FACTORS AFFECTING FINANCIAL RESOURCES GENERATION, POOLING, ALLOCATIONS AND PURCHASING FOR HEALTHCARE IN SOUTH SUDAN

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Declaration

A thesis submitted in partial fulfilment of the requirements for the master's degree of International Course in Health and Development. Therefore, I declare that this thesis is my own work and I have acknowledged all the references in accordance with the departmental requirements

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Dedication

This piece of work is dedicated to my family in South Sudan

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List of Abbreviations

ADRA	Adventist Development and Relief Agency
AIDS	Acquired immune Deficiency syndrome
AFRO	Africa Regional Office
ANC	Antenatal Care
AU	African Union
CAR	Central Africa Republic
CES	Central Equatoria State
CHD	County Health Department
CPA	Comprehensive Peace Agreement
CPA2	Compromised Peace Agreement
DAH	Development Assistance for Health
DFID	Department for International Development
DPT	Diphtheria Pertussis Tetanus
DRC	Democratic Republic of Congo
EES	Eastern Equatoria State
FBO	Faith Based Organisation
GDP	Gross Domestic Product
GGHE	General Government Health Expenditure
GoSS	Government of South Sudan
HIV	Human Immunodeficiency Virus
HPF	Health Pool Fund
HSSP	Health System Strengthening Project
IDP	Internally Displaced Person
IDSP	Integrated Services Delivery Project
IGAD	Intergovernmental authority on development
IPT	Intermittent Prophylactic Treatment for Malaria
MoF	Ministry of Finance
MoH	Ministry of Health
NBGS	Northern Bahr el Ghazal State
NDA	National Democratic Alliance
NGOs	Non-Governmental Organization
SHI	National Health Insurance
OOP	Out of Pocket
ORT	Oral Rehydration Treatment
PHC/U	Primary Healthcare Centre/Primary Health Care Unit
PHI	Private Health Insurance
SMoH	State Ministry of Finance
SMoH	State Ministry of Health
SPLA-IG	Sudan People Liberation Army in Government

SPLA-IO	Sudan People Liberation Army in Opposition
SPLM-IG	Sudan People Liberation Movement in Government
SPLM-IO	Sudan People Liberation Movement in Opposition
SRH	Sexual and Reproductive Health
SSDP	South Sudan Development Plan
SSHDP	South Health Sector Development Plan
THE	Total Health Expenditure
TT	Tetanus Toxoid
UNFPA	United Nation Population Fund
UNICEF	United Nations Children Fund
USAID	United State Agency for International Development
WB	World Bank
WBGS	Western Bahr el Ghazal State
WES	Western Equatoria State
WHO	World Health Organization

Abstract

Background: The health status of South Sudan is precarious as illustrated by the following indicators: maternal mortality is 2054 per 100,000 live births (16), infant mortality is 75 deaths per 1,000 live births, under five mortality is 105 deaths per 1,000 live births, postnatal mortality of 36 per 1,000 live births and neonatal mortality of 52 per 1,000 live births (17) (18). Although South Sudan is a developing country, Studies has shown that healthcare services provided by a country to its citizens are determined by the financial resources generated, pooled, allocated, and how it's spent (1).

Objective: This study has the aim to critically examine the factors affecting financial resources generation, pooling, and allocation and purchasing for health services in South Sudan and to make recommendations to improve healthcare goals.

Methodology: A literature review based deductive study approach was used. All the searches were conducted through two databases of PubMed library and Google Scholar search engine. The official websites of the ministry of health, finance, South Sudan bureau of statistics, World Bank, USAID, DFID, and UN-agencies were searched manually.

Results: The study found that, the healthcare system cannot generate sufficient and not sustainable. THE (in I$,PPP, per capita of $73; OOP: 39.5 I$ (PPP) = 54%; external sources of funding:30.5 I$(PPP)=42%; other sources like SHI/taxes contributes: 3 I$(PPP) = 4% (2). There is no financial risk protection mechanism to prevent 85% of the citizens from catastrophic effects of OOP. The funds pooled by GoSS to offer healthcare services free of charge for the entire population is inadequate. Socioeconomic status has huge impact on access and utilization of services despite free primary healthcare. The rich utilize more of the essential basic services (3).

Conclusion: The health system of South Sudan is at a verge of collapse. In some parts of the country its dysfunctional. Once security situation improves, the Donors should support the fragile health system to recover by continuing to fund basic healthcare services, support infrastructure development, human resources for health and services delivery. UN agencies should support the MoH devise local sustainable strategies to finance through increasing fiscal space for health and gradually reducing dependence on DAH; reduced OOP to less than 20% of THE.

Key wards: Financial resources, allocation, purchasing, progressive, regressive, Health services, **Ward count**: 13,122.

CHAPTER ONE

1.0. Introduction and Context of study

This chapter gives an introductory overview of the thesis focusing on detailed profile of South Sudan, especially, the social and demographic characteristics, the history, politics and the administrative system, the economy and the fiscal policy, and lastly the health system and the health status of the people of South Sudan.

1.1. Introduction and Background of study

South Sudan is a landlocked country in East African region. It gained independence from Sudan on the 9th July 2011, after a referendum held on the 9th of January 2011 (4). The country witnessed the longest civil war on the African continent which occurred in phases, from 1947 to 1972, and then from 1983 to 2005. This ended an era of 23 years of civil war that granted southern Sudan (now South Sudan) an autonomous status within the Sudan after the comprehensive peace agreement (CPA) signed on the 9th January 2005. The country enjoyed a relative stability from 2005 until 15th December 2013 disagreement within the SPLA/M party which resulted into a political unrest with people killed and others displaced into Internally Displaced People's camps and refugees camps in the neighbouring countries of Sudan, Ethiopia Kenya, and Uganda. There are about 2.25 Million South Sudanese displaced in the neighbouring countries (5) and about 1.64 million people are internally displaced (6) However following an IGAD brokered peace agreement (Compromised Peace Agreement), supported by AU, Troika(United States of America, United Kingdom, and Norway) and the UN security council was signed on the 15th August 2015 (7). The transitional government of national unity was formed on 29th April 2016. On the 8th July 2016, a fighting broke out between the body guard of President Salva Kiir and his first deputy Dr Riak Machar. The first vice president decided to leave the capital to avoid further confrontation and requested IGAD to deploy a third force to act as a buffer. The IGAD council of Ministers of foreign affairs, IGAD head of State, the AU and the UN Security Council approved the deployment of additional 4,000 strong force with key functions to ensure the safety of Juba, Protect Key installations, including the airport and take action on those who attack civilians.

1.2. Geographic and Social- demographic characteristics.

South Sudan is bordered by Sudan in the north, the Central Africa Republic and the Democratic Republic of Congo in the west and south-west, Uganda in the South, Ethiopia, and Kenya in East and south East respectively. It lies north of the Equator and has an equatorial climate with two season's dry season from December to March in some parts of the country and can sometimes be up to

July in some parts and rain seasons. It covers a total area of 644,329 sq. km and a population of 8.26 million people and a population density of 13/sq.km (8). The population is very young with 16% under the age of 5yrs, 32% under the age of 10yrs, 51% under the age of 18yrs and 72% of the population under the age of 30yrs. 83% of the population are rural. There are 10 states which have varying population. Jonglei is the most populated state with 1,358,602 people amounting to 16% of the total population of South Sudan; the least populated is WBG state with 333.431 and 4% of the total population (9). There are about 64 tribes with about 75 languages, of which about 11 are related. The main religious affiliation of South Sudanese is Christianity, although there are also Muslims and indigenous African religion.

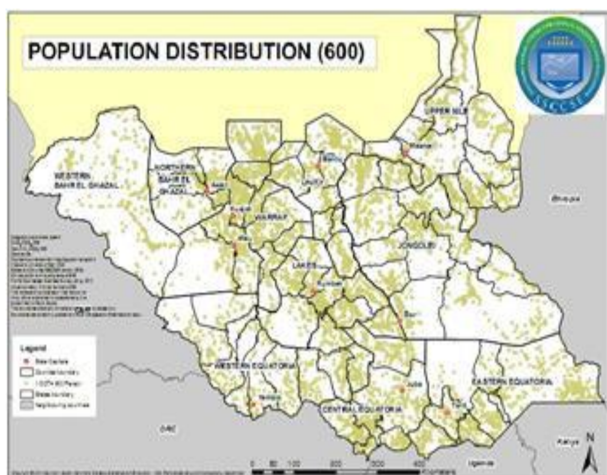
Table 1.1: **Population/Socio-Demographic Indicators of South Sudan**

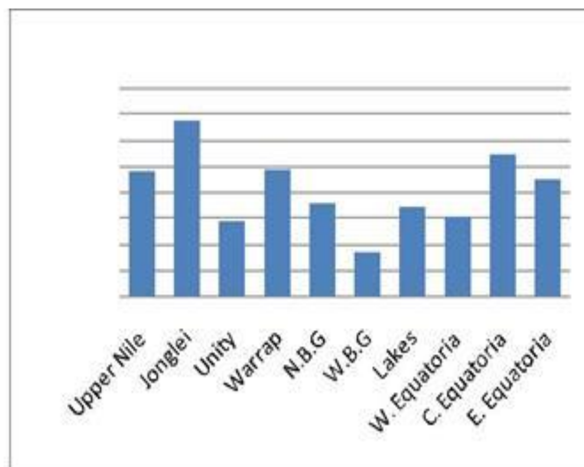
Indicator Name	**2011**	**2012**	**2013**	**2014**	**2015**
Population, total	10,510,122	10,980,623	11,453,810	11,911,184	-
Adolescent fertility rate (births per 1,000 women ages 15-19)	82	78	73	68	-
Birth rate, crude (per 1,000 people)	38	38	37	-	-
Death rate, crude (per 1,000 people)	12	12	12	-	-
Population, ages 0-14 (% of total)	43	43	43	42	-
Population, ages 15-64 (% of total)	53	54	54	54	-
Population ages 65 and above (% of total)	3	3	3	3	-
Age dependency ratio (% of working-age population)	87	87	86	85	-

Age dependency ratio,					-
old (% of working-age population)	6	6	6	6	
Age dependency ratio, young (% of working age population)	81	80	79	78	
Population growth (annual %)	2.6	2.6	2.5	-	-
Population, female (% of total)	50	50	50	50	-
Rural population	8,615,988	8,982,150	9,347,454	9,696,776	-
Rural population (% of total population)	82	82	82	81	-
Urban population	1,894,134	1,998,473	2,106,356	2,214,408	-
Urban population (% of total)	18	18	18	19	

(Source: World Bank development indicator 2016)

Figure 1.1: Map of South Sudan showing population distribution by state

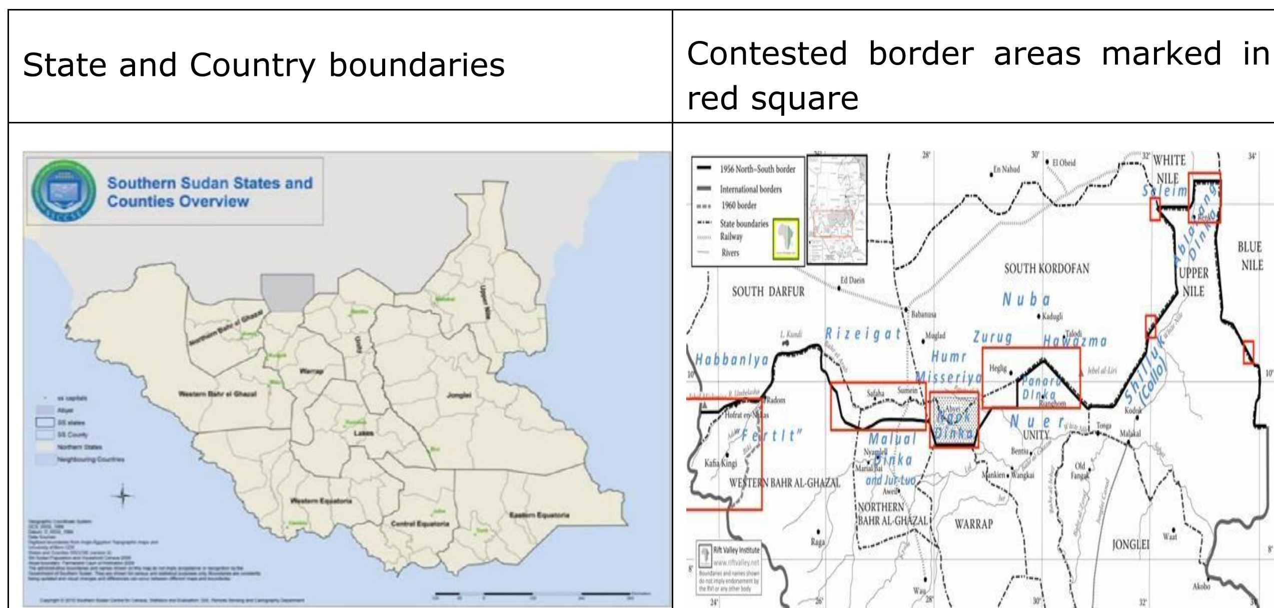




1.3. History, political and administrative system.

Formerly called the autonomous region of Southern Sudan (4). The South Sudan is decentralized multiparty system of governance but the executive powers are shared between the president and the first vice present in the transitional government of national unity where the policy are formulated. The decentralized system is operationalized by dividing the country into 10 states each state lead by a governor appointed by the president and first Vice president. There are 79 counties under the local government, where each county is led by a commissioner appointed by the governor (10). The counties are further subdivided into Payams headed by Payam administrators, the Payams are subdivided in Bomas headed by Boma chief and the Bomas are further subdivided into Villages headed by a village chief who are cultural leaders (10). South Sudan is a multiparty state with over 18 political parties. The major parties are three that is the SPLM-IG which is the ruling party in Government and SPLM-IO and the NDA. South Sudan is an active member of the international community. It has signed and ratified 5 of the 18 international treaties (11).

Figure 1.2: **Map of South Sudan showing State and county boundaries and disputed areas with Sudan.**



1.4. The Economic context and fiscal policy of South Sudan

Since independency, the economy of South Sudan depends on oil revenue accounting for 99% of export and 95% of government revenue. Other non-oil sector like agriculture is still developing (12). The GDP is $13.28 Billion and

GDP annual growth of 3.4% in 2014 (13). Outside the oil sector, livelihoods are concentrated in low productive unpaid agriculture and pastoral work accounting to 15% of the GDP. About 85% of the population are occupied in non-wage work and subsistence agriculture occupies about 78%. The two years conflict which erupted on 15th December 2013 retarded and deteriorated developments and gains achieved since the comprehensive peace agreement was signed in 2005 (13) and the drop in oil prices in late 2014, further exacerbated economic hardship in South Sudan (14) (13). Unfortunately, the country has to meet its obligation of transitional financial assistance to Sudan of $15 per barrel as well as the payment for renting the pipeline. In totality, the entitlement for South Sudan is $6 per barrel (15).

The conflict cost South Sudan 15% of the GDP, Military expenditure increased, jeopardizing the availability of resources for services delivery and development of infrastructure through capital spending. Oil production also reduced by 20% and oil production is expected to remain at 165,000 barrel per day for the financial 2015/2016 (14) (13) (12).The combined effect of reduced oil price, reduced oil production due to the current political conflict has reduced the purchasing power of the South Sudanese pounds. The MoF has adopted policy adjustments to account for the low purchasing power of the South Sudanese pounds as sufficient external financing is not forthcoming. These adjustments will take place through the continued fall in the parallel exchange rate and increased inflation. Although this will reduce the purchasing power of the South Sudanese pounds, but probably predictable, stable and fair way than through realignment of the exchange rates and effective fiscal reform (15). The low level of foreign reserves has negatively affected imports of foods with further knock-on effects on food intake. This is because the majority of the population cannot afford the high food prices. Poverty has worsened from 44.7% in 2011 to 57.2% in 2015 (14) (13) (12).

Table 1.2: **Macroeconomic indicators**

Indicator Name	**2011**	**2012**	**2013**	**2014**
Gross national expenditure (% of GDP)	61	135	122	114
Imports of goods and services (% of GDP)	27	45	38	34
Trade (% of GDP)	93	55	54	54

Inflation, GDP deflator (annual %)	54	6	13	(3)
GDP deflator (base year varies by	187	200	226	219
GDP at market prices (current US$)	17,826,697,892	10,368,813,559	13,257,635,693	13,282,084,042
GDP growth (annual %)	(5)	(46)	13	3
GDP, PPP (current international $)	36,383,425,753	19,969,343,366	22,927,886,470	24,047,201,328
GDP per capita growth (annual %)	(9)	(48)	8	(1)
GDP per capita, PPP (current international $)	3,462	1,819	2,002	2,019
External resources for health (% of total expenditure on health)	22	33	68	-
Out-of-pocket health expenditure (% of total expenditure on health)	63	62	60	-
Out-of-pocket health expenditure (% of private expenditure on health)	95	93	92	-

Health expenditure per capita (current US$)	29	25	18	-
Health expenditure per capita, PPP (constant 2011 international $)	52	52	52	-
Health expenditure, private (% of GDP)	1	2	1	-
Health expenditure, public (% of total health expenditure)	34	33	35	-
Health expenditure, public (% of government expenditure)	4	4	4	-
Health expenditure, public (% of GDP)	0	1	1	-
Health expenditure, total (% of GDP)	1	3	2	-

(Source: World Bank development indicator 2016)

1.5. Health System and health status of South Sudan

1.5.1. Health system of South Sudan

The health system is South Sudan is a three tier system comprising of primary health care unit, primary health care centre and Hospitals, under this system, the services provision is organized around four main pillars namely, Public, the Private not for profit (NGOs/FBOs), private for-profit and traditional health system.

1.5.2. Health status of South Sudan

The health status is marked with inequalities across the ten states in South Sudan. The maternal mortality is 2054 per 100,000 live births (16), infant mortality is 75 deaths per 1,000 live births, and less than five mortality is 105 deaths per 1,000 live births and postnatal and neonatal mortality of 36, and 52 per 1,000 live births (17) (18). These mortalities vary from state to state highest infant mortality of 120 per 1,000 live births in Northern Bahr el Ghazel and lowest of 51 per 1,000 live births in Unity. The infant and under-five mortality are higher in the urban area than in the rural (18).The top four cause of death is Acute respiratory tract infection, HIV&AIDS, diarrhoea, and malaria; they vary from State to State (18) (17). The major burden of diseases is due to Malaria, diarrhoea and pneumonia (17), Tuberculosis, acute respiratory tract infection and HIV. The burden due to these diseases varies from State to state. Detailed health indicators for South Sudan and state specific infant, under five and maternal mortalities are shown in the tables 1.3 and 1.4 below. The figures may be worse due to the current political situation in the country.

Table 1.3: **Mortality health indicators per states in South Sudan (19)**

S/n	State	Infant mortality (per 1000)	U5 mortality (per 1000)	MM (per 100,000)
1	EES	83	118	1,844
2	CES	107	141	1,867
3	WES	151	192	2,216
4	WBGS	97	134	2,216
5	NBGS	129	165	2,182
6	WS	139	176	2,173
7	LS	90	114	2,243
8	US	64	82	1,732
9	UNS	82	110	2,094
10	JS	74	108	1,861

Table 1.4: Mortality indicators for South Sudan

	INDICATORS	**VALUE**
	Population growth rate (Annual %)	2.6

	Life expectancy(%) for both sexes	55
	Infant mortality(per 1,000)	75
	Under five mortality (per 1,000)	105
	Maternal mortality (per 100,000)	2054
	Neonatal mortality (per 1,000)	52

CHAPTER TWO:

2.0. Problem Statement, Rationale/Justification of the study, objectives, study methodology and Conceptional framework

2.1. Introduction

This chapter gives an overview of the problem statement of the study, the rationale for the study (its justification), aims and objectives of the study, the methodology of the study, the Conceptional framework used, the limitations encountered during the study and the dissemination plan of the study.

2.2. Problem Statement

The health status of South Sudan is precarious as illustrated by the following indicators: maternal mortality is 2054 per 100,000 live births (16), infant mortality is 75 deaths per 1,000 live births, under five mortality is 105 deaths per 1,000 live births, postnatal mortality of 36 per 1,000 live births and neonatal mortality of 52 per 1,000 live births (17) (18).

2.2.1. Contributing factors to the precarious health status

Several factors contribute to the precarious health status in South Sudan. These factors are discussed below in more detail;

2.2.1.1. Poor financing

The financing situation of health services is very poor. THE amounts to just 2% of GDP. THE (in I$, PPP, per capita of $73, OOP: 39.5 I$ (PPP) = 54%, external sources of funding: 30.5 I$(PPP) =42%. Other sources like SHI/taxes contributes: 3 I$(PPP) = 4% (2). THE (in I$, PPP, per capita) is less the In I$, PPP per capita of $85 estimated as total cost for offering a comprehensive benefit package (20). The GGHE is 4% of the GGE, indicating the low priority health receives in the allocation from the national budget (21). The higher share of OOP of 54% of THE I$, PPP (21) which is far higher than the benchmark of 20%, indicates the vulnerability of households to the risk of catastrophic health expenditures. (20).

2.2.1.2. Unequal distribution of health services

The distribution of healthcare services infrastructure (health facilities) within the states and more especially across the counties is unequal (17). (22).

2.2.1.3. Shortage of human resources for health

South Sudan is faced with limited health training infrastructures, insecurity forcing qualified personnel to flee the country, low wages, poor working conditions such as staff accommodations resulting to shortages of human

resources for health especially qualified doctors, nurses, midwives and laboratory personals. (17)

2.2.1.4. Poor socio economic conditions

There is poor socio economic status of the population across the ten (10) states and seventy nine (79) counties. 51% of the population lives below the poverty line, with poor housing conditions, 78% of households depend on crop farming or animal husbandry as primary source of livelihoods, 83% of the population lives in rural area and adult literacy rate is 27% (19). Only 7% of the household have pit latrines and access to safe water is 55%. These conditions increase the risk of water and sanitation related disease.

2.2.1.5. Low coverage and utilization

The coverage of health services is very low. The DPT3 coverage is 39% and other indicators as in the table below

Table 2.1: Health services utilization indicators for South Sudan

S/N	INDICATORS	VALUE
A	**REPRODUCTIVE HEALTH**	
1	Skilled birth attendance (%)	14.7
2	Prevalence of contraceptive use (%) old method	4.5
3	Prevalence of contraceptive use (%) modern Method	1.5
4	At least one antenatal visit to skilled birth attendant	30%
5	Percentage of women receiving fourth ANC visit	9.3%
6	Unmet need for family planning (%)	24
7	Adolescents fertility rate (per 1,000)	353
B	**NUTRITION**	
1	Exclusive breastfeeding rate (0-5months) %	44.1
2	Global Acute Malnutrition Rate (%)	21
3	Severe Acute Malnutrition Rate (%)	7.63

C	**DISEASE CONTROL**	
1	Access to improved water source	55%
2	Access to improved sanitation	7%
D	**RISK FACTORS AND FUTURE CHALLENGES**	
1	HIV Incidence rate (15-49)%	3
2	Tuberculosis prevalence rate(per 100,000/year)	146

2.2.1.6. Cultural beliefs

The culture and habits of the South Sudanese people have led to gender disparities, social stigma, domestic, inter and intra-clan or tribal violence's. Additionally, the nomadic life style and insensitivity to persons with special needs led to formidable challenges, barriers, and threats to health services delivery and utilization such the people with disability, the girl child and the elderly.

2.2.1.7. Lack of Intersectoral collaboration

There is lack of mechanism to strengthen Intersectoral collaboration and community systems to mobilize individuals, families and communities to tackle the social determinants of health such as the fight against communicable disease like cholera outbreaks which requires collaboration between sectors such as education, health, communication and water.

2.2.1.8. Insecurity

And finally the security situation in the country has, hardly improved after the signing of the comprehensive agreement in 2005. There was continued insurgency caused by militias allied to Khartoum regime in greater Upper Nile and Abyei administrative area and after independence the civil unrest due to conflict between the Dinkas and the Nuers has now engulfed the whole of South Sudan.

2.3. Justification

Acknowledging the numerous problems confronting the healthcare system in South Sudan such as shortage of Health work force, weak leadership/governance, poor services delivery, shortage of drugs and supplies, poor health management information systems and healthcare financing.

Healthcare financial resources generation, allocation and how it's spent is an integral and determinant part in the implementation of each of the six building blocks of the health system. Tackling the problems affecting each of the building blocks of the health system, requires a better understanding of how resources for healthcare are generated, pooled, allocated and spent for achievement of universal health coverage. (1).

Additionally, decades of civil war has weakened health institutions and their capacity to conduct studies on health financing. This has created a gap in knowledge on the health financing functions in South Sudan.

With this background, this thesis seeks to review the financing and funding of healthcare services in South Sudan.

2.4. Aim, specific Objectives and questions of the study

2.4.1. Aim of the study

The aim of this study is to critically review healthcare financial resources generation, pooling, their allocation and purchasing for health services; and make recommendations to improve financing strategies in order to increase effective coverage of healthcare services in South Sudan.

2.4.2. Objectives of the study

I. Analyse the various financing sources for health care services and the level of funds available for the health system in South Sudan.
II. Describe and analyse the allocation of resources for the healthcare system across the states and counties, and across socioeconomic status, across levels of care and across programmes in South Sudan.
III. Analyse the health services utilization and effective coverage across counties in South Sudan
IV. Provide policy recommendations on how to improve health systems financing, including their equitable allocation and purchasing in South Sudan.

2.4.3 Study Questions:

I. What are the various sources of financing for healthcare services in South Sudan?
II. What are the factors influencing the allocation of resources for healthcare services across states and counties in South Sudan?
III. What factors influences effective utilization and coverage of Healthcare services across states and counties in South Sudan?

2.5. Study methods.

2.5.1. Study approach

In order to accomplish this aim and objectives, a literature review was conducted.

2.5.1.1. Literature review

A narrative literature review was conducted in a systematic manner. Selection criteria, search strategy and sources for literature reviewed are described in details as below.

2.5.1.2. Selection Criteria

The search was done on websites of non-governmental organizations, UN agencies and institutions that are key stakeholders in the South Sudanese health system. The focus was health care financial resources generation, pooling, allocations and purchasing focusing all components of health care system. The articles selected were the ones written after the CPA was signed in 2005 up to date.

2.5.1.3. Search Strategy

A web search was conducted using a combination of keywords and phrases in English. Search terms used, either alone or in various combinations, were: Financial resources generation, financial resources pooling, financial resources Allocation and purchasing of health services, health financing, Universal Health Coverage, health system financing and provider payments.

2.5.1.4. Sources of Literature.

There were about three different sources of literature consulted for the literature review. These sources are all online and are as listed below;

1. Key databases relevant for this study, i.e. PubMed library and Google Scholar search engine. This is where systematic literature search was performed.
2. Websites for development partners in South Sudan (USAID, World Bank, DFID, WHO, Crown agents, UNICEF, UNFPA) and other UN – agencies.
3. Web site of the government of South Sudan Ministry of Health, South Sudan national bureau of statistics and Ministry of Finance,

All the first searches were conducted through two databases of PubMed library and Google Scholar search engine. All the documents found were checked for relevant information on South Sudan along the different objectives of the study.

2.5.1.5. Analysis of data

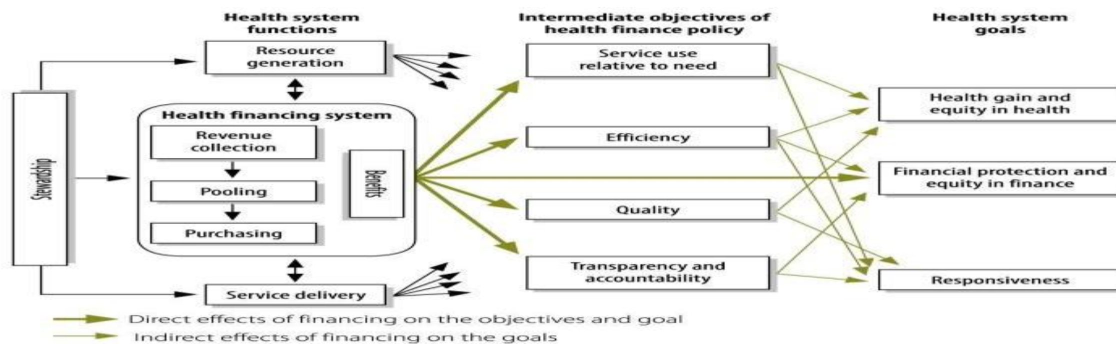
All the literature found were scanned and notes taken on the relevant issues, for example, reports on health care financing, reports on efficiency and cost effectiveness, reports on healthcare financial resources generation, pooling, allocation and purchasing for health services. The results were collated and presented into narrative way as follows in chapter three and four.

2.5.2. Study theoretical framework

To better understand the process of resources generation, pooling, their allocation and purchasing at level of financing functions, I examined a number of theoretical frameworks to use in these study; I decided to use the framework of links for health financing systems to policy objectives, other systems functions and overall system goals developed by Kutzin Joseph in 2008 which is a modification of the model he developed in 2001. This framework was selected because it clearly maps the study ideas and how they interlink to with the intermediate objectives of the health financing policy and the health system goals.

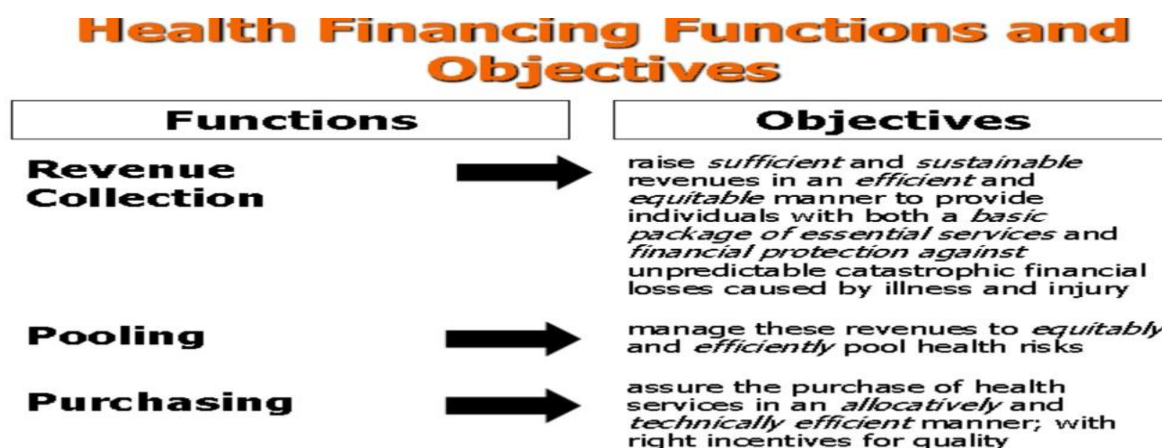
The first section of the framework depicts the health system functions which focus on good stewardship, resources generation, and services delivery. The health system function was used to study the effectiveness of the health financing system functions with focus on the sub functions of resources generation/collection, pooling together for effective risk sharing so that all the health services needed(benefits) by the population is purchased and provided by the relevant services providers being public or private services providers. Through the use of this framework, financial issues on the collection of funds for healthcare, the accumulation and pooling of funds, allocation of funds and or the purchasing of these services for individuals can be explored.

Figure 2. 1: Conceptional Framework: Links of Health Financing system to policy objectives, other system functions and overall system goals(Kutzin 2008)



The direct effects of health financing functions was explored such as service use relative to needs, efficiency, quality and transparency and accountability as well as final goals of health functions such as health gain and equity in health, financial protection and equity in finance and responsiveness of the health care system.

Figure 2. 2: Detailed illustration of the health financing functions and its objectives



2.6. Study limitations.

This study had encountered a number of limitations which are as listed below;

1. Only few studies on financial resources generation, pooling, allocation and purchasing in South Sudan for the healthcare system have been published.
2. Most of the literature on financial resources generation, pooling, allocation and purchasing in South Sudan are written over two years ago and may not depict the exact picture of today. Some data refer to Sudan as a whole and not South Sudan separately.
3. The poorly developed health management information system in South Sudan poses and great limitation to verification of data restrict accuracy of data.
4. The management of the health care system by NGO's made it difficult to access reports as they look at finance as a sensitive issue and not all NGO's are sharing or disclosing information on financial issues.
5. The could not use the newly created 28 states as there were no trends data or functional institution to collect data as such the study had to be conducted on the status of the old ten states.

2.7. Dissemination Plan.

The thesis will later be summarized into a policy brief and disseminated to key stakeholders in South Sudan, the MoH at National and State level, NGOs, UN-Agencies (UNICEF, WHO, UNFPA) through the South Sudan Medical journal and presentation during relevant health forums.

Additionally, the findings and recommendations of this thesis will be made available for students of KIT to read as a report. It will also be published through online KIT thesis data base for academic use.

CHAPTER THREE:

3.0 Financing of the healthcare system in South Sudan.

This chapter presents the financing of the healthcare system in South Sudan. The first subsection will examine the various sources of financing for the health care, with focus on how these funds are collected (whether it's progressive or regressive), the second subsection will examine the pooling arrangements (financial risk protection arrangements, population size covered and allocation mechanism for distributing the risk) and finally resources allocations and purchasing (the choice of package to which beneficiaries are entitled, types of services, services providers, and providers payment mechanisms).

3.1 Sources of revenues for financing the healthcare system in South Sudan

The sources of revenue for financing essential healthcare services in South Sudan are funding through domestic taxes (such as directs like income Tax and indirect like VAT and Oil revenue), social health insurance contributions, private health insurance and out of pocket payments (23) (24) and the external sources of funding (development assistance for health) (25) (10).

3.1.1 Domestic Sources of financing the health care system

The domestic sources of funding for the healthcare systems are raised through taxes (income tax and VAT), oil revenue, the social insurance contribution, private insurance contribution and OOP. The GGHE, which also include donor funds stagnated around 4% for a couple of fiscal years. This amount is far below the 15% target pledged by the African government under the Abuja declaration of 2001 (26) (2). Of THE (in I$,PPP, per capita of $73, The domestic sources of funding contributed to THE (in I$, PPP, per capita) :42,5 I$ (PPP)=57%, of which OOP constituted: 39.5 I$ (PPP) = 54%, other sources like SHI/taxes contributed: 3 I$(PPP) = 4% (2)(10) (17).

The high OOP expenditure as the proportion of THE (PPP) is because of an unequal distribution or bad access to public ('free') services, forcing people to go to private providers and pay OOP. Additionally, too long distance to be covered by patients to access healthcare services is a contributing factor. In some instances, poor quality of healthcare services provided by the health facilities despite the fact that it's contracted to NGOs as well as under table payments for drugs and laboratory and radiology tests (27). The population opts to use private healthcare services where they pay directly for services. Since the OOP expenditure is the same for every individual who visit private facility regardless of their socio economic status, the OOP expenditure is

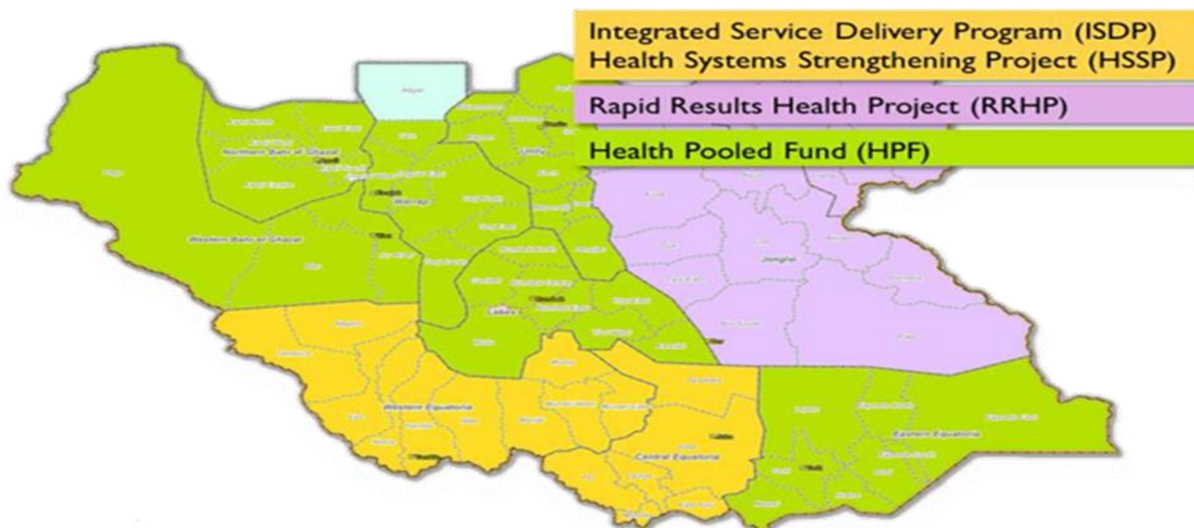
generally regressive. This high OOP share in South Sudan has a likely impact of pushing households into catastrophic expenditures.

The SHI and PHI are based on mandatory payroll contributions for a small proportion of the civil servants both in government and private institution, NGOs and the UN agencies. Contributions to the scheme are progressive. Government plans to undertake a feasibility study on the expansion of the current scheme for its employees and introduction of other forms of health insurance as a source of financing the healthcare in South Sudan (10) (17).

3.1.2 External Sources of funding (Donor funding)

The external sources of funding constitute the largest proportion of the GGHE, financing the healthcare sector in South Sudan mainly for supporting recurrent costs (2). Of THE (in I$, PPP, per capita): 73, External funds: 30.5 I$ (PPP) = 42% (2). The external funding for health services amounts to 81% of the public expenditures (GGHE). The external sources of funding for the healthcare is from three major donors, the USAIDS,DFID leading CIDA, AUSaid, Sweden and EU and the WB(10). The donor's funds specific state as presented in the map of South Sudan shown in figure 3.1 below. The ISPD/HSSP funded by USAID, HPF funded by DFID and other donors like CIDA, AUSaid, Sweden and EU and RRHP funded by the WB. The ISDP/HSSP is a five years project worth $50 Million a year Managed by Jhpiego an affiliate of John Hopkins University covering two states of CE and WE. The HPF project worth $200 million, five years Project managed by crown agent covering six states , namely EES, LS, WBGS, NBGS, WS and US. Finally, the RRHP managed by IMA funded by WB worth $28 million two-year Project focusing on JS and UNS. The purpose of assigning states to lead donors is to ensure a more harmonized delivery of services across counties in the country, all the three projects would assign the responsibility for healthcare services delivery to a single NGO per county. This high donor dependency of over 81% of the GGHE reveals a huge concern for financial sustainability for the health sector. This calls for government efforts to explore other options to finance the health sector in South Sudan (28).

Figure 3. 1: **Map of South Sudan showing geographical lead Donors** across the ten states



The new projects mentioned in figure 3.1 have the objective of strengthening the CHD as compared to the previous projects where a number of counties across the country were not served at all and there was not an objective on strengthening the county health department (25).

3.2. Pooling mechanism for the healthcare finances

Following the principle of solidarity (29), the GoSS offers primary healthcare services free of charge for the entire population. The purpose is to prevent direct payment of fees at the point of use of healthcare services which can contribute to catastrophic health expenditure. Additionally, the OOP prevents the community from utilization of health services or delay them coming to the health facility, when it may be too late. To achieve the objective and principle of solidarity, the funds are pooled through MoH Budget financed from Oil revenues, general taxes and development assistance for health. (25) (10). Other pooling mechanisms are social health insurance contributions and private health insurance (23) (24).

3.2.1 The pooling mechanism for domestic resources

The government pools funds for the health sector through allocation of tax and oil revenue by the ministry of finance through its annual budget allocations across sectors. Additional domestic pooling mechanism are the SHI and PHI. The domestic pooling are from taxes, oil revenue, SHI/PHI to THE (in I$, PPP, per capita): 3 I$(PPP) = 4% of the THE (in I$,PPP, per capita) of $73. (2). The

purpose of the allocating pool funds by the government is to provide free primary healthcare services and provides easy access to the vulnerable population especially women and children. (10) (17) (26) (2).The SHI is mandatory payroll deduction from a small proportion (5%) of the monthly salary of its civil servants. Within the private sector such as companies and the NGOs, funds are pooled through contribution from employees and employers to provide health insurance package for employees. (10) (17). The limited access to prepayment for healthcare services and the over dependency on the direct payment at the point of use of health services indicates lack of financial risk protection and exposure of households to catastrophic effects of OOP expenditures.

3.2.2 Pooling mechanism for external sources of funding

The major health donors such as HPF, WB and USAID has pooled funds together as development assistance for health to support primary healthcare and secondary care across the states and the counties. Although donors often have explicit conditions concerning equity and prioritization of the needs of the poor, donor dependency easily leads unpredictability of funding and large scale transaction cost.

Table 3.1: Annual Contribution From Major Donors From 2011-2016

Donors /Amounts($)	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
DFID		11,734,157.8	53,416,794.6	62,398,010.7	31,199,004.6	1,573,439.8
World Bank		3,050,000.0	14,920,000.0	22,740,000.0	23,730,000.0	1,610,000.0
USAID	45,000,000.0	7,300,000.0	31,500,000.0	28,100,000.0		
Total ($)	45,000,000.0	22,084,157.8	99,836,794.6	113,238,010.7	54,929,004.6	3,183,439.8

Populati on	9,026,46 0.5	9,297,25 4.3	9,576,17 1.9	9,863,457 .1	10,159,3 60.8	10,464,1 41.6
Cost per capita	5.0	2.4	10.4	11.5	5.4	0.3

3.2.3 Equity

The concept of equity highlights the issue of fairness, and is closely linked to the pooling sub function in financing. The general agreement by health experts is that individuals should contribute to health care funding according to their ability to pay and should benefit from the health services according to their need of care. An equitable health financing system will, therefore, involve cross- subsidies from rich to poor and from healthy to ill. These subsidies ensure that no household is impoverished by its needs for health services and that an unexpected healthcare cost does not fall on an individual or household (30). As South Sudan recovers from 21 yrs. of civil war and concentrates on social development and universal health coverage, they decided to provide free primary healthcare services across the 10 states funded with resources from domestic and external funding (10) (17).

3.2.4 Socio-Economic status and Equity in health care financing.

The understanding of the disparity in economic status that exist among the population was critical in ensuring equitable access to health services and to achieve this, the government is funding basic package for health and nutrition services in the country. This is to ensure that all population can access the basic primary health care services regards of social economic status paid for by the government (31).

3.3. Resources allocation and Purchasing

The MoH at national and state level, in collaboration with the ministry of Finance at national and state level, ensures that the health sector funds are allocated according to priorities and coordinated at all level of the healthcare system (32) (25). The external source of funding is mainly allocated to provide support for recurrent healthcare services delivery cost. (2) (33).

3.3.1Principles of allocation

The allocations of financial resources for healthcare services delivery in South Sudan are to support the tertiary care at national level, secondary care at state and county level and primary health care at county level (32). Of the 100% funds allocation by the Ministry of Finance to MoH at national level, the SMoH

and CHD, 60% is operating transfers (operating costs for PHCU/PHCC/hospitals like drugs, laboratory supplies, services and equipment) and this amount is the same for all SMoH and CHD and the remaining 40% of the allocation is dependent on the population of the state and the county (32).

Across the states, the Ministry of Finance and Economic Planning through the guidance of the national Ministry of Health allocates funds to the state Ministry of Health for supporting state Hospitals and county hospital (Secondary and Tertiary Healthcare) and the counties are allocated funds for supporting primary healthcare (Community and public health).

3.3.2 Allocation of resources for funding the health sector

MoH in collaboration with Ministry of finance has annually allocated resources for mainly community and public activities and for secondary and tertiary healthcare to cover conditional grants (Salaries, operations, and services delivery) and block transfers to cater for priorities within the state and the counties. The total allocation includes both domestic and donor funding for the health sector. However the proportion of the donor contribution to the total allocations is channelled through the fund managers and implementing partners (NGOs). These amount contributes to about 4% of GGE over the last couple of fiscal year. The government plans to increase the spending from 4% to 10%. In the last couple of years the health sector received the least allocation as compared to other social services sectors and defence. The table 3.2 below for South Sudan projected national budget allocations across sectors from 20122015. This allocations across sectors includes external resources (donor funding).

Table 3.2: South Sudan projected national budget allocations across sectors from 20122015

	Allocation across sectors	Year		
	Sector allocation (%)	2012-2013(Total is 6.7 Billion SSP)	2013-2014(Total is 17.3 Billion SSP)	2014-2015(Total is 11.3 Billion SSP)
1	Education (%)	7	3.8	5.5
2	Health (%)	7	2.4	4
3	Infrastructure (%)	9	3.2	3.5

4	National Resources (%)	8	2.6	3.2
5	Public Administration (%)	8	5.7	7.7
6	Rule of law (%)	13	8.5	13.9
7	Security (%)	28	17.8	35
8	Social and humanitarian affairs (%)	7	0.5	0.98
9	Accountability (%)	3	1.7	2.7
10	Economic function (%)	4	2.4	3.5
13	Others (%)	6	51.3	21.9

The projected national budget allocation across sectors above in table 3.2, show that much of the resources are allocated for security. Health actually appears to be the last on the list of sectors of priority in the country. This calls for the government to increased health spending in accordance with the Abuja declaration up to 15%.

Additionally, the table 3.3 below, shows that, the budget allocation for health per capita has oscillated between $11.04 and $12.77 with worse allocation in 2013/2014 of $5.95 and this could be attributed to outbreak of the current conflict in December 2013. Despite the low allocation for health, the budget outturn (disbursement) has been significantly lower than the budgeted amount, with the highest being 69% in 2013. The outturn rate of government expenditure has been over 100% with only less than 100% in 2013. This suggests that the low outturn of health budget cannot be explained or linked to shortfall in government revenue during these periods. Additionally, the lower execution rate health compared to the overall budget may indicate that health is not being prioritized compared to other sectors when it comes to total expenditure. These may also indicate weaker financial management in health compared to other sector. This eventually call for further investigation to understand to why the execution has been low and how this can be resolved.

Table 3. 3: Budget allocation and outturn of ministry of health and government from 2011 to 2015.

	Ministry of Health				RSS					
Year	Population	Budget	Outturn	%	Budget	Outturn	%	Health Budget as percentage of the Total	Health Budget Per Capita(SSP)	Health Budget Per Capita($)
2011-2012	10,142,090.40	223,981,554.00	94,090,110.75	42.01	8,017,620,124.00	10,141,510,261.00	126.49	2.79	22.08	11.04
2012-2013	10,446,353.11	305,542,806.00	205,833,575.00	67.37	6,664,162,032.00	6,812,534,366.00	102.23	4.58	29.25	12.72
2013-2014	10,759,743.71	192,057,566.00	132,550,903.00	69.02	9,733,213,394.00	9,069,108,106.00	93.18	1.97	17.85	5.95
2014-	11,082,536.	424,732,552.0	152,543,871.0	35.92	10,842,316,325.	12,210,697,015.	112.6	3.92	38.32	12.77

2015	02	0	0		00	00	2			
2015-2016	11,415, 012.10	384,524, 942.00	263,713, 364.55	68.58	10,304,003,292.00		-	3.73	33.69	11.23

Across states, the low disbursement from the Ministry of Finance as shown in table 3.4 below, has resulted into the huge reduction in allocation per capita to as low as SSP2 to SSP6 in 2013/14 and SSP4 to SSP6 in 2014/15. These low disbursement impacts on the quality of healthcare resulting into shortage of drugs, laboratory reagents.

Table 3. 4: ***The allocation for 2013/14 to 2014/2015 across the ten states of South Sudan in South Sudanese Pound (SSP)***

S/N	*State*	*No. of Counties*	*Population*		*Amount Allocated*						*Cost allocation per capita*	
					2013/2014			*2014/2015*				
			2013/2014	*2014/2015*	*Operating Grant*	*Capital Grant*	*Total*	*Operating /capital Grant*	*services delivery*	*Total*	*2013/2014*	*2014/2015*
1	*CES*	*6*	*1,437,489*	*1,480,614*	*1,987,069*	*1,518,990*	*3,506,059*	*4,898,127*	*-*	*4,898,127*	*2*	*3*
2	*WES*	*10*	*806,319*	*830,509*	*2,122,358*	*2,531,650*	*4,654,008*	*5,231,613*	*-*	*5,231,613*	*6*	*6*
3	*EES*	*8*	*1,180,279*	*1,215,687*	*2,098,397*	*2,025,320*	*4,123,717*	*5,172,547*	*-*	*5,172,547*	*3*	*4*
4	*UNS*	*13*	*1,256,123*	*1,293,807*	*2,914,643*	*3,291,145*	*6,205,788*	*7,184,598*	*-*	*7,184,598*	*5*	*6*

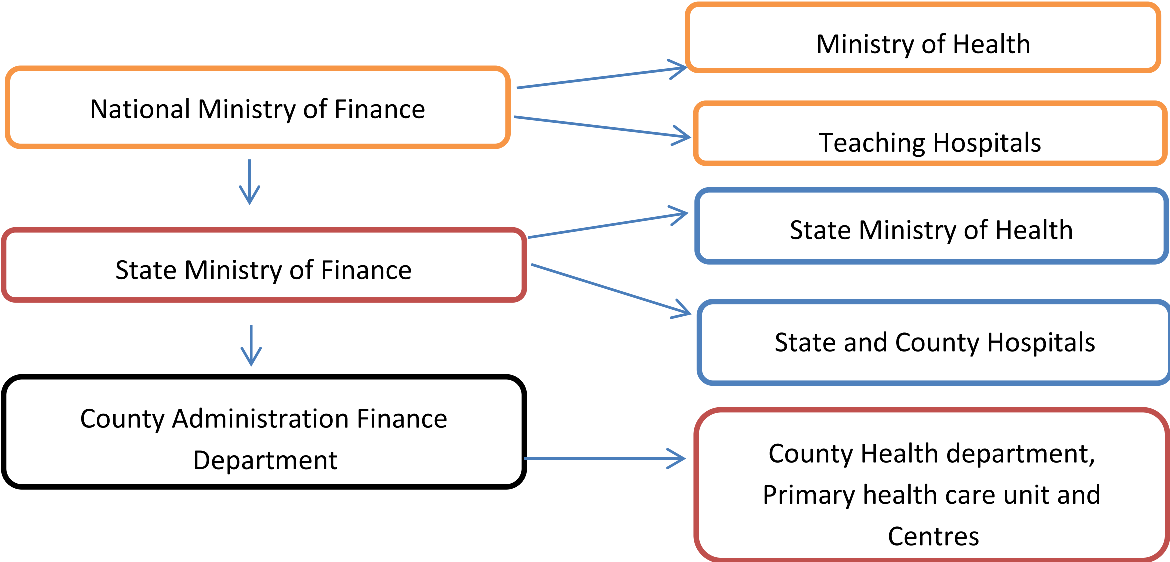
5	JS	11	1,769,654	1,822,744	2,995,123	2,784,815	5,779,938	7,382,978	-	7,382,978	3	4
6	US	9	763,038	785,929	1,938,071	2,278,485	4,216,556	4,777,347	-	4,777,347	6	6
7	WS	6	1,267,292	1,305,311	1,808,165	1,518,990	3,327,155	4,457,128	-	4,457,128	3	3
8	WB GS	3	434,312	447,342	780,693	759,495	1,540,188	1,924,408	-	1,924,408	4	4
9	NB GS	5	939,009	967,180	1,462,157	1,265,825	2,727,982	3,604,217	-	3,604,217	3	4
	LS											

10		8	906,227	933,413	1,893,323	2,025,320	3,918,643	4,667,038	-	4,667,038	4	5
To	a l											

t	*79*	*10,759,742*	*11,082,536*	*19,999,999*	*20,000,035*	*40,000,034*	*49,300,001*	*-*	*49,300,001*	*4*	*4*

The flow of these funds in the health sector is in line with the decentralized nature of the constitution of the republic of South Sudan. The Figure 3.2: below shows the flow of funds in the Ministry of finance at national and state level to the ministry of Health at national and state level. The ministry of finance transfers funds directly to Ministry of health at national level, to the teaching hospitals and to state ministry of finance. The two types of transfers received by SMoH are conditional and block grants,

Figure 3.2: Flow of funds in the Ministry of finance at national and state level

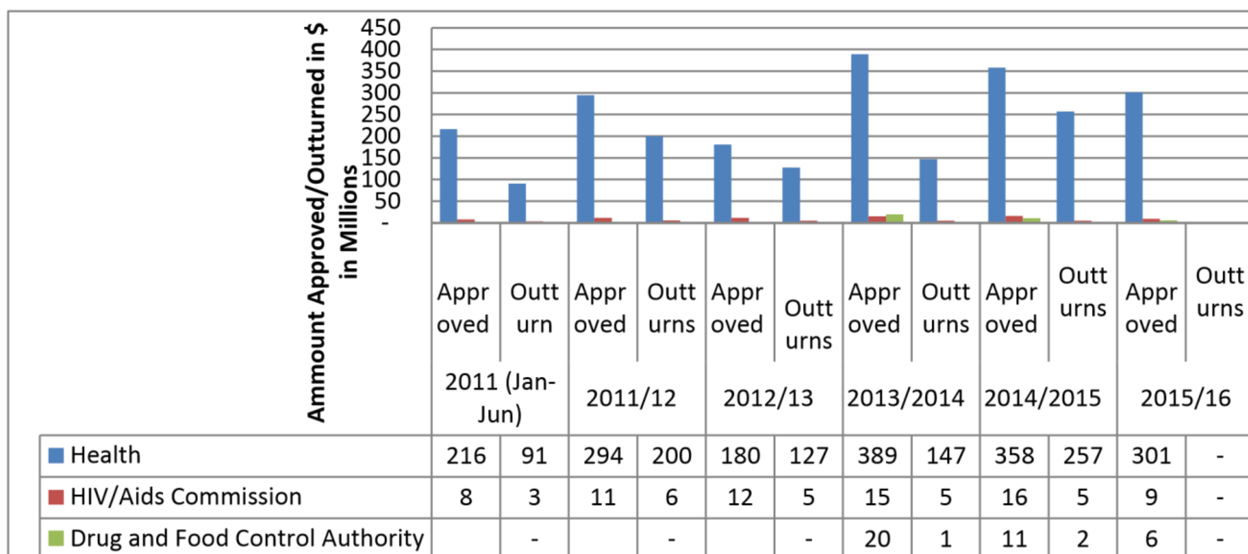


Additionally to ensure equity in allocation across states and counties, the MoH developed the BPHNS funded by GoSS using domestic revenue and DAH to be provide for free for the population so that all the poor, vulnerable rural community of South Sudan living below poverty have equitable access to health and nutrition services. The health policy services recommend that, if there is to be equitable access to healthcare services, there should be, at least one PHCU for a population of 15,000, one PHCC for 50,000, and a hospital for a population of 300,000. No citizen should travel over 5km to access healthcare services (17) (10) (31). The BPHNS is purchased for the population through contracting the services delivery to NGOs. To avoid duplication, one NGO is contracted per county to with the county health department.

The SHI provided by government to employees and the PHI is provided by employers like the UN-agencies and NGOs. Both SHI/PHI are progressive financing mechanisms to ensure equity across socioeconomic status. The health policy provides for free primary healthcare services across the country, states, county, Payams and Bomas. The SHI enables the government employees to access free specialized secondary care services while PHI covers healthcare cost for employees at private clinics additional to the free primary healthcare services at public health facilities.

However, the government budget allocations are unpredictable. Despite the fact that more funds are allocated across institution within the health sector, very little is disbursed resulting into poor planning.

Figure 3.3: Government allocations across health sector institutions (Ministry of health is for services delivery, HIV commission and drug and food authority) and actual spending from Jan 2011-June 2016.



	2011 (Jan-Jun)		2011/12		2012/13		2013/2014		2014/2015		2015/16	
	Approved	Outturn	Approved	Outturns	Approved	Outturns	Approved	Outturns	Approved	Outturns	Approved	Outturns
Health	216	91	294	200	180	127	389	147	358	257	301	-
HIV/Aids Commission	8	3	11	6	12	5	15	5	16	5	9	-
Drug and Food Control Authority		-		-		-	20	1	11	2	6	-

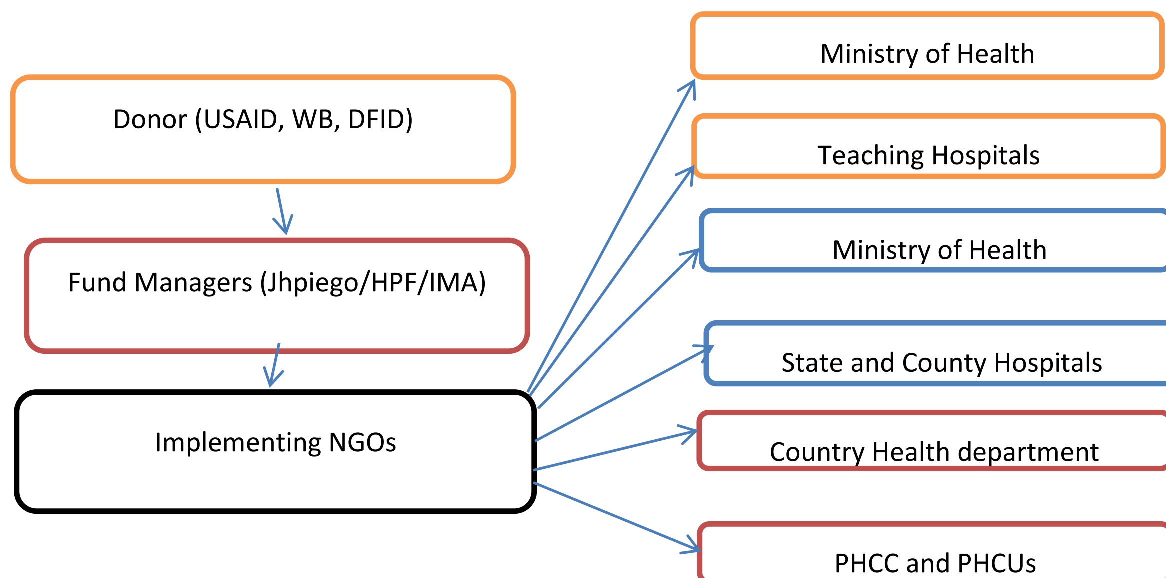
3.3.3. Allocation of external sources of funding for healthcare and purchasing of services

Of the 46% of the GGHE, the external sources of funding contributes 81% of the funding sources for financing the public health sector in South Sudan especially the recurrent costs (2). These funds are allocated by fund manager through NGOs at the moment until the public financial management system is strengthened (10) (17) (34). The major Donors of

South Sudan annual commitments for national health budget from 2011-2016 are shown in table 3.1 above.

The donor funds are channelled through fund managers and implementing partners with exception support funds to the national and state ministry of health and finance. The flow of the funds are illustrated in the figure below.

Figure 3.4: External sources of funding flow within the healthcare System



3.3.4. Direct payment for health service at point of use.

The payment for health care services at the point of use in South Sudan accounts for 54 percent of THE. According to WHO, (29) direct payment for health services more than 20% of THE is associated with high incidence of financial catastrophe and impoverishment of the population. The high reliance on direct payment because of lack of prepayments and pooling systems in South Sudan. Irregular outturns by the government for health sector is additional reason as shown in the table above.

The efforts by the MoH to provide free primary healthcare services (17) , to reduced OOP payment for health services is not effective as the as the OOP is higher than 20% of THE (29) (14) (2). The contracting of services provided by the public healthcare providers to NGOs has not been able to reduce the OOP (27). There is no mechanism to regulate OOP according to

social economic status. Although OOP expenditure is generally regressive, there are some instances where it becomes progressive where poor pay for the prescriptions that they can afford or sometimes they fail to go for treatment there by making them to spend less for healthcare compared to the rich. Most of the OOP is spent in urban areas where there are private health facilities for drugs, laboratory services and clinic/hospital admissions by both the poor and the rich, though the rich spend with ease.

3.3.5. Allocation across states/counties and Equity in health

The allocation across states and counties are based on national health priorities and population of the state and the county (32). The states and the counties are additionally allocated block grants which are used by the states and counties to finance unique priorities in their respective localities. The purpose is to ensure equity in health services delivery across states and counties (10) (32) (25). However, with the above principle for resources allocation across states and counties, there still inequity in resources allocation across state and counties as shown in annex 1 and annex 2 with huge variation of cost per capita cost across states and counties ranging from SSP 2 to 6. These values are much lower than the SSHSDP recommended cost per capita estimate of SSP 42, which is sufficient to finance the BPHNS. (10). Additionally, to ensure equitable access to healthcare services across the 10 states and 79 counties so that the underserved population are reached with healthcare services, health care services funding roles are assigned to one donor per state and healthcare services delivery roles are assigned to one implementing partner(NGO) per county (25) (10)

3.3.6. Socio-Economic status and Equity in health care financing.

The understanding of the disparity in economic status that exist among the population was critical in ensuring equitable access to health services and to achieve this, the government is funding basic package for health and nutrition services in the country. This is to ensure that all population can access the basic primary health care services regards of social economic status paid for by the government (31).

3.3.7. Allocation across Programmes/level of care

Allocations across programmes are based on the basic package for health and nutrition services. These services include sexual and reproductive health, child health services, and basic and comprehensive obstetric care services, management of communicable and non-communicable diseases. These services are further grouped in community and public health and then secondary and tertiary care. These health services are offered at Primary,

secondary and tertiary care levels through the Primary healthcare Unit, Primary Health Centres and the County, state and the National referral Hospitals (31). The budget allocation for health across programme and level of care is an inverted pyramid. More funds are allocated for the three tertiary hospitals as show in table 3.3 and 3.4. There has been increased allocation for community and public health and secondary care in 2014/14 and 2014/2015 by over 10%. However the budget outturn has been significantly lower than the budgeted amount in 2013/2014. This suggests that there could be weaker financial management in healthcare system from the national ministry to the county health department as shown in Table 3.4 and 3.5 budget allocation and outturn across programme at the national Ministry of health from 2012-2016. Across states and counties, there are no information budget outturn for detailed analysis

Table 3.5: **Budget allocation and outturn across programme at the national Ministry of health from 2012-2016**

Allocation across programmes	2012-2013-Approved Budget	2012-2013-Outturn	2013-2014-Aproved budget	2013-2014-Outturn	2014-2015-Aproved budget	2014-2015-Outturn	2015-2016 Approved budget
Community and Public Health	1,546,470	1,268,580	62,571,284	21,386,562	150,593,876	41,226,953	134,977,418
Human Resources Development(Trainings)	7,013,478	680,472	7,340,100	808,494	11,946,635	240,356	24,824,160
Pharmaceuticals and Equipment's	45,852,220	10,219,237	133,703,512	492,646	103,065,836	396,340	1,137,887
Laboratory, Radiologic and imaging services	1,538,566						
Health Policy and Programmes	759,318						
General Administration/Support Services	76,451,747	75,049,002	13,259,200	152,936	17,309,198	19,104	13,626,691
Planning and monitoring	759,318	344,925	1,336,524	244,310	1,949,436	76,202	4,733,991
secondary and tertiary health care	47,263,893	39,590,367	171,102,595	123,682,626	127,307,513	74,700,773	142,540,131

Table 3. 6: Allocation and outturn across level of care in 2013/14 and 2014/15

Programmes/level of care	2013-2014 transfer	2013-2014 outturn	2014-2015	increase
Community and public health operating transfer (For County Health Department	59,926,584	8,582,621	92,726,548	32,799,964
Secondary and Tertiary Healthcare Transfer(for State Ministries of Health)	53,276,793	18,230,804	57,976,793	4,700,000
Tertiary healthcare transfer(for National Ministry of health)	171,102,595	123,682,626	127,307,513	(43,795,082)
Total	284,305,972	150,496,051	278,010,854	(6,295,118)

3.3.8 Efficiency in Healthcare financing

Efficiency in health care financing refers to the ability of a financing mechanism to generate a relatively large amount of funding and thus obviates the need for multiple funding mechanism where each mechanism generate a limited amount of funds (30). Additionally, the cost of funds for collection and administration will be low with an efficient financing mechanism leaving as much revenue as possible for actual health provision (30). In South Sudan, the healthcare is not efficiently finance from one source. Of the GGHE 19% is financed by the GoSS and 81% by the external funding resources. 54% of THE is OOP expenditure. Despite the fact that the GoSS health policy is to provide free PHC services funded by the revenues from Tax and oil, the financing mechanism is not efficient. The external funding resources are also not efficient as the funds are channeled through NGOs raising the cost of fund collection and administration. The DFID lead HPF for funding six states spends 10% of the funds in transaction costs as shown in table 3.7 below

Table 3.7: Trends of allocation for project support and services delivery for the HPF from 2012-2016

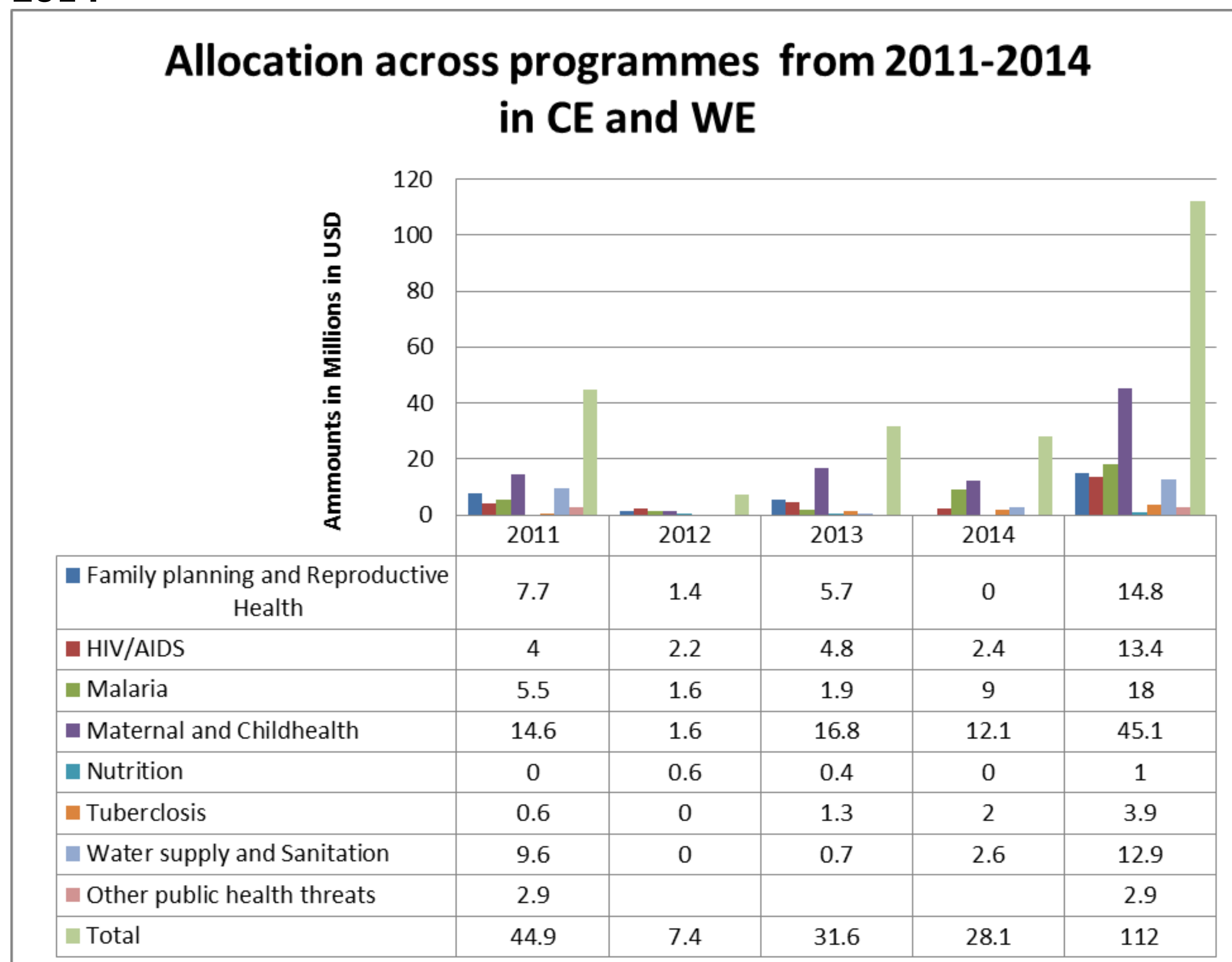
Description	Oct 12-Jun 13	Jul 2013-Jun14	Jul14-Jun15	Jul15-Dec 15	Jan16-Mar16	Total
Bridging Contracts	6,364,545	2,591,037				8,955,582
Long Term Contracts: EE, WBGS, Unity		13,241,379	13,241,379	6,620,690		33,103,448
Long Term Contracts: LS, WS, NBGS		11,034,483	13,241,379	6,620,690		30,896,552
County Hospitals		2,142,857	8,571,429	4,285,714		15,000,000
SMoH support		380,000	651,429	325,714	162,857	1,520,000
LTTA to SMoH		4,400,000	4,400,000	2,200,000		11,000,000
Programme Management/ STTA Costs	1,887,266	3,774,533	3,774,533	1,887,266	943,633	12,267,231
Total	8,251,8	37,564,	43,880,	21,940,	1,106,4	112,742,

	11	289	149	074	90	813

Additionally , the point of the extent to which the health care financing mechanism fosters both the allocative efficiency (doing the right thing) and the technical efficiency (doing the right thing right) in the use of resources was examine.

Most of the resources have been allocated for primary healthcare to strengthen preventive services as compared to curative services. This is because most of diseases burden can prevented by providing services such as immunization, tuberculosis, HIV/AIDS, Malaria, Maternal health, child health hypertension. HPF allocated GBP 72,955,582 for primary healthcare and GBP 15,000,000 for hospital services over three and half years 2012-March 2016 for the six state they support. In 2014/2015 financial year, the MoH also allocated SSP 92,726,548 for Primary health care and SSP 57,976,793 for secondary and tertiary care (32). The donors also allocated funding for disease causing the heaviest burden of ill health in the community on figure. 3.7. This figure illustrates USAID allocation for south Sudan where Maternal and child health has been allocated the highest amount of $14.6 and this depicts allocative efficiency as the MMR for South Sudan is 2054/100,000 and U5MR of 120/1000. Additionally, interventions with the greatest value for money to contribute to the improvement of the health of the population were selected such integrated community case management of common childhood illness, treatment of TB using the DoTS strategy, Immunizations, Syndrome treatment of STI, integrated management of childhood illness. Additionally in South Sudan, the health sector development plan grants the contracting of Services to NGOs to achieve a greater efficiency in services delivery. From 2012 up to date, the Basic package for health and nutrition services has been contracted to NGOs, where one NGO has been contracted to work with the county health department in the delivery of primary and secondary care services.

Figure 3. 7: USAID funding allocation across programmes from 2011-2014



	2011	2012	2013	2014	
Family planning and Reproductive Health	7.7	1.4	5.7	0	14.8
HIV/AIDS	4	2.2	4.8	2.4	13.4
Malaria	5.5	1.6	1.9	9	18
Maternal and Childhealth	14.6	1.6	16.8	12.1	45.1
Nutrition	0	0.6	0.4	0	1
Tuberclosis	0.6	0	1.3	2	3.9
Water supply and Sanitation	9.6	0	0.7	2.6	12.9
Other public health threats	2.9				2.9
Total	44.9	7.4	31.6	28.1	112

The contracting of BPHNS by MoH to NGOs increased the number of services across the country and government was able to provide additional services which initially they could not provide prior to the contracting. This action reduced wastages and inefficiencies. Additionally CHD and NGOs have strength community structures to provide extra services such as DoTs for treatment of Tuberculosis, iCCM for treatment of malaria, diarrhoea, pneumonia and malnutrition additional to the facility based services. This efforts increased the maximum number of services provided at no additional cost of each service without compromising quality of care. (27)(10) (21) (25).

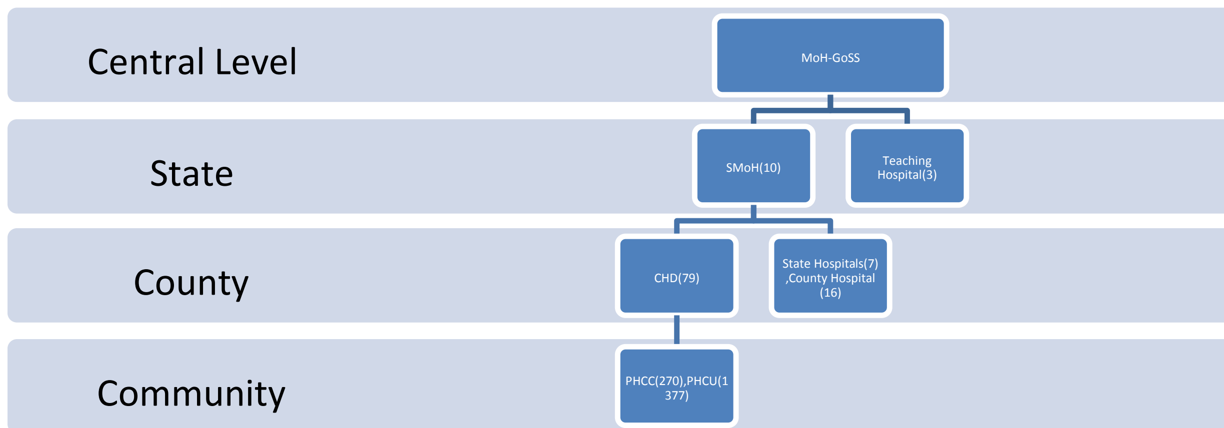
CHAPTER FOUR

4.0. Health system, services delivery and utilization, and services Coverage.

4.1. Health system

The health care system in South Sudan is weak, characterized by limited human resources for health, damaged infrastructure, poor stewardship and proliferation of non-government Organisation delivering health services on behalf of the government. The MoH operates in line with the decentralized policy of the interim constitution of South Sudan and the local government act of 2009. According to the health sector development plan 2011-2015, the decentralized organizational structure is based on four level of administrative structure, that from the central, to state, county and community (10) (35).

Figure 4. 1: The decentralized structure of the health system in South Sudan



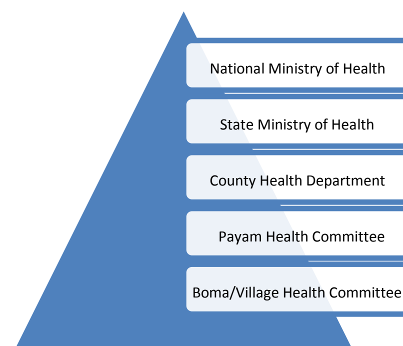
4.2. Health services Management

The health system has four tiers, namely National, State, County and Community. At the National level, The Ministry of Health provides overall leadership, develops policies, guidelines and standards, engages in advocacy and resource mobilization, and supervises the overall healthcare service delivery in the country. At the state level, the SMoH provides leadership for health services delivery and Management in their respective states. The CHDs manages the delivery of primary healthcare in the Payams, Bomas, and the villages. The village health committees participate in the management of the healthcare facilities in their locations. In some states

due to inadequate capacities at the state ministries of health, the MoH is also performing some services delivery functions, which are the core functions of the state ministry of health.
Additionally, the MoH manages the three teaching hospitals in Juba, Wau, and Malakal (10).

The SMoH and the CHD are responsible for the delivery of secondary and primary care respectively. The funding of the government provided to health services is managed by the SMoH and the CHDs (31). Additionally to the government-funded health facilities, there are about 800 PHCUs and PHCCs that are run and managed by NGOs (national/international) and faith-based organizations. These organizations are managing these health facilities to deliver healthcare services in close collaboration with the SMoH and CHDs (35) (10) (31).

Figure 4. 2: The organizational and management structure of MoH



4.3. Health services delivery

The health services delivery in South Sudan in structured in four tiers as PHCU, PHCC, County hospitals and then state Hospitals/Teaching hospitals. This structure is aligned to the administrative substructure in the country (31) (10) (35).

The PHCUs, are the first level of care, provide basic, preventive, promotive and curative services and are expected to serve a population of 15,000 at Boma level (31) (35).The PHCCs are the immediate level of referral for the PHCUs. In addition to the services provided by PHCUs, they provide, diagnostic laboratory services, maternity and inpatient care. They are expected to serve a population of 50,000 at Payam level. However in urban areas, due to the high population size, the PHCC can be located in Boma and

Payam as well. Besides offering facility based services, the PHCC also organizes outreach services, to Bomas and villages if it's situated at Payam headquarters or from Boma to villages if the PHCC is situated at Boma (31). The county hospitals serve as referral level for PHCCs. Besides the services provided by the PHCCs, they provide emergency surgical operations. The county hospital serve a population of 300,000 while the state hospitals serve a population of about 500,000 (17). The county and state hospitals represent the secondary healthcare level, where the general medical specialists such as surgeons, obstetricians, physicians, and paediatricians provide care, training and mentoring of interns.

The teaching hospitals provide tertiary care. However, currently, the tertiary hospitals are performing basic functions due to lack of equipment's and qualified human resources (17) (10).

4.4. Health services coverage and utilization

In the 10 states of South Sudan, there are 1,487 health facilities, only 1,147 are functional and 340 are not functional. Of the functioning facilities, there are 3 teaching hospitals, 7 state hospitals, 27 county hospitals, 284 PHCC and 792 PHCU, 10 private facilities, 14 specialized hospitals/clinics and 10 police and military health facilities. The non-functional health facilities includes 2 state hospitals, 1 county hospital, 30 PHCC and 302 PHCUs, 4 private facilities and 1 specialized hospital/clinic (10). It's estimated that only 44% of the population can access health facility within 5km radius as recommended by the health policy.

4.4.1. Utilization of health facilities.

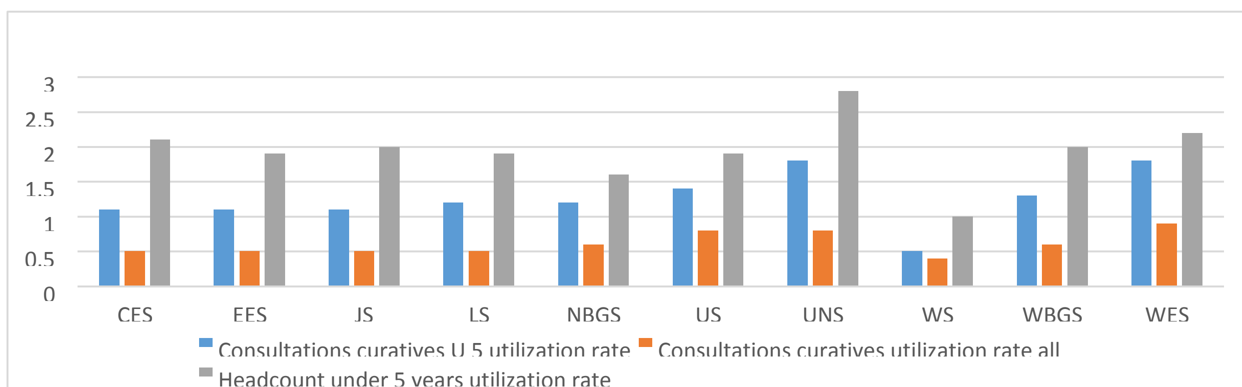
In 2013, over seven million visited health facility for preventive and curative services in South Sudan, although some people used the services more (36). Health services utilization rate for all curative care for all ages is at 0.6 visits per annum in South Sudan and ranges from 0.4 to 0.8 across states in South Sudan as shown in table 4.1 below. This rate is below the HSDP target of 1, because the HSDP assumes that one should visit the health facility at least once a year. (36) (10).In many countries, this assumption is made, wrongly though; somehow people consider that 1 visit per person per year corresponds to 100%. However, in many developed countries, people make on average 4 – 6 visits per year, not counting other visits that they make to all kind of quacks. It is quite impossible to give an 'ideal' or normative value to the number of curative consultations a citizen in a particular country should pay to a health service per year.

Table 4. 1: Utilization Rates

State	Utilization Rate of curative consultations for children under 5 yrs	utilization rate of preventative and curatives care for children under 5 yrs	Utilization rate for curative consultations for all age groups
CES	1.1	2.1	0.5
EES	1.1	1.9	0.5
JS	1.1	2	0.5
LS	1.2	1.9	0.5
NBGS	1.2	1.6	0.5
US	1.4	1.9	0.8
UNS	1.8	2.8	0.8
WS	0.5	1	0.4
WBGS	1.8	2.2	0.9
WES	1.3	2	0.6
South Sudan	**1.25**	**1.94**	**0.6**

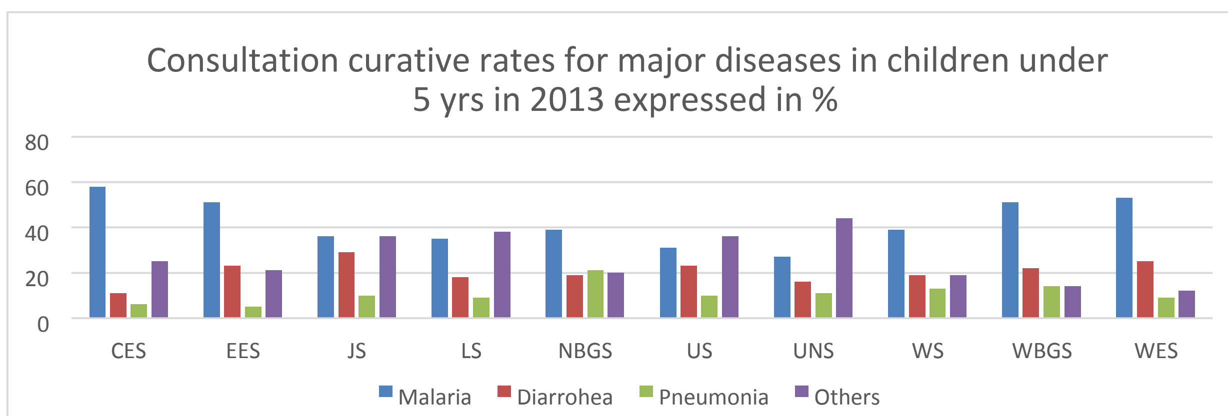
Warrap state has the lowest utilization rates compared with the other states in the country and the highest rate is observed in Upper Nile State as shown in figure 4.3 below.

Figure 4. 3: Consultations rates across states



The main reason for seeking consultations at facilities among children under the age five was malaria, diarrhoea, pneumonia and other causes. Malaria across the state continues to be the major cause of morbidity across the 10 states as illustrated in figure 4.4 below. However with the poor health system, many conditions with fever could also be falsely considered as malaria.

Figure 4. 4: Consultation curative rates for major diseases in children under 5years

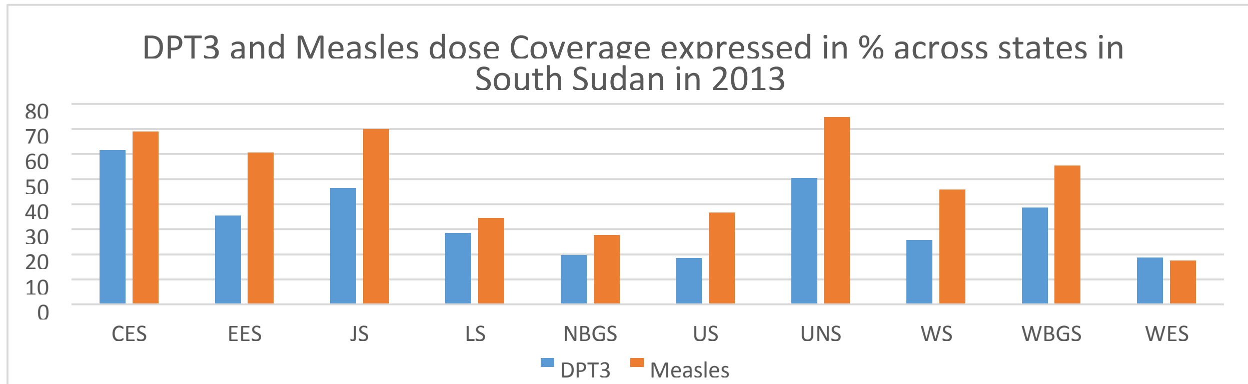


4.4.2. Utilization of immunization services.

Immunization is a proven strategy to reduce the number of vaccine preventable diseases and child mortality (36). The vaccination coverage rate for children under the age of 1 year in 2013 is very poor marked with high disparity across states. The BCG coverage in South Sudan is 38% while across the states it ranges from 23% in WBGS and 52% in CES; DPT1

coverage is 47% in South Sudan while across the states it ranges from 27% in WBGS and 65% in CES; DPT3 coverage is 38% while across the states it ranges from 19% in WBGS and 62% in CES and measles coverage is 54% while across the states it ranges from 5% in WES and 75% in UNS. EPI coverage is much below the HSDP target of 85% meaning that children are at risk of vaccine preventable diseases. The doses coverage for DPT3 and measles is poorest in WES and NBGS as shown the figure 4.5 below.

Figure 4. 5: Doses coverage for DPT3 and measles



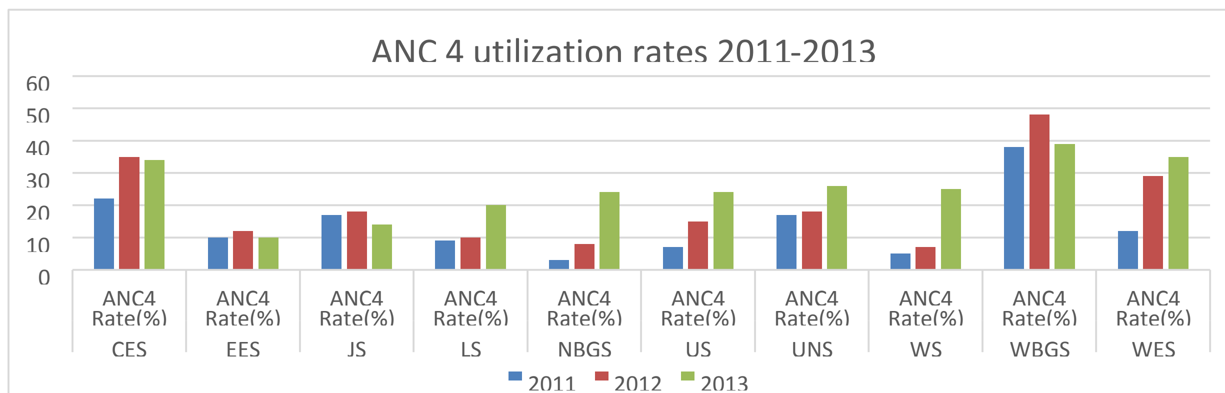
4.4.3. Utilization of Antenatal Care services

The reproductive health policy provides a comprehensive framework for the delivery of SRH services (22) and these services are comprehensive safe motherhood care, gynaecological care, protection against gender-based violence, and the reproductive health of special groups (33) (37). These services are integrated into the primary healthcare services and implemented in accordance with the BPHNS (31) (33)(3)..

The maternal and new-born health coverage along the continuum of care shows that family planning utilization rate is 13%, antenatal care 4th visits are 17%, and skilled birth delivery 19%, Postnatal Care 0%, exclusive breastfeeding at six months is 45%. There is an increase in skilled birth attendance from 10% in 2006 to 19% in 2010. In the prevention of mother to child transmission of HIV, the number of mothers who are HIV positive and on ARVs increased from 9% in 2011 to 18% in 2014. The percentage of mother's aged 15-45 who attended at least one antenatal care by skilled personnel during pregnancy was 26% in 2006, 40% in 2010 and 62% in 2013 (3). The number of health facilities providing gynaecological care services especially emergency obstetric care services increased to 22% in 2013 (3).

Across states, the efforts to provide maternal health services are promising. The ANC 4 coverage rates continues to improve from 2011 to 2013 despite the fact it's below the HSDP target of 40% with exception of WBGS in South Sudan, and across the states (36). In 2013, the utilization of ANC services is lower in EES and JS as shown in the figure 4.6 below meaning that pregnant mothers are not going for ANC services.

Figure 4. 6: ANC 4 utilization rates 2011-2013



4.4.4. Utilization of delivery services.

Facility based delivery remains very low especially those by skilled birth attendants. Despite the steady increase in facility based deliveries especially in the hands of skilled birth attendants, the target is still far below the HSDP figure of 25% and 30% respectively as shown in figure 4.7. WBGS continues to report higher numbers of facility based deliveries in the hands of skilled birth attendants as compared to the other states as shown in figure 4.8.

Figure 4. 7: Births attended in health facilities 2011-2013

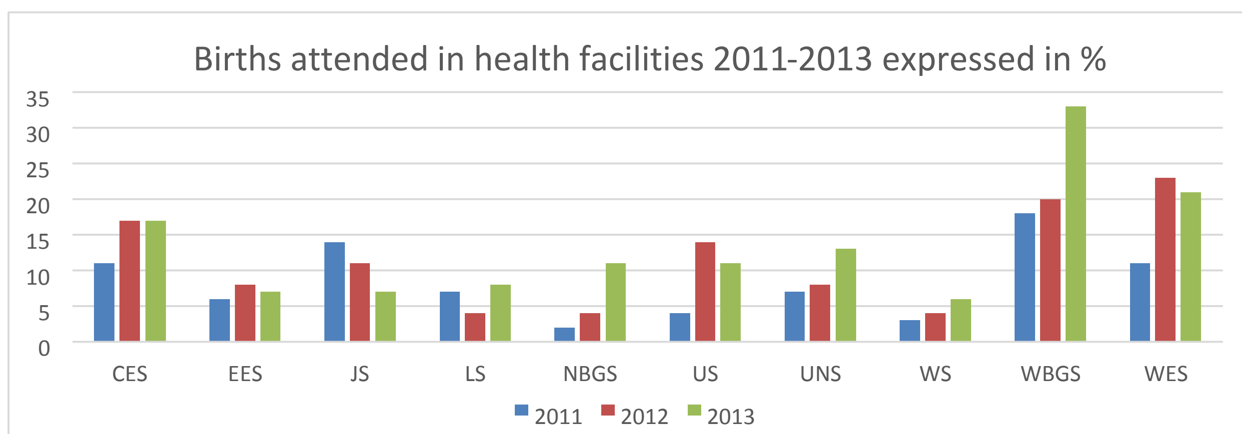
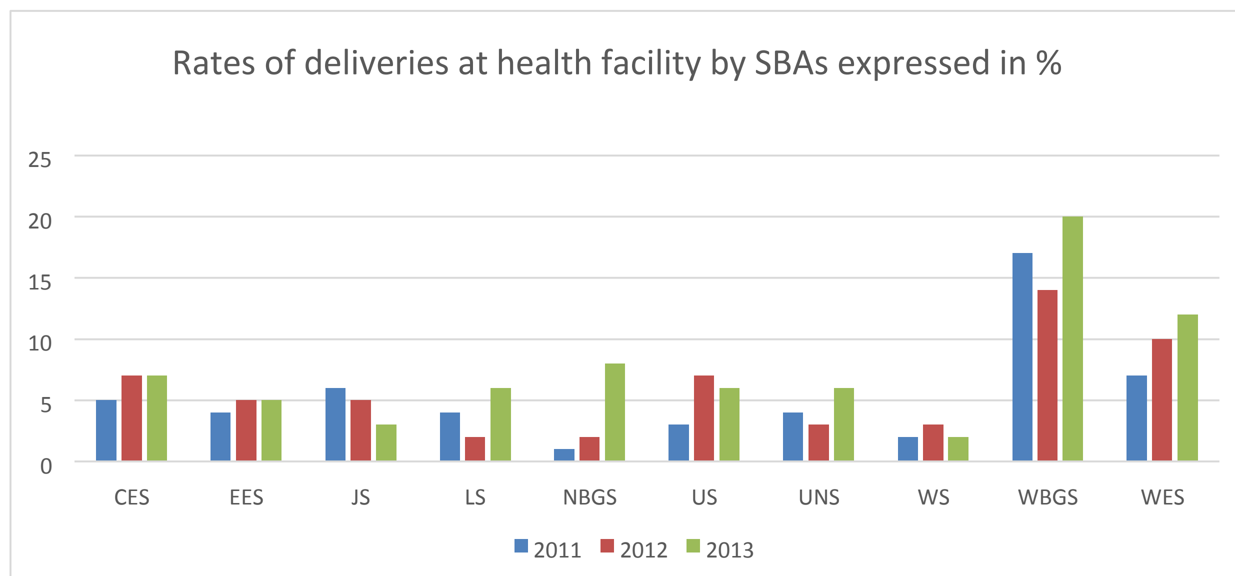


Figure 4. 8: Rates of deliveries at health facility by skilled birth attendants



A combination of factors is contributing to this low utilization rates especially a limited number of qualified staff, inadequate equipment and supplies, long distances to health facilities, week referral systems, cultural and financial barriers as the insecurity in some parts of the country (10) (35). The countdown to 2015 report on South Sudan indicates that, MMR 2054/100,000, U5MR 84/1000, DPT3, 39%, utilization of ANC4 and skilled delivery services by the poorest and richest is less than 40% and DPT3 coverage is less than 40%. These are the worst in Sub Saharan Africa.

4.4.5. Health services utilization and coverage across socioeconomic groups

There is a huge disparity in services utilization in relation to socio-economic status. In the richest households at least 70% attended ANC first visit and 40% 4th visit while only 20% of the poorest household attended the 1st ANC visit and 4th ANC visit is 5%. 40% of the richest households enjoy skilled birth attendance services while only 10% for the poorest household do. About 30% and 45% of the richest households have their children vaccinated for DPT3 and measles respectively while and only 5% and 15% from the poorest household have their children vaccinated for DPT3 and measles respectively. The only services coverage without socioeconomic inequities is Vitamin A and ORT and exclusive breast feeding for children up to six months (3).

4.5. Effectiveness in health delivery

Mortality and morbidity indicators has improved across South Sudan. Targeted diseases like polio is at the point of eliminated as no new cases report in the last four years although the data shown in figures 4.5 to 4.8.illustrates slow progress. The midterm evaluation report for the health pooled for the six states (EES, LS, NBGS, WBGS, US and Warrap) and the integrated services delivery project two states (CES and WES) demonstrated significant progress that has been made to reduce public health problems despite the many difficulties encountered as a result of the conflict that erupted on the 15th December 2015. The overall health indicators for HPF and Jhpiego supported services indicates relative improvement in delivery of services compared with the baseline data which was very low, for example, maternal indicators such as ANC 4 visit went up from 12.9% to 23.2%, TT2 for ANC went up from 5.2 to 17.1%, immunization rates such as BCG also went up from 13.4% to over 30%, DPT3 went up from 11.5% to over 30% and measles also went up from 21.5% to over 50%. Supervised deliveries rose from 3.5% to 6.4%, health facilities deliveries are up from 7% to 12.6% and postnatal coverage from 6.1% to 10.2% (33).

4.6. Quality

Quality in healthcare in South Sudan is measured by acceptability of services utilization by the population for sick child consultations, staffing, infection control supplies availability, in-services training and supervision and the childcare guidelines (27). The quality of healthcare services across the 10 states remains poor and there is an urgent need for improvement (27). 12% of health facilities were classified as acceptable for services utilization by the population for sick child consultations, 16% for staffing, 3% for infection control supplies available and 0% have all the childcare guidelines. Healthcare workers performance was categorized as acceptable in only 6% of causes related to sick child assessment, 38% related to medical treatment for a given diagnosis and 33% related to patients counselling on how to administer prescribed drugs. Best performance was recorded in the availability of in-services training supervision for seven states out of ten (27).

CHAPTER FIVE:

5.0. Final Discussions, Conclusions and recommendations.

5.1. Summary of Main conclusions

Healthcare services provided by any country to its citizens are determined by how much resources have been generated, pooled, allocated and how it's spent. The way programmes are organized and the services that are prioritized also have implications on health services delivery (1). This study is driven by this increasing recognition and therefore aims to explore factors affecting financial resource generation, pooling arrangements, resource allocation and purchasing for healthcare services in South Sudan. In order to achieve the stated aim of the study, three questions were formulated; specific objectives on how to answer these questions were developed with key issues to tackle as in shown in **annex 3.** The study questions can be found on chapter two, section four and subsection three.

The questions were used to examine how financing functions contribute to the achievement of universal health coverage agenda in South Sudan. The major conclusions of the study are discussed under the following sub themes.

5.1.1. Sufficiency and sustainability of health financing mechanism in South Sudan

The financing mechanism is not sufficiently efficient and sustainable. It does not have the ability to generate a relatively large amount of funds for the health sector. There are multiple funding sources. THE (in I$, PPP, per capita) of $73; OOP payments: 39.5 I$ (PPP) = 54% of THE; external sources of funding: 30.5 I$(PPP) = 42% of THE; other sources like SHI/taxes contribute: 3 I$(PPP) = 4% of THE (2). Public expenditure (in I$, PPP, per capita; in the case of South Sudan: 34 I$) is far less than the $85 (In I$, PPP per capita) estimate needed to guarantee a basic benefit package for the population. Besides health care financing is highly dependent on donor contributions (external sources of funding: 30.5 I$(PPP) =42% of THE) amounting to 81% of the public expenditures (GGHE). The OOP: 39.5 I$ (PPP) = 54% of THE, which is higher than the acceptable OOP I$, PPP) =20%, with the consequent risk for catastrophic health expenditures.

5.1.2. Equity and efficiency in risk pooling.

The study further revealed that there is limited financial risk protection from catastrophic effect of OOP. The available pooled funds through tax revenue,

oil revenue and DAH is amounting to 34 I$, PPP: constituting 46% of THE. The OOP share is above 20% and this manifests the precarious state of households likely to experiences catastrophic health expenditure. The principle of solidarity is at stake (29). The funds pooled by GoSS to offers healthcare services free of charge for the entire population is in adequate.

5.1.3. The allocative and technical efficiency

The allocation of resources among the different levels of care especially tertiary (hospital) care versus primary health care are efficient. This is because the resources allocated for primary care level focus on the prevention activities for diseases with highest burden on the population like malaria, diarrhoea and pneumonia; it covers the whole country especially the poor rural population. The interventions such as immunization also have positive externalities and preventive effects in the community. Additionally these interventions offers the lowest cost per unit of health outcome such as immunization, tuberculosis, HIV/AIDS, Malaria, Maternal health, child health and hypertension (32)

The study also found out that efforts by the CHD/NGOs are in place to ensure technical efficiency. The CHD/NGO has produced the maximum number of fundable services at minimal cost and of high quality. This is because additional to the planned services per the BPHNS, activities like iCCM, DoTS were introduced to strengthen community capacity respond to malaria diarrhoea, pneumonia and nutrition at no additional cost allocation per counties

5.1.4. Delivery of health Services and utilization relative to needs:

The study found out that, South Sudan health policy provides a comprehensive framework for the delivery of integrated free primary healthcare services in accordance with the BPHNS (22) (31) (33)(3). There is a huge disparity in services utilization according to socioeconomic status. In the richest household at least 70% attended ANC first visit and 40% 4th visit while only 20% of the poorest household attended the 1st ANC visit and 4th ANC visit is 5%. 40% of the richest household attend skilled birth attendance services while only 10% for the poorest household. About 30% and 45% of the richest households have their children vaccinated for DPT3 and measles respectively while and only 5% and 15% from the poorest household have their children vaccinated for DPT3 and measles respectively. The only services coverage without socioeconomic inequities is Vitamin A, ORT and exclusive breastfeeding (3). Hence the rich utilizes the services more than the poor who have the highest burden of diseases in South Sudan

5.2. Recommendations and policies according to world health report (WHR 2010).

The world health report dedicated a whole chapter for recommendations on health care financing entitled '' Agenda for action'' to ensure universal coverage.

It is evident that, none of the countries will start from scratch in the way they finance their health services. Countries should build on the existing system in place, according to its values, constraints and opportunities. However the process of building these systems should be informed by international as well as national experiences, through reviewing the best available evidence. The following are the key recommendations for countries to take forward to achieve universal health coverage.

5.2.1. The cost for health services should not deter access for services:

There is heavy reliance globally on direct payment as a sources of domestic revenue for health. Direct payment for health services at the point of need for services has prevented millions of people from seeking healthcare services and those who do seek, have been confronted with financial hard and even impoverishment. Many countries can do more to prevent these people by ensuring that bulk of the domestic funding for health is derived from a form of prepayment that is pooled to spread financial risk across the population. The prepayment and pooling is not only to remove the financial barrier to access health services but to reduce the incidence of catastrophic health spending which are the key objectives in the drive toward universal health coverage.

5.2.2. Consolidate funding pools and adopt compulsory prepayment

Achieving universal health coverage through voluntary enrolment for insurance is quite impossible. The low risk group mainly the young and the youth will opt out, while it's difficult to ensure the self-employed make contributions. Although voluntary participation enables people to own such scheme and see the benefits of prepayments and this means that some financial protection is better than none, the only way to achieve 100% full participation and coverage is to ensure compulsory enrolment of the population

5.2.3. Use resources more efficiently and equitably

Countries should avoid and prevent inefficiencies. These actions will free reasonable amount of resources that will ensure faster progress towards

universal health coverage. Focusing on medicines alone through transparency in buying and tendering as well as improving prescription of medicines can significantly reduce spending in many countries with no loss of quality.

5.3. Recommendations for South Sudan

With the above conclusions and in line with WHR 2010 recommendations, based on the findings on the factors affecting financial resources generations, pooling, and allocation and purchasing, the following are the key recommendations of this thesis for south Sudan are categorized in immediate, midterm and long term;

5.3.1. Improving security across South Sudan:

The peace partners of the CPA2 has to prioritize the restoration of peace across South Sudan. The peace dividend will create a conducive environment for saving the fragile health system of south Sudan from disintegrating. The government should further restore trust from its citizen and the international community of its capacity to provide security and protect the lives, properties and assets of its citizens. Will enable the IDPs in UNMISS camps across the country to return to their homes.

5.3.2. Increase external source of funding for the healthcare system.

The conflict destroyed the oil infrastructure resulting into low production of crude oil for export as sources of revenue. Of THE (in I$,PPP, per capita of $73, The domestic sources of funding contributed to THE (in I$, PPP, per capita) :42,5 I$ (PPP)=57%, of which OOP constituted: 39.5 I$ (PPP) = 54%, other sources like SHI/taxes contributed: 3 I$(PPP) = 4% (2). With the current financial crises across South Sudan, thing might get worse. To continue to fund the BPHNS, the international community should funding to support the delivery of basic health services across South Sudan. Some of the funding could be allocated for construction of health infrastructures destroyed by the conflict, development of human resources for health through supporting the health training school.

5.3.3. Raise sufficient resources for health so as to reduce OOP share to not more than 20% of the PPP:

Once the security has normalized, and the government has built trust from its citizens, the government should increase the GGHE for health from the current 4% to 15% to meet the target agreed during the Abuja declaration of 2001.Innovative domestic sources of financing for the healthcare such as leaving specific taxes on items like alcohol, air tickets, foreign exchange

transactions, or extra cost on incoming and outgoing international telephone calls.

5.3.4. Removing financial risks and barriers to access health care.

In addition to raising sufficient funds, currently South Sudanese population do not have a system that protects them from financial hardship or enables them to access quality health services without having to pay for services at the point of use. The government should expand the social health insurance coverage to cover all its citizens especially the organize forces and people in the informal sectors such as the peasants, the business community and the pastoralist to achieve the principle of solidarity and share risks. The enrolment of the population should be compulsory.

5.3.5. Use resources more efficiently and equitably

MoH should avoid and prevent inefficiencies such as expiry of drugs in their warehouse and health facilities and distribute services equitability across South Sudan, as the Health facility managers have attributed this waste to the ‘’Push’’ system of drug supply and MoH has said, that, the push system was adopted because there was not information of consumption level by facilities and Lack of capacity by health personals to manager their supplies. This resulted in millions of dollars lost the large amounts. Huge administrative and transaction expenses incurred by fund managers and implementing partners is another cause of inefficiencies. The HPF incurs 10% of the funds for the six states as administrative and transaction cost. These inefficiencies can be reduced by the introduction of performance based financing of the healthcare services contracted to the NGOs and strengthening the capacity of the CHD to take over the full responsibility of implementing health activities in the county. This approach will free a reasonable amount of resources that will ensure faster progress towards universal health coverage.

5.4. Recommendations for further studies

1 What is the cost benefit of contracting the delivery of health care services delivery to NGOs in South Sudan?
2 What is cost per capita for implementing the basic package for health and nutrition services?

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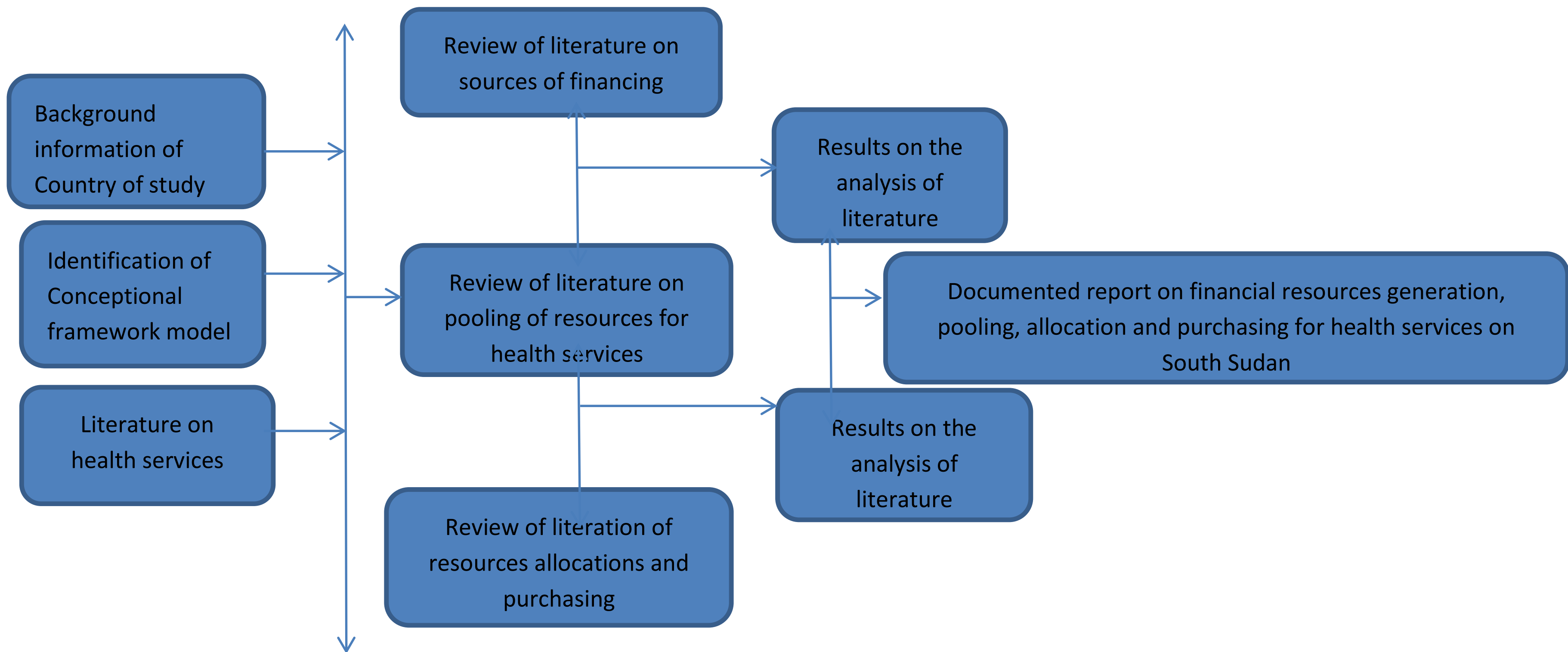
Annex 1: Research framework and planning

The research frame is the structure of the systematic research Objectives prior to the study and represents the internal logic of the research.



Annex 2: Definition of key Concepts

This describes the overview of concepts used in the study. Here exact definition of the term is provided.

S/N	Concept	Definition
1	Effectiveness	Effectiveness in healthcare refers to the degree of an objective to reduce a public health problem has been achieved and the extent to which the targeted diseased has been eliminated.
2	Efficiency	Efficiency in healthcare financing refers to the provision of quality medical services at a reasonably low cost with minimal effort. It can also be describe as a ratio of the out (services produced) to the input (resources). Efficiency has been categorized into two terms namely allocative efficiency and technical efficiency.
3	Quality	The accepted standard of something as a measure against other things of similar kind.
4	Equity	The quality of being fair or impartial.
5	Sustainability	Extent to which a funding arrangement can be maintained and achieve the desired outcome
6	Feasibility	The extent to which something can be implement.

7	Out of Pocket	Out of pocket expenditure is any direct outlay, by households, including in-kind payments to health practitioner to receive health care services.
8	Fiscal Space	Extend of flexibility of a government especially in its spending choices and more generally to the financial well-being of a government.

Annex 3: Search terms used for the literature review strategy

The exact terms used to search for literature are as in the table below. Three terms were combined with key subject of this study with all 12 search terms for factors led to a total of 48 performed searches.

1	Financial resources	1	Generation	1	Health care
		2	pooling	2	SRH services
		3	allocation	3	Maternal Health
		4	Purchasing	4	Family Planning
				5	Adolescence health
				6	Gender Based Violence
				7	Neonatal Health
				8	Obstetrics care
				9	Abortion care
				10	HIV care
				11	STI care
				12	SRH in emergencies

Annex 4: Research Table

General Objective	To critically review financial resources, generation, pooling, their allocation and purchasing for healthcare services in South Sudan.		
Specific objective	Issues	Data Collection Methods	Source of Literature
1. Analyze the various financing sources for health care services and the level of funds available for the health system in South Sudan.	Domestic sources • Tax revenue • OOP • Social Health insurance. External Sources • Bilateral aid. • Multilateral aid.	• Literature search.	• UNFPA • UNICEF • WHO • World Bank • UN-Women • SCO
2. Describe and analyse the allocation of resources for the healthcare system across the states and counties, across	**Allocation** • Burden of disease • Population of state and county	• Literature search.	

socioeconomic status, across levels of care and across programs in South Sudan.	• Social economic status **Pooling** • Financial risk protection arrangements • Size of population or group covered by the financing mechanism • People currently using the national insurance. • Allocation mechanism for distributing pooled resources **Purchasing** • The choice of the package to which beneficiaries are entitled • The types of the services and providers • The provider payment mechanism(Out of Pocket expenditure or of users fees		• UNFPA • UNICEF • WHO • World Bank • UN-Women • SCO
3. Analyze the health services utilization and	• Skilled birth attendant		

effective coverage across counties in South Sudan	• ANC 4 Coverage • EPI coverage Penta4 • Utilization rates of curative consultations • TB cure rate • ITN Bed net use.	• Literature search.	• UNFPA • UNICEF • WHO • World Bank • UN-Women • SCO • Community members(Women(adults) and Men(adults)
4. Provide policy recommendations on how to improve health systems financing, including their equitable allocation and purchasing in South Sudan.	• Generating key recommendations from the study.		

Annex 5: Fund allocation across counties in the ten states of South Sudan in South Sudanese pounds

Central Equatoria State												
S/N	*State*	*Counties*	*Population*		*Amount Allocated*						*Cost allocation per capita*	
					2013/2014			*2014/2015*			*2013/2014*	*2014/2015*
			2013/2014	*2014/2015*	*Operating Grant*	*Capital Grant*	*Total*	*Operating /capital Grant*	*services delivery*	*Total*		
1	*CES*	*Juba*	*485,088*	*499,641*	*514,892*	*253,165*	*768,057*	*1,269,208*		*1,269,208*	*2*	*3*
2		*Kajokeji*	*255,850*	*263,526*	*343,352*	*253,165*	*596,517*	*846,364*		*846,364*	*2*	*3*
3		*Lainya*	*116,338*	*119,828*	*238,955*	*253,165*	*492,120*	*589,023*		*589,023*	*4*	*5*
4		*morob*	*134,94*	*138,99*	*252,8*	*253,1*	*506,0*	*623,3*		*623,3*	*4*	*4*

		o	9	7	81	65	46	52		52		
5		Terekeka	182,874	188,360	288,743	253,165	541,908	711,753		711,753	3	4
6		yei	262,391	270,263	348,246	253,165	601,411	858,427		858,427	2	3
Total			1,437,490	1,480,615	1,987,069	1,518,990	3,506,059	4,898,127	-	4,898,127	2	3
Weste rn Bahr el Ghazal State												
S/N	State	Counties	Population		Amount Allocated						Cost allocation per capita	
					2013/2014			2014/2015			2013/2014	2014/2015
			2013/2014	2014/2015	Oparating Grant	Capital Grant	Total	Oparating /capital Grant	services delivery	Total		
1	WB	Raja	70,781	72,904	204,8	253,1	458,0	504,9		504,9	6	7

	GS				64	65	29	90		90		
2		Jur River	166,429	171,422	276,438	253,165	529,603	681,419		681,419	3	4
3		Wau	197,103	203,016	299,391	253,165	552,556	737,999	200,000	937,999	3	5
Total			434,313	447,342	780,693	759,495	1,540,188	1,924,408	200,000	2,124,408	4	5
Upper Nile State												
S/N	State	Counties	Population		Amount Allocated						Cost allocation per capita	
					2013/2014			2014/2015				
			2013/2014	2014/2015	Oparating Grant	Capital Grant	Total	Oparating /capital Grant	services delivery	Total	2013/2014	2014/2015

1	UNS	Malakal	164,751	169,694	275,182	253,165	528,347	678,325		678,325	3	4
2		Fashoda	47,567	48,994	187,493	253,165	440,658	462,170		462,170	9	9
3		Melut	64,140	66,065	199,895	253,165	453,060	492,742		492,742	7	7
4		Panyinkang	59,171	60,946	196,177	253,165	449,342	483,576		483,576	8	8
5		Baliet	45,057	46,409	182,794	253,165	435,959	450,587		450,587	10	10
6		Renk	179,428	184,811	286,165	253,165	539,330	705,398		705,398	3	4
7		Maban	58,925	60,693	195,992	253,165	449,157	483,212		483,212	8	8
8		Manyo	49,510	50,995	188,947	253,165	442,112	465,755		465,755	9	9
9		Ulang	110,774	114,098	234,792	253,165	487,957	578,761		578,761	4	5

10		Akoka	10,600	10,918	167,799	253,165	420,964	413,625		413,625	40	38
11		Longochuk	82,277	84,746	213,467	253,165	466,632	526,196		526,196	6	6
12		Nasir	273,539	281,745	356,589	253,165	609,754	878,992		878,992	2	3
13		Maiwut	103,504	106,609	229,351	253,165	482,516	565,350		565,350	5	5
Total			1,249,243	1,286,723	2,914,643	3,291,145	6,205,788	7,184,689	-	7,184,689	5	6
Jongle i State												
S/N	State	Counties	Population		Amount All ocated						Cost allocation per capita	
					2013/201 4			2014/201 5				
			2013/2014	2014/	Opar	Capital	Total	Oparating	services	Total	2013/2014	2014/2015

				2015	ating Grant	Grant		/capital Grant	delivery			
1	JS	Akobo	177,421	182,744	284,663	253,165	537,828	701,695		701,695	3	4
2		Ayod	181,422	186,865	287,658	253,165	540,823	709,076		709,076	3	4
3		Bor South	288,003	296,643	367,412	253,165	620,577	905,671		905,671	2	3
4		Duk	85,432	87,995	215,828	253,165	468,993	532,015		532,015	5	6
5		Fangak	143,450	147,754	259,243	253,165	512,408	639,034		639,034	4	4
6		Nyirol	141,554	145,800	257,824	253,165	510,989	635,536		635,536	4	4
7		Pibor	193,397	199,199	296,618	253,165	549,783	731,164	300,000	1,031,164	3	5
8		Piegi/Canal	129,042	132,913	248,461	253,165	501,626	612,456		612,456	4	5

9		*Pochalla*	*86,230*	*88,817*	*216,425*	*253,165*	*469,590*	*533,488*		*533,488*	*5*	*6*
10		*Twic East*	*111,172*	*114,507*	*235,089*	*253,165*	*488,254*	*579,494*		*579,494*	*4*	*5*
11		*Uror*	*232,531*	*239,507*	*325,902*	*253,165*	*579,067*	*803,349*		*803,349*	*2*	*3*
Total			*1,769,654*	*1,822,744*	*2,995,123*	*2,784,815*	*5,779,938*	*7,382,978*	*300,000*	*7,682,978*	*3*	*4*

Easter n Equato ria State

S/N	*State*	*Counties*	*Population*		*Amount Allocated*						*Cost allocation per capita*	
					2013/2014			*2014/2015*			*2013/2014*	*2014/2015*
			2013/2014	*2014/2015*	*Oparating Grant*	*Capital Grant*	*Total*	*Oparating/capital Grant*	*services delivery*	*Total*		

1	*EES*	*Budi*	*129,212*	*133,088*	*248,589*	*253,165*	*501,754*	*612,771*		*612,771*	*4*	*5*
2		*Ikwotos*	*110,260*	*113,568*	*234,407*	*253,165*	*487,572*	*577,812*		*577,812*	*4*	*5*
3		*Kapoeta East*	*213,615*	*220,023*	*311,748*	*253,165*	*564,913*	*768,458*		*768,458*	*3*	*3*
4		*Kapoeta North*	*134,273*	*138,301*	*252,375*	*253,165*	*505,540*	*622,105*		*622,105*	*4*	*4*
5		*Kapoeta South*	*103,514*	*106,619*	*229,359*	*253,165*	*482,524*	*565,369*		*565,369*	*5*	*5*
6		*Lopa/Lafon*	*138,281*	*142,429*	*255,374*	*253,165*	*508,539*	*629,498*		*629,498*	*4*	*4*
7		*Magwi*	*221,208*	*227,844*	*317,429*	*253,165*	*570,594*	*782,463*		*782,463*	*3*	*3*
8		*Torit*	*129,917*	*133,815*	*249,116*	*253,165*	*502,281*	*614,071*		*614,071*	*4*	*5*

Total			*1,180,280*	*1,215,688*	*2,098,397*	*2,025,320*	*4,123,717*	*5,172,547*	*-*	*5,172,547*	*3*	*4*
Lake State												
S/N	*State*	*Counties*	*Population*		*Amount Allocated*						*Cost all ocation per capita*	
					2013/2014			*2014/2015*				

			2013/2014	2014/2015	Oparating Grant	Capital Grant	Total	Oparating/capital Grant	services delivery	Total	2013/2014	2014/2015
1	LS	Awerial	61,273	63,111	197,750	253,165	450,915	487,453		487,453	7	8
2		Cueibet	153,382	157,983	266,675	253,165	519,840	657,354		657,354	3	4
3		Rumbek Centre	200,007	206,007	301,565	253,165	554,730	743,357		743,357	3	4
4		Rumbek East	159,995	164,795	271,624	253,165	524,789	669,553		669,553	3	4
5		Rumbek North	56,544	58,240	194,211	253,165	447,376	478,729		478,729	8	8
6		Wulu	52,819	54,404	191,423	253,165	444,588	471,858		471,858	8	9

7		Yirol East	87,795	90,429	217,596	253,165	470,761	536,374		536,374	5	6
8		Yirol West	134,411	138,443	252,479	253,165	505,644	622,360		622,360	4	4
Total			906,226	933,413	1,893,323	2,025,320	3,918,643	4,667,038	-	4,667,038	4	5
North ern Bahr el Ghazal												
S/N	State	Counties	Population		Amount Allocated						Cost allocation per capita	
					2013/2014			2014/2015				
			2013/2014	2014/2015	Oparating Grant	Capital Grant	Total	Oparating /capital Grant	services delivery	Total	2013/2014	2014/2015
1	NBGS	Awiel Centre	54,482	56,116	192,668	253,165	445,833	474,926		474,926	8	8

2		Awiel East	403,689	415,800	453,980	253,165	707,145	1,119,062		1,119,062	2	3
3		Awiel North	168,195	173,241	277,760	253,165	530,925	684,677		684,677	3	4
4		Awiel South	96,136	99,020	223,838	253,165	477,003	551,760		551,760	5	6
5		Awiel West	216,507	223,002	313,911	253,165	567,076	773,792		773,792	3	3
Total			939,009	967,179	1,462,157	1,265,825	2,727,982	3,604,217	-	3,604,217	3	4
Unity State												
S/N	State	Counties	Population		Amount Allocated						Cost allocation per capita	
					2013/201 4			2014/201 5			2013/2014	2014/2015
			2013/2014	2014/2	Oper	Capital Grant	Total	Operating	services	Total		

				015	ating Grant			/capital Grant	delivery			
1	US	Abiemnhom	22,159	22,824	168,480	253,165	421,645	415,304		415,304	19	18
2		Guit	42,990	44,280	184,068	253,165	437,233	453,727		453,727	10	10
3		Koch	97,513	100,438	224,868	253,165	478,033	554,300		554,300	5	6
4		Leer	69,064	71,136	203,580	253,165	456,745	501,824		501,824	7	7
5		Mayendit	70,055	72,157	204,321	253,165	457,486	503,652		503,652	7	7
6		Mayom	157,238	161,955	269,560	253,165	522,725	664,466		664,466	3	4
7		Pariang	107,387	110,609	232,256	253,165	485,421	572,512		572,512	5	5
8		Panyijar	66,070	68,052	201,339	253,165	454,504	496,300		496,300	7	7

9		*Rubkona*	*130,563*	*134,480*	*249,599*	*253,165*	*502,764*	*615,262*		*615,262*	*4*	*5*
Total			*763,039*	*785,930*	*1,938,071*	*2,278,485*	*4,216,556*	*4,777,347*	*-*	*4,777,347*	*6*	*6*
Warra p State												
S/N	*State*	*Counties*	*Population*		*Amount Allocated*						*Cost allocation per capita*	
					2013/2014			*2014/2015*			*2013/2014*	*2014/2015*
			2013/2014	*2014/2015*	*Oparating Grant*	*Capital Grant*	*Total*	*Oparating /capital Grant*	*services delivery*	*Total*		
1	*WS*	*Gogrial East*	*134,532*	*138,568*	*252,569*	*253,165*	*505,734*	*622,583*		*622,583*	*4*	*4*
2		*Gogrial West*	*317,721*	*327,253*	*389,650*	*253,165*	*642,815*	*960,487*		*960,487*	*2*	*3*

3		Tonj East	151,255	155,793	265,083	253,165	518,248	653,431		653,431	3	4
4		Tonj North	215,211	221,667	312,942	253,165	566,107	771,401		771,401	3	3
5		Tonj South	112,791	116,175	236,300	253,165	489,465	582,481		582,481	4	5
6		Twic	335,783	345,856	351,621	253,165	604,786	866,745		866,745	2	3
Total			1,267,293	1,305,312	1,808,165	1,518,990	3,327,155	4,457,128	-	4,457,128	3	3
Weste rn Equatoria State												
S/N	State	Counties	Population		Amount All ocated						Cost all ocation per capita	
					2013/201 4			2014/201 5			2013/2014	2014/2015
			2013/2014	2014/2	Opar	Capital Grant	Total	Oparating	services	Total		

				015	ating Grant			/capital Grant	delivery			
1	WES	Ezo	105,326	108,486	230,714	253,165	483,879	568,711		568,711	5	5
2		Ibba	54,537	56,173	192,709	253,165	445,874	475,027		475,027	8	8
3		Maridi	107,410	110,632	232,274	253,165	485,439	572,555		572,555	5	5
4		Mundri East	62,937	64,825	198,995	253,165	452,160	490,522		490,522	7	8
5		Mundri West	44,254	45,582	185,014	253,165	438,179	456,060		456,060	10	10
6		Mvolo	62,697	64,578	198,815	253,165	451,980	490,079		490,079	7	8
7		Nagero	13,126	13,520	161,721	253,165	414,886	398,642		398,642	32	29
8		Nzara	85,594	88,162	215,949	253,165	469,114	532,313		532,313	5	6

9		*Tambura*	*72,116*	*74,279*	*205,863*	*253,165*	*459,028*	*507,453*		*507,453*	*6*	*7*
10		*Yambio*	*198,323*	*204,273*	*300,304*	*253,165*	*553,469*	*740,251*		*740,251*	*3*	*4*
Total			*806,320*	*830,510*	*2,122,358*	*2,531,650*	*4,654,008*	*5,231,613*	*-*	*5,231,613*	*6*	*6*

Annex 6: Detailed allocations for level of care (primary and secondary care) across the ten states of South Sudan in South Sudanese pounds

N	*State*	*Counties*	*Population*		*Amount Allocated*						*Cost allocation per capita*			
					2013/2014			*2014/2015*			*2013/2014*		*2014/2015*	
			2013/2014	*2014/2015*	*Community and public health operating transfer (For County Health Departm*	*Secondary and Tertiary Healthcare Transfer (for State Ministries*	*Total*	Community and public health operating transfer (For County Health Departm	Secondary and Tertiary Healthcare Transfer (for State Ministries of	*Total*	Community and public health operating transfer (For County Health Departm	Secondary and Tertiary Healthcare Transfer (for State Ministries	Community and public health operating transfer (For County Health Departm	Secondary and Tertiary Healthcare Transfer (for State Ministries

					ent	of Healt h)		ent	Healt h)		ent	of Healt h)	ent	of Healt h)
1	CE S	6	1,437 ,4 89	1,480 ,6 14	3,506 ,0 59		3,50 6,0 59	4,898 ,1 27	1,029 ,41 0	5,92 7,5 37	2	-	3	1
3	W ES	10	806, 319	830,5 09	4,654 ,0 08		4,65 4,0 08	5,231 ,6 13	1,117 ,64 6	6,34 9,2 59	6	-	6	1
4	EE S	8	1,180 ,2 79	1,215 ,6 87	4,123 ,7 17		4,12 3,7 17	5,172 ,5 47	1,117 ,64 6	6,29 0,1 93	3	-	4	1
5	UN S	13	1,256 ,1 23	1,293 ,8 07	6,205 ,7 88		6,20 5,7 88	7,184 ,5 98	1,235 ,29 2	8,41 9,8 90	5	-	6	1
6	JS	11	1,769 ,6	1,822 ,7	5,779 ,9		5,77 9,9	7,382 ,9	1,735 ,29	9,11 8,2	3	-	4	1

			54	44	38		38	78	2	70				
7	US	9	763,038	785,929	4,216,556		4,216,556	4,777,347	911,764	5,689,111	6	-	6	1
8	WS	6	1,267,292	1,305,311	3,327,155		3,327,155	4,457,128	617,646	5,074,774	3	-	3	0.5
9	WBGS	3	434,312	447,342	1,540,188		1,540,188	1,924,408	411,764	2,336,172	4	-	4	1
10	NBGS	5	939,009	967,180	2,727,982		2,727,982	3,604,217	705,882	4,310,099	3	-	4	1
	Ls	8	906,227	933,413	3,918,643		3,918,643	4,667,038	1,117,646	5,784,684	4	-	5	1
Total		79	10,759,742	11,082,536	40,000,034	-	40,000,034	49,300,001	9,999,988	59,299,989	4	-	4	1

Annex 7: Detailed allocations across level of care for primary and secondary care across counties in the ten states of South Sudan in South

Sudanese pounds

Jonglei State													
N	*St at e*	*Count ies*	*Population*		*Amount Allocated*						*Cost allocation per capita*			
					2013/2014			*2014/2015*			*2013/2014*		*2014/2015*	
			2013 /2 014	*2014 /2 015*	*Com mu nity and public healt h opera tin g transf er*	*Secon da ry and Tertia ry Healt hca re Trans fer (for*	*Tota l*	Com mu nity and public healt h opera tin g transf er	Secon da ry and Tertia ry Healt hca re Trans fer (for	*Tota l*	Com mu nity and public healt h opera tin g transf er	Secon da ry and Tertia ry Healt hca re Trans fer (for	Com mu nity and public healt h opera tin g transf er	Secon da ry and Tertia ry Healt hca re Trans fer (for
					(For Count y Healt h Depar	*State Minist rie s of*		(For Count y Healt h Depar	State Minist rie s of		(For Count y Healt h Depar	State Minist rie s of	(For Count y Healt h Depar	State Minist rie s of

					tm ent	*Healt h)*		tm ent	Healt h)		tm ent	Healt h)	tm ent	Healt h)
1	*JS*	*Akobo*	*177,421*	*182,744*	*537,828*		*537,828*	*701,695*	*205,882*	*907,577*	*3*	*-*	*4*	*1*
2		*Ayod*	*181,422*	*186,865*	*540,823*		*540,823*	*709,076*	*-*	*709,076*	*3*	*-*	*4*	*-*
3		*Bor South*	*288,003*	*296,643*	*620,577*		*620,577*	*905,671*	*500,000*	*1,405,671*	*2*	*-*	*3*	*0.3*
4		*Duk*	*85,432*	*87,995*	*468,993*		*468,993*	*532,015*	*205,882*	*737,897*	*5*	*-*	*6*	*2*
5		*Fangak*	*143,450*	*147,754*	*512,408*		*512,408*	*639,034*		*639,034*	*4*	*-*	*4*	*-*
6		*Nyirol*	*141,55*	*145,80*	*510,989*		*510,98*	*635,536*	*205,882*	*841,41*	*4*	*-*	*4*	*1*

			4	*0*			*9*			*8*				
7		*Pibor*	*193,397*	*199,199*	*549,783*		*549,783*	*1,031,164*	*411,764*	*1,442,928*	*3*	*-*	*5*	*2*
8		*Piegi/Canal*	*129,042*	*132,913*	*501,626*		*501,626*	*612,456*	*-*	*612,456*	*4*	*-*	*5*	*-*
9		*Pochalla*	*86,230*	*88,817*	*469,590*		*469,590*	*533,488*	*205,882*	*739,370*	*5*	*-*	*6*	*2*
10		*Twic East*	*111,172*	*114,507*	*488,254*		*488,254*	*579,494*	*-*	*579,494*	*4*	*-*	*5*	*-*
11		*Uror*	*232,531*	*239,507*	*579,067*		*579,067*	*803,349*	*-*	*803,349*	*2*	*-*	*3*	*-*
Total			*1,769,654*	*1,822,744*	*5,779,938*	*-*	*5,779,938*	*7,682,978*	*1,735,292*	*9,418,270*	*3*	*-*	*4*	*1*
Upp er Nile State														

N	State	Counties	Population		Amount Allocated						Cost allocation per capita			
					2013/2014			2014/2015			2013/2014		2014/2015	
			2013/2014	2014/2015	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)
1	UN	Malakal	164,751	169,694	528,347		528,347	678,325		678,325	3	-	4	-

2	*S*	*Fashoda*	*47,567*	*48,994*	*440,658*		*440,658*	*462,170*	*205,882*	*668,052*	*9*	*-*	*9*	*4*
3		*Melut*	*64,140*	*66,065*	*453,060*		*453,060*	*492,742*	*205,882*	*698,624*	*7*	*-*	*7*	*3*
4		*Panyinkang*	*59,171*	*60,946*	*449,342*		*449,342*	*483,576*	*-*	*483,576*	*8*	*-*	*8*	*-*
5		*Baliet*	*45,057*	*46,409*	*435,959*		*435,959*	*450,587*	*-*	*450,587*	*10*	*-*	*10*	*-*
6		*Renk*	*179,428*	*184,811*	*539,330*		*539,330*	*705,398*	*205,882*	*911,280*	*3*	*-*	*4*	*1*
7		*Maban*	*58,925*	*60,693*	*449,157*		*449,157*	*483,212*	*205,882*	*689,094*	*8*	*-*	*8*	*3*
8		*Manyo*	*49,510*	*50,995*	*442,112*		*442,112*	*465,755*	*-*	*465,755*	*9*	*-*	*9*	*-*

9		Ulang	110,774	114,098	487,957		487,957	578,761	-	578,761	4	-	5	-
10		Akoka	10,600	10,918	420,964		420,964	413,625	-	413,625	40	-	38	-
11		Longochuk	82,277	84,746	466,632		466,632	526,196	205,882	732,078	6	-	6	2
12		Nasir	273,539	281,745	609,754		609,754	878,992	205,882	1,084,874	2	-	3	1
13		Maiwut	103,504	106,609	482,516		482,516	565,350		565,350	5	-	5	-
Total			1,249,243	1,286,723	6,205,788	-	6,205,788	7,184,689	1,235,292	8,419,981	5	-	6	1
Unity State														
N	St	Count	Population		Amount Allocated						Cost allocation per capita			

	at e	*ies*			*2013/2014*			*2014/2015*			*2013/2014*		*2014/2015*	
			2013/2014	*2014/2015*	*Community and public health operating transfer (For County Health Department*	*Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)*	*Total*	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	*Total*	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)
1	*UN*	*Abiemnhom*	*22,159*	*22,824*	*421,645*		*421,645*	*415,304*		*415,304*	*19*	-	-	-

2	S	Guit	42,990	44,280	437,233		437,233	453,727		453,727	10	-	-	-
3		Koch	97,513	100,438	478,033		478,033	554,300		554,300	5	-	-	-
4		Leer	69,064	71,136	456,745		456,745	501,824	205,882	707,706	7	3	3	3
5		Mayendit	70,055	72,157	457,486		457,486	503,652		503,652	7	-	-	-
6		Mayom	157,238	161,955	522,725		522,725	664,466		664,466	3	-	-	-
7		Pariang	107,387	110,609	485,421		485,421	572,512		572,512	5	-	-	-
8		Panyijar	66,070	68,052	454,504		454,504	496,300	205,882	702,182	7	3	3	3

9		*Rubkona*	*130,563*	*134,480*	*502,764*		*502,764*	*615,262*	*500,000*	*1,115,262*	*4*	*4*	*4*	*4*
Total			*763,039*	*785,930*	*4,216,556*	*-*	*4,216,556*	*4,777,347*	*911,764*	*5,689,111*	*6*	*1*	*1*	*1*
West ern Ba hr El ghazal State														
N	*State*	*Counties*	*Populati on*		*Amount Allocated*						*Cost allo cation per c apita*			
					2013/20 14			*2014/20 15*			*2013/20 14*		*2014/20 15*	
			2013/2014	*2014/2015*	*Community and public health operatin g transfer (For County Healt*	*Seconda ry and Tertiary Healthcare Transfer (for State Ministrie*	*Total*	Community and public health operatin g transfer (For County Healt	Seconda ry and Tertiary Healthcare Transfer (for State Ministrie	*Total*	Community and public health operatin g transfer (For County Healt	Seconda ry and Tertiary Healthcare Transfer (for State Ministrie	Community and public health operatin g transfer (For County Healt	Seconda ry and Tertiary Healthcare Transfer (for State Ministrie

					h Depar tm ent	s of Healt h)		h Depar tm ent	s of Healt h)		h Depar tm ent	s of Healt h)	h Depar tm ent	s of Healt h)
1	W B GS	Raja	70,7 81	72,9 04	458,0 29		458, 02 9	504,9 90	205,8 82	710, 87 2	6	-	7	3
2		Jur River	166, 42 9	171, 42 2	529,6 03		529, 60 3	681,4 19	205,8 82	887, 30 1	3	-	4	1
3		Wau	197, 10 3	203, 01 6	552,5 56		552, 55 6	937,9 99	-	937, 99 9	3	-	5	-
T ot al			434, 31 3	447, 34 2	1,540 ,1 88	-	1,54 0, 188	2,124 ,4 08	411,7 64	2,53 6, 172	4	-	5	1
Nort hern Bahr El Ghazal														
N			Populati on		Amount Allocated						Cost allo cation per c apita			

	State	Counties			2013/2014			2014/2015			2013/2014		2014/2015	
			2013/2014	2014/2015	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)
1	NBG	Awiel Centre	54,482	56,116	445,833		445,833	474,926		474,926	8	-	8	-

2	S	Awiel East	403, 68 9	415, 80 0	707,1 45		707, 14 5	1,119 ,0 62	205,8 82	1,32 4, 944	2	-	3	0.5
3		Awiel North	168, 19 5	173, 24 1	530,9 25		530, 92 5	684,6 77		684, 67 7	3	-	4	-
4		Awiel South	96,1 36	99,0 20	477,0 03		477, 00 3	551,7 60		551, 76 0	5	-	6	-
5		Awiel West	216, 50 7	223, 00 2	567,0 76		567, 07 6	773,7 92	500,0 00	1,27 3, 792	3	-	3	1
T ot al			939, 00 9	967, 17 9	2,727 ,9 82	-	2,72 7, 982	3,604 ,2 17	705,8 82	4,31 0, 099	3	-	4	1
Warr ap Stat e														
N	St at	Count ies	Populati on		Amount Allocated						Cost allo cation per c apita			
					2013/20 14			2014/20 15			2013/20 14		2014/20 15	

	e		*2013/2014*	*2014/2015*	*Community and public health operating transfer (For County Health Department*	*Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)*	*Total*	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	*Total*	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)
1	*W S*	*Gogrial East*	*134,532*	*138,568*	*505,734*		*505,734*	*622,583*		*622,583*	*4*	*-*	*4*	*-*
2		*Gogrial*	*317,72*	*327,25*	*642,815*		*642,81*	*960,487*		*960,48*	*2*	*-*	*3*	*-*

		West	1	3			5			7				
3		Tonj East	151,255	155,793	518,248		518,248	653,431		653,431	3	-	4	-
4		Tonj North	215,211	221,667	566,107		566,107	771,401	205,882	977,283	3	-	3	1
5		Tonj South	112,791	116,175	489,465		489,465	582,481	205,882	788,363	4	-	5	2
6		Twic	335,783	345,856	604,786		604,786	866,745	205,882	1,072,627	2	-	3	1
Total			1,267,293	1,305,312	3,327,155	-	3,327,155	4,457,128	617,646	5,074,774	3	-	3	0
Lake s State														
N	St at	Count ies	Populati on		Amount Allocated						Cost allo cation per c apita			
					2013/20 14			2014/20 15			2013/20 14		2014/20 15	

	e		2013/2014	2014/2015	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)
1	UNS	Aweri al	61,273	63,111	450,915		450,915	487,453	-	487,453	7	-	8	-
2		Cueibet	153,382	157,983	519,840		519,840	657,354	205,882	863,236	3	-	4	1

3		*Rumbek Centre*	*200,007*	*206,007*	*554,730*		*554,730*	*743,357*	*500,000*	*1,243,357*	*3*	*-*	*4*	*2*
4		*Rumbek East*	*159,995*	*164,795*	*524,789*		*524,789*	*669,553*	*-*	*669,553*	*3*	*-*	*4*	*-*
5		*Rumbek North*	*56,544*	*58,240*	*447,376*		*447,376*	*478,729*	*-*	*478,729*	*8*	*-*	*8*	*-*
6		*Wulu*	*52,819*	*54,404*	*444,588*		*444,588*	*471,858*	*-*	*471,858*	*8*	*-*	*9*	*-*
7		*Yirol East*	*87,795*	*90,429*	*470,761*		*470,761*	*536,374*	*-*	*536,374*	*5*	*-*	*6*	*-*
8		*Yirol West*	*134,411*	*138,443*	*505,644*		*505,644*	*622,360*	*411,764*	*1,034,124*	*4*	*-*	*4*	*3*
Tot			*906,22*	*933,41*	*3,918,6*	*-*	*3,918,*	*4,667,0*	*1,117,6*	*5,784,*	*4*	*-*	*5*	*1*

al			*6*	*3*	*43*		*643*	*38*	*46*	*684*				
Cent ral Equatoria State														
N	*State*	*Counties*	*Populati on*		*Amount Allocated*						*Cost allo cation per c apita*			
					2013/20 14			2014/20 15			*2013/20 14*		*2014/20 15*	
			2013/2014	*2014/2015*	*Community and public health operating transfer (For County Health Department*	*Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)*	*Total*	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	*Total*	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Community and public health operating transfer (For County Health Department	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)

1	*CES*	*Juba*	485,088	*499,641*	*768,057*		*768,057*	*1,269,208*	*411,764*	*1,680,972*	*2*	*-*	*1*	*1*
2		*Kajokeji*	255,850	*263,526*	*596,517*		*596,517*	*846,364*	*205,882*	*1,052,246*	*2*	*-*	*1*	*1*
3		*Lainya*	116,338	*119,828*	*492,120*		*492,120*	*589,023*	*205,882*	*794,905*	*4*	*-*	*2*	*2*
4		*Morobo*	134,949	*138,997*	*506,046*		*506,046*	*623,352*	*-*	*623,352*	*4*	*-*	*-*	*-*
5		*Tereka*	182,874	*188,360*	*541,908*		*541,908*	*711,753*	*-*	*711,753*	*3*	*-*	*-*	*-*
		Yei	262,391	*270,263*	*601,411*		*601,411*	*858,427*	*205,882*	*1,064,309*	*2*	*-*	*1*	*1*
6	*Tota*		1,437,490	1,480,615	3,506,059	-	3,506,059	4,898,127	1,029,410	5,927,537	*2*	*-*	*1*	*1*

	l													
West ern Eq uatoria State														
N	*St at e*	*Count ies*	*Populati on*		*Amount Allocated*						*Cost allo cation per capita*			
					2013/20 14			2014/20 15			2013/20 14		2014/20 15	
			2013 /2 014	*2014 /2 015*	*Com mu nity and public healt h opera tin g transf er (For*	*Secon da ry and Tertia ry Healt hca re Trans fer (for State*	*Tota l*	Com mu nity and public healt h opera tin g transf er (For	Secon da ry and Tertia ry Healt hca re Trans fer (for State	*Tota l*	Com mu nity and public healt h opera tin g transf er (For	Secon da ry and Tertia ry Healt hca re Trans fer (for State	Com mu nity and public healt h opera tin g transf er (For	Secon da ry and Tertia ry Healt hca re Trans fer (for State
					Count y Healt h Depar tm ent	*Minist rie s of Healt h)*		Count y Healt h Depar tm ent	Minist rie s of Healt h)		Count y Healt h Depar tm ent	Minist rie s of Healt h)	Count y Healt h Depar tm ent	Minist rie s of Healt h)

1	WES	Ezo	105,326	108,486	483,879		483,879	568,711	-	568,711	5	-	5	-
2		Ibba	54,537	56,173	445,874		445,874	475,027	-	475,027	8	-	8	-
3		Maridi	107,410	110,632	485,439		485,439	572,555	205,882	778,437	5	-	5	2
4		Mundri East	62,937	64,825	452,160		452,160	490,522	205,882	696,404	7	-	8	3
5		Mundri West	44,254	45,582	438,179		438,179	456,060	-	456,060	10	-	10	-
6		Mvolo	62,697	64,578	451,980		451,980	490,079	-	490,079	7	-	8	-
7		Nagero	13,126	13,520	414,886		414,886	398,642	-	398,642	32	-	29	-

8		*Nzara*	*85,594*	*88,162*	*469,114*		*469,114*	*532,313*	*-*	*532,313*	*5*	*-*	*6*	*-*
9		*Tambura*	*72,116*	*74,279*	*459,028*		*459,028*	*507,453*	*205,882*	*713,335*	*6*	*-*	*7*	*3*
10		*Yambio*	*198,323*	*204,273*	*553,469*		*553,469*	*740,251*	*500,000*	*1,240,251*	*3*	*-*	*4*	*2*
Total			*806,320*	*830,510*	*4,654,008*	*-*	*4,654,008*	*5,231,613*	*1,117,646*	*6,349,259*	*6*	*-*	*6*	*1*

East ern Equatoria State

N	*State*	*Counties*	*Populati on*		*Amount Allocated*						*Cost allo cation per c apita*			
					2013/20 14			*2014/20 15*			*2013/20 14*		*2014/20 15*	

			2013/2014	2014/2015	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Total	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)	Community and public health operating transfer (For County Health Department)	Secondary and Tertiary Healthcare Transfer (for State Ministries of Health)
1	EES	Budi	129,212	133,088	501,754		501,754	612,771	205,882	818,653	4	-	5	2
2		Ikwotos	110,260	113,568	487,572		487,572	577,812	-	577,812	4	-	5	-

3		*Kapoeta East*	*213,615*	*220,023*	*564,913*		*564,913*	*768,458*	*-*	*768,458*	*3*	*-*	*3*	*-*
4		*Kapoeta North*	*134,273*	*138,301*	*505,540*		*505,540*	*622,105*	*-*	*622,105*	*4*	*-*	*4*	*-*
5		*Kapoeta South*	*103,514*	*106,619*	*482,524*		*482,524*	*565,369*	*205,882*	*771,251*	*5*	*-*	*5*	*2*
6		*Lopa/ Laf on*	*138,281*	*142,429*	*508,539*		*508,539*	*629,498*	*-*	*629,498*	*4*	*-*	*4*	*-*
7		*Magwi*	*221,208*	*227,844*	*570,594*		*570,594*	*782,463*	*205,882*	*988,345*	*3*	*-*	*3*	*1*
8		*Torit*	*129,917*	*133,815*	*502,281*		*502,281*	*614,071*	*500,000*	*1,114,071*	*4*	*-*	*5*	*0.4*
Tot			*1,180,2*	*1,215,6*	*4,123,7*	*-*	*4,123,*	*5,172,5*	*1,117,6*	*6,290,*	*3*	*-*	*4*	*1*

al			*80*	*88*	*17*		*717*	*47*	*46*	*193*				