TOPIC: PRELIMINARY EVALUATION OF THE NEWLY INTRODUCED NATIONAL HEALTH INSURANCE POLICY IN ZAMBIA.

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57th International Course in Health Development/

Master of Science Public Health (ICHD/ MPH)

14th September. 2020 – 4th September 2021

KIT (Royal Tropical Institute)

Development Policy & Practice

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PRELIMINARY EVALUATION OF THE NEWLY INTRODUCED NATIONAL HEALTH INSURANCE POLICY IN ZAMBIA.

A thesis submitted in partial fulfilment of the requirement for the

Degree of Master of Science in Public Health

By:

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Declaration:

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Signature: 

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Amsterdam, The Netherlands.

September 2021

Organised By:

KIT (Royal Tropical Institute), Development Policy & Practice

Amsterdam, The Netherlands.

In co-operation with:

Vrije Universiteit Amsterdam/ Free University of Amsterdam (VU)

Amsterdam, The Netherlands.

ACKNOWLEDGEMENTS
My heartfelt gratitude to the Government of the Netherlands for awarding the OKP scholarship to pursue studies at KIT Royal Tropical Institute.

Many thanks go to my Thesis Advisor and Academic Advisor for the guidance and shading a ray of hope when I felt inadequate. Your guidance and support are much appreciated.

To the Facilitators at KIT, you were awesome. You gave me insights that I hold dearly. Thank you for making my study time worthwhile.

To My colleagues and friends, our interaction helped me understand the diverse culture which was a plus to my studies. I learnt a lot from you.

To my daughter Wanipa and my Husband Goodfellow, am forever indebted for the roles you played during the whole period of my study. Thank you for the support.

To Mum, Chishala, Kabwe and Ng'andwe: One step for Chilu, A giant Step for the Chamas.

I thank the Lord God Almighty for the blessings.

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LIST OF ABBREVIATION

BBP: Basic Benefit Package

CBoH: Central Board of Health

CHE: Catastrophic Health Expenditure

CSO: Central Statistics Office

CT- Computed Tomography

DHS: Demographic Health Survey

FS: Fiscal Space

FSH: Fiscal Space for Health

GDP: Gross Domestic Product

GGE: General Government Expenditure

GGHE: General Government Health Expenditure

ILO: International Labour Organization

LMIC: Low-And Middle-Income Countries

MOF: Ministry of Finance,

MoH: Ministry of Health

MRI: Magnetic Resonance Imaging,

NHI: National Health Insurance

NHIMA: National Health Insurance Management Authority

NHIS: National Health Insurance Scheme

OOP: Out of Pocket Payment

OOPE: Out of Pocket Expenditures

OPD: Out-Patient Department

PFM: Public Finance Management

PVHI: Private Voluntary Health Insurance

RAF: Resource Allocation Formula

SDG: Sustainable Development Goals

SHI: Social Health Insurance

SSA: Sub-Saharan Africa

THE : Total Health Expenditure

UHC: Universal Health Coverage

WHO: World Health Organisation

WHR: World Health Report

ZDHS: Zambia Demographic Health Survey

KEY TERMS

Catastrophic expenditure: WHO defines catastrophic expenditure as a household experiencing out-of-pocket health expenditure exceeding 40% of a household's 'capacity to pay'. 'Capacity to pay is measured by total household expenditure minus expenditure on subsistence, essentially food. Three factors have to be present for catastrophic payments to arise: the availability of health services requiring out-of-pocket payments; low household capacity to pay; and lack of prepayment mechanisms for risk pooling (1).

Financial Risk Protection: is security from incurring catastrophic costs in case an insured event occurs (Illness, fire, car accident, etc.). This is one benefit of having insurance.(2)

Fiscal space (FS): refers to a government´s ability to raise revenues without jeopardizing the sustainability of its financial position or the stability of the economy (e.g., causing inflation). A government can raise revenues through taxes (including premiums for public/social - mandatory- insurances), sales of natural resources, outside grants, cutting expenditures, and borrowing(2)**.**

Pooling: is the accumulation and management of these revenues in order to spread the risk of payment and benefits for health care amongst all members of the pool; and thus, individual persons no longer bear their risk on an individual basis.

Public Financial Management (PFM): The rules that govern the allocation, use and accounting of public funds are known as public financial management (PFM). A country's PFM systems affect health financing in the level and allocation of public funding (budget formulation), in the effectiveness and targeting of spending (budget execution) and in financial transparency and accountability towards results (budget reporting) (3).

Purchasing: is the process by which these pooled contributions are used to pay providers to deliver a set of specified or unspecified set of health interventions. Purchasing can be either passive or strategic, with passive purchasing simply following predetermined budgets or paying bills when presented. Strategic purchasing is generally preferred, as it is where there is a continuous search for purchasing the best health services, how to purchase them and from whom(4).

Revenue collection: can be defined as the process by which the health system receives money from households, enterprises, government and other organizations including donors (4) .

Risk pooling: is the collection of funds from members of a group to finance the cost of a specific event (fire, illness, car accident, etc.). Risk pooling ensures that the financial risk of paying for unpredictable costs is borne by all the members of the group, instead of the individual, and protects individuals from catastrophic costs(2).

ABSTRACT

Introduction: Bottlenecks surrounding health financing in Zambia have been attributed to low allocation of funds to health and high donor fund dependency. Innovative financing mechanisms have been proposed to increase fiscal space for health. In 2018, the National Health Insurance was introduced to be complementary to the already existing schemes in order to raise additional revenue. The aim was that all Zambians access quality and affordable health services in accordance with their needs.

Objective: To critically evaluate the design and early implementation of the newly proposed NHI Scheme in Zambia and make recommendations to inform policy.

Methodology: This was a literature review. We described the overall health system for Zambia and analyse health financing and its arrangements by using the WHO Framework for Health Financing and UHC. The evaluation was conducted using the DAC/OECD criteria.

Results/Discussions: The NHI in its current state may not be pro-poor and sustainable. The formal sector group are the first beneficiaries of entitlements while the informal non-poor are supposed to join voluntarily while subsidizing for their services. The poor and exempted groups will be covered by general revenues. While payroll deductions from formal sector will be insufficient to cover the ambitious entitlements, government would need to supplement all three groups in the short term. The early stage of implementation does not allow a full evaluation at this point.

Conclusion: The concept of UHC the country aligns with means that drastic measures to increase allocation to health need to be addressed. The current NHI risks not meeting its objective because it favours the formally employed leaving out the poor who need financial protection. To promote equity, allocation to health should increase by increasing Fiscal Space for Health. Policies should drive at: sustaining economic growth and raising GDP; collecting more taxes to create fiscal space; attracting external funds (on-budget); prioritization of health sector; increasing the efficiency of spending by ensuring good Public Finance Management.

Key Words: Health Financing, Zambia, National Health Insurance, Universal Health Coverage

Abstract Words: 318 Thesis Words: 13,143

CHAPTER ONE: INTRODUCTION

This chapter provides a background account of Zambia including its geography, demography, socio-economic situation and an overview of the health system.

1.1 BACKGROUND INFORMATION

1.1.1 Geography

Zambia is a landlocked country located in Sub-Saharan Africa surrounded by eight countries. Its surface area is approximately 752,618 square kilometres (Km^2) of which 9,220 Km^2 is covered by water. It has ten (10) provinces and Lusaka is the capital city *(figure 1 below*) (5). Zambia is geographically situated on a plateau with a topology of three seasons, cool dry winter from May to September, hot, dry season in October and November and the raining season between December and April (6).

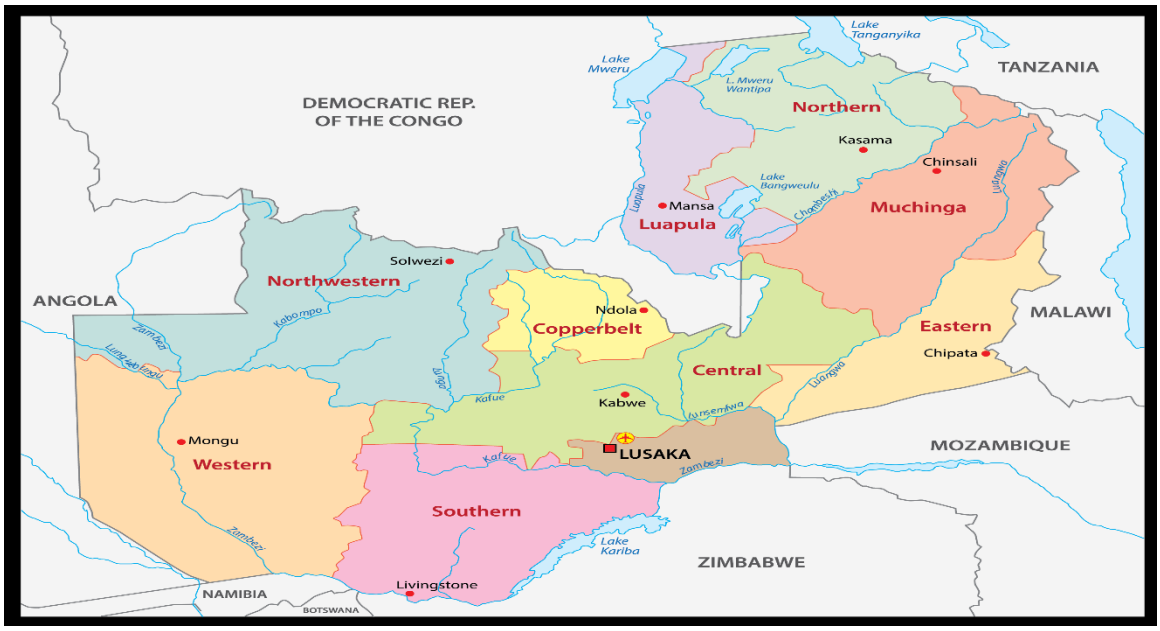
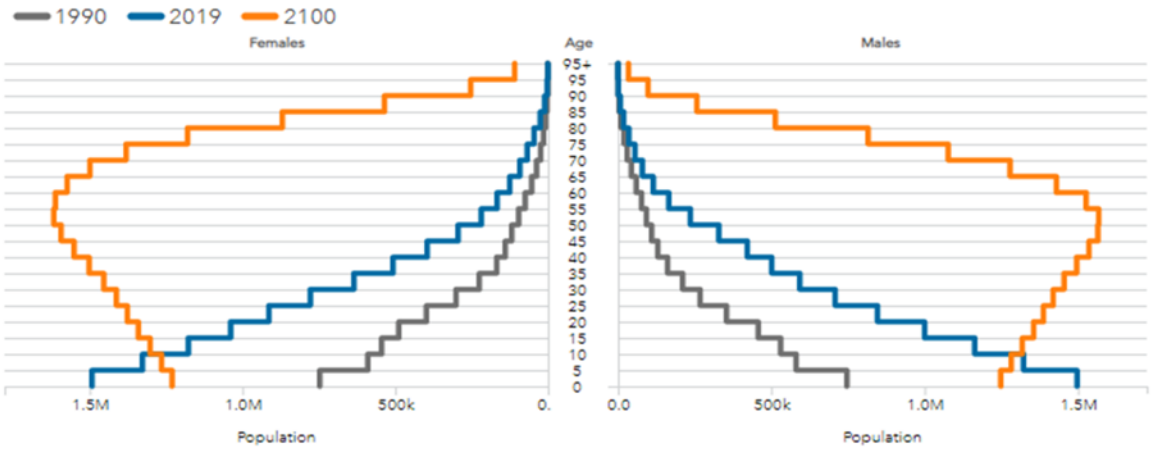


Figure 1: Map of Zambia. courtesy: https://www.worldatlas.com/maps/zambia

1.1.2 Demography

Zambia has a growing population estimated to be above 18 million with a population density of 25 per Km^2 in 2020. It contributed about 0.24% to the world's population. Males were estimated to be less at 8.8 million as compared to females at 9.02 million (7). According to the World Population Meter (8), Zambia's annual population growth is at 2.93% and it is seen as a country with steady population growth as well as an aging population as it transitions demographically in the coming years (figure 2).



Population age structure for males and females in 1990, 2019 (reference scenario), and 2100 (reference scenario). Forecasted data based on Global Burden of Disease 2017 results.

See related publication: https://doi.org/10.1016/S0140-6736(20)30677-2

Figure 2: Population pyramid of Zambia : 1990 – 2019 – projection 2100. http://www.healthdata.org/zambia

Zambia has a youthful population estimated to have a median age of 17 according to Central Statistics Office (CSO). The average life expectancy increased from 47 years in 2011 to 64.7 years in 2020 with females at 67.6 years and males at 61.7 years. The total fertility rate reduced and was at 4.7 in 2020.

In 2020, urban population was at 45% (8 million) while rural population was at 55% (10 million) compared to 2000 where population was at 35% and 65% respectively. Currently majority of people still reside in rural areas (56.9%). (8). The rate of urbanization continues increasing, with Lusaka leading in terms of absolute urban population growth (from 2.8 million in 2015 to 3.3 million in 2019)(9).

The ZAMSTAT 2019 report estimates that the rapid population growth of 2.8% annually may result in population doubling close to every 25 years amidst reduced mortality, morbidity and fertility rates. This demographic transition continues to influence population growth which may lead to economic growth (demographic dividend). However, this may not be realized if there are unfavourable conditions like high unemployment, economic recessions (10).

1.1.3 Socio-Economic Situation

Zambia is a democratic low middle-income country. It thrives on copper exports as a source of revenue. Other major sources include agriculture, construction, emerald mining, beverages, food, textiles, chemicals, fertilizer and horticulture. The country's economy stalled from 2011 to present (11) due to falling copper prices, reduction of agricultural outputs due to droughts, reduction in hydropower generation due to insufficient rainfall and climate change. The impact of Covid-19 worsened the already contracting economy of the country. Measures taken like lockdowns and social distancing worldwide made it impossible for the country to export and trade (10).

The country's inflation rate soared to a double digit of 15.7% in 2020 bypassing the threshold of 6-8%. Projections showed that inflation rate will be more than 22% in 2021. Real GDP growth rate was at an average of 3% annually between 2015-2019. It registered a 4.9% negative

growth in 2020 (contraction), from 4.0% growth in 2018 and 1.9% in 2019 due to an unprecedented deterioration in all the key sectors of the economy (11).

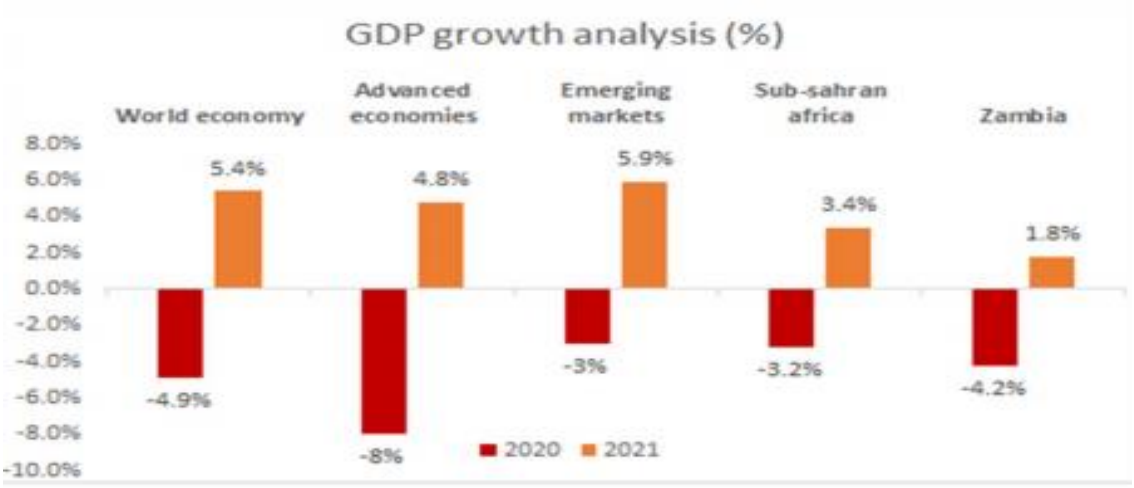


Figure 3: Comparison of GDP Growth Analysis Source: IMF. World Bank Economic Outlook Update June 2020

Figure 4: Zambia GDP Growth 2016-2020 Source: Zambia Statistics Agency (actual). National Budget Speech (Target)

Poverty was higher in rural than urban areas. The 2015 Living Conditions and Monitoring Survey (LCMS) claimed that majority of those living below the poverty line were in rural than urban areas: 76.6% and 23.4% respectively (12). 40% of the urban population were living in extreme poverty compared to 60.8% of the rural population. The informal sector was more susceptible to extreme poverty than those in formal sector. Unemployment level increased from 7.8% in 2012 (CSO report) to 11.4% in 2020 way above the global benchmark of 6% (13). A survey by ILO in 2016, found that 88.7% were employed in the informal sector (14) while the rest were in formal sector.

1.1.4 Overview Of The Health System

Zambia has undergone a number of health reforms with the aim of achieving the health system goals which include i) improved health status ii) financial risk protection, iii) responsiveness to needs and iv) client satisfaction. Table 1 below provides an overview of the key health reforms.

TABLE 1: KEY HEALTH REFORM AREAS AND ELEMENTS, ZAMBIA: 1992-2017

Period	Organization	Finance
1992-1993	Devolution of health services Sector-wide approach programming	Pooling of government and donor funds for districts. Medical user fees introduced with exemptions for the poor
1995-1996	Provider–purchaser split CBoH created as an autonomous institution responsible for purchasing health services. Policy role was for MOH. Functions of Medical Stores Limited restricted to storage and distribution	Basic health care package; Population-based resource allocation formula
1998-1999	Functions of CBoH and MoH streamlined Medical Stores Limited contracted out under a lease agreement	
2003-2004	Medical Stores Limited contracted out under a management contract. Reorganization of sector-wide approach programming coordination mechanisms	Medium-term expenditure framework Pooled funding extended to all levels. Needs-based resource allocation formula Introduction of medical levy
2006-2007	Dissolution of CBoH MoH (re)assumes role of provider, purchaser, and regulator	Some donors transition from pooled funding at the MoH to general budget support Medical user fees removed in all rural areas (2006) and peri-urban areas (2007)
2011-2013	Transfer of the primary health care function from the MoH to the Ministry of Community Development	Medical user fees removed at the entire primary health care level Medical levy abolished
2015-2017	Remerger of the primary health care function to the MoH (2015) Structural reorganization of the MoH (2016–2017)	

Source: https://doi.org/10.1080/23288604.2018.1510286 (15)

Zambia's health system is decentralised and comprises three tiers which are primary level, secondary level and tertiary level (16). As highlighted in Table 1, User Fee Removal Policy was rolled out to all public health facilities at primary level as pro-poor approach in a bid to improve access and utilization of health services to the whole population especially the vulnerable. Unfortunately, this widened the inequity between the poor and rich as most of the services were not offered and only the rich had access. Inadequate infrastructure, weak referral system, stock outs of drugs, shortage of staff led to incomplete basic services offered at the

primary level forcing people to skip this level and access services from the secondary level where services were not all free (17).

Zambia is experiencing an epidemiological transition with a slight increase in the burden of Non-Communicable Diseases (NCDs), and a decline in Communicable Diseases (CDs) over the last 10 years as observed by the IHME. The total burden of diseases decreased while CDs continue to have the largest relative burden compared to NCDs and Injuries.

Table 2: KEY HEALTH INDICATORS

Indicators	**2018**
Total population (000s)	17 352
Life expectancy at birth (years)	62.3
Maternal mortality ratio (per 100 000 live births)	278
Proportion of births attended by skilled health personnel (%)	63
Under-five mortality rate (per 1000 live births)	58
Neonatal mortality rate (per 1000 live births)	23
New HIV infections (per 1000 uninfected population)	2.97
Tuberculosis incidence (per 100 000 population)	346
Malaria incidence (per 1000 population at risk)	178.8
Hepatitis B surface antigen (HBsAg) prevalence among children under 5 years (%)	1.84
Reported number of people requiring interventions against NTDs	12 032 435

Source : https://www.who.int/data/gho/publications/world-health-statistics

There continue to be health service disparities between the urban and rural areas. Most health workers are concentrated in urban areas leading to an overwhelmed workforce and unqualified staff serving in rural areas. According to the Zambia's Human Resources for Health Report, health worker density of skilled workers (doctors, midwives and nurses) was 1.81/1000 population below the recommended 2016 WHO benchmark of 2.23, and far below the SDG benchmark of 4.45 (18)(19) (20).

Budgetary allocations to PHC level remain poor and have affected service delivery. Inadequate funds received were mostly used for curative services, leaving out important services like preventive, promotive, rehabilitation and palliative (21). As stated earlier, enactment of the user-fee policy increased service utilization but reduced efficiency and quality of service delivery in public facilities (22).

CHAPTER TWO: PROBLEM STATEMENT, JUSTIFICATION AND METHODOLOGY

2.1 PROBLEM STATEMENT AND JUSTIFICATION

Zambia's current health reforms focus on strengthening both supply- and demand-side interventions in order to progress towards UHC(23). The demand for healthcare is increasing yearly and is due to the changes in the composition of the population and changes in disease patterns, development and availability of medical technology. Another factor is that people are becoming more knowledgeable and aware of medical possibilities, therefore adding to more demand on health care services. This affected the 2017- 2021 National Health Strategic Plan's vision of 'A Nation of Healthy and Productive People', and its mission 'To provide equitable access to cost-effective, quality health services as close to the family as possible' (24).

There has been a notable increase in the share of NCDs in Zambia in recent years due to the aging population (25) but not so much on the absolute burden of NCDs. In addition, although decreasing, the burden of communicable diseases like TB, HIV Malaria continue leading the causes of morbidity and mortality (26). According to the ZDHS 2018, Maternal Mortality Ratio (MMR) was 213/100000 live births. Under five mortality rate (U5 MR) was 58/1000 live births, neonatal mortality rate (NMR) was 23/100 live births (27). These show a slight reduction compared to 5 years ago. Delivery by skilled attendant has generally increased though disparities are more pronounced in rural areas than urban areas.

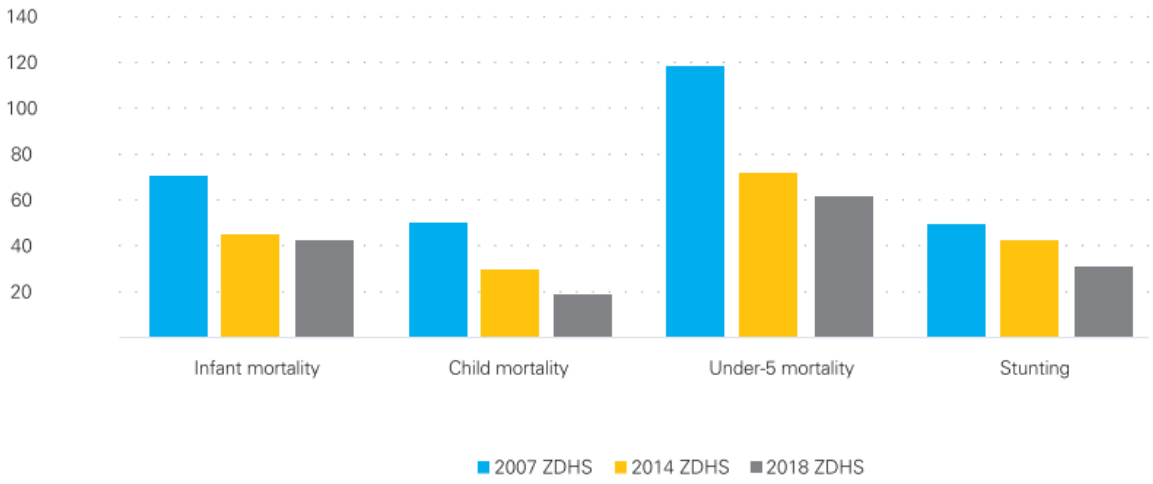


Figure 5: Trends in Key Child Indicators Source: 2018 Zambia DHS

Despite improvements on most indicators, Zambia is still far from attaining UHC targets. Removal of user fees increased utilization of health services especially at PHC though infrastructure remains a challenge as people walk for many kilometres to access services. In addition, few facilities have qualified staff who provide quality services delivery(27). The system still experiences shortage of staff, inadequate and drugs. These challenges were more pronounced in rural areas than urban areas and the poor were more affected than those in the rich quintile. These inequities show as disparities in burden of diseases, in utilization of health services and in spending on health.

According to World Health Report 2019, Zambia, like most Sub-Saharan African countries does not spend 15% budgetary allocation on health in accordance with the 2001 Abuja declaration. Domestic General Government Health Expenditure (GGHE-D) as % General Government Expenditure (GGE) was an average of 7% (see Table 3). According to the 2018 NHA, allocation to health has been static at 7% from 2015-2018 despite having slightly reduction allocation of 8% in 2014 to 7% in 2018 (28)(29). GGHE-D as % Gross Domestic Product (GDP) was at 2% in 2018 below the UHC benchmark of 5%.

Suffice to say, the country's GDP growth rate fell from 4% in 2018 to a deep dive of 1.4% in 2019 and -4.9% in 2020 (see figure 3). This was attributed to serious macroeconomic challenges such as high inflation, widening fiscal deficits, unsustainable debts, low international reserves, and tight liquidity conditions (9). COVID-19 pandemic saw inflation rise to 17.4% in 2020 and is projected to remain above the target range of 6%–8% in 2021(11). Allocation of funds to health was negatively impacted. In addition, the local currency (kwacha) depreciated against major tradeable currencies which affected debt servicing (9).

The health expenditure per capita for Zambia has been fluctuating for the past 10 years. In 2018, the Current Health Expenditure (CHE) per Capita was US$ 76, whereas the CHE per capita $PPP was $181.55 above the current international benchmark of $114, of which 61% was from public expenditure (30). The benchmark appears low because it assumes rational spending without wastage of resources on inefficient purposes. Compared to other Sub-Saharan African countries like Ghana and Tanzania, Zambia appears to be doing better. Ghana for instance, has a slightly higher GDP than Zambia but spends less on health care per capita at $78 while Tanzania spends $37 (*Annex 1*). In 2018, out of pocket expenditure (OOPE) was 10% of current health expenditure. Although appears low, the poor still incur financial hardships on health services; besides, OOP expenditures may increase when donor dependency decreases in the future because domestic funds will need to compensate. Thus, government needs to raise more revenue to keep reduce OOP (see below).

Total health expenditure (THE) was a challenge in that resources allocated are not adequate to finance the health system. OOPE has become more, especially for vulnerable people who were spending more in health. It led to low coverage, inequities and poor quality of health care services, hence affecting progression towards UHC. Steady gains in health coverage denote that if the health sector has an increase in health expenditure, it impacts positively on quality, access, utilization and efficiency of service delivery especially in rural areas and the vulnerable population. TB Case Detection Rate (CDR) was 61% while treatment success rate (TSR) was 90% against a target of 95% TSR in 2018 (31). Despite some improvement in resource allocation, TB received less funds compared to HIV/AIDS (32). On the other hand, 97% of antenatal mothers attended antenatal visit while 84% reported to have delivered from a health facility according to the 2018 ZDHS (27). Improved coverage was attributed to increased utilization of health services, improved staffing and also availability of basic commodities like RPR, HB tests. However, little is known on the quality of health services that is provided as it is difficult to ascertain quality. It is argued that more women in high wealth quintile attend antenatal more than the lowest poor quintile. These disparities hinder people especially the poor from accessing and utilizing services.

Health Financing Strategy (HFS) stated that curative services was highly funded compared to preventive and promotive services (29). This was because hospital interventions are expensive while they only benefit few people especially the rich. In 2018, fund allocation towards secondary and tertiary level was still higher than primary level leading people, especially the poor, bypass and seek for health services at secondary and tertiary hospitals where services were available (22). This increased OOP payments.

According to the Zambia Health Expenditure Tracking and Quantitative Service Delivery Survey (ZHETQSDS) report, 6% of the population suffered catastrophic health expenditure on consultations, drugs, transport/food and other costs. The survey showed that spending on NCDs and related diseases increased due to increased demand for NCD-related problems and services (33). Changing trends in NCDs denotes that there will be increased financial burden on households and increased cost of providing care by the government. This will require more resources to enable financial protection. More investments in preventive, promotional, rehabilitation and palliative services to mitigate the increasing prevalence of NCDs especially at PHC.

The NHA 2018 reports that Private Health Insurance (PHI) contributed only about 1% towards health expenditures and majority of people are in formal employment or rich individuals. Its impact is insignificant because it does not cover a large portion of the population making it not ideal to UHC objectives (34).

Table 3: Health Financing in Zambia: selected NHA indicators

Indicators	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Current Health Expenditure (CHE) as % Gross Domestic Product (GDP)	4	4	3	4	5	4	4	4	4	5
Current Health Expenditure (CHE) per Capita in US$	51	55	58	69	88	67	59	57	68	76
Current Health Expenditure (CHE) per Capita in PPP	134	122	118	143	177	149	174	179	180	208
Domestic Health Expenditure (DOM) as % of Current Health Expenditure (CHE)	43	54	63	56	45	67	64	58	60	55
Domestic General Government Health Expenditure (GGHE-D) as % Current Health Expenditure (CHE)	10	23	35	33	28	49	47	38	40	39
Domestic Private Health Expenditure (PVT-D) as % Current Health Expenditure (CHE)	33	32	28	23	17	18	17	19	19	16
Voluntary Health Insurance (VHI) as % of Current Health Expenditure (CHE)	0	0	0	0	0	0	0	1	1	1

Out-of-pocket (OOPS) as % of Current Health Expenditure (CHE)	26	24	22	17	11	14	12	12	12	10
External Health Expenditure (EXT) as % of Current Health Expenditure (CHE)	57	46	37	44	55	33	36	42	40	45
Domestic General Government Health Expenditure (GGHE-D) as % Gross Domestic Product (GDP)	0	1	1	1	1	2	2	2	2	2
Domestic General Government Health Expenditure (GGHE-D) as % General Government Expenditure (GGE)	2	5	6	6	5	8	7	7	7	7
Compulsory Financing Arrangements as % of CHE							55	54	59	59
Government Fin. Arrangements as % of CHE							55	54	59	59
Social health Insurance as % of CHE							0	0	0	0

In the last 5 years, External aid fluctuated and as of 2018, it at 45% (35) though it is unpredictable. Lack of transparency and proper accountability reduced donor-confidence which affected donor-driven programs like HIV/Malaria/TB. With Zambia planning to move to a middle-income country status by 2030, thus dependency on it is unsustainable in the long run. Zambia needs to consider alternative ways to improve domestic resources. Insufficient domestic government resources risks increasing OOP payments especially that external aid is unpredictable or may reduce.

Unemployment levels still high. Estimates show that 11.3% of the population were in formal employment according to the ILO (14). The informal sector is characterized by high number women with low education levels. Therefore, women headed households have low socioeconomic status (SES) and often suffer inequalities.

In 2012, government proposed a National Health Insurance policy that would assist to meet health goals. (36). It was rolled-out in 2019 to be complementary to the already existing tax-based scheme in pooling domestic resources (37). The aim was increase fiscal space for health (FSH) while keeping out-of-pocket (OOP) payments low to prevent household poverty. The Ministry through the National Health Insurance Management Authority (NHIMA) hopes to ensure that health care service provision is accessed by all (23). And overall, achieve health and wellbeing for all by 2030 in accordance with the SDG goal number 3 (UN, 2020) (figure 6). The NHI as a strategy proposes to be all-inclusive to achieve universal coverage of health (UHC) (35). A systematic review by Spaan T et al, argues that NHI can positively impact financial protection and reduce catastrophic financial risks and increase utilization of health care services. However, it may also have shortcomings in areas like quality of care , equity and coverage if it is not properly designed (38).

Zambia inherited the UK financing model of the health system hence the introduction of NHI needs to coordinate and complement with the already tax-based system so that what is paid by

one arrangement is not covered by the other. Therefore, there is need to critically evaluate its preliminary design and implementation in order to provide best options for its impact on equity, quality and financial protection (39). Thus, contributing to the attainment of [1]UHC as a country by 2030.

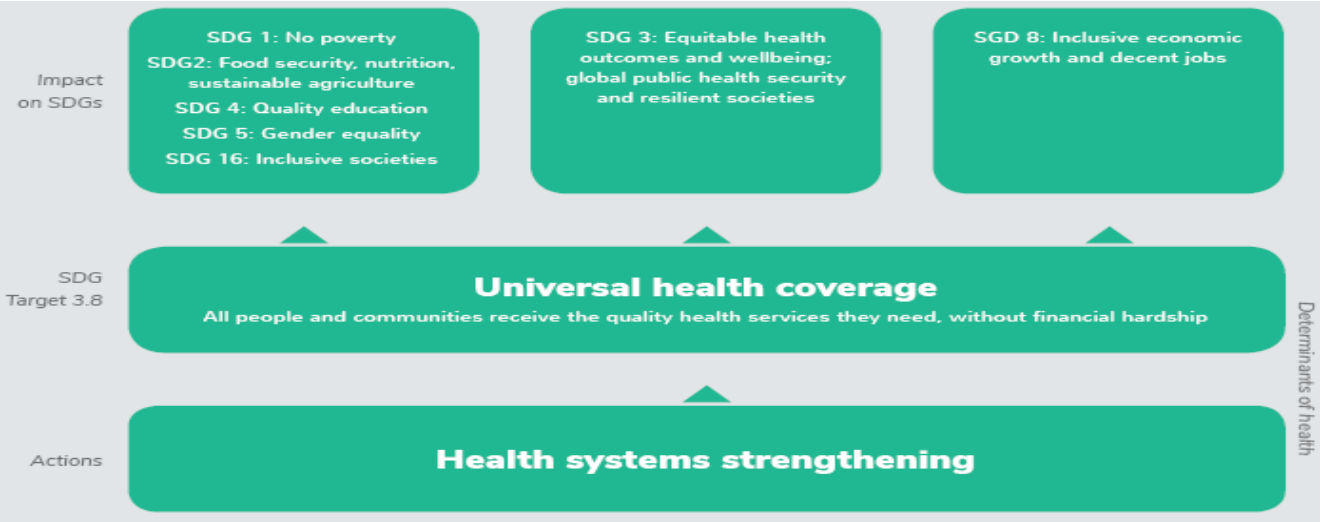


Figure 6: Investing in Health Systems to reach UHC and SDGs source: adapted from Kieny et al, 2017 WHO Bulletin

2.2 GENERAL OBJECTIVE:

- To critically evaluate the design and early implementation of the newly introduced National Health Insurance (NHI) in Zambia and make recommendations to inform policy.

2.2.1 Specific objectives

- To describe the health system and its financing arrangements in Zambia and their challenges and complementarity.

- To critically discuss and evaluate the new NHI policy proposal that is being implemented to address health financing challenges in Zambia.

- To review lessons learned on how other LMICs like Ghana have implemented NHI complementary to tax arrangements.

- Make recommendations to inform policy on the newly proposed NHI policy in order to progress towards Universal Health Coverage.

2.3 METHODOLOGY

2.3.1 Research Design

The study is a literature review of health financing and UHC in relation to the newly proposed NHI in Zambia. The literature used sourced from journals, studies, grey and peer reviewed publications, personal experiences, policies and surveys on health insurance. This study used

[1] The WHO report of 2010 records that Universal Health Coverage entails that "all persons are able to use needed health services of sufficient quality to be effective, without fear of financial hardship".

WHO Conceptual Framework on Health Financing and UHC (figure 7) to analyse the Zambian NHI.

2.3.2 Search Strategy

Search strategies and data sources (Annex 2) included international organizations websites like WHO, World Bank data on health financing and health insurance. Local sources like the Ministry of Health, NHIMA and other government ministries were used to search for data. Studies and reports in different countries added value to this study especially Low Middle-Income Countries (LMIC) to compare and contrast health financing and health systems. Search engines included VU library, PUBMED, Science direct and Google Scholar to mention a few. Only studies done in English language were used for this study.

2.3.3 Inclusion and Exclusion criteria

- No time limit was given to the search owing to the fact that the National Health Insurance in Zambia is relatively new.
- Articles with findings on implementation of the National Health Scheme or health financing were included.

2.3.4 Limitations Of The Study

The key limitation of this study was that, the exclusion of articles written in languages other than English led to missing out relevant information from the study. In addition, timely availability of financial data like the National Health Accounts and NHIMA and MOH (showing often a lag of 3 – 5 years) made it difficult to adequately evaluate the NHI, given its recent introduction thus making it an ex-ante evaluation.

2.3.5 Ethics

The study is a literature review based on secondary data sources thus did not require any ethical approval.

2.3.6 WHO Conceptual framework

To answer the study objectives, the WHO's framework for Health Financing and Universal Health Coverage (figure 7) was used to analyse Zambia's collection, pooling of funds, purchasing and provision of health services, and how they interact with the health system to meet its goals. It also analysed the role NHI play on the intermediate objectives and UHC goals and eventually progress towards UHC. The framework was flexible in understanding potential benefits of health insurance in relation to the existing financial arrangements. Broader roles of health financing that ensure universal protection from financial hardships, equity, efficiency and quality of service delivery, access, transparency and accountability leading to improved performance of the overall health system were analysed.

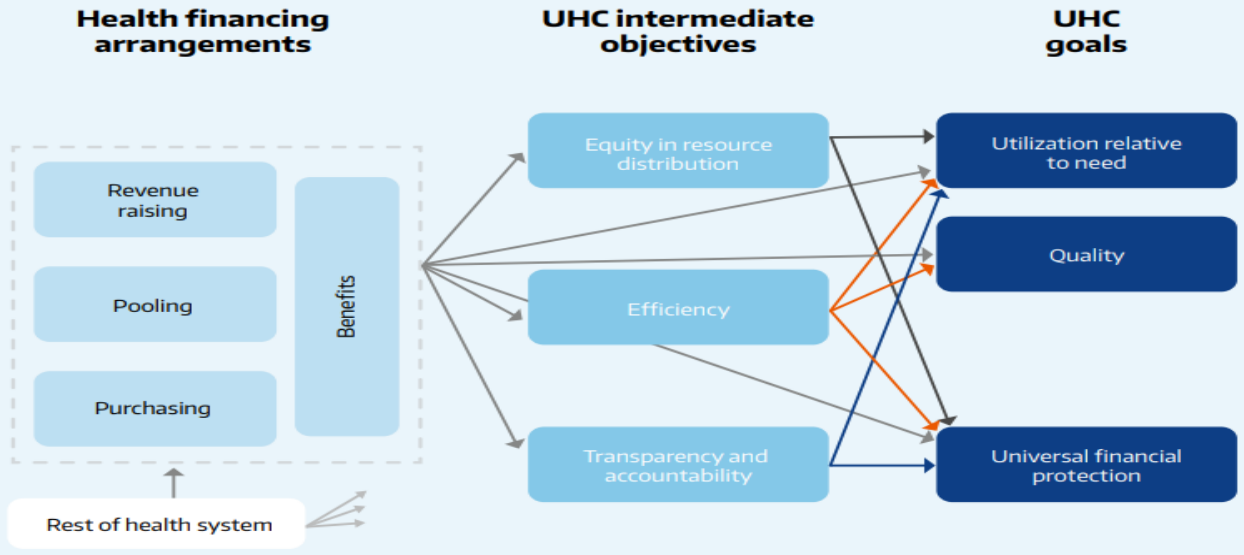


Figure 7: *Health Financing Policy and UHC : Pathways. Source: http://apps.who.int/iris/bitstream/10665/254757/1/ 9789241512107-eng.pdf*

The Organization for Economic Corporation and Development's Development Assistance Committee (OECD-DAC) Evaluation Criterion was used to evaluate the NHIS. Questions that the Evaluation Criterion discusses on the evaluation of the NHIS are presented in table 6 (chapter 4). In addition, equity (Who is most served by the intervention) will also be used to evaluate.

Figure 8: OECD/DAC Evaluation Criteria Source: https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

CHAPTER THREE: HEALTH SYSTEM AND HEALTH FINANCING IN ZAMBIA AND ITS CHALLENGES

This chapter describes the health system and its financing arrangements in Zambia and its challenges. Furthermore, it will assess how and to what extent each of the financing arrangements contribute to the intermediate and final objectives of UHC.

3.1 HEALTH FINANCING IN ZAMBIA

Zambia has different sources of funding the health system (figure 9) which include public, private and external funding(29). Zambia's main sources in 2018 included General Taxes (39% of CHE), Domestic Private Health Expenditure (PVT-D) (16% of CHE), External Aid (45% of CHE). Main categories for private domestic expenditures are OOP Payments and Voluntary Private Health Insurance which accounted for 10% of CHE and ~ 1% of CHE respectively. SHI was 0% because it was introduced later.

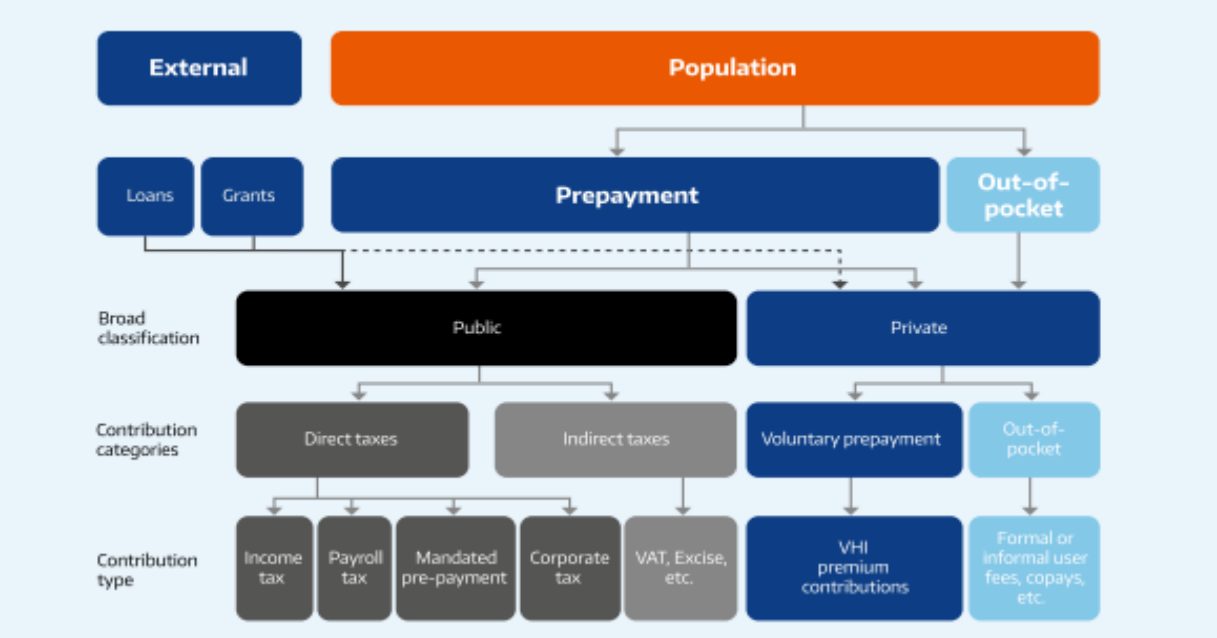


Figure 9: Major revenue sources and contribution mechanisms (40)

3.1.1 Tax-based financing

This is a major source of financing, known as the Beveridge Model (2) and is used in Britain. Zambia uses this financing scheme where health revenue is financed by taxes from Tax Payers. It is a form of risk pooling covering the entire population regardless of health status, occupation or income. Entitlements are not dependent on one's ability to pay or how much taxes one pays but by virtue of citizenship hence is non-contributory.

Revenue is mostly collected from direct and indirect taxes which include corporate taxes, Value Added Tax (VAT), Income tax, import duties and special earmarked taxes (e.g., tobacco and alcohol taxes, HIV levy) to finance the health system. Direct taxes are prepayments levied on individuals and firms such as personal income taxes and corporate taxes. Increase in the income tax-rate is mostly dependent on one's income hence making them more progressive unlike indirect taxes whose tax-rate is a flat-rate. In Zambia, a 1% levy on financial instruments like

bonds, treasury bills etc. was earmarked for supporting increasing access to HIV treatment (41) for the entire population.

Sin Taxes are regressive taxes because the extent to which they improve people's welfare is little. For instance, a 3% excise tax introduced on alcoholic beverages was too low to reduce burden of NCDs, reducing consumption and raising revenue (42). Implementing such policy require constant evaluation of expected outcomes for it to be progressive. Hence, earmarked VAT taxes were found to increase inequities between rich and poor who paid the same rate irrespective of their income. Whereas for income taxes, higher income people pay a higher percentage of their income making them progressive (43). Challenges with earmarked taxes may affect the flow of the normal allocation to health as the latter funds can be diverted to other priority expenditures, causing fungibility problems. For instance, MOF may reduce funding to the health sector and allocate it to other developmental sector if donor funds which support health programs like HIV/TB are released (32), and this may affect execution of health program.

Tax-based financing are advantageous because revenue raised cover the entire population and protects against financial hardships especially among the poor. Health services can in principle be accessed and utilized by all hence improving equity and aligning well with UHC goals. However, if government fails to allocate revenues equitably, basic services like drugs, qualified staff, inefficiency in service delivery and poor quality of services may ensue.

The 2018 NHA reported that 39% of the CHE was from general taxes (28) implying that dependence on unpredictable donor funds is still high. If donor funds reduce in the future, Zambia will need to raise more domestic revenues from additional funds from government general taxes or SHI, or else the health sector will be underfunded and OOP will soar higher. We can argue that if general government revenue is high, spending on health will increase and thus reduce the risk incurred by the poor.

3.1.2 Social Health Insurance/ National Health Insurance Scheme

Referred to as the Bismarck model, SHI is a contributory scheme designed to pool funds from the formal sector via payroll deductions or taxes which are mandatory in order to provide health care services to all contributing Zambians based on their health needs (37). Contributors are entitled to a defined benefit health package. NHI was established by law, defining among others, the eligibility, benefit package and rules for the contribution payments (44).

The SHI/NHI was enacted in 2018 and designed to be complementary to the already existing tax-based scheme. The aim was to increase fiscal space for health because the current fiscal space was constricted hence affected funding to the health sector (45) from locally mobilized resources. The Actuarial Report of 2008 deduced that for the NHI to be effective, a payroll deduction of 5% (2.5% employee/2.5% employer) was required. Had this been implemented, citizens would have been overtaxed and other financial challenges ensued. Therefore, the government reduced premiums to 2% (32) where employees contribute 1% and employers 1%. According to MOH website, accredited facilities will provide services to the beneficiaries who include close family members of the contributor.

In principle, NHI is not universal because a small percentage of the formally employed benefit from its entitlements excluding other groups. Consequently, contributions from the formally employed constitute a limited risk-pool and funds only cover the contributing group. This means that over 80% of the population will not be covered for these same entitlements. Therefore, government might step in to pay (or subsidize) for these 80%. This will be additional costs on government as it also remits premia for exempted groups like those below 18 and above 65 years, and the poor (46). A comprehensive Basic Benefit Package (BBP) will thus require subsidization from general taxes to ensure universal financial risk protection and equity.

The proposed NHI in Zambia intends to subsidize the informal sector who will be attracted to join the scheme by voluntary membership. However, Voluntary contributions from the informally non-poor may increase adverse selection thus enrolees may shun it. Therefore, government may cross subsidize to make the scheme attractive. This will cause challenges of resistance especially that the formally-employed pays premium for SHI (through payroll deductions), but also contributes to general revenues that will either subsidize the informally non-poor and exempt the informally poor and other exempted groups. In addition, low contributory rates from the formal sector are unsustainable thus the scheme will not meet it objective. We can deduce therefore that NHI will still rely on subsidies from the general taxes and other arrangements which will affect resource allocation to health.

In Ghana for instance, NHIF (75% from general revenues and 2.5% from earmarked VAT Levy) contributes about 12% of CHE, government taxes contribute 34%, OOP is 36% and donor funds contribute 11%. About 50% of the population were exempted but with no access to services despite membership being free. This was attributed to little or late re-imbursement of funds to the facilities and membership cards not collected. Therefore, providers preferred clients paid OOP to cater for administrative costs incurred.

3.1.3 External Aid/Donor Aid

External aid (on budget and off budget) accounted for 45% of THE in 2018 (28). External aid is fragmented and this causes inefficiencies and duplication of efforts. Programs for HIV/TB/Malaria are usually donor driven via vertical funding while others are horizontally funded. In recent years, External Aid has been reducing thus affecting funding to programs. Jackson A et al, attributed this to lack of transparency and accountability and massive corruption in the ministry leading to misappropriation of funds (47,48). Ineffective coverage of some donor-funded programs influenced services and health outcomes. Managing and coordinating donor funds well will increase investor confidence so that the country maintains the donor support. Otherwise, the country will need to raise more funds domestically through economic growth to decrease external support.

With attainment of middle-income country status, external aid to Zambia will reduce thus affecting medium- and long-term funding to the health sector and government as a whole. Therefore, increasing domestic public funding either through taxes or NHI or a mix will cause people not to rely on OOP payments therefore improve financial protection in the long run.

3.1.4 Voluntary Private Health Insurance (VPHI)

VHI is a scheme where contributors pay voluntarily and is discretionary because it depends on an individual or the employer (43). A member pays premium for specific health services to be provided. Government does not subsize. VPHI accounted for less than 1% of CHE contributions in 2018 in Zambia.

Contributors are mostly from the highest quintile and have higher incomes and less health risks. People in the lower quintile rarely prepay for such schemes and no efforts have been made to extend such schemes to this group. The scheme is regressive because clients pay according to anticipated risk (risk-based premiums) thus it does not contribute to the goals of UHC.

3.1.5 Community Based Health Insurance (CBHI)

CBHI is a private health insurance which is operated by the community where a limited number of local people contribute a small amount of funds to the scheme(49). CBHI cover costs for health services at the local facilities. For instance, in India, they are complementary or supplementary to other health schemes, whereas in Rwanda government subsidizes them (50). The scheme enrols people who are most vulnerable and reaches places where other schemes may not. The scheme increases coverage especially for the vulnerable. However, such schemes suffer from adverse selection, and are not currently available in Zambia. The NHI intends to introduce them so that they cover the self-employed and informal sector. No mechanism is in place yet. One disadvantage is that it widens inequalities if contributions are expensive, voluntary and if the entitlements are not attractive.

3.1.6 Out Of Pocket Payments (OOPP)

Out Of Pocket Payments (OOPP) are direct payment from household income at the time a service is being used and are based on the ability and willingness of a client to pay for the health services. Patients receives services once payment is made. OOP are linked to catastrophic spending which cause impoverishment because not everyone can manage paying services. Therefore, government subsidizes for the poor group by giving exemptions to them(44). This increases coverage to the high-risk group hence protecting them from financial hardships. The removal of user fees enabled people especially the poor to access and utilize healthcare services without incurring catastrophic spending. For instance, the under 5 and above 65 years were exempted from paying OOPP before the user fee removal policy. A study Masiye and Kaonga (2016) found that socio-economic inequalities affects the way OOPE is used (17). Richer people can visit a private clinic and pay OOP while poor people who need the services more may anticipate costs hence not use it, or pay little for it. Despite implementing such a pro-poor policy, government did not allocate extra funding to pay for these services hence services were not availed. In the end the poor and vulnerable still suffered impoverishment. In 2018, OOPE reduced to 10% as compared to 26% in 2009 and 17% in 2012 (28). Though OOP appears to be below the 20% WHO benchmark of UHC, the aggregate figures may hide catastrophic expenditure for specific groups of the population thus requires constant monitoring. Another assumption for low OOP is that people avoid health services if they anticipate it to cost more or perceive it to be of low/poor quality. In addition, Zambia's dependency on external aid may mask the degree of OOP. If Zambia attains middle-income state, external aid will decrease thus increase risk of OOP increasing in the long run. Therefore,

there is need for more sustainable domestic sources which can substitute it. If not, OOP spending will increase. The ZHHEUS reported that people spend on drugs (42%), consultations (26%), transport/food (7%) and other costs (17%) (35).

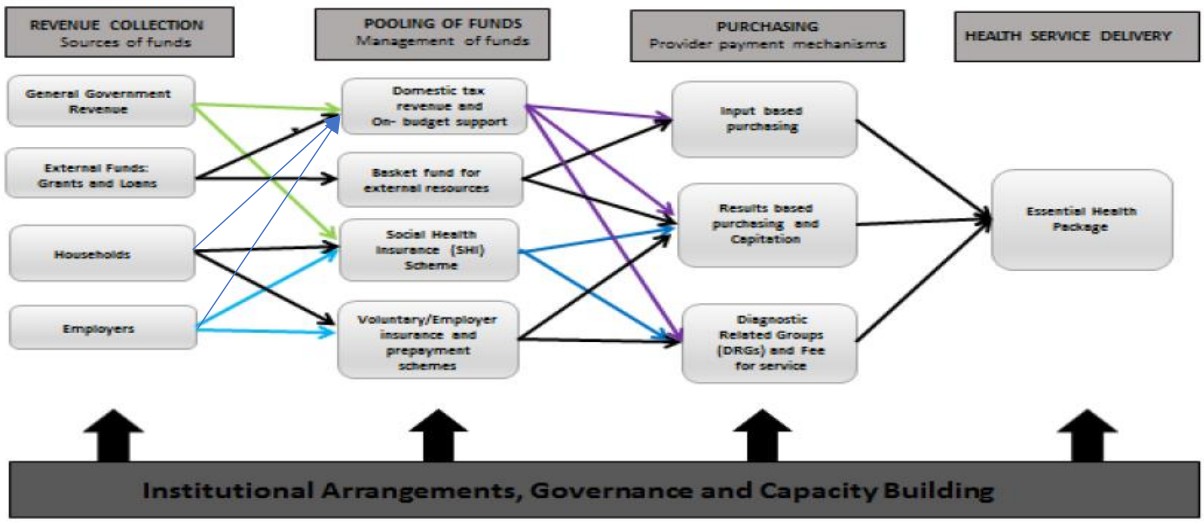


Figure 10: ***Strategic Linkages For Interventions The Financing Arrangements*** *source:*(51)

UHC OVERVIEW

There have been global commitments to UHC approach and governments are making strides to attain the goals by 2030. However, few countries have attained UHC. The 2010 WHO report records that UHC entails that "all persons are able to use needed health services of sufficient quality to be effective, without fear of financial hardship"(52). Health services include prevention, promotion, treatment, rehabilitation and palliation. Thus, government policy tries to adopt different financing mechanisms to answer these policy questions. As stated earlier, Britain uses the tax-based system (Beveridge) to finance its health system while countries like Germany use the social health system (Bismarck) (2). Thailand's health care is financed by three different schemes which have increased population coverage to almost 100% which it has attained in the last 20 years (53,54).

In Sub-Sahara Africa, most countries follow the route of their former colonial powers. For instance, Zambia, Malawi, Ghana, Lesotho use tax-based system but are now adopting other health financing mechanisms to complement/supplement health resources to coverage more of their populations (55).Zambia still faces challenges with financing for health because:

- funds from general revenues are still insufficient because of a constricted domestic fiscal space;
- dependency of external aid is still high
- prospects for increasing fiscal space are not so optimistic because of the slowing economic growth.

Zambia therefore, needs alternative means of financing to reach UHC.

As of 2017, Universal Health Service Coverage Index for Zambia was at 53 (56)(figure 11). The SCI however, does little to explain the quality of care and services beyond the primary care level (57). Attainment of UHC is when the desired outcome of the system are achieved through intermediate objectives and overall goals (58).

Figure 11 shows the UHC service coverage indicator (UHC SCI) for countries within WHO region.

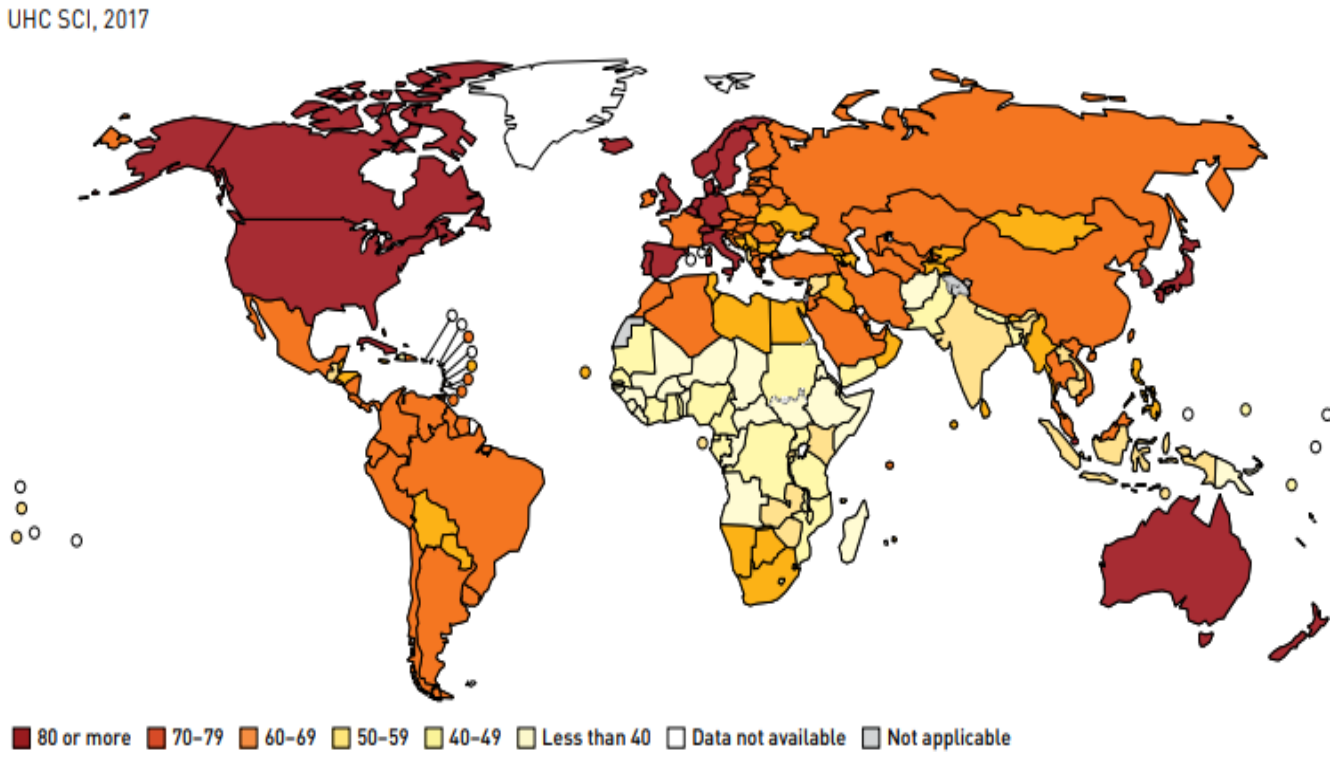


Figure 11: Country-level UHC SCI Values in 2017 varied within WHO regions source https://www.who.int/docs/default-source/documents/2019-uhc-report.pdf

CHAPTER FOUR: DESIGN AND EARLY IMPLEMENTATION OF THE NHIS

This chapter looks at the design and early implementation of the NHIS in Zambia. It describes the Health Financing functions of the NHIS (revenue collection, pooling, purchasing and the benefit package) and then answers the evaluation questions according to the DAC criteria for better understanding of the whole system of the NHIS.

4.1 Description Of The Functions Of NHI Financing Scheme

To ensure that the objectives of the NHI scheme are met, the functions of health financing need to be well designed in tandem with the government financing scheme. Analysis of the NHI will be guided by the functions of health financing, namely Resource Collection, Resource Pooling, Purchasing and the definition of the Benefit Package, following the seven key design features in the figure below (figure 12).

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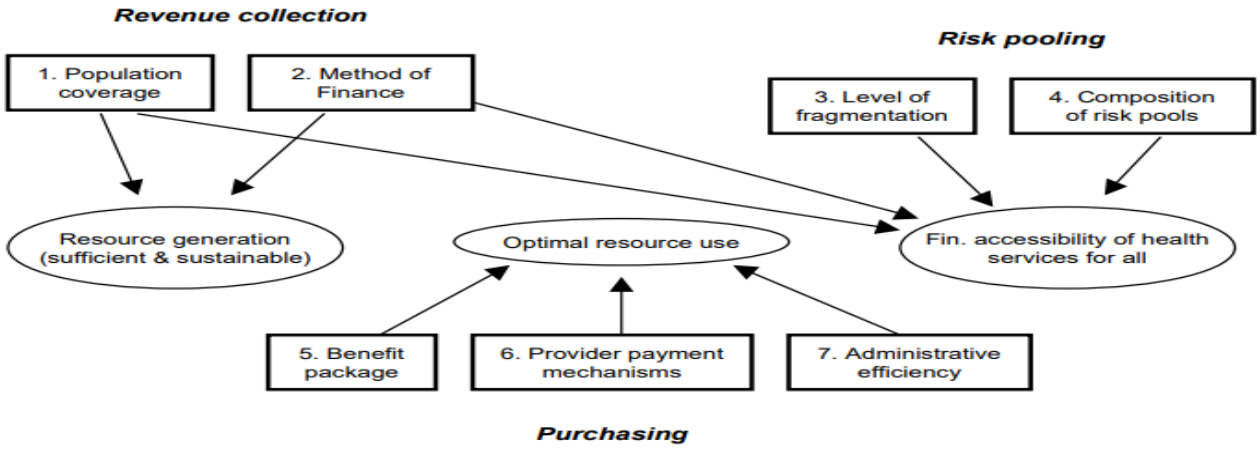

Figure 32: key design issues in health financing sub-functions (4)

4.1.1 Resource Collection

As earlier discussed in chapter three on NHI, the design will not raise adequate funds to cover services and entitlements that the members who contribute should benefit from. Government being a social entity will end up paying for services that the scheme promised to pay using general revenues. In addition, subsidies to the exempted groups will lead government to spend more. Let us understand that part of the exempted group are those below 18 years who constitute about 50% of Zambia's population (59). So, when we include this group plus others, government subsidies will end up covering more than 60% of the population. Not forget the informally non-poor not covered by the scheme will also depend on some form of subsidies. Thus, government (tax payers) will end up paying for:

- costs of all entitlements of formal sector, because the payroll contributions are not sufficient to cover all the promised entitlements.
- subsidies to the non-poor informal sector, who otherwise are not going to voluntarily join the NHI.

- exemptions for the poor, whom you want to join the NHI, but who can't pay, so the government has to pay for them

This sequentially affects resource allocation to health from the already strained government budget. The solution therefore is to increase general fiscal space (FS) so that Fiscal Space for health (FSH) also increases.

According to the NHI Act of 2018, citizens between 18 and 65 years old, employed or self-employed should remit premiums to NHIF. It only excludes the mentally or physically disabled persons who are unable to work; elderly persons above 65 years old; person classified as poor and vulnerable thus government pays for their services although the amounts to be paid is not known (46). This means that coverage of this population will require additional funds to supplement on the scheme. According to the NHI Act 201, those who are exempted will be registered via different government departments like the social welfare unit. However, it is difficult to assess how many poor and vulnerable people have joined the scheme because it is in its infancy. This perceived mechanism lacks the ability to follow-up and know one's eligibility due to poor record management in government departments. Thus, those who have the ability to pay may register in the scheme registers for exemption.

NHI fails to explain how it will include the poor and the informal sector, premiums amount to be paid voluntarily by the Informal sector(figure 13) (29). and it has not given a clear roadmap. As stated in the HF strategy, making the scheme voluntary to the informal sector will lead to adverse selection thus few will register thus will affect fund collection. Also, some may not pay towards the scheme especially if the entitlements are not clear, or they are healthy. There will be adverse selection. Because the risk is too high, government will seek ways to increase revenue collection by overtaxing the already strained population in order to increase FS in order to subsidize for the group. Funding to the health sector will be altered as other ministries equally thrive on general government budget and have priority areas too. In order to increase funding for Fiscal Space for health, the government needs to undertake the following:

1) sustain economic growth and raise GDP: implementing good economic policies and increase domestic revenue to mention a few.

2) collecting more taxes by introducing and collecting social premiums to create more general fiscal space

3) attracting sustainable external funds (on-budget)

4) government budget giving priority to the health sector.

Once FSH increases, we can argue that population coverage will increase, services will be available and thus reduce inequity and financial hardship, thereby reduce catastrophic spending by the most vulnerable.

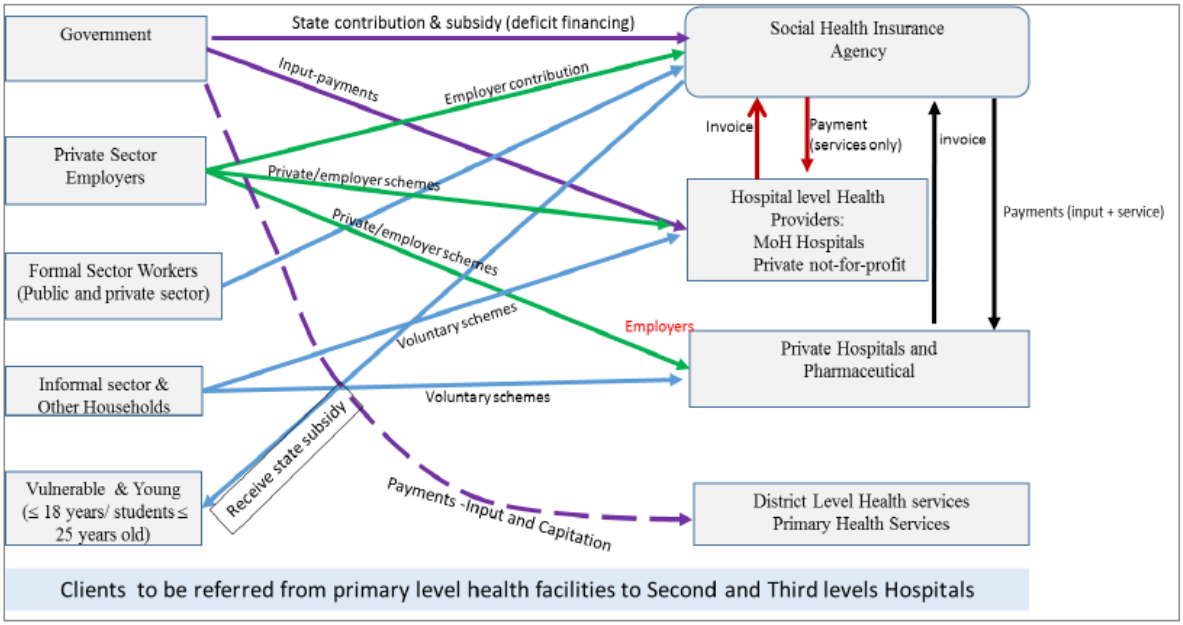

Figure 13: illustration of proposed flow of funds of the NHI (29)

4.1.2 Resource Pooling

Zambia's labour market has a high informality. This poses a challenge of pooling funds for this sector. This will affect pooling of funds because a small portion of the formal sector contributes to the pool. As mentioned earlier, remitted funds pooled from the formal sector is not even sufficient to cover costs of the comprehensive benefit package they are entitled to.

Moreover, proposed voluntary contributions from the informal non-poor will not be adequate as they will need subsidization to counter adverse selection. Alternative means to finance this group will require non-contributory scheme to increase coverage. If the size of the pool is large and diverse, redistribution capacity and efficiency will improve. Alas, the NHI design does not clearly state the pooling mechanism that will cover the informal sector (which is over 80% of the population).

The formal sector workers and dependents benefit from entitlements offered by the generous BBP as well as the poor who do not contribute in the scheme but are entitled to the same BBP. This is unsustainable as the cost for service will be very high for government and NHIMA to cover. The only alternative to get services will be to pay for OOP at either private clinics or under the table services in public facilities because of underfunding as discussed.

To make the NHI scheme effective, large pools rather than smaller pools are required. Mixing contributory and non-contributory schemes is required so that pooled funds can cover both the formal and the informal sectors respectively. This will maximize redistribution of prepaid funds. The current tax-based scheme can subsidize the lower income and vulnerable populations, who have a higher risk, and then integrate it with the contributory scheme (NHI). This will ensure that pooled funds cover the entire population and benefit from the same

entitlements. This can work provided the contributions made by different schemes are sufficient to pay for entitlements and will not be an added cost on the government.

In addition, harmonization and standardization across pools should be done in key areas like the benefit package (BP), contracting arrangements especially with the private/public providers, provider payment mechanisms (PPM) and remuneration rates, information management systems(60). For example, the NHIS is meant for non-salary recurrent costs of service provision whereas salaries are paid for by the government. The consequence of this system is that public and private providers are paid different fees by different institutions despite conducting the same service. This increases casualization (process of the utilization of workers on nonstandard work arrangements in place of full-time permanent employment) of the private providers. In other NHI designs like Thailand, Germany and the Netherlands, salary costs are included in the fees that are reimbursed through the health insurance.

4.1.3 Purchasing and Resource Allocation

Purchasing is the use of pooled funds on health care providers which should be purchased or allocated in an allocative and technically efficient way with the right incentives for quality (61). Since the abolishment of CBOH, the MOH took up the role of provider-purchaser of health services. It pays for salaries of governmental services and the MOF caters for other running cost from government budget. The design of the NHI does not explicitly explain how it will purchase services or complement what the MOH is paying and also pay for services provided for by accredited facilities. The NHI needs to tackle the cardinal questions of purchasing; for whom to buy, what to buy, how to pay and what price to pay. Strategic purchasing is advocated because it uses available pooled resources optimally to attain health system goals.

Zambia's health system is highly fragmented and is characterised by duplication of tasks therefore have a high-cost on service delivery. Integrating services can reduce costs on administration and meet health needs of the people (62). Countries like Thailand and Mexico reduced fragmentation to reduce inefficiencies, improved equity for service utilization and reduced catastrophic health spending. In Mexico, legislation was passed to increase budget allocation from 4.8% of GDP to 6% (63) and introducing innovative financing schemes to leverage taxation, employer contributions and individual payments. This helped the country progress swiftly towards UHC. Therefore, reducing fragmentation and increases the scope of cross subsidization thus enhancing strategic purchasing of health services through efficiency and equity.

Provider Purchaser Mechanisms

Provider payment mechanisms (PPM) in the designed NHIS to include fee for service, Diagnostic Related Groups and Capitation (Table 5). PPMs need to create incentives that influence provider behaviors so that there is improved access, quality and efficiency of health services. However, the NHI does not resonate more to this because, operational funds from government and other cooperating partners will still purchase services for primary care level and the gate-keeping principle is less significant (64). In addition, staff in accredited public hospital will get salaries from general revenues.

The NHI tariffs and benefit package (2019) highlights that provision of services is intended to benefit those referred from PHC level to the higher level. This makes it not different from how the system was before introducing NHI. However, clients will continue accessing services at secondary level where perceived better-quality service is offered hence intended population will bypass the PHC levels and pay at point of service. Hence, defeat the purpose of financial protection because the poor and vulnerable will continue incurring costs on health services causing impoverishment. In addition, it will increase demand for funding to purchase services at the higher levels, while the PHC level will continue attracting inadequate funding from the government budget. A proper referral mechanism is required to ensure that patients who need services at the hospital are screened beforehand. NHI will need to introduce gate-keeping mechanism which will only be effective if primary care level is adequately functioning, staffed and funded. Otherwise, health services will be overused and become costly in the long-run.

The NHI intends to introduce capped fee for services in order to support districts. This will motivate providers so that they adhere to guidelines and meet their performance targets (64). Accredited tertiary and Second level hospitals are incentivized with a capitation rate for inpatients and out patients. However, no clear mechanism on how services will be purchased from accredited private hospitals.

Table 5: Provider Payment Mechanism for NHI in Zambia (64)

Provider Payment Mechanism	**Services covered**
Fee for service	services like use for dialysis, CT and MRI scan, other imaging services, CATHLAB interventions, Nuclear medicine and blood products will be under fee for service. a capped fee-for-service as incentives payments for adherence to performance targets, appropriate referrals and quality targets will be considered for district hospitals.
Diagnosis Related Groupings	bundled fee that will include the cost of drugs, investigations, medical consumables, non-clinical and Capital maintenance costs.
Capitation	providers are paid a pre-determined fixed rate to provide a defined set of services for each individual enrolled with the provider for a fixed period. These include registration, consultation, investigations, deliveries, surgical procedures, in patient services, referral services, medical consumables, non-clinical and capital maintenance costs.

4.1.4 Basic Benefit Package

The proposed Basic benefit Package (BBP) is a list of services that the NHI plans to cover and it was defined with prior consultations with MOH and other stakeholders (see Table 4). It covers a wide range of services for the beneficiaries (64) which can only be accessed from district hospitals, central provincial hospitals, teaching and specialized hospitals which are accredited. Services include standard, high-cost, premium and fast-track services, Registration, consultation, hospitalization, intensive care unit, major and minor neonatal and maternal care, eye care services, oral health services, physiotherapy, blood and pharmaceutical products (29). However, some services on the BBP are provided in public facilities from general revenue. The NHI only states that accredited providers will be paid for services provided for in the BBP. For instance, it has limited OPD visits at secondary and tertiary hospitals to 3 visits. Thereafter, the patient pays for himself/herself. Other services that the BBP does not cover are covered by either government revenue or OOP for clients who can afford. This will mean that still government will end up purchasing for services that NHI fails to pay because NHI will not raise adequate funds to cover everyone who is entitled. A clear needs assessment should to be undertaken so that a BBP which is efficient is produced.

Services (or costs) that are excluded include salaries for providers (and neither does not it include direct salaries for the private sector), public health services like immunizations, cosmetic surgeries to mention a few. For the private facilities, services are reimbursed at higher rates than public facilities which may mean that salary costs are indirectly included in fees.

Table 4: PROPOSED NHI BENEFIT PACKAGE (64)

S/N	.Programme / Services	Description
1	OPD Registration and Consultation	This covers for costs related to Registration and Consultation of patients
2	Pharmaceuticals and blood products	It covers for the costs of medicines prescribed in Generic names and medical consumables as per the National Essential Medicines List. It includes a medicine list recommended from time to time to meet members evolving needs. The benefit package provides for whole blood were indicated as part of the treatment protocol.
3	Investigations	It provides for the costs of Investigations and Diagnosis tests as per the Investigation List in the benefits package.
4	Surgical Services	It covers for the cost of Minor, Major, Orthopaedic, ENT and Diagnosis surgical procedures as per the listed interventions and tariffs. The surgical costs will cover for anaesthesia costs; disposables; medicines and medical consumables, dressing and other medical expendables used during the operation.
5	Maternal, New-born and Paediatric Services	It provides for cost of deliveries both normal and caesarean, obstetric and gynaecological interventions, New-born and paediatric services as listed in the package

6	Inpatient Care Services	This covers for the costs of daily patient admission in private or ordinary ward, Intensive Care Unit, High Dependent Unit Services for the daily admission costs depending on the level of the facility and the agreed daily rates as per the tariff schemes, Investigations, Nursing care, Oxygen therapy, Medicines and Medical Consumables dispensed while the member is admitted. At 2nd and 3rd Level facilities, Diagnosis related Groups (DRGs) will be used to pay providers for inpatient conditions listed. DRGs are a bundled cost for each condition that include Drugs, investigations, medical consumables, Non-clinical costs (catering, laundry, cleaning and disinfection) and Capital maintenance of building and equipment
7	Physiotherapy and rehabilitation services	This is provided to inpatients and outpatients where the facility has been accredited for these services.
8	Vision care and Spectacles	The Fund also pays for visual corrective spectacles to the member once for every three years. Vision care services have been included in the package and include interventions for conditions such as Cataract, Glaucoma and trauma
10	Dental and Oral health Services	It covers for inpatients and outpatients related to oral health as per the listed interventions and tariffs. This includes dental conservation surgeries (e.g. dental filling), gum diseases, dental extractions and root canal treatment
11	Cancer/Oncology services	A limited number of investigations and interventions have been included for cervical, prostate, breast and Colon cancer.
12	Mental Health	It covers the cost of chronic conditions such as schizophrenia and affective disorders such as Mania and depression and other conditions as the NHIS will determine from time to time.
13	Medical / Orthopaedic Appliances and Prosthesis	It is provided for supportive orthopaedic and medical appliances that are determined by the NHIS from time to time.
14	Services that require Pre-Authorization approval	CT – Scan (with or without contrast), MRI, Dialysis services, CATHLAB services- angiogram, balloon & Stenting, Pacemaker placement, Orthopaedic Implants & Prosthesis, Spectacles, HDU and ICU beyond stipulated period in the schedule

Administrative efficiency

Apart from paying services for health, NHI also supports administrative and managerial expenses which include allowances for staff and board members of NHIMA. Only 10% of annual received funds can be used on administration of NHIMA according to the NHI Act (2018). However, there are no clear estimates on overhead costs because the system is not fully operational. Due to limited data on the administrative cost, it was difficult to assess its efficiency. It is important to note that, overhead costs exist both on purchasing and administration of claims thus will increase the burden of work on the providers.

4.2 Discussion Of The NHIS According To The DAC Evaluation Criteria

This section answers the questions in relation to the NHIS in Zambia using the DAC evaluation criteria. Table 6 below contains questions that the criteria will analyse.

TABLE 6: DAC CRITERIA QUESTIONS APPLIED TO THE NHI

1. Relevance	2. Coherent	3. Effectiveness & Equity	4. Efficiency	5. Impact	6. Sustainability
Why was the NHI created and what were the objectives?	**How will the NHI fit in other policies, Health Financing Arrangements, Private health insurance without overlaps, contradictions, administrative difficulties**	**Is NHI achieving its objectives and how do the authorities intend to achieve them so that they are effective?**	**How are services purchased from the NHI? What does the system spend on administration of the scheme?**	**What difference will the NHI make at the HS goals (health status (morbidity/ mortality; responsiveness; and important for insurance: risk protection or prevention of catastrophic expenditures).**	**How long will the benefits last and how will they be sustained?**
What problem was it supposed to solve?		**How will the scheme reach full coverage?**	**Who are the major stakeholders and what are their position on the scheme?**	**How will NHI impact the contributors, vulnerable, labor market, fiscal context (FSH), SDG Goals?**	**What alternatives are there to meet the general objectives of the Health Systems?**
		How will it include the poor or the informally employed?	**What does the scheme pay for: has the BBP been costed and does it satisfy criteria of cost-effectiveness? (Allocational efficiency)**	**How will it impact the Health System as a whole?**	**How can the barriers be reduced to effective service use and improve financial protection for the poor, informal sector while strengthening the foundations of the ongoing improvement?**
		How will it combat poverty levels at HHD level and equity?			

4.2.1 Relevance

In the past five years, health allocation has been below the 15% Abuja commitment (28) though in absolute numbers from 2016 to 2020 shows an increase in allocation (figure 14). The NHIS was intended to provide additional resources to the already existing tax-based arrangements so that more people are covered and access health services at an affordable cost. Irrespective of one's social economic/employment status so that the gaps in inequality are reduced and there is financial protection (45). If majority of the population does not have insurance cover but are covered by the (underfunded) government services, paying OOP for health care, either through informal fees at public facilities, or through private expenditures in pharmacies or from private or informal providers will increase. Despite Zambia's OOP pegged at 10%, there is need to ensure that it is sustained below the 20% benchmark and it can only be achieved if current allocation to health (and consequently access and quality of services) are sufficient; and that high dependency on external aid is minimized. This will require raising domestic revenues.

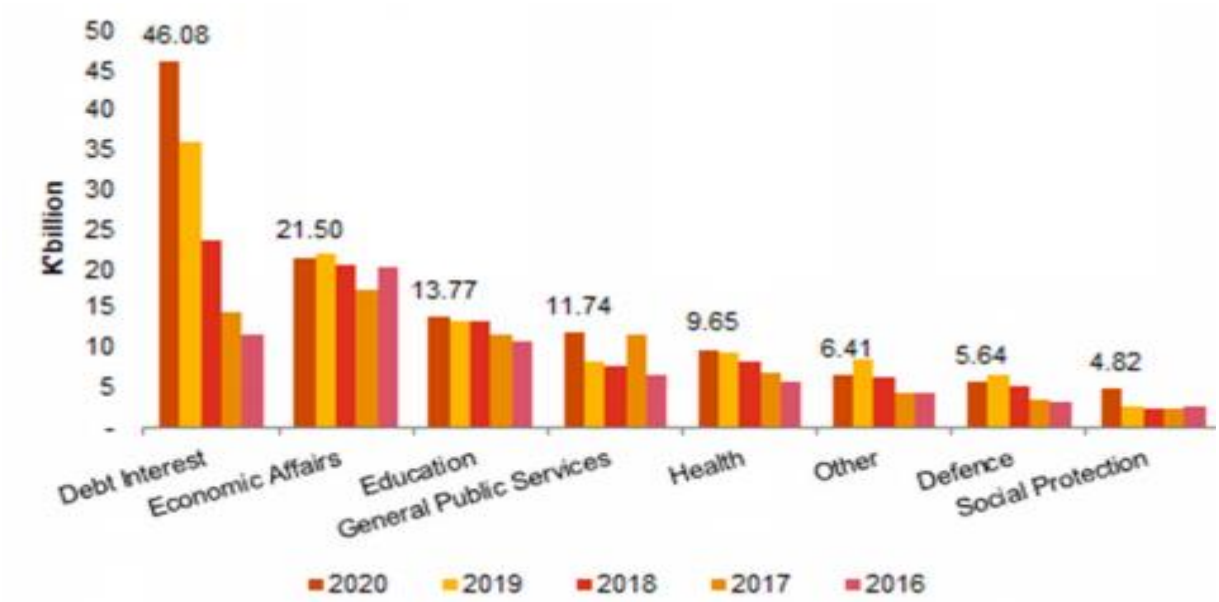

Figure 14: Social Sector Budget Expenditure 2017-2021 Source: Ministry of finance

The relevance of the scheme can thus be questioned in that funds pooled are very small and entitlements only benefit the ones who contribute to the scheme leaving the vulnerable. The high informality may cause the scheme not to attain its objectives as well as UHC goals. Additional revenue from government will still be required to cover even the entitlements for the formal sector and its generous benefit package, as their original contribution rates have been lowered to 1+1%. Therefore, funds meant for the poor risk to be utilized to service the formal sector.

4.2.2 Coherent

NHI received priority in the Seventh National Development Plan (7th NDP) 2017–2021, the National Health Strategic Plan (NHSP) 2017–2021, and the Health Financing Strategy (HFS) 2017–2027 (29). All these policies are in accordance with the SDGs 2030 which aim to promote health through UHC (24). The NHI was approved by an act of Parliament in 2018

under Statutory Instrument (SI) no. 63 of 2019 despite receiving resistance from some key stakeholders including the Labour unions. The act highlights specific responsibilities for employees and employers on how the Fund will be set up. It however leaves out how reporting to employers will be done.

While the scheme is mandatory for formal workers and has the intention of being voluntary to the informal sector, there are arguments that if the scheme does not have attractive entitlements, they will opt out of the scheme. This will affect funds raised through the scheme.

The other argument is that the scheme may increase the risk of fragmented pools because it allows for people to enrol in other schemes. So if the beneficiaries are not attracted to it, they may contribute to other schemes like PHI alongside the NHI which they do not use. The NHI scheme needs to be clear on how it will function in relation to other schemes, and in particular in relation to the tax funded government revenues. In addition, it should state how it will function so that it does not destabilize the labour market because employers will evade taxes or increase informality or casualization (65). According to Wagstaff A, it may affect social economic status and impact negatively on household poverty and financial protection. The formal sector may be protected from catastrophic spending but the informal, poor and vulnerable will be gravely affected.

Financing reforms like NHI may also lead to lower allocations towards health from the general budget if there is substantial fungibility in health financing (66). This can affect allocation of resources to public health, PHC and other programs. For example, government reduced funding allocation from the general budget because the Ghana's NHIF raised more funds for the health sector in its initial phase (67). If the NHI requires additional funding from general revenues (1. for exemptions of the poor, 2. for subsidies for the non-poor, and 3. to compensate for the low contributions of the formal sector that are lower than the generous BBP needs), it may reduce funding to other social sectors which will exacerbate low education level, unemployment and ultimately poor socioeconomic status at household level. This may affect other social determinants of health in the long run.

4.2.3 Effectiveness and Equity

The NHI is effective in increasing domestic resources but not in increasing allocation to health. UHC entails that all people have access to the health services they need, when and where they need them, without financial hardship. However, the NHI scheme does not explain properly how it intends to attain full coverage, provide equity and financial protection for the informally employed, the poor and vulnerable in order to attain UHC. A press release on progress by NHIMA for Quarter 1, 2021 highlighted that 900,000 plus members have registered from a target of 3.4 million since its inception raising an estimation of K800 million (US$ 46,242,400) (68). About 70% are in the formal sector where public sector accounts for a larger share than the private sector. Accredited facilities are 165 where 97 public facilities, FBO/NGOs 39 and 29 private facilities (69) (70).

Majority of the population is informally employed therefore it will not cover even half of the population. Though it intends to introduce new schemes like CBHI, voluntary schemes may not increase coverage and provide equity: the informally employed, the poor and vulnerable

may not join the scheme because of adverse selection. Therefore, government can either subsidize or enforce regulations. Most countries either subsidize premium for the poor and vulnerable or exempt them from paying premiums. Rwanda formalized their CBHI for it to show progressivity. In Ghana only a small amount is collected from voluntary CBHI (< 5% of income of NHIF) because very few contribute to it due to low quality service delivery, lack of information on entitlements as well as claims not being reimbursed on time. The main source for funding of Ghana's funding to the NHIF is through special VAT tax.

Also engaging the private sector in service provision may only benefit the urban areas where such facilities are concentrated, thus widening disparities with rural areas. Increasing resource pooling like introducing non-contributory scheme like tax-financed will increase coverage and make the health system progress towards UHC. However, the outcome will depend on additional FSH. So, if general revenue is inadequate, allocation to health will reduce. The solution thus lies in increasing general government revenues so that FSH increases.

4.2.4 Efficiency

The NHI act states that the scheme should not disburse more than 10% of the funds it collects in a year on administrative activities. This defies how the NHI operates as it has very high administrative costs on both provider-side and purchaser-side. Though it is in its early stages, that the scheme is expected to pay for follow-ups on clients, communication strategies, claim forms, stationery, reimbursement of claims to mention a few. The generous benefit package may affect efficiency if the health needs of the population are not properly assessed based on health needs, despite satisfying the objectives of the UHC which entails that it should be comprehensive. This can cause provider and financial constraints like it happened in Ghana where services were not paid for timely and other services were not provided in the inception of the NHIF (71). Providers rationalized services causing increased waiting lists, queues, informal payments, prioritizing those paying for the service (OOP), lack of medicines, referral to private clinics, etc.

Figure 15 from the WHO 2010 Report shows the leading causes of health inefficiencies in the health sector. To reduce such inefficiencies, there is need for policy makers to streamline the BBP according to health needs and available resource to make it cost-effective.

Ten leading source of inefficiency
1. Medicine: underuse of generics and higher than necessary price.
2. Medicine: use of substandard and counterfeit medicines.
3. Medicine: inappropriate, irrational and ineffective use, incl. pat. Compliance and self-medication
4. Products and services: overuse/supply of equipment, diagnostic services and procedures (MRI, CT scan, CS,…).
5. Health workers: inappropriate or costly staff mix, unmotivated workers, inefficient use of time, inadequate remuneration.
6. Health service: inappropriate hospital admission and length of stay, gate keeping system.
7. Health service: inappropriate hospital size and low use of infrastructure.
8. Health service: medical errors and suboptimal quality, get care right the first time.
9. Health system leakages: waste, corruption and fraud
10. Health intervention: inefficient mix and inappropriate level, BBP.

Figure 15: 10 leading sources of Inefficiency Source: World Health Report 2010

The other issue is that accredited facilities in the private facilities may fear losing revenue thus may increase services offered in the BP (67,72). The absence of a purchaser-provider split may cause duplication of services which can lead to widening inequity gaps which may affect the rich quintile as well. In Ghana, duplication of duty led to some facilities not to offer services to those who were on the scheme causing increased OOPP and a rise in informal payments(67). In addition to that, the NHIS proposes several provider-payment methods to purchase health services from providers (64). Budgets and salaries are covered by the government and respective private institutions. However, prospective payment methods like DRGs are good for controlling expenditure growth but not productivity (73). For instance, capitation lowers administrative costs and creates incentives for controlling health care costs, thus increasing efficiencies. However, challenges may ensue because the scheme does not factor in Gatekeeping at primary level hence, most clients may end up bypassing referrals and directly go to hospitals where they can pay F4S and DRGs (74).

Retrospective payment methods are good methods for productivity

though they may lead to a high expenditure growth. For example, unregulated F4S may lead to supplier induced demand thus escalate the cost for health care services. In Ghana, late disbursement of funds led to providers charge for health care services so that they can get their incentives, moral hazard increased demand for health services especially for free or subsidized services (75). To avert this, some PPM like F4S and DRGs can be used to pay for specialized services not covered by the BBP because they are retrospective. In addition, introducing new innovations of financing like PBF/RBF may steer productivity among providers and health system targets can be met. This can promote efficiency and eliminate waste.

4.2.5 Impact

It is difficult to assess the impact of the NHI because it is less than four years in operation, and latest NHA data available are from 2018/2019. According to the act, it aims to ensure that

100% of the population is covered by the scheme so that they access health services. In its current design, this will not be achieved unless other aspects are considered. Currently, the scheme accredits all health providers who have skills to provide quality services. If they are not accredited, enrolees will not contribute and utilize health services. This will negatively affect resource generation in the long run because funds raised will be insufficient to cover all groups (formal, informally employed and the poor). With problems of economic growth, allocation to health at 7% from government revenue, funds will not be adequate to meet NHI objectives. Improving economic growth is the solution to aid the goal of the health system in addressing the health equity, responsiveness. Therefore, it may depend on the FS and priorities given in the budget, and financial fairness, with the hope of increasing revenues, improve equity and efficiency.

Information dissemination about the scheme is vital because it guides policy reforms. However, lack of information on the scheme may cause few people to register which may have an impact on resource generation. Therefore, healthcare providers, policy makers and insurance regulatory agencies need to devise reforms for monitoring and quality assurance. For instance, NHIMA and MOH can conduct surveys, interviews and create a transparent communication channel to assess perceptions of the scheme. This may lessen user expectation and experience at the health facility.

Poor responsiveness may affect utilization of services and effectiveness of the intervention in the long run (76).The impact of the scheme on the health system is of great importance to policymakers though may take a long time to assess the impact of the proposed scheme**.** It may take time to clarify many issues.

4.2.6 Sustainability

NHI seems to be hard to sustain especially that Zambia relies heavily on donor funds. If donor funds are reduced or removed, OOPE may increase. This will also affect PHC which accessed by almost two-thirds of the population and is grossly underfunded. The vulnerable will seek for services at hospitals which offer more expensive services compared to PHC level. As discussed earlier, the poor are still subsidized by government whereas NHIMA does not subsidize them. If the BBP is too generous like the current one, and not based on costed health needs, it is poised to be unsustainable.

As stated earlier, collection of funds from the informal group through voluntary means is unsustainable because of adverse selection. Examples from Ghana show that collection of premia from the informal sector was challenging and that most enrolees did not re-enrol in the scheme which led to high dropout rate(72). Policy reforms on NHI should consider introducing mandatory contributions from the informally-employed or cover this 70% group by non-contributory funds (77). This will increase health protection coverage as evidenced in Thailand (53). In addition, government should put measures to increase domestic public resources by increasing GDP, increasing FS and prioritizing for health in the budget which corresponds to the Abuja commitment.

Another area to focus on is the informalization of the labour market where studies have shown that health insurance may cause a gradual increase in the informal sector (65). Wagstaff argues

that if incentives are not benefitting the contributors to the scheme, it can lead to informalization of the economy, that can affect raising of tax revenues by the government. To curb this, polices should ensure that there is proper linkage between contributions to benefits for the groups, improvement in quality of services, and redistribution of financing arrangements through general taxes which will reduce distortions in the labor market (65,78).

Some stakeholders are skeptical about the NHIS because it may increase the cost of doing business and negatively impact the private insurance industry especially that most people who are formally employed subscribe to other health insurance schemes. Eventually they may opt out of the scheme and opt for one offering lucrative entitlements. So, information dissemination and involvement of the community and other stakeholders is also vital for sustainability. Most importantly is that the benefit of the entitlements should be advantageous to the people so that they willingly join. This will increase enrolment, trust in the system and eventually increase utilization of services by the people especially the vulnerable. NHIMA needs to employ adequate and qualified staff to run the fund. Using staff at accredited facilities for instance to process claims and collect data may prove to be unsustainable as there are staff shortages in most public institutions. This may cause an overburden on the already stretched workforce thus affect service delivery at the institutions. In Ghana, the authority had to increase number of claim assistants because the scheme became overwhelmed with unpaid claims(79). This had an impact on transparency and accountability of the scheme thus leading to mistrust.

Good health means a child will learn and an adult will earn. If the scheme is not sustainable, it will not offer financial protection and people will defer treatment or not even seek for it. Or it will cause the already low OOP expenditure to increase as well as household catastrophic health spending, hence it will affect their health and livelihood.

CHAPTER FIVE: SUMMARY CONCLUSION

5.1 Review Of Lessons from Countries Implementing NHIS: Ghana

This chapter reviews lessons from Ghana. Ghana was selected because of similar socioeconomic status, disease burden and fiscal context that both countries share. Zambia can learn from the pros and cons of designing and implementing NHI.

Table 7: NHA's, 2019 COMPARING GHANA AND ZAMBIA, WHO database

Indicator	Ghana	Zambia	Observations
CHE/%GDP	3%	5%	Zambia spends more of its GDP on health
CHE in I$ PPP CHE in current US$	190 75	190 69	Similar Similar
Domestic External	89% 11%	56% 44%	Zambia has a much larger dependence on external funds
Domestic GGHE/%CHE	40%	40%	Similar (domestic public sources: this is the domestic part of the blue box)
Domestic GGHE/% GDP	1%	2%	Zambia spends also more of its domestic government resources on health. The aim for this internationally is to reach 5%.
OOPE/%CHE	36%	10%	Much higher in Ghana
GGHE/%GGE	7%	7%	Same share of the government budget spent on health
Compulsory financing arrangements /%CHE	46%	61%	Greater share of pooled funds in Zambia (but probably mainly due to external contributions). See the difference with the line GGHE/%CHE: in Ghana external part is 6% of pooled funds, in Zambia it is 21%.
SHI/%CHE	11%	0%	Of these 11%, 72% comes from an earmarked VAT tax, and only around 20% comes from payroll contributions (in fact SNITT contributions that have been transferred to the NHIF). The SNITT contributions were meant for pensions.
GGE/%GDP (General fiscal space)	21%	30%	Zambia does better in terms of general fiscal space, but again, part of this is on-budget funds from external sources.
GDP/capita (2019 US$)	2200	1300	Ghana is richer than Zambia

5.1.1 The Case of Ghana

Ghana implemented the NHIF in 2003 with an objective to: "(…) to assure equitable and universal access for all residents of Ghana to an acceptable quality package of essential healthcare"(80). It aimed to replace health user-fees with a pro-poor health insurance scheme. Strong political will during the 2000 general election saw the scheme become operationalized in 2014 (81). The design was pluralistic so that services offered cover the entire population. OOP fluctuated substantially and in 2018, it was at 38%, higher than Zambia. THE as share of GDP rose to 5.4% in 2013 but has since reduced in recent years (see table 7).

5.1.2 Revenue Collection

Population coverage

Membership into the scheme is mandatory for those in the formal sector and deduction are done via payroll. The informal sector's contributions were originally based on people's income, but in practice have become a flat contribution. The scheme exempts the pensioners, under 18 years, over 70 years where both parents are members and indigents (67). Successful early implementation saw an increase in enrolments into the scheme resulting in increased utilization and improved health outcomes. For instance, enrolments increased from 6.6% to 45% in 2008 compared to Tanzania whose enrolments was only 1% upon implementation of the scheme (82). A 2.5% VAT tax was introduced to cover all exempted groups which kept growing. This contributes about 75% towards the NHIF while CBHI (or voluntary contributions from the informal sector which is a flat rate contribute) about 5% of total income for the NHIF (see table 7).

Method of payment financing

The NHI is governed by NHIA and funds are pooled in the NHIF which contributes about 11% towards the CHE. The main sources of funding is through earmarked VAT Tax supplements to the sector (67). Ghana is a success story for most LMICs because it has managed to raise revenue, pool health and financial risks and purchasing of services from the public and private providers while taking into consideration plans to attain UHC. And it has reduced OOP payments from 56% in 2002 to 38% in 2018. However, the success is not based on NHIF alone but contribution from other schemes like general revenues allocations which account for 33% and OOP Payments counting for 38%. Donor dependency is lower in Ghana (at 12%) as compared to Zambia (at 45%). This may be the reason as to why Zambia has a lower OOP payment of 10% compared to Ghana.

5.1.3 Resource Pooling

Level of fragmentation and composition of pools

Ghana's NHIF has a broader tax-base (4) and it contributes about 12% of CHE (75% is from general revenues: 2.5% payroll deductions and 2.5% VAT levy). This gives chance for cross subsidization by enrolling contributors and non-contributors in the same pool. Poor households are partly or fully subsided by taxes and pooled donor funds. Levels of fragmentation are more at district levels where premia from informal sector is paid so that the scheme assumes risk-equalization in order to allocate funds equitably and evenly (82). If not, disparities among groups may widen leading to increase OOP spending, and risk cross-subsidies in the overall health system therefore delaying progress to UHC. In recent years, people especially those in

informal were not renewing their registration due to perceived lack of quality service provision of health services. This caused an increased OOPE because providers preferred to be paid from user-fees. Zambia's OOPE nay appear low due to the fact that donor funds account for a large portion of health expenditure. If donor funding is reduced, OOP may also increase.

5.1.4 Purchasing

Benefit package

Over 95% of health needs are included in the NHI benefit package for Ghana and providers are accredited by the authority. Ghana's benefit package has been criticised for being so comprehensive and very expensive for the NHIF to afford. In facilities, most services are not available hence providers end up formalizing OOPP (83). Delayed payments of claims also affect service delivery. Policy makers should design a BBP which will not bankrupt the NHIF.

Payment mechanism

Ghana's scheme does not pay for salaries for health workers nonetheless mechanisms like capitation, F4S and DRGs are used to pay for services. According to Abiiro G.A et al, capitation were used for OPD payments at primary health level, F4S for emergency services and DRGs for Inpatient referred to higher level (84). However, costs attached to each mechanism may need changes in policy for PPMs. In 2015, Ghana implemented capitation which had cheaper costs then actors rejected it. Despite the rejection, Ghana is still advocating for capitation because administrative cost is cheap and it promotes provider efficiency.

Administrative efficiency

In its inception, the scheme raised a lot of funds and employed more staff and decentralized the system to districts. Evidence showed that OOPS reduced and access to health services for the poor and vulnerable increased. However, gaps in administrative operations like late payment of claim forms and poor-quality service delivery. For instance, in 2008, claims were unpaid for over 4 months (67). Currently, claims are sent directly to providers instead of district health insurance schemes to ensure transparency and prevent fraud. Though this has led to backlogs of claims.

5.1.1 Governance and transparency

The scheme received high political will and led to its operationalization in 2004. Other stakeholders supported it though it lacked community participation because it was more politically driven. Christmals D. C and Aidam, K argued that the role of technocrats was overshadowed by the politicians therefore it affected the design and implementation of the scheme. For instance, enrollment reduced to 41% due to delayed disbursement of funds, corruption, lack of transparency, mismanagement of the funding and weak institutional systems (71,79).

In summary, Ghana's NHI is a mixed story on implementation of NHIS which still faces challenges in safeguarding equity and financial protection. However, robust policies have seen Ghana progress positively towards UHC through a number of different ways. Zambia can learn from Ghana what worked and particularly what did not work when implementing NHI.

CHAPTER SIX: FINAL DISCUSSION, CONCLUSION AND RECOMMENDATIONS

6.1 Final Discussion

This section discusses major findings which are deliberated according to specific objectives**.**

1. **To describe the health system and its financing arrangements in Zambia and their challenges and complementarity.**

Several countries especially LMIC have adopted different financial arrangements as a strategy to mobilize additional domestic resources for health. Zambia is among the countries that have introduced NHI as a strategy because the allocation of funds to health from general revenues kept dwindling. Findings show that the allocation to health in 2018 was at 7% which is below the 15% Abuja commitment which African states agreed to. More importantly, donor funding constituted 45% of health expenditure, which may have kept OOP low at 10% of expenditures, but remains a vulnerable dependency. OOP may rise when donor funds are withdrawn. Domestic revenues accounted for less funding compared to external aid. Inadequate fund allocation to health will mean low-quality health services, inefficiencies, and inequality of service delivery. Thus, any financing scheme should be innovative so that it protects people from financial impoverishment. Sadly, a large share of allocated funds is spent on emoluments thereby affecting services, especially at the PHC level. To increase domestic revenues for

health (or fiscal space for health), Zambia would depend on one or a mix of the following options:

- sustained economic growth (GDP rise);
- creating more general fiscal space by collecting more taxes; introducing and collecting social premiums; and attracting sustainable external funds (on-budget);
- giving priority within the government budget to health (this step corresponds to the Abuja commitment).
- increasing the efficiency of spending, by good Public Finance Management; defining a realistic and cost-effective BBP; preventing wastage of resources; designing PPM's with the right incentives.

If the government is unable to increase fiscal space for health, either the health system will be underfunded, and an increase in OOP will result because people will be forced to pay OOP. Like many SSA countries, Zambia has proposed to create an NHI, to attract additional public resources.

2. **To critically discuss and evaluate the new NHI policy proposal that is being implemented to address health financing challenges in Zambia.**

The NHI aimed at increasing additional funds to the existing financing arrangements by collecting revenue from the formal sector through mandatory payroll deductions of 2%. The funds collected should cover the entitlements for the beneficiaries and their dependents, and pay for the generous basic benefits package. The OECD/DAC evaluation criterion assessed that the funds to be collected will be inadequate to sustain the scheme. The current 2% deduction is too little and increasing the percentage may affect the already overtaxed

population. Hence, the government risks supplementing the entitlements from general revenues which is not any different from the current tax-based scheme.

NHI may create resistance if the services it promised to provide are not available to the beneficiaries. For instance, if the formal sector members realise that their contributions are not attracting better entitlements, they may coerce the government to exempt them from contributing to the scheme (opt-out) so that they join their preferred insurance schemes. It is important to note that the formal group also contributes to the general government taxes and hence is entitled. This is the very tax that government intends to either subsidize the informally employed non-poor or exempt the poor and other exempted groups.

The other argument was that the NHI does not state how voluntary contributions from the informally employed will be done or what the cost of the contributions is. According to the act, they will voluntarily make contributions while the government subsidizes them to reduce adverse selection. However, making the scheme voluntary for a large portion of the population will be high if the services offered are not lucrative. The NHI risks losing enrolment of new members and opting out of old members. This will reduce the pooling of funds to the scheme. Eventually, government revenues will end up covering all three groups- formally employed; informally employed non-poor; and the poor and exempted groups. So, to collect additional contributions (from the formal sector and subsidized premium from the informal non-poor), general revenues will need to be allocated to the NHI. A clear roadmap stating how all groups will be incorporated is required so that people do not lose faith in the scheme from the start. Or else, they will not register while others will opt out. This will affect the raising of funds for the NHI.

The government can propose complementary insurance for the formal sector that pays for services and entitlements beyond the BBP. This will attract members. The informal sector can have a compulsory membership for the informally employed can be introduced, while the poor get free membership. Introducing other schemes like CBHI which are mandatory may also be introduced like the case of Rwanda where CBHI is regulated by law. The advantage of the mandatory scheme is that they have greater potential to cross-subsidize and they limit the risk of adverse selection compared to voluntary schemes. However, these schemes can only succeed if the level of fragmentation is low and strong social and political controls. If not, the group will not pay for entitlements and will eventually opt out of the scheme. In Ghana, CBHI accounts for only 5% of NHIF incomes. The CBHI in Zambia can be designed in such a way that members can gradually join the NHI.

The study also found that services offered by the comprehensive BBP were too generous such that the NHI will rely on government revenues for sustainability. Ghana's generous BBP has over 95% of health needs such that if the whole population needed to use the services, NHIF would be unable to afford and pay for the services. Besides, there seems to be a duplication of services to be paid for by the government and the NHI. For instance, almost all health needs in the BBP are paid for via government revenues so it is not clear how or what services NHI will pay for. The NHI Act highlights that the scheme pays for overhead costs: costs of the whole system of claims, checks on claims, reimbursements, and the management costs of the whole apart while salaries for public health workers, salaries for all public sector health workers, and

public health prevention and health promotion will be paid by the general revenues. It does not explicitly say what it will purchase from the government. Duplication of services will increase inefficiencies and inequalities

The NHI has neglected the PHC level and it may lead to the overutilization of health services at the hospital level. Clients will skip the PHC to be attended to at the hospitals which have perceived diagnostic services, qualified staff, and medicines. This may lead to overuse of services and increase moral hazard, especially among the poor. The government needs to strengthen gatekeeping and strengthen referral services to lessen the overutilization of services at the higher level.

3. **To review lessons learned on how other LMICs like Ghana have implemented NHI complementary to tax arrangements.**

A challenge that the scheme may face in its inception is that the allocation of resources by the Ministry of Finance through general revenues may reduce and affect funding even when the scheme makes a loss. This was evidenced in Ghana when the scheme raised more funds for the health sector in its inception causing the country's Ministry of finance to reduce general government allocations to the sector. Ghana's NHI provides the same entitlements for everyone despite having different funding sources, and tax-based funding constitutes about 75-80% of the total annual flows (60). The sustainable solution is to increase domestic taxes by sustaining economic growth and prioritization health within the government budget (15% of the government budget goes to health) has helped Thailand increase its population coverage and financial protection by increasing general government revenues through taxes to cover for health (53,61). Zambia can emulate these two countries by increasing coverage through non-contributory like Thailand, or through VAT taxes like Ghana to cover the entire population. For UHC to be attained, there is no one-size-fits-all.

4. **Make recommendations to inform policy on the newly proposed NHI policy to progress toward Universal Health Coverage.**

Lastly, policies on health financing have not been adequately revised to align with NHI. For example, formally employed are allowed to contribute to another scheme voluntarily which increases fragmented pools. Therefore, it will increase inefficacies in health services. Therefore, a policy to consolidate different forms of schemes to reduce fragmentation is required. In addition, how the scheme does not address how it will impact the labor market, especially since the larger group consists of the informal sector. If the government does not create employment to address issues of unemployment and social security, the collection of funds from the formal sector will still be inadequate to cover the growing population. d

The solution for Zambia's health financing arrangements lies in increasing fiscal Space for health. Studies showed that once domestic revenue increases, funding for health also increases. Government should formulate policies that will increase domestic revenues (through efficient tax compliance and revenue collection without disturbing the existing tax rate) and expand the economy. Thailand currently allocates 14% of its revenue to health and has witnessed an increase in population coverage and progression towards UHC.

Limitation of the study

The study had limitations. Literature from the ministry of health was not readily availed hence posing a challenge in evaluating the NHIS. The infancy stage of the scheme also made it difficult to understand and evaluate its implementation. A qualitative study would have been ideal but covid restrictions could not allow it.

6.2 Conclusion

We can conclude that the road to UHC for Zambia is bright. Since early 1980, Zambia has made strides to implement policies that are pro-poor to increase equity in health. Allocation of funds, however, was insufficient to attain the gains. Heavy reliance on donor funding has proved to be unsustainable such that if it is withdrawn, allocation to health would drastically reduce. The government until recently, introduced the NHI policy as a way to increase funding for health so that the poor and vulnerable who cannot pay can be subsidized by the government. The NHI is a financing scheme where the formally employed contribute 2% via mandatory payroll deduction. In return, the scheme hopes to cover their entitlements and the basic benefit package. However, the design of the NHI does not seem to support these objectives. Notably is that the contributions from the beneficiaries are too minimal to sustain it. The absence of mechanisms to collect funds from the larger portion of the informal sector is unrealistic.

The relationship between the government and the NHI needs to state what services will be purchased and by whom so that there is no duplication. Otherwise, the scheme will depend on funds from general revenues because it will not afford to pay for all services it has promised. Additional government revenue will be required to supplement the NHI for it to be sustainable, In this case, formal sector members will benefit more (especially if the benefits package is generous) while extracting resources from the poor. Thus, inequalities will still increase as it was before the introduction of the NHI. The solution, therefore, is to put up measures to improve equity and efficiency for the scheme to succeed.

The implementation of the NHIS has come at a time when the Zambian economy is weak. To ensure that adequate resources for health are mobilized, policies should factor in the impact NHIS will have on citizens, the labor market, the current insurance agency, and the taxation system in Zambia. Stakeholders and community Engagements should be implemented in policy formulation, implementation and evaluation are cardinal for easy acceptability of the policy. Or else, it will affect the pooling of funds, utilization of services, quality of care, and efficiency. Several gaps have been identified that the NHI fails to address. Lessons from countries like Thailand, Ghana, and Rwanda where the scheme has achieved positive reviews. Moreso, these countries have mixed financing arrangements (contributory and non-contributory) which have to some extent increased coverage and reduced inequality, and offered financial protection. Zambia needs to adopt such policies according to its country’s context.

RECOMMENDATIONS FOR POLICY MAKERS

Interventions	High priority - short term (1-3 Years)	Priority-medium/long term (3-6 years)
increasing domestic resource mobilization	Prioritization of health sector in order to allocate additional funds according to the Abuja commitment. This will be achieved if general fiscal space is expanded.	policy to increase economic growth and GDP which will cause expansion of Fiscal space so that there are more resources for health and other sectors
	identify innovative financing to increase domestic revenues like mixing different financing arrangements e.g., non-contributory for informal sector instead of voluntary schemes	
	identify strategies to enable donor fund to be more sustainable	transparency and accountability of government resources in order to attract donor support to the sector.
Resource Pooling	increase the number people contributing to the pool to increase the risk	
Resource Purchasing and Basic Benefit Package	Develop a well-defined, affordable and cost-effective Benefit Package. It should be based on assessed health needs and costed according to the contributions the NHI receives.	re-evaluate the BBP
	Resource allocation formula should be in tandem with health needs and risk. It should account for population density, region, distribution of human resource for health	Re-evaluate the NHI design and align with the existing MOH allocation to the health sector.
	Increase efficiency by implementing strategic purchasing. Focusing on BBP design, PPMs that are mixed, managing information systems that will inform policy and efficiency in administration of the scheme.	
	Engagement of stakeholders and community in policy development process from the time of policy formulating, implementing and monitoring of the NHI.	

REFERENCES

1. World Health Organization. (2005). Designing health financing systems to reduce catastrophic health expenditure. World Health Organization. https://apps.who.int/iris/handle/10665/70005 [Accessed on 10th June,2021]

2. Wang H, Switlick K, Ortiz C, Connor C, Zurita B. Health Insurance Handbook: How to Make it Work. Health Systems 20/20 Project, Abt Associates Inc. June 2010

3. WHO. World Health Organization (WHO). Financing for Universal Health Coverage: Dos and Don'ts. 2019;(9). Available from: https://p4h.world/system/files/2019-09/WHO19-01 health financing complete low res 0922.pdf

4. World Health Organization. (2004). Reaching universal coverage via social health insurance: key design features in the transition period. World Health Organization. https://apps.who.int/iris/handle/10665/69018 [Accessed on 10th June,2021]

5. Geography of Zambia - Wikipedia [Internet]. Available from: https://en.wikipedia.org/wiki/Geography_of_Zambia [Accessed 13th June, 2021].

6. Discover the climate and geography of Zambia [Internet].. Available from: https://www.worldtravelguide.net/guides/africa/zambia/weather-climate-geography/ [Accessed on 13th June, 2021]

7. Zambia - total population by gender 2019 | Statista [Internet]. Available from: https://www.statista.com/statistics/967971/total-population-of-zambia-by-gender/ [Accessed on 11th June, 2021].

8. Zambia Demographics 2020 (Population, Age, Sex, Trends) - Worldometer [Internet]. Available from: https://www.worldometers.info/demographics/zambia-demographics/ [Accessed on 11th June,2021].

9. Ministry of National Development Planning, Republic of Zambia Zambia Sustainable Development Goals Voluntary National Review 2020. 2020. https://sustainabledevelopment.un.org/content/documents/26305VNR_2020_Zambia_Report.pdf [Accessed on 21st june,2021]

10. Zambia Overview [Internet]. Available from: https://www.worldbank.org/en/country/zambia/overview [Accessed on 11th June, 2021].

11. Zambia Economic Outlook | African Development Bank - Building today, a better Africa tomorrow [Internet]. Available from: https://www.afdb.org/en/countries-southern-africa-zambia/zambia-economic-outlook [Accessed on 11th June,2021]

12. ZAMBIA CENTRAL STATISTICAL OFFICE (CSO) 2015 LIVING CONDITIONS MONITORING SURVEY REPORT [Internet]. Available from: www.zamstats.gov.zm [Accessed on 13th June, 2021].

13. Zambia - unemployment rate 1999-2020 | Statista [Internet]. Available from: https://www.statista.com/statistics/809085/unemployment-rate-in-zambia/ [Accessed on 13th June, 2021].

14. International Labour Organization and Organisation for Economic Co-operation and Development; Informality and Poverty in Zambia: Findings from the 2015 Living Conditions and Monitoring Survey, October 2018, International Labour Office - Geneva: ILO, 2019 DOI 9789264310117-en

15. Mukosha Chitah B, Chansa C, Kaonga O, Walelign Workie N. Myriad of Health Care Financing Reforms in Zambia: Have the Poor Benefited? Health Systems Reform [Internet]. 2018 [cited 2021 Sep 7];4(4):313–23. Available from: http://www.tandfonline.com/action/journalInformation?journalCode=khsr20www.tandfonline.com/khsr. [Accessed on 7th September, 2021]

16. Phiri, J., Ataguba, J.E. Inequalities in public health care delivery in Zambia. Int J Equity Health. 2014;13(1):1–9. https://doi.org/10.1186/1475-9276-13-24 [Accessed on 7th August, 2021]

17. Masiye F, Kaonga O. Determinants of healthcare utilisation and out-of-pocket payments in the context of free public primary healthcare in Zambia. Int J Heal Policy Manag [Internet]. 2016;5(12):693–703. Available from: http://dx.doi.org/10.15171/ijhpm.2016.65 [Accessed on 7th August, 2021]

18. Aiga H. Adapting workforce density threshold to WHO's new antenatal care recommendations. 2020; Available from: http://apps.who.int/gho/data/node. [Accessed on 7th August, 2021]

19. Ministry of Health Zambia, National Human Resources Plan. 2018-2024

20. World Health Organization. (2016). Health workforce requirements for universal health coverage and the Sustainable Development Goals. (Human Resources for Health Observer, 17). World Health Organization. https://apps.who.int/iris/handle/10665/250330 [Accessed on 8th August,2021]

21. Bakyaita N, Mweemba N. Universal Health Coverage: A perspective of the WHO country office in Zambia. Health Press Zambia Bull. 2018 2(4); pp 5-16.

22. Lépine A, Lagarde M, Le Nestour A. How effective and fair is user fee removal? Evidence from Zambia using a pooled synthetic control. Health Economic (United Kingdom). 2018;27(3):493–508.

23. Chilufya C, Kamanga M. Crunch time: The transformational universal health coverage agenda for zambia. Heal Syst Reform [Internet]. 2018;4(4):272–6. Available from: https://doi.org/10.1080/23288604.2018.1503031 [Accessed on 4th June,2021]

24. Zambia national health strategic plan 2017 – 2021. 2021;

25. GBD Compare | IHME Viz Hub [Internet]. Available from: https://vizhub.healthdata.org/gbd-compare/# [Accessed on 6th August, 2021].

26. Zambia | Institute for Health Metrics and Evaluation [Internet]. Available from: http://www.healthdata.org/zambia [Accessed on 2nd June, 2021].

27. GOVERNMENT OF ZAMBIA Zambia Demographic and Health Survey 2018. 2020; Available from: www.DHSprogram.com.

28. Global Health Expenditure Database [Internet]. Available from: https://apps.who.int/nha/database/ViewData/Indicators/en [Accessed on 2nd June, 2021]

29. Ministry of Health Zambia, HEALTH FINANCING STRATEGY: 2017 – 2027 Towards Universal Health Coverage for Zambia. https://www.afro.who.int/publications/health-financing-strategy-2017-2027-towards-universal-health-coverage-zambia [Accessed on 9th June, 2021]

30. Current health expenditure per capita (current US$) - Zambia | Data [Internet]. Available from: https://data.worldbank.org/indicator/SH.XPD.CHEX.PC.CD?locations=ZM [Accessed on 11th June,2021].

31 Incidence of tuberculosis (per 100,000 people) - Zambia | Data [Internet] Available from: https://data.worldbank.org/indicator/SH.TBS.INCD?locations=ZM]. [Accessed on 6th August, 2021].

32. Peter H, Lang E, Fagan T, Lee B. Achieving Sustainable Health Financing in Zambia: Prospects and Advocacy Opportunities for Domestic Resource Mobilization. Global Fund; Palladium. (April 2019).

33. Chansa C, Matsebula T, Piatti M, Mudenda D, Chama-Chiliba, C.M et al. 2019. Zambia Health Sector Public Expenditure Tracking and Quantitative Service Delivery Survey. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/31783 License: CC BY 3.0 IGO

34. Lozano R, Fullman N, Mumford JE, Knight M, Barthelemy CM, Abbafati C, et al. Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020 Oct 17;396(10258):1250–84. DOI: 10.1016/S0140-6736(20)30750-9

35. Aantjes C, Quinlan T, Bunders J. (2016) Towards universal health coverage in Zambia: impediments and opportunities, Development in Practice, 26:3, 298-307, DOI: 10.1080/09614524.2016.1148119

36. Chansa C, Workie NW, Chitah B, Kaonga O. Equity in Financing and Distribution of Health Benefits in Zambia. DOI: 10.1596/31830

37. NHIMA [Internet]. Available from: https://www.nhima.co.zm/ [Accessed on 5th April, 2021].

38. Spaan E, Mathijssen J, Tromp N, Mcbain F, Baltussen R. The impact of health insurance in Africa and Asia : a systematic review. 2012;(January):685–92. DOI: 10.2471/BLT.12.102301

39. Cuadrado C, Crispi F, LibuyM, Marchildon G, Cid C, National Health Insurance: a conceptual framework from conflicting typologies, Health policy (2019), https://doi.org/10.1016/j.healthpol.2019.05.013

40. Kutzin J, Witter S, Jowett M et al. Developing A National Health Financing Strategy: A Reference Guide. 2017; Available from: http://who.int/health_financing

41. Paper W, Chuma J, Mulupi S, Mcintyre D. Providing Financial Protection and Funding Health Service Benefits for the Informal Sector : Evidence from sub-Saharan Africa. 2013;

42. Hangoma P, Bulawayo M, Chewe M, Stacey N, Downey L, Chalkidou K, Hofman K, Kamanga M, Kaluba A, Surgey G. The potential health and revenue effects of a tax on sugar sweetened beverages in Zambia. *BMJ Glob Health*. 2020 Apr;5(4):e001968. doi: 10.1136/bmjgh-2019-001968. PMID: 32354785; PMCID: PMC7213810.

43. Bennett S, Gilson L. Health financing: designing and implementing pro-poor policies. DFID Heal Syst Resour Cent [Internet]. 2001;44(0). Available from: http://www.tgpsh.or.tz/uploads/media/DFID_-_Health_Financing-_designing_and_implementing_pro-poor.pdf

44. World Health Organisation (WHO). Classification of Health Care Financing Schemes (ICHA-HF). A Syst Heal Accounts. 2011;153–92. https://doi.org/10.1787/9789264116016-9-en

45. Ministry of Health » NATIONAL HEALTH INSURANCE SCHEME -FAQ [Internet].. Available from: https://www.moh.gov.zm/?p=6229 [Accessed on 3rd August 2021]

46. The National Health Insurance Act No . 2 of 2018]. 2018. Zambia

47. Jackson A, Forsberg B, Chansa C, Sundewall J. Responding to aid volatility: government spending on district health care in Zambia 2006–2017. Glob Health Action [Internet]. 2020;13(1). Available from: https://doi.org/10.1080/16549716.2020.1724672

48. Usher AD. Donors lose faith in Zambian Health Ministry. Lancet [Internet]. 2010 Aug 7 376(9739):403–4. Available from: http://www.thelancet.com/article/S0140673610612056/fulltext [Accessed on 6th August 2021]

49. Bennett S. The role of community-based health insurance within the health care financing system: A framework for analysis. Vol. 19, Health Policy and Planning. 2004. p. 147–58.

50. Tetteh EK. Responding to the challenges of social health insurance in African countries. Dev South Afr [Internet]. 2012 Dec 29(5):657–80. Available from: https://www.tandfonline.com/action/journalInformation?journalCode=cdsa20 [Accessed on June 2021 Jun 8]

51. Handbook on social health protection for refugees [Internet]. Available from: www.ilo.org/publns [Accessed on 9 July 2021].

52. World Health Organization. (2010). The world health report: health systems financing: the path to universal coverage. World Health Organization. https://apps.who.int/iris/handle/10665/44371.

53. Sumriddetchkajorn K, Shimazaki K, Ono T, Kusaba T, Sato K, Kobayashi N. Universal health coverage and primary care, Thailand. Bull World Health Organ. 2019;97(6):415–22. doi: http://dx.doi.org/10.2471/BLT.18.223693 [Accessed on 4th August 2021]

54. Tangcharoensathien V, Witthayapipopsakul W, Panichkriangkrai W, Patcharanarumol W, Mills A. Review Health systems development in Thailand: a solid platform for successful implementation of universal health coverage. Lancet [Internet]. 2018;6736(18). Available from: http://www.thelancet.com/article/S0140673618301983/fulltext [Accessed on 7th Aug,2022]

55. Yazbeck AS, Savedoff WD, Hsiao WC, Kutzin J, Soucat A, Tandon A, et al. The Case Against Labor-Tax-Financed Social Health Insurance For Low- And Low-Middle-Income Countries. 2020; doi: 10.1377/hlthaff.2019.00874 HEALTH AFFAIRS 39, NO. 5 (2020): 892–897 https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2019.00874 [Accessed on 6th August 2021]

56. UHC service coverage index | Data [Internet]. Available from: https://data.worldbank.org/indicator/SH.UHC.SRVS.CV.XD [Accessed on 6th July, 2021].

57. Hogan DR, Stevens GA, Hosseinpoor AR, Boerma T. Monitoring universal health coverage within the Sustainable Development Goals: development and baseline data for an index of essential health services. Lancet Glob Heal [Internet]. 2018;6(2):e152–68. Available from: http://dx.doi.org/10.1016/S2214-109X(17)30472-2

58. Kutzin J. Health financing for universal coverage and health system performance: concepts and implications for policy. Bull World Health Organ. 2013;91(8):602–11. doi: http://dx.doi.org/10.2471/BLT.12.113985 https://www.who.int/bulletin/volumes/91/8/12-113985.pdf [Accessed on 1st August,2021].

59. Zambia Statistics Agency, Projected Population and Eligible Voting Population 2020

60. Mathauer I, Vinyals Torres L, Kutzin J, Jakab M, Hanson K. Pooling financial resources for universal health coverage: options for reform. Bull World Health Organ. 2020;98(2):132-139. doi:10.2471/BLT.19.234153

61. "Gottret, Pablo; Schieber, George. 2006. Health Financing Revisited : A Practitioner's Guide. Washington, DC: World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/7094 License: CC BY 3.0 IGO." [Accessed on 3rd December,2021]

62. Masiye F., O. Kaonga, and J. M. Kirigia. 2016. "Does User Fee Removal Provide Financial Protection from Catastrophic Healthcare Payments? Evidence from Zambia." PLoS One 11. doi: 10.1371/journal.pone.0146508.

63. Garrett L, Chowdhury AMR, Pablos-Méndez A. All for universal health coverage. Lancet [Internet]. 2009;374(9697):1294–9. Available from: http://dx.doi.org/10.1016/S0140-6736(09)61503-8

64. Ministry of Health Zambia. NATIONAL HEALTH INSURANCE SCHEME TARIFF AND BENEFITS PACKAGE Towards Universal Health Coverage in Zambia. 2019;

65. Wagstaff A. Social health insurance reexamined. HEALTH ECONOMICS Health Econ. 19: 503–517 (2010) Available on DOI: 10.1002/hec.1492.

66. Goryakin Y, Revill P, Mirelman AJ, Sweeney R, Ochalek J, Suhrcke M. Public financial management and health service delivery: A literature review. *Global Health Economics*: Health Policy In Low- And Middle-income Countries. 2020;(April):191–215.

67. Witter S, Garshong B. Something old or something new? Social health insurance in Ghana. BMC Int Heal Hum Rights 2009 91 [Internet]. 2009 Aug 28;9(1):1–13. Available from: https://bmcinthealthhumrights.biomedcentral.com/articles/10.1186/1472-698X-9-20 [Accessed on 8th August 2021]

68. Zambia : NHIMA collects K800 Million contributions [Internet]. [cited 2021 Aug 23]. Available from: https://www.lusakatimes.com/2021/02/25/nhima-collects-k800-million-contributions/

69. NHIMA Essential Health Care Benefit Package Press Release https://www.nhima.co.zm/membership/benefits-packages.

70. NHIMA. National Health Insurance Management Authority Press Release. https://www.nhima.co.zm/download/document/b372064a6b202107273d1cc916.pdfHIMA. National Health Insurance Management Authority Press Release. 2020;(January):1–41.

71. Akweongo P, Aikins M, Wyss K, Salari P, Tediosi F. Insured clients out-of-pocket payments for health care under the national health insurance scheme in Ghana. BMC Heal Serv Res 2021 211 [Internet]. 2021 May 8 [Accessed on 8th August 2021];21(1):1–14. Available from: https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-021-06401-8

72. Kwarteng, A., Akazili, J., Welaga, P. et al. The state of enrollment on the National Health Insurance Scheme in rural Ghana after eight years of implementation. Int J Equity Health 19, 4 (2020). https://doi.org/10.1186/s12939-019-1113-0 [Accessed on 1st December, 2021].

73. WHO. World Health Organization (WHO). Financing for Universal Health Coverage: Dos and Don'ts. 2019;(9). Available from: https://p4h.world/system/files/2019-09/WHO19-01 health financing complete low res 0922.pdf

74. Alshreef A. Provider Payment Mechanisms: Effective Policy Tools for Achieving Universal and Sustainable Healthcare Coverage. Univers Heal Cover [Working Title]. 2019;(September 2021).

75. Sodzi-Tettey S, Aikins M, Awoonor-Williams JK, Agyepong IA. Challenges in Provider Payment Under the Ghana National Health Insurance Scheme: A Case Study of Claims

Management in Two Districts. Ghana Med J [Internet]. 2012;46(4):189. Available from: /pmc/articles/PMC3645172/ [Accessed on 9th August, 2021]

76. WHO | Health Systems Responsiveness [Internet]. Available from: https://www.who.int/responsiveness/hcover/en/ [Accessed on 9th August 202].

77. McIntyre D., Kutzin J. Health financing country diagnostic: a foundation for national strategy development. Geneva: World Health Organization; 2016 (Health Financing Guidance No. 1). Licence: CC BY-NC-SA 3.0 IGO. https://apps.who.int/iris/bitstream/handle/10665/204283/9789241510110_eng.pdf

78. Janda C. Book Review: Social Insurance, Informality and Labor Markets. How to Protect Workers While Creating Good Jobs. Eur J Soc Secur. 2015;17(3):401–6.

79. Christmals C Dela, Aidam K. Implementation of the national health insurance scheme (NHIS) in Ghana: Lessons for South Africa and low-and middle-income countries. Risk Manag Health Policy. 2020;13:1879–904.

80. Agyepong IA, Abankwah DNY, Abroso A, Chun C, Dodoo JNO, et al. policy and implementation challenges and dilemmas of a lower middle-income country. Natl Heal Insur Scheme. 2016; BMC Health Services Research (2016) 16:504 DOI 10.1186/s12913-016-1758-y [Accessed on 9th August,2021]

81. Agyepong IA, Adjei S. Public social policy development and implementation: a case study of the Ghana National Health Insurance scheme. Health Policy Planning [Internet]. 2008; 23(2):150–60. doi:10.1093/heapol/czn002 Available from: https://pubmed.ncbi.nlm.nih.gov/18245803/ Mar [accessed on 8th August 2021]

82. Mcintyre D, Garshong B, Mtei G, Meheus F, Thiede M, Akazili J, et al. Beyond fragmentation and towards universal coverage: insights from Ghana, South Africa and the United Republic of Tanzania. Bull World Health Organ [Internet]. 2008 86(11):871–6. Available from: http://www.heu.uct.ac.za/shield. [Accessed on 8th August 2021]

83. Domapielle MK. Adopting localised health financing models for universal health coverage in Low and middle-income countries: lessons from the National Health lnsurance Scheme in Ghana. Heliyon. 2021 Jun 1;7(6):e07220.

84. Abiiro GA, Alatinga KA, Yamey G. Why did Ghana's national health insurance capitation payment model fall off the policy agenda? A regional level policy analysis. Available from: https://academic.oup.com/heapol/article/36/6/869/6270957

85. Kutzin J, Yip W, Cashin C. Alternative Financing Strategies for Universal Health Coverage. 2016;(March):267–309. https://www.researchgate.net/publication/331801611

ANNEX

Annex 1: Country Comparison of the NHA for 2018

Indicators	Eswatini	Ghana	Malawi	Mozambique	Nigeria	United Republic of Tanzania	Zambia
	2018	2018	2018	2018	2018	2018	2018
	Value	Value	Value	Value	Value	Value	Value
Current Health Expenditure (CHE) per Capita in US$	271	78	35	40	84	37	76
Current Health Expenditure (CHE) per Capita in PPP	696	168	120	118	233	112	208
Domestic General Government Health Expenditure (GGHE-D) as % Current Health Expenditure (CHE)	33	39	29	21	15	43	39
Out-of-pocket (OOPS) as % of Current Health Expenditure (CHE)	11	38	11	10	77	24	10
External Health Expenditure (EXT) as %	43	12	53	63	8	32	45

of Current Health Expenditure (CHE)								
Domestic General Government Health Expenditure (GGHE-D) as % General Government Expenditure (GGE)		6	6	10	6	4	9	7
Compulsory Financing Arrangements (CFA) as % of Current Health Expenditure (CHE)		50	45	47	59	15	70	60
Government Financing Arrangements (GFA) as % of Currrent Health Expenditure (CHE)		50	33	47	59	14	62	60
Compulsory Health Insurance (CHI) as % of Current Health Expenditure (CHE)		0	11	0	0	1	8	0
General Government Expenditure (GGE) as %		36	21	28	31	13	17	27

Gross Domestic Product (GDP)								
Gross Domestic Product (GDP) per Capita in US$		4,146	2,202	380	493	2,153	1,015	1,540

Annex 2: Search Table

Search Engine/Databases	**key words use alone or in combination with others**
VU library, PUBMED, Science direct ,and google scholar	National health Insurance scheme , Zambia, Social Health Insurance, National health policy, WHO UHC framework, OECD/DAC criteria, Evaluation, Implementation, effectiveness, Ghana, Rwanda, Thailand, Low Middle Income Countries, Health Financing , Health Financing arrangements, User fee Policy , Primary Health Care, World Bank, Informal sector, Labour Market, Universal Health Coverage, Tanzania, Health Systems, Strategic Purchasing
Google and organizational websites (WHO, World bank, MSF, icddr,b, BRAC, ODI, UNICEF, UN-WOMEN) for grey literature.	

Annex 3: Pros and Cons for Different Health Financing Arrangements

Mechanisms	**Pros**	**Cons**
Tax-based health protectione.g. national health systems (NHS)	Pool risks for whole population	Risk of unstable funding and often underfunding due to competing public expenditure
	Potential for administrative efficiency and cost control	Inefficient due to lack of incentives and effective public supervision
	Redistributes between high and low risk and high- and low- income groups in the covered population	
Social health insurance	Generate stable revenues	Poors are excluded unless subsidized
	Often strong support from population	Payroll contributions can reduce competitiveness and lead to higher unemployment

	Provides access to a broad package of services	Complex to manage governance and accountability can be problematic
	Involvement of social partners	Can lead to cost escalation unless effective contracting mechanisms are in place
	Redistributes between high and low risk and high- and low- income groups in the covered population	
Micro-insurance and community-based schemes	Can reach out to workers in the informal economy	Poor may be excluded unless subsidized
	Can reach the close-to-poor segments of the population	May be financially vulnerable if not supported by national subsidies
	Strong social control limits abuse and fraud and contributes to confidence in the scheme	Coverage usually only extended to a small percentage of the population
		Strong incentive to adverse selection
		May be associated with lack of professionalism in governance and administration
Private health insurance	Preferable to out-of-pocket expenditure	High administrative costs
	Increases financial protection and access to health services for those able to pay	Ineffective in reducing cost pressures on public health financing systems
	Encourages better quality and cost-efficiency of health care	Inequitable without subsidized premiums or regulated insurance content and price
		Requires administrative and financial infrastructure and capacity

Annex 4: Zambia's Prepayment and Insurance Schemes, 2014

Type of Scheme	**Description**	**Funding Source**	**Management**

Government facility high-cost scheme	A voluntary medical scheme that is available at government run health facilities for individuals and employees	Premium payment from individuals or employers	Public Hospital Management Board
Private facility medical scheme	A voluntary medical scheme that is available at privately run health facilities for individuals and employees	Premium payment from individuals	Private Hospital Management Board
Private Health Insurance	Insurance schemes where a policy holder agrees to make payments for coverage under a given insurance policy.	Premium payment from individuals	Commercial company
Employer Based Scheme	Any group scheme managed and operated by an employer other than a government or private for-profit company.	Premium payment from employer and employees	Employer