sector, the GCHI has undergone several reforms aimed at expanding coverage to a more extensive portion of the population. In 2003, it was restructured and transformed into the NHIF as a contributory scheme (31), (61)**.**

The 2003 Act made NHIF enrolment mandatory for formal sector employees but voluntary for informal workers and small businesses. However, the enrolment among the informal sector remained low due to their reluctance to pay, especially in advance (6),(60)**.**

The MoF is the primary financier of the NHIF, providing 72% of its funds. This is followed by public and parastatal organizations, which contribute 12.7%, while households contribute a smaller share of 9% (49)**.**

It is worth mentioning here that the interview findings reported that FCP's budget is double that of the NHIF and attracts huge funding from the MOF.

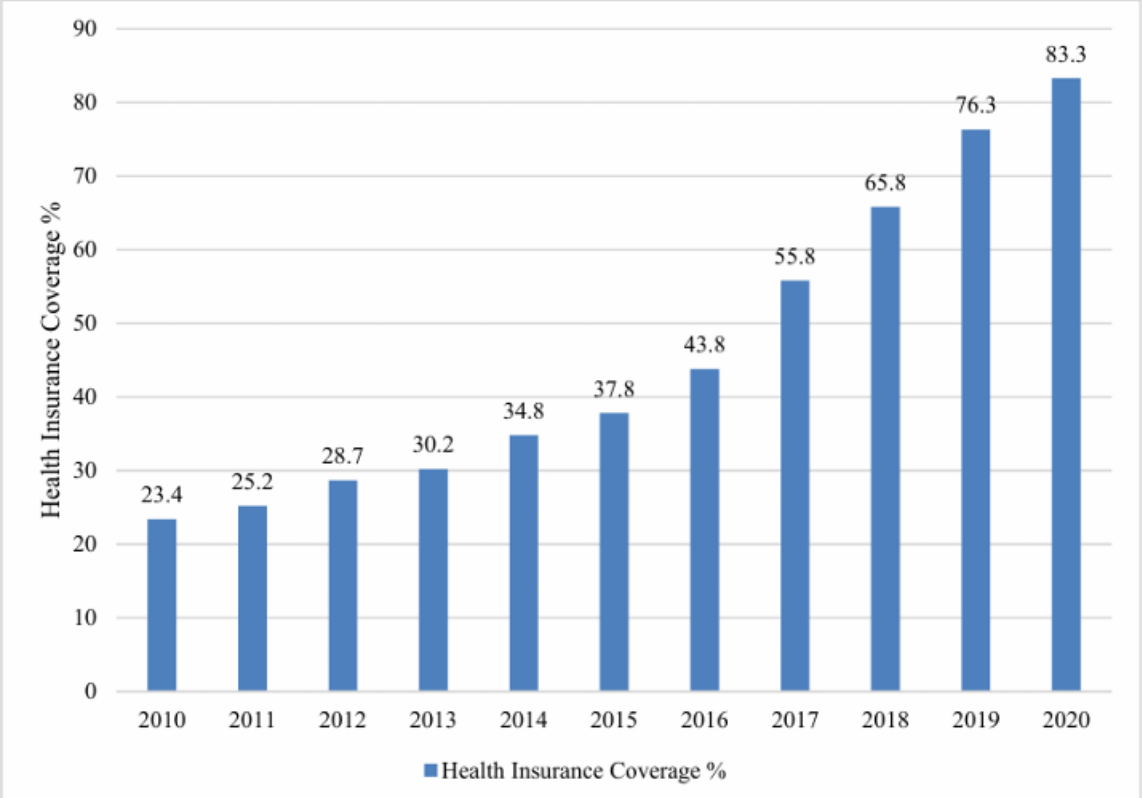
The NHIF has evolved into a key social protection mechanism aimed at reducing inequities in access to health services and shielding the population from catastrophic health expenditures (45). In 2016, the 2003 NHIF law was amended to expand the mandate, making enrolment compulsory for all population groups (see Annexe 6), with a unified contribution rate of 10% of salaries 4% from the employee and 6% from the employer). For government workers, the state covers the 6% employer share. The enrolment is based on family units, covering the principal and their dependents. Despite these reforms, universal coverage remains elusive (9)**,** (49), (6),(41)**.**

The 2016 NHIF law mandated all citizens in Sudan, formal and informal sectors, foreigners and refugees to enrol themselves in NHIF (61).

The 2016 NHIF law also aimed to address several structural challenges by moving toward a national pooling system, introducing a clear purchaser–provider split, and initiating strategic purchasing (8). Public subsidies have supported coverage for vulnerable groups, such as pensioners and the indigent. As a result, insurance coverage has reportedly expanded in the past decade (9).

The NHIF's coverage increased significantly from 23.4% in 2010 to between 81.7% and 83.3% of the total population in 2020 (Figure 1) (6), (62). This rapid expansion in coverage is attributed to many factors, notably the significant contributions of the Zakat fund (6).

Figure 4: The National Health Insurance coverage from 2010 to 2020



Source: Ebaidalla EM, Iddress, 2022 (8: P. 24)

Despite the expansion of the NHIF, OOP spending remains high. The NHIF contributes only about 7% to THE, while households still cover approximately 70% to 80% of healthcare costs. This is mainly due to the low quality of services provided at the point of care and an undefined basic benefits package, which pushes the NHIF-insured population toward the private sector (15), (10), (42).

On the other hand, fair contributions to the NHIF promote equity by reducing access barriers (59). Family-based membership in the NHIF is thought to mitigate adverse selection issues since it covers all family members, not just the sick (63). Another strength is its use of varied premium strategies for different beneficiary groups within both formal and informal sectors (59).

However, NHIF members experience poor-quality care, which affects their trust and threatens the scheme's sustainability, especially amid a fragmented health financing system (40), (59), (62).

4.1.3.2. Zakat Fund:

Although Zakat is a longstanding religious obligation, it was formally institutionalized in 1980. It serves as Sudan's main social protection mechanism, offering various types of support, including unconditional cash transfers, NHIF premiums for the poor, and short-term crisis aid. Zakat is mandatory for individuals whose income exceeds a specified threshold and is administered by the State through the national Zakat Chamber (64).

To alleviate the burden of high OOP spending, the Zakat fund introduced a program in 2011 designed to cover NHIF premiums for impoverished families on an annual basis (42), (6)**.** Zakat's involvement significantly enhanced the availability and accessibility of healthcare services for the poor (25), (6)**.**

It indicates that, over the past five years, approximately 11% of poor households have benefited from the Zakat insurance program (6)**.** Zakat supports healthcare for the poor by covering NHIF premiums, and directly funding medical treatments, surgeries, and cash transfers (49), (6).

The interview findings suggest that Zakat fund generally supports the NHIF due to shared values and a common focus on social protection. While Zakat contributes to expanding NHIF coverage by pooling funds. Regarding the overlap in health service purchasing and provision, one of the KIs believes better coordination could be achieved between the three different funding pools; the KI reported:

'*The three bodies provide distinct services. For instance, the free care program offers services not covered by the NHIF, such as open-heart surgeries and cancer therapy. To avoid duplication of services among the three entities, a software solution called " a single Window" has been proposed to coordinate their offerings. This system would enable patients to benefit from each financing body's unique features. For example, a patient could have surgery through the free care program, undergo laboratory tests via the NHIF, and receive additional medication funding from Zakat fund'***.**

4.1.4. Other Public Pools

The Ministries of Defence and Interior also finance, provide, and regulate health services (primary, secondary, and tertiary) for armed forces personnel, their families, and the public. primarily focusing on curative services and operating their own insurance schemes (9), (8), (13)**.**

Moreover, Khartoum State operates its insurance scheme, Health Insurance Khartoum State (HIKS), a public scheme limited to Khartoum (49)**.** Other para-statal organizations, such as the Central Bank of Sudan, Sudan Air, and the Red Sea Ports Corporation, run separate schemes for their employees and their dependents (10), (9)**.**

4.1.5. Other National Bodies and International Actors

Other private firms and corporations, donors, and bilateral and multilateral organisations, including UN agencies, international non-governmental organisations (INGOs), and civil society organisations (CSOs), contribute to health service financing and provision (2).

These Public pools lack precise coverage data, leading to uncoordinated multiple-risk pools. This situation increases the risk of some individuals being left without coverage while others may have overlapped coverage without cross-subsidization, risk-equalization and resource redistribution (13), (65), (12).

The fragmentation extends beyond funding pools to conflicting policies that reflect institutional divisions. The 2016 national health policy, developed by NHIF and the Public Health Institute within the FMOH, promotes a contributory model aligned with the amended 2016 NHIF law.

In contrast, the 2017 FCP policy, developed by FCP stakeholders, introduces a non-contributory approach through the FCP. These conflicting policies, created by different actors within and across government agencies, demonstrate competing interests and motivations, ultimately undermining policy coherence and hindering effective reform implementation. This emphasises the need to map the positions of these actors and analyse their incentives and influence.

4.2. Mapping the Actors Involved in the Expansion of the NHIF

The next sub-sections will look at the different actors involved in or impacted by the proposed policies to expand the NHIF's role. They will explore who supports or opposes the reforms, their motivations and influence over reforms (see the summary table in Annex 5).

4.2.1. Leadership Politics

The political leadership can be divided into two distinct periods: before and after the regime change in April 2019 (18), (34).

4.2.1.1. Before April 2019

The political leadership in Sudan has shown limited genuine commitment to implementing health reforms, leading to a gap between policy proposals and actual outcomes (26). Instead, political leaders have tended to focus on strengthening their power by working closely with a small group of bureaucrats, influential elites, and financial decision-makers in the MoF, mainly to boost their public image and political control (67).

Despite these challenges, the leadership has publicly committed to providing equitable healthcare for all (44). One notable reform initiative was the establishment of the National Health Coordination Council (NHCC) in 2011, led by the President of Sudan. The NHCC was intended to improve intergovernmental coordination on health matters and included federal ministers, state governors, and other key stakeholders (66).

The NHCC convened biannually and implemented an executive mechanism chaired by the First Vice President that convened every three months. In 2016, the council adopted the "Health in All" policy and reinstated the NHCC as a coordination mechanism between the actors across the health sector (66).

However, under the same regime, significant fragmentation of the health system began. This included the replacement of the tax-funded health scheme with a free care program, the creation of FCP, the introduction of the NHIF, and the emergence of multiple parallel pools (15), (10), (58).

The interview findings suggest that the council discussed expanding the NHIF's role, with political leaders expressing support for reforms, such as merging different funding pools under the NHIF and separating service providers from purchasers. However, this commitment was not strong enough to lead to concrete actions.

In 2016, the NHCC had secured commitments from various federal ministers as part of the "Health in All" policy roadmap. However, these included two conflicting priorities: first, the expansion of NHIF and progress toward UHC, championed by the Minister of Social Security and Welfare; and second,

the continuation of the FCP, aimed at providing social and financial protection for vulnerable groups, children under five, and those needing hospital-based care, which is emphasized by the federal minister of finance (66).

The interview findings indicate that the high population coverage of the NHIF between 2011 and 2021 was driven by two key factors beyond the Zakat contributions. First, there was a clear political push to increase enrolment through subsidies, reflecting the leadership's motivation to expand the NHIF. Second, economic deterioration and inflation during this period, following the loss of oil revenue, pushed people into poverty, thereby increasing the number of individuals needing subsidies from the MoF.

Despite their influence, political leaders under the old regime lacked a clear health financing strategy, favouring short-term political gains from the FCP over long-term reform. Although they publicly supported reforms, their commitments were inconsistent and appeared driven by political image rather than genuine intent.

4.2.1.2. From April 2019 to March 2023

The 2019 transitional government demonstrated political will for health system reforms by introducing the 2019 alternative health policy, which included key health financing reforms. This policy, developed by FFC groups (68). This policy addressed the need to increase government health expenditures to meet the Abuja Declaration's target of allocating 15% of the government budget to health, proposed expanding the NHIF's role and establishing a National Health Council (NHC), similar to the former NHCC, to strengthen governance and coordination among the stakeholders (see Annexe 8) (68).

Despite the introduction of a new policy aimed at expanding the NHIF into a single purchaser, interview findings reveal that, after the revolution, additional services, such as open-heart surgery for children, were instead incorporated into the FCP and formally approved.

Although the October 2021 military coup created a leadership vacuum, political instability and severely disrupted the healthcare system by the sudden dismissal of key health officials and leading to high turnover and inadequate policy implementation (35). The interviews suggest, in 2022, following the coup, additional added to FCP, indicating that political leaders, both during the transitional period and after the coup, prioritized expanding the FCP as a means of securing political gains and reinforcing their public image, rather than pursuing systematic reforms.

4.2.2 Interest Group Politics

The local interest groups influence health financing reforms & policy implementation and are involved in allocating, pooling, and purchasing health services (8), (69). Key stakeholders influencing NHIF expansion, such as the formal private sector, private insurers, medical doctors, and Civil Society Organizations (CSOs), hold different levels of power, interests, and positions.

4.2.2.1 The Formal Private Sector

The tendency of private sector employees to favour private health insurance over the NHIF is apparent (38), (49). In 2010, it was indicated that 68% of private sector employees were enrolled in private health insurance schemes, compared to 32% in the NHIF. Despite the higher costs of private insurance, 75% of respondents preferred private health insurance due to its comprehensive benefits packages and superior service quality (49).

the private and parastatal organizations often operate non-contributary insurance schemes for the employees and their dependents, while others enrol their employees and dependents in private health insurance companies (10), (49)**.**

In addition to the mandate outlined in the 2016 NHIF law, the 2016 National Health Financing Policy also recognized the importance of this sector by emphasizing the need to enrol its members in the NHIF (see annexe 7) (8).

Interview findings suggest that the NHIF has made efforts to engage the private sector by offering companies and industries a tailored, comprehensive basic benefits package. However, employees already enrolled in private, non-contributory schemes have resisted this shift, largely due to concerns about losing their existing benefits or having them modified under the NHIF model.

A key informant (KI) reported: '*This initiative encountered resistance from the private sector, as these private companies and industries have small, non-contributory, and well-resourced schemes for their employees*'.

Their resistance appears to be strong, partly because these parastatal companies are affiliated with labour unions that have historically used strikes as a negotiation tool, enhancing their collective bargaining power (90).

4.2.2.2. Private Health Insurance Companies (PHI)

Private health insurance **(**PHI) was introduced in Sudan in the late 1990s and is increasingly important in Sudan (38)**.** PHI has an advantage over the NHIF and offers comprehensive benefits packages with high standards, ensuring high patient satisfaction, with large networks of private health facilities and easy access, as well as service use (38), (49)**.** Significant inequalities in access to health services exist between individuals enrolled in NHIF and those with PHI, as the latter is offered to wealthy people or those with the ability to pay (38).

The interview findings indicate that, in 2020, a negligible percentage of Sudan's entire population was covered by PHI, provided by less than 20 companies. Despite this small percentage, the funding these companies manage is substantial. Additionally, most insured individuals are employed by para-statal companies, indicating that government funds significantly contribute to PHI coverage.

There are concerns that PHI competes with the NHIF, undermines the expansion of NHIF's role, and threatens its sustainability (38). compete directly with the NHIF, especially by targeting parastatal organizations to maximize profits. Their practices, such as adverse selection and offering comprehensive benefit packages that include primary, secondary, and tertiary care, worsen health inequalities and undermine progress towards UHC by weakening risk pooling and cross-subsidization within the NHIF. However, the extent of their power remains unclear.

4.2.2.3. Medical Doctors Representing Tertiary Hospitals

The medical doctors, who serve in the public tertiary hospitals along with other medical staff exert influence within their communities and, as members of a larger society, engage with social and political changes within those communities through their professional unions (35).

Interview findings indicate that these providers, along with other members of the FCP committee, strongly resist reforms aimed at integrating the FCP into the NHIF. Their resistance is driven by a desire to maintain financial autonomy and decision-making authority, a preference for the FCP's tertiary care-oriented model, and the belief that tertiary services should remain entirely free of charge.

Interview findings suggest that medical doctors, along with other members of the FCP committee, play an active role in preparing the FCP's budget. They typically include adjustments for inflation

when calculating compensation for tertiary care providers, and the MoF often approves these requests. This process highlights the providers' considerable lobbying power in shaping budget decisions.

Their power goes beyond this; historically, medical doctors and staff, through their unions and professional bodies, engage in public policy, politics, political resistance and influence political landscape changes. They have also demonstrated a strong ability to mobilize the communities (70). For instance, during the 2019 revolution in Sudan, medical doctors and health professionals played a crucial role in organizing protests and acts of civil disobedience across both public and private sectors. They are also known for their ability to influence other professional bodies, making them powerful actors when advocating for change (35).

4.2.2.4. Civil Society Organizations (CSOs)

Local CSOs are highly active in delivering curative health services to the poor and those affected by conflicts (69). CSOs exert significant influence on policymaking and advocacy in Sudan. As a result, they have been heavily affected by political shifts and instability, which have impacted their legal status and ability to operate before 2019. Following the political transition in 2019, many CSOs expanded their services, reflecting their responsiveness to the changing political environment, and they were acknowledged for their role in the April 2019 revolution (71).

In general, CSOs' goods and services are responsive to the needs of local communities (71), which explains their significant power and influence, especially those who work closely with the communities in the health and education sectors (72).

Two key CSOs in Sudan's health financing include the Patients Helping Fund (PHF), known for supporting children with congenital heart disease (73). And the Hawadith Street Initiative (HSI), which focuses on mobilizing donations (74).

While CSOs have limited involvement in public policymaking and do not openly oppose the expansion of the NHIF, their independent pooling arrangements nonetheless create practical challenges for implementing health financing reforms (19).

Their actions appear to be driven not only by a desire to maintain autonomy shaped by their historically unstable relationship with political regimes, but also by a strong commitment to serving vulnerable populations and addressing the needs of marginalized communities. These values align closely with those of the NHIF, suggesting that future collaboration may be possible.

4.2.3 Bureaucratic Actor Politics

Despite adopting several health policies aimed at promoting equity, access, and affordability, the Sudanese government has consistently struggled with effective implementation (44). The literature identifies several challenges to implementing health financing reforms, including inadequate capacity and staffing within the policy units at national level, as well as high staff turnover rates (11).

Additional contributing factors to the challenges are an incompetent state bureaucracy and poor quality of public service delivery, compounded by the limited autonomy of state and local governments in making fiscal and non-fiscal decisions (26), (72). Moreover, the lack of managerial capacity and adequate coordination lead to duplication of responsibilities, as health financing is managed by the FMOH, SMOHs, MoF, and NHIF (76).

To strengthen policy implementation, the government has introduced several bureaucratic reforms aimed at improving health system governance (38), (75). Among these reforms is the 2016 National Health Financing Policy, which emphasizes the need for stronger coordination among government

actors and state agencies to effectively expand the NHIF's role and implement health reforms (see annexe 7).

Interview findings suggest that, to enhance federal coordination, all key government agencies involved in health financing, including the MoF, are represented on both the NHIF board of directors and the FCP committee. However, despite this inclusion, coordination between the NHIF and other institutions remains weak because of differing stakeholder interests within the NHIF board. Conversely, the FCP committee seems to be more effective in uniting various government actors around common objectives.

4.2.3.1. The FCP Committee Influencing the NHIF Expansion

Interview findings reveal a clear institutional divergence. While the NHIF is pushing to bring all public health financing programs, including the FCP and the Zakat Fund, under one unified system, the FCP committee is pushing back, preferring to expand its separate program. Notably, the Zakat Fund has not shown resistance to this integration, suggesting that opposition is concentrated within the FCP. This reflects deeper tensions over control, resources, and influence among key actors in Sudan's health financing system.

Such different interests among government actors are believed to create significant tensions between institutions and ministries, such as the FMOH, where the FCPP belongs to and the NHIF (77)**.** Similar conflicts over reform processes between health ministries and public insurance schemes have been observed in other LMICs, such as Uganda and Thailand. (78).

In interview findings also reveal ongoing tensions between the NHIF and the FCP, particularly around budget reform and resource allocation. These tensions point to deeper institutional power imbalances, with the FCP committee within the FMOH holding greater influence over key decisions, as the KI stated:

'*If the NHIF were to revise its policy to provide the same level of services for free, we would be willing to transfer the funds to it. However, I advocate for policy integration rather than simply pooling the funds into one pool*'.

4.2.4. Financial Decision Makers Politics

Fiscal space for health typically refers to a government's capacity to increase public spending on health. In Sudan, however, economic control, financial decision-making, and fiscal transfers are highly centralized at the federal level. This centralization concentrates authority over budget allocation and resource distribution in the hands of a small group of senior officials and bureaucrats, limiting broader institutional participation in health financing decisions.(26)**,** (79)**.**

Centralization, poor resource allocation, and limited health funding have hindered effective resource use. Funding decisions often favour curative services, making fiscal transfers to public insurance schemes appear politically motivated and misaligned with health needs, thereby limiting access to essential services (26) ,(44)**.**

Moreover, in countries with political unrest and civil wars, such as Sudan, government expenditure on health is believed to be significantly below the global average (26), (44)**.** This situation pushes the country's political leadership to deprioritize health, allocating more resources to the security sector. For instance, in 2000, Sudan's expenditures on defence and security were estimated to account for about 3% of GDP, while health expenditure stood at 1.5% of GDP (72).

Interview findings also suggest that financial decision-making space is highly restricted at the federal level, with the MoF acting as the primary authority in allocating health budgets. There appears to be a consistent preference for curative services delivered by FMOH over PHC delivered by the NHIF. As a result, the FCP within the FMOH has received nearly double the budget of the NHIF. Furthermore, the FMOH has also expanded the FCP by creating additional sub-programs, which seems to attract more funding, leaving limited fiscal space for the NHIF.

A KI reported:

' *There are 28 public pools funded by the MoF. Of these, 27 belong to the Federal Ministry of Health, including the free care programs, and only one is for the NHIF'*.

Interview findings also suggest that the FCP budget is calculated and executed collaboratively by the FCP, the MoF, and medical doctors. The strategic and direct involvement of medical doctors, as a strong pressure group, and the MoF as the central financial authority, within the FCP committee enhances its influence over the NHIF, and facilitates the continued expansion of curative services under the FCP.

The MoF's bias toward the FCP appears to be driven by political will to prioritize curative care. Political leaders, particularly those within the MoF, have been more responsive to the FCP's messaging and priorities. This reflects the FCP committee has been effective in communicating its agenda and leveraging the economic crisis to persuade key decision-makers to align with its value. As a result, the FCP has strengthened its position and influence within the federal health financing space. The KI reported:

'We have convinced the current political leadership that, given the economic crisis, patients cannot afford the 25% medication cost-sharing required by the NHIF copayment policy'.

Another KI noted:

One of the KIs reported:

'*Among all the Ministers of Health in recent years, we have not encountered opposition. Initially, these ministers were often unfamiliar with the free care program and advocated for a single-pool health insurance model, like other countries. However, once they understood the program's importance and impact, they became supportive*.'

Another interviewee pointed to the FCP and its key actors, like medical doctors and the MoF, as major barriers to integrating FCP into NHIF. Their resistance seems to go beyond just bureaucratic reluctance; it's deeply rooted in long-standing relationships between the MoF and FMOH, especially through the FCP committee. These ties were firmly established well before the NHIF was introduced as a mandatory contributory scheme in 2016

The KI reported:

'*The primary opponent to any reform initiative that addressed the integration of public pools into NHIF are the free care program and its associated sub-programs, along with tertiary healthcare providers represented by medical doctors and the Ministry of Finance*'.

The main financial decision-makers appear to be members of the FCP, including medical doctors and representatives from the MoF. They align political and financial decisions with their shared values and preference for curative care, often communicating the high cost of tertiary care without the FCP to

political leaders, thereby highlighting the political gains and benefits for those political leaders, especially within the FMOH and MoF.

4.2.5. Beneficiary Politics

The beneficiaries in Sudan tend to overutilize hospital-based healthcare services when they are provided for free (80)**.** For instance, following the Sudanese president's 2008 media announcement of free maternal and under-five health care, there was a significant rise in service utilization two years later. Hospital admissions for childcare rose by 45%, normal deliveries increased by 14%, and both elective and emergency caesarean sections saw significant growth (81), (82).

Although the NHIF covers approximately 82% of the population, the quality of care provided is perceived as poor. This has eroded patients' trust and influenced health-seeking behaviour, leading many insured individuals to avoid using NHIF services. As a result, a significant portion of NHIF-covered services remains underutilized (62).

In addition to the dissatisfaction with service quality, the poor organization, uneven distribution of health facilities, lack of essential medications, insufficient services, and treatment delays and low awareness of the benefit package provided by NHIF, all contribute to a higher likelihood of members leaving the NHIF scheme (75)**.** Furthermore, about 61% of surveyed NHIF beneficiaries reported experiencing significant financial hardship due to the 25% copayment required for medications by the NHIF (62) (63), (80)**.** It is estimated that about 40% of NHIF members from the informal sector have chosen not to renew their membership (63)**.**

This situation pushes many individuals to seek healthcare services from the private sector at higher costs, which may explain the paradox between high coverage co-existing with high OOP spending in Sudan (80)**.** For example, in 2022, a study revealed over than half of NHIF-insured individuals seek services in the private sector outside the NHIF network despite being covered by the NHIF (62)**.**

Furthermore, interview findings reveal that the NHIF lacks a clearly defined basic benefits package. This, combined with low public awareness about the services available and the role of the NHIF as a financial protection mechanism, contributes to growing dropout rates from the enrolment process.

The interview suggests that, although the NHIF includes community representation, through its Board of Directors at the federal level and community committees at the state level, this engagement appears limited to organizational and managerial matters.

The NHIF is not meaningfully connected with communities or responsive to their perceived needs. Many of these communities lie outside the formal sector and lack platforms such as unions or professional associations to voice their concerns. As a result, their disengagement from the NHIF leads to higher dropout rates and a tendency to seek healthcare either from the FCP or the private sector. This may also help explain the overutilization of hospital-based services provided under the FCP.

In contrast, the interview findings reveal that the FCP is dedicated to introducing services that meet community preferences. It actively engages with communities through tools such as questionnaires and other data collection methods to assess service preferences and care quality. Additionally, the program places strong emphasis on raising awareness about available services to improve access and encourage greater utilization.

the FCP appears to be more responsive to community needs. The FCP committee actively assesses the perceived needs and preferences of beneficiaries, raises awareness about available services, discusses these needs with policymakers and lobbies the political leaders to continue and expand the program.

4.2.6. External Actor Politics

The influence of external actors on the current Sudan's health financing system began in 1992, driven by economic hardship and the implementation of SAP prescribed by the International Monetary Fund (IMF) and the World Bank (WB) (38). Following this, the government initiated a series of progressive reforms in the healthcare system, which included reducing health expenditures and introducing user fees (15), (38) (58).

The interview findings also indicate that the 2016 NHIF law was enacted in response to the 2030 global agenda set forth by the 2015 SDGs. Specifically, SDG. 3 addresses UHC, which influenced the passage and approval of this law, reflecting how global commitments can shape domestic policy decisions, not necessarily through internal consensus, but as a response to external pressures and normative frameworks.

In general, international donors and partners play a significant role in health financing, contributing 1.7% to 6.6% of the total health expenditure in Sudan (8), (13). 70% of these funds are directed toward preventive services at the PHC level and vertical programs. The World Health Organization (WHO) and other UN agencies are the main international health financiers, with the funds being directed to the FMOH to provide targeted services and bypassing the NHIF (8), (19), (83).

Despite many international actors being involved in health financing mechanisms, Sudan receives relatively low levels of development funding compared to its neighbouring countries, benefiting from less than half the average for Africa and the Middle East (13), (76). This reflects deeper political economy dynamics as longstanding tensions with Western countries and decades of U.S. sanctions have significantly limited donor engagement and reduced external financial support. (27), (19,32) .

Given this low contribution, the Sudanese government planned to increase external support for health, from 2% to a targeted 5% of the total health budget according to the National Health Sector Strategic Plan (NHSSP) 2017–20 (83). The fragmented nature of donor funding undermines these goals, donor-funded initiatives, such as vertical programs and performance-based financing (PBF) schemes, often operate independently rather than being integrated into the NHIF or the FCP (84). This lack of integration reflects ongoing challenges in expanding NHIF within the broader health financing system.

International donors and UN agencies play a significant role in shaping Sudan’s health sector priorities to improve alignment and system performance. However, this external influence highlights unequal power dynamics and raises concerns about national ownership of health policies (19).

These concerns were echoed in an in-depth qualitative analysis by A. Wagialla, 2023, which highlighted ongoing doubts about the government's ownership of the partners' funds. According to a representative from a bilateral development agency highlighted that, in the context of Sudan, there is often an excuse for partners to implement their agendas independently of the government (19).

Donors largely provide support through off-budget mechanisms, making it difficult for the government to predict contributions and incorporate them into resource planning accurately. For instance, in 2016, only 3% of development partners used the country’s public financial management systems. This limited integration was attributed to the systems' capacity, the bureaucratic procedures involved, and the lack of trust in the political regime (19).

Fragmented financing, weak institutions, political tensions, and distrust have led donors to channel funds off-budget, which further fragments the system, undermines NHIF expansion, and weakens health governance.

Following the Sudanese revolution in 2019 and the change in the political landscape, the international actors demonstrated a strong willingness to support the transitional government and the health sector. This support materialised through a significant influx of partners and funding, signalling a window of opportunity for health system strengthening (19).

Following the October 2021 military coup, international donors, including the US and World Bank, froze major financial support to Sudan, underscoring how external funding is closely tied to political developments. This highlights the political nature of donor decisions, which go beyond technical considerations (35).

Chapter 5: Discussion

This political economy analysis aimed to identify the key stakeholders influencing the expansion of the NHIF and to uncover their power, positions, and motivations. This discussion will first outline and reflect on key political economy dynamics as well as structural challenges impeding the NHIF. After, it will reflect on considerations for how a "change team" or policymakers can push for expansion of the NHIF and related reforms post-conflict.

5.1. Reflection on observed Power Dynamics Between the Stakeholders

From the observed interactions between stakeholders, it's clear that frequent disruptions in political leadership have created a kind of power vacuum. This has opened the door for other actors to step in and shape the direction of health reforms. While some actors, like Zakat fund and those within the NHIF, are in favour of expanding the NHIF, their efforts often clash with the interests of other powerful groups like FCP-affiliated actors. The most notable of these is the FCP committee, which holds significant financial and institutional power. Its stance directly opposes NHIF expansion, and it has the means to block reforms that don't align with its interests.

We see how the FCP has been powerful in pushing its agenda. Their power extends beyond technical resistance; it includes lobbying, political persuasion, and maintaining control over key decision-making spaces. As a result, despite stated political interest in expanding NHIF's role, this has not translated into concrete policy action

Notably, this influence has endured across successive regimes, including before and after the 2019 revolution. Each regime has continued to expand the FCP scheme, further reinforcing the FCP's dominance, particularly through the perceived increase in services and funding after 2019.

This dynamic can be understood through the lens of what is called 'limited statehood' (91). A condition common in fragile settings marked by ineffective governance, where governments lack either the institutional capacity or the political will to enforce reforms, regulate powerful actors, or deliver public goods effectively. In such contexts, actors like the FCP committee step in to fill the governance gap, shaping health policy according to their institutional interests rather than broader public health goals.

This may explain why, although political dynamics significantly shaped the trajectory of reforms, neither the pre- nor post-April 2019 regimes actively resisted NHIF expansion. The absence of resistance could reflect weak state capacity or political disengagement from the technical aspects of health policy, thereby allowing bureaucratic actors, such as the FCP committee, to dominate the reform space. However, other dynamics may also be at play, as discussed below.

5.1.1. Barriers to Building Coalitions for the NHIF Expansion

The influence of the FCP appears to stem largely from the strategic collaboration between medical doctors and mid- to top-level bureaucratic managers from different government bodies. This coalition is both well-organized and highly influential. Medical doctors, who primarily represent hospital-based are closely connected to beneficiaries who are relatively less organized. The FCP bureaucrats maintain strong ties to political leadership, giving them greater access to institutional power and decision-making authority. Together, they advance shared interests and preserve control over financial decisions.

In such situations, organized and powerful stakeholders, especially those who would bear concentrated costs of reforms, are much better positioned to influence or resist change than the dispersed, less organized, such as the intended beneficiaries.

In contrast, the NHIF lacks strong bureaucratic alliances, even with value-aligned actors like the Zakat fund, and has struggled to secure full financial integration from it. It remains weak in building partnerships and engaging beneficiaries.

Meanwhile, the FCP can resist reform implementation by selectively applying discretion in ways that undermine intended outcomes, particularly during beneficiary interactions, such as efforts to expand the program through needs assessments and satisfaction evaluations.

This dynamic creates a significant barrier for the NHIF to the equitable and effective reform implementation, where attempts to redistribute resources or integrate public pools often threaten existing power structures and financial control.

Similar patterns of resistance to health financing reform have been observed in other LMICs. In Iran 2010 and Thailand in 2002, efforts to merge public funding pools faced strong opposition from actors, such as insurance managers, doctors, and bureaucrats, who were reluctant to lose organizational or financial autonomy. (12), (78)**.**

5.1.2. The Role of Isomorphic Mimicry and Leadership Vacuum in Limiting NHIF's Expansion.

Political regimes in LMICs, like Sudan, navigate complex pressures from both international donors and internal reform demands. In Sudan, donor-driven policies led to user fees in the 1990s, prompting the creation of the non-contributory FCP. Later, the NHIF was introduced in 2016 as a contributory scheme in response to global momentum for Universal Health Coverage under the 2015 SDGs.

Under such pressures, political leadership often adopts organizational structures and practices that mimic those of other countries or international models, not necessarily because they are effective in the local context, but because doing so enhances institutional legitimacy.

Sudan's adoption of the NHIF as a contributory scheme reflects this pattern of seeking legitimacy. This phenomenon is known as isomorphic mimicry (92). Which is particularly common in contexts characterized by weak statehood. In Sudan, this dynamic is further influenced by a long-standing history of tensions, sanctions, and mistrust between the government and Western donors, contributing to low levels of international funding (92).

However, isomorphic mimicry might have led to the adoption of health financing models, such as the NHIF's contributory design, that replicate international norms without achieving their intended outcomes.

LMICs are unlikely to achieve UHC through voluntary, labour tax–based contributory schemes (46)**.** These models often fail to raise sufficient funds, particularly where the formal sector represents only a small share of the workforce and is commonly associated with high dropout rates in the case of NHIF (63), (85). This is why now more LMICs, especially in SSA like Ghana and Rwanda, with public insurance schemes, have significantly increased government health spending per capita and enhanced financial protection through tax-based funding, resulting in a reduction in OOP spending (65)**.**

Although the 2016 NHIF law legally mandated universal enrolment, the scheme has functioned as de jure mandatory but de facto voluntary due to the dominance of the informal sector, dissatisfaction of

beneficiaries with NHIF and the continued expansion of the FCP as a parallel non-contributory scheme.

Isomorphic mimicry may help explain the persistent challenges facing political initiatives before 2019 to reform health financing and expand the NHIF's role, such as efforts to address fragmentation within the NHCC and implement the 2016 NHIF law. These initiatives often mirrored international models or norms but struggled in practice due to limited alignment with local political and institutional context.

The political instability and leadership vacuum after 2019 hindered the implementation of the 2019 alternative health policy, while the FCP continued to expand. This expansion, which occurred following the fall of the previous regime and during a period of political vacuum, might also be attributed to what is called 'networked governance' among FCP committee stakeholders (93).

Networked governance refers to a governance structure composed of state stakeholders who engage in ongoing dialogue to shape a policy community. Through negotiation, they build trust, collaborate, and work toward shared goals and agreements. Such networks are formed through sustained, consistent interaction between actors (93).

In the absence of strong political leadership, a condition that may also be associated with limited statehood in the larger context. This form of governance enabled the committee to effectively fill the power vacuum, consolidate its influence, and advance its interests and values.

5.1.3 Institutional Legacy and the Path-Dependence Approach

The power of lobbying groups, such as the FCP committee, could not be the only factor at play (78). In Sudan, major political changes led to the replacement of officials, bureaucrats, and top health managers. However, these personnel changes did not bring shifts in institutional behaviour or power dynamics, and successors largely continued the same patterns. This persistence of the status quo reflects the deep-rooted institutional legacy and historical financial power of the FCP.

The FMOH has long played a dual role in both providing and purchasing health services, a practice that predates the establishment of the NHIF and involves other actors like the Zakat fund. These entrenched roles make it difficult to move toward a single-purchaser scheme, as many of the same power structures remain firmly in place.

In LIMCs, policymakers and political leaders face these complexities. Beyond the influence of interest groups and bureaucrats, they also grapple with the impacts of deeply rooted institutional legacy and historical decisions, a phenomenon described by the 'path dependency approach' (78). This illustrates how historical policies continue to shape current practices, highlighting the enduring influence of bureaucratic and institutional legacy, as observed in Thailand and Iran (12), (78).

5.2. Reflection on the Applicability of Findings in the Current and Post-Conflict Context

The war that erupted in Sudan in April 2023 has severely damaged the health system, particularly in terms of service delivery and workforce capacity (86). However, despite this destruction, we see the core governance, institutional structures, and setups often persist unchanged even during conflicts. This has been observed not only in Sudan but also in Syria and Ethiopia (86), (94). This suggests that the findings and recommendations of this study could be meaningfully applied in Sudan's post-conflict context.

5.2.1. Immediate Post-Conflict as an Opportunity Window for Reform

The early post-conflict phase often plays a critical role in setting the direction for rebuilding the health system and shaping its future structures. While reform is not guaranteed in this phase, it is often seen as a 'window of opportunity', driven by the political momentum following regime change, the influx of new actors and ideas, and increased availability of funding within a fluid and dynamic environment (95).

During this critical period, change teams can play a key role by effectively linking problems, policy agendas, and politics, thereby positioning reforms within government priorities. However, their impact often depends on how well they navigate a complex and fragile environment. The 'Policy Streams' theory suggests that seizing the right moment can lead to big reforms, but in post-conflict settings, this is often easier said than done (96).

5.2.2. Political Transitions as Windows for Reform

In Sudan, health financing reforms have largely been reactive, driven more by shifts in political power than by long-term planning. While political transitions can create opportunities for change, they often prioritize short-term political gains or public support over comprehensive improvements.

The introduction of the FCP in 1996, shortly after user fees under SAP, was likely a politically motivated effort to restore public trust. Despite contributing to fragmentation in the management of public health funds, the program persisted.

After the 2019 revolution, the transitional government proposed alternative policies, but the FCP kept expanding, receiving major budget increases, especially after the 2021 coup. Its growth, eventually doubling the NHIF's budget, shows the FCP's political resilience and popularity, even at the expense of broader reform goals like equity and financial protection.

Health financing reforms are often initiated during periods of political transition, elections, or major national reforms (51)**.** This pattern is evident in Africa, for example, Uganda introduced a free healthcare policy during the 2001 pre-election period (77)**.** and South Africa's advanced reforms, including the approval of the NHIF Bill, after the 2019 elections (56)**.** Similar trends are seen globally, with major reforms occurring in Mexico in 2002, Turkey in 2002, and Thailand in 2001 following electoral changes (52)**.**

However, there are also plenty of power transitions around the world that do not lead to meaningful reforms. This underlines the need to examine the motivations and interests of those in power.

5.4. The relevance of the framework

Paola Abril Campos and Michael R. Reich's Political Economy Framework was highly relevant and instrumental in analysing the political economy dimensions. The framework was flexible and effective in addressing the study objectives and Sudan's complex context. It provided a comprehensive overview of the key actors, their power, and their positions regarding the reforms. Additionally, it helped me understand the interactions and dynamics of health policy and its political dimensions.

5.5. Strengths and Limitations:

This study employed a mixed method 1to examine the research objectives. Data was collected from various sources, including peer-reviewed literature and a desk review. This data was further triangulated with key informant interviews. The findings of this study will contribute valuable knowledge to the literature.

As a political economy analysis, the study considered the political changes in Sudan, particularly examining the key differences between the political landscapes before and after 2019. This approach provides a clear picture of the political dimension of the NHIF expansion. Additionally, to our knowledge, this is the first political economy analysis to analyse the resistance to NHIF's expansion

However, this study has limitations related to the availability of documents, the interview process, and potential bias:

1. One significant challenge was obtaining relevant public documents to inform the study's findings. The outbreak of war on April 15, 2023, severely limited access to these documents. Government websites became inaccessible due to damage to the telecommunication infrastructure, and many soft and hard copies of documents were lost in the FMOH. Additionally, documents from other bodies, such as the MOF and Zakat Fund, were inaccessible. This could introduce an information bias as a relatively low number of reports and documents were reviewed.

2. Since there are many public pools, including those managed by the army, police, and parastatal organizations, the study focused primarily on Sudan's three main public pools: the free care program, the NHIF, and the Zakat Fund. This focus may introduce selection bias and potentially exclude valuable information from other schemes.

3. All key informants were from the government, and international actors were not represented in the interviews.

4. The interviews might have introduced a recall bias, as recalling events from past years may not be entirely accurate.

Chapter 6: Conclusion and Recommendations

6.1 Conclusion

This study examined the political economy factors behind Sudan's fragmented health financing system, focusing especially on the difficulties in expanding the role of the NHIF. Using Campos and Reich's political economy framework, the research identified main actors, their motivations, and the sources of opposition to reform.

The findings reveal that health financing reform in Sudan is not merely a technical process but is deeply shaped by political interests, institutional power struggles, and entrenched bureaucratic practices. Resistance to integrating fragmented pools under the NHIF stems largely from top and mid-level health managers and interest groups, particularly medical professionals linked to the FCP committee. While successive political leaders have voiced support for reform, their lack of consistent follow-through has prevented meaningful implementation.

While the post-2019 transitional government attempted to initiate reforms, including expanding NHIF and introducing a unified policy, the political instability and lack of sustained leadership commitment undermined these efforts.

Looking ahead, health financing reform in Sudan will require more than new policies. It demands strategic political engagement, cross-sector collaboration, and institutional realignment that can shift incentives toward unified, equitable, and efficient health financing.

The following recommendations are made for policymakers based on the study objectives, findings, discussion, and conclusions. If implemented, they could significantly support NHIF expansion, offering a hopeful future for the country's healthcare.

6.2 Recommendations

- **Engaging political leadership:** Political leaders can play a critical role in driving health system reform. The change team should engage these leaders during key moments, such as after conflict or during upcoming political transitions in Sudan, to support NHIF expansion. By communicating effectively with high-level champions (such as the Vice President) and highlighting the political benefits of supporting the reform implementation, particularly the public image of defending the population's health, the change team can build strong political backing. And if political leaders take ownership of the reform, implementation will become much more likely.

- **Building Coalition to Support the NHIF Expansion:** The change team, in collaboration with the NHIF, should build alliances with key proponents and neutral interest groups, such as Zakat fund, CSOs, academicians, community and social media activists, and community leaders. Such a coalition would strengthen the NHIF's position as a more influential actor in advocating expansion efforts on both public and political agendas.

- **Mitigating the resistance of the FCP committee**: To reduce resistance from FCP stakeholders, the change team should adopt a politically sensitive approach. This includes offering FCP actors' roles within the future NHIF structures to preserve their influence and ensure a sense of continuity. It is also crucial to maintain financial stability for key individuals during the transition to prevent perceptions of personal loss. Additionally, the reform should be communicated as an integration rather than an elimination, emphasizing continuity and the potential for improved service delivery.

- **Further research**: The political economy aspects of the health system in Sudan have not been studied sufficiently. Further research is needed to investigate the roles and positions of the police and army schemes concerning health financing reforms and policy changes.

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Annexes:

Annexe 1: Map of Sudan

Source: Osmaan et al (2023).

Annexe 2: The Topic guide**:**

The topic guide

This topic guide is designed for conducting semi-structured interviews with key informants in the government sector in Sudan. It is based on Campos and Reich's framework for analyzing the health financing system in Sudan, focusing on six dimensions of the political economy framework.:

1. Interest Group Politics: Stakeholders united by common interests, such as professional associations and industry groups.
2. Bureaucratic Politics: Various agencies and stakeholder groups within the government.
3. Budget Politics: Actors involved in the processes of budget allocation and expenditure.
4. Leadership Politics: Political leaders, including those in the executive and legislative branches of government.
5. Beneficiary Politics: the end users and community members
6. External Actor Politics: Entities such as donors, development agencies, international NGOs, and external consultants**.**

This is the preliminary version of the topic guide and might undergo revisions in terms of wording and question phrasing. However, the overall theme and scope of the questions will remain consistent. Interviewees will not be asked to respond to personal or private inquiries.

Domain	Topic	Key question
Introduction	Respondent	Can you describe your role and main responsibilities concerning the financing and policymaking for the health services in Sudan? Which parts of the policymaking and financing process are you most experienced with? (For instance, agenda setting, policy design, adoption, implementation, or evaluation – you may mention more than one phase)
Institutional context	Historical and socioeconomic context	Who are the most important stakeholders in this policy? What is the recent history of health financing in Sudan including the previous policy changes and/ or reforms? Have there been any recent turning points or opportunities for new policy commitments in relation to the fragmented health financing in Sudan? How do political settlements/ instability affected and affect Health system financing

		policymaking and resource allocation at your level?
Budget Politics	Funding & Resources allocation/ fragmented	What were the stakes around the health financing policy, including financing decisions/changes? Who were (going to be) the "winners" and "losers" of this fragmented financing system? What were the main views and who are the key supporters of it? Why?
Bureaucratic Politics	Financing hierarchy, structure and process,	How are decisions regarding health policies and financing typically made within your organization? How do different government agencies and departments coordinate on health financing policy? What are the main challenges in achieving effective inter-agency coordination? What are the main bureaucratic challenges in implementing health policies and reforms?
Leadership Politics	Decision and policy making (Agenda setting, design, adoption)	How have any recent health shocks affected health service needs, health services financing and policymaking decisions? How much political priority did the fragmented financing reform and policy change have and why?
External actors politics	Collaboration and partnerships with external actors	What role have the continental, regional or donors in relation to the health financing pools policy context played in these recent changes?
Interest group politics	Power relation (commitments and opposition) for the fragmentation of the health financing system in Sudan	Which groups or individuals supported recent health financing policy commitments and/or financing decisions at your level? Which opposed it and which remained neutral?

Beneficiaries Politics	The end users of the health services	How did the community members participate in the policy-making process of the current fragmented financing system? In what ways can the beneficiaries influence the health policy making/changes decisions and reform? Are there any groups of beneficiaries who are particularly advantaged by the current health financing policy? Why?

Annexe 3: The informed consent**:**

Informed consent form

Introduction

I am **RAMY ABDALRAHMAN MOHAMED OSEMAN ABDALRAHMAN**, an MSc student in public health – Health systems policy and management track, at the KIT Institute/ Vrije University Amsterdam. I am currently conducting a study focused on the policy analysis of health system financing in Sudan. The objective of this research is to analyse the fragmented pools of health system financing in Sudan and provide recommendations to policymakers to enhance the integration of financial resources policies and address existing gaps in the literature. Given your involvement in health system financing and/or policymaking in Sudan, I would like to invite you to participate in this study.

Informed consent form

Hello, my name is Ramy Abdalrhman Mohamed Osman Abdalrahman, and I am a researcher from the KIT Institute. I am conducting a policy analysis of the fragmented health system financing in Sudan to provide recommendations to policymakers for better integration of financial resources policies and to address gaps in the literature. Your participation would be valuable in shaping future policy changes and reforms. The study will take place from March to August 2023.

Procedures including confidentiality

The interview will be conducted in a private setting to ensure confidentiality and will last approximately one hour. With your consent, I will record the interview to ensure accuracy. All recorded information will be kept completely confidential. Your name will not be recorded or documented. Notes will be securely stored and only accessible to the research team. The recorded files will be deleted six months after the study's completion.

In any publications, the findings will focus on the general health financing policy rather than on your specific responses.

Risk, discomforts and right to withdraw

Even after agreeing to participate in the interview, you are free to decline to answer any questions that make you uncomfortable, with no impact on your reputation or any other aspect of your life. You also have the right to withdraw from the study at any time. If any questions cause discomfort, you can choose to stop the interview or refuse to respond to those questions.

Benefits

While this study may not provide direct benefits to you, the results will contribute to informing future health financing policy reforms.

Sharing the results

Once the study is completed, I will share the results with you and key stakeholders involved in health financing policymaking in Sudan, including representatives from the Federal Ministry of Health, the Ministry of Finance, the National Health Insurance Fund, and the Zakat Chamber. Additionally, the

results will be published in a written report through the KIT Institute. If you would like to receive a copy of the report, please inform us, and we will ensure you receive one.

Consent and contact

Do you have any questions that you would like to ask?

Are there any things you would like me to explain again or say more about?

Do you agree to participate in the interview?

DECLARATION: TO BE SIGNED BY THE RESPONDENT

Agreement respondent

The purpose of the interview was explained to me and I agree to be interviewed …….. (name of person).

_____

Signed Date

WITNESS SIGNATURE

_____

Signed Date

Annexe 4: Literature Search Strategy and Operationalization

Search engines and databases	OR	AND		AND	OR
Pub Med Google Scholar VU Library Semantic Scholar UN websites, Google.	Sudan, Republic of Sudan MENA Sub- Sharan Africa, Africa LMICs, Middle East, Low and middle-income countries, Low-resourced countries East Africa, Asia, South-East Asia, Global South.		OR Health financing, Health finance, Health system Health insurance, National Health Insurance, primary insurance scheme, public insurance scheme, Single-payer system, Single-Purchaser, Health sector, Health, Budget, Coverage, Health planning, Health strategies, NHIF, Efficiency Efficacy Political changes Policy, Politics, Political economy Political economic-political reforms Health policy Policy analysis, Political analysis Budget politics, Financial management, Fiscal management		, Leadership, Political leaders, Politicians, External actors, International actors, Partners, Bilateral, multilateral, The World Bank, International Monetary Fund, CSOs, Civil society organizations, INGOs, International non-government organizations, Interest groups, lobbying groups, Lobbyist, Beneficiaries, consumers, end users, community, population, Health seeking behaviour, United Nations, agencies, Zakat, Zakat Fund, Federal ministry of Health, Financial decision makers, Medical Doctors, Health Care providers, Medical professionals, professional unions, Medical association, Bureaucrates, Bearucratics, Health managers

Annexe 5: Stakeholder Analysis

A simple stakeholder analysis of different actors' power, position and motivation concerning the health financing reform and implementation.

Stakeholder	Position	Level of Power	Motivation
Medical Doctors	Resistant	High	Retaining their financial authority/autonomy and their values/ ideas and interest in free healthcare
Free care committee	Resistant	High	Retaining their financial authority and Their values
Private sector and Para-statal companies	Resistant	High (Organized unions)	Non-contributory scheme through their companies with a comprehensive benefits package at private Health centres/quality of care
PHI	Resistant	Not Known	Profits / adverse selection
NHIF	Supporter	High	Financial authority and sustainable operations as a single Purchaser/Efficiency and UHC goals
Zakat Fund	Supporter	High	Mandated by the Holy Quran to support poor people and vulnerable groups
CSOs	Neutral	High	Autonomy, advocating for marginalized groups and serving vulnerable groups
MoF	Resistant	High	Supporting poor people and vulnerable groups/ Curative care oriented for political benefits
External actors	Not clear	High	combination of political and humanitarian objectives
Beneficiaries	Resistant	High (not organized)	Free access to curative health care through the Free Care Program
Politicians	At least not resistant	Very High	Political gains and Benefits

Annexe 5: Summary of Fragmented Pools and Their Beneficiaries

The Pool	Beneficiaries
Free care / FMOH	The whole Sudanese population
National Health Insurance Fund (NHIF)	The enrolled population
Zakat fund	Poor people and Vulnerable groups
Ministry of Defence	Armed forces personnel and their dependents
Ministry of Interior	Police forces personnel and their dependents
Health Insurance Khartoum State (HIKS)	Khartoum state population
Para-statal organizations	The personnel and their dependents
UN, INGOs, CSOs and National NGOs	IDPs, Refugees and people in the crisis region who need health services.

Annex 6: The Chapter of the 2016 NHIF Law

The 2016 NHIF law mandated all the citizens in Sudan, formal, and informal sectors, foreigners and refugees to enrol themselves in NHIF, the law explicitly states this under the mandate of the health insurance chapter, as it states:

"*Health Insurance is Mandatory for All Sudanese Residents within Sudan by the 2016 National Health Insurance Fund Law' :*

1. *Health insurance is a mandatory system based on social solidarity.*
2. *Health insurance shall be mandatory for:*
    a. *All Sudanese residents within Sudan.*
    b. *Foreign nationals and refugees as specified by relevant regulations and in coordination with the relevant authorities.*
3. *All units and institutes within the Public and private sectors must cover their members and their families with the health insurance scheme through the administered National Health Insurance Fund.*
4. *Every employer to whom this law applies must enrol themselves and their employees in the branch of the National Health Insurance Fund that has jurisdiction over the employer's location.*

The Ministry of Finance and social insurance institutions must work to cover the social insurance sector under the health insurance umbrella as determined by the Council of Ministers.'(61).

Annexe 7: Key Articles from the 2016 National Health Financing Policy

1) The 2016 national health financing policy underscores the importance of enrolling the formal private sector in the NHIF.9

Article 2.3 states*: Increase the contribution of the private sector and donors and improve efficiency. Although funding of essential health packages will rely greatly on public funding, the private sector, especially big companies, will be taped to contribute. Currently, private companies contribute to health through different scattered initiatives targeting mainly the supply side.'* (8).

2) The 2016 National Health Financing Policy highlights the need for coordinated action among government stakeholders and state agencies

'*Establishing and strengthening coordination mechanisms between different stakeholders is essential to reduce fragmentation and unify policymaking. Developing these coordination structures and mechanisms is critical to overcoming the current fragmentation situation*.' (8).

Annex 8: Key Statements from 2019 Alternative Health Policy Document

1) The 2019 alternative policy addressed the need to increase government health expenditures to meet the Abuja Declaration's target of allocating 15% of the government budget to health:

'*Increase and maintain the level of government expenditure on health at national and subnational (states, municipalities) so that it represents at least 15% of total governmental expenditure in line with the African Union's Abuja Declaration (2006)* ' (68)**.**

2) The 2019 policy addresses the expansion of NHIF as a social protection mechanism:

'*Dramatically increase the proportion of governmental budget spent on the health and social protection sectors, including reforming the current national health insurance to ensure it increases its coverage, and it meets the social protection needs of the most vulnerable Sudanese citizens*' (68)**.**

3) The 2019 policy emphasizes the establishment of a National Health Council (NHC), similar to the former NHCC, to improve governance and coordination among the stakeholders, as stated in the policy**:**

"*Establishment of a national participatory multi-disciplinarily National Health Council (NHC) chaired by the Prime Minister (not the Minister of Health) and involving all ministries, academic institutions, research bodies, civil society and private sector representatives whose work relates to the social, and environmental, economic and demographic determinants of health; the NHC should be empowered by law to oversee policy setting, overall strategic guidance and planning for health sector*" (68)**.**

Annexe 9: Key Statements form 2017 Free Care Program Policy

The 2017 Free Care Program policy statement

"*The goal of free care program is to provide free treatment for emergency (critical) cases in a safe, proper, and effective manner, timely, regularly, and continuously for free, as well as facilitating the patient's access to free medical services for selected (specific) medical conditions*" (58).