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The Impact of Devolution of Health Care Systems In Kenya-A Case Study Of Meru County Health Facilities

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Master of Science in International Relations

**THE IMPACT OF DEVOLUTION OF HEALTH CARE SYSTEMS IN KENYA- A CASE
STUDY OF MERU COUNTY HEALTH FACILITIES**

MASTER OF SCIENCE (INTERNATIONAL RELATIONS)

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Declaration

I declare that this is my original work and that it has not been presented for a degree at this or any other University. Work of others used in this study has been duly acknowledged. Any errors contained herein are entirely mine.

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This research project has been submitted for examination with my approval as the University Supervisor.

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TABLE OF CONTENTS

Declaration	2
Acknowledgement	3
List of Figures	iv
List of Tables	v
List of Abbreviations and Acronyms	vi
Operational Definition	vii
Abstract	viii
Chapter 1	1
Introduction.....	1
1.1 Devolution around the world	2
1.2 Devolution in Kenya	4
1.3 Problem Statement	6
1.4. The impact of devolution on health?.....	6
1.5. Research Objectives.....	8
1.6. Justification of the study	9
1.7. Organization of Thesis	9
Chapter 2.....	10
Literature Review.....	10
2.1 Overview of health sector in Kenya.....	10
2.2 Health Devolution in Kenya	14
2.3 Theoretical Literature Review	19
2.3.1. Theory of Balanced Growth.....	20
2.3.2. The Theory of Unbalanced Growth	21
2.4 Health State in counties	22

2.5 Critique of existing literature	25
2.6 Summary	27
Chapter 3	28
Methodology	28
3.1 Research Design.....	28
3.2 Sampling Frame, Technique and Size	30
3.3 Data Collection and Analysis.....	31
Chapter Four	34
Data presentation and results	34
4.1 General Respondents Information	34
4.2 Impact of health devolution in Meru County.....	37
4.4 Conclusion	43
Chapter 5	45
Discussion and Conclusion	45
5.1 Summarized Study Findings	45
5.2 Contribution to knowledge	46
5.3 Recommendations.....	47
5.4 Limitations of the study	47
References.....	48
Appendices.....	52

List of Figures

Figure 2. 1: Map of Kenya and 47 Counties	15
Figure 2. 2: Vicious Cycle of Poverty	20
Figure 3 1: Meru County.....	29
Figure 4. 1: Respondents' Location	35
Figure 4. 2: Respondents Level of Education.....	36
Figure 4. 3: Respondents Gender.....	37
Figure 4. 4: Respondents perception of whether devolution influences Health Systems.....	38
Figure 4. 5: Respondents Views whether devolution is implemented right way in Meru County	41

List of Tables

Table 4. 1: Implementation of Devolution.....	40
Table 4. 2: Devolution of Health Finance.....	42
Table 4. 3: Respondents Perception on Hospital Leadership	43

List of Abbreviations and Acronyms

GOK- Government of Kenya

GDP-Gross Domestic Product

MOH – Ministry of Health

MTEF-Medium Term Expenditure Framework

SPSS- Statistical Package for Social Sciences

UHC- Universal Health Care

WHO- World Health Organization

HRH- Human Resource for Health

TA- Transition Authority

Operational Definition

Devolution refers to the statutory delegation of authority from the central authority of a sovereign nation to government at local level. It is a type of administrative decentralization.

Primary health care refers to the basic health care that every citizen should be able to access

Delegation refers to the transfer of managerial roles to a specific unit which operates outside the usual government structure.

Health infrastructure is all the physical infrastructure, transport, technology infrastructure, as well as non-medical equipment which is essential to ensure effective delivery of health services.

Health care services are services which help to prevent and manage diseases, illness, and injuries, physical and mental problems.

Healthcare workforce includes all the individuals whose responsibility is to provide health care services whether in the public or private sector.

Health care system is the mechanism for delivery of high-quality healthcare services to all people when and where they need them

Abstract

The Kenyan constitution was promulgated on August 27, 2010, created a major shift from a central mode of governance to a devolved mode of governance. It created 47 county governments that are led by governors and Members of County Assembly and this created a platform to devolve functions of central government such as administrative, financial and political roles. The study purpose was to evaluate the impact of devolution in Meru County health systems. The following specific objectives were pursued: assessing the impact of devolution on health workforce, to examine the impact of devolution on health infrastructure and to assess the impact of devolution on health services provision. A descriptive design was used to collect information. Meru county health workers and patients were the study's unit of research. Fisher's formula was used in the determination of sample size of 385 respondents. Collection of data was done through close ended and open-ended questionnaires.

The study found that devolution has yielded several benefits in Meru County health sector. Devolution had brought health services closer to the common mwananchi at affordable rates through an increase in health facilities and rise in the number of medical personnel in the county. However delayed financial disbursement from the national government, nepotism, corruption, and delayed promotions negatively affected implementation in Meru County health sector.

The study recommends the national governments should come up with appropriate mechanisms that will help prevent delay of funds to the counties. The county government should put up measures in place to counter corruption by reporting corrupt individuals to the relevant authorities such as to the Ethics and Anti-Corruption Commission.

Chapter 1

Introduction

Decentralization is divided into four distinct forms which are: devolution, delegation, privatization and deconcentration. Devolution refers to a system of governance which involves the partial decentralization of power from central mode of governance to regional governments which by law they are instituted via a majority vote. Devolution is a decentralization method, whereby, an authority is re-organized so that there exists responsibility sharing between the national/central authority and the regional authorities. It aims to encourage the participation by members of the public as well as promoting freedom of individuals. Units created through devolution are outside direct national government control and federalism represents the strongest form through which devolution is exercised. Privatization occurs when the management and ownership of a public entity is transferred to a private or a non-governmental organization.

Deconcentrating involves shifting of administrative roles for particular decision making, financial and management roles by administrative ways to various levels under the same authority of the national government. Power is shifted from the core to periphery offices. In Kenya deconcentration was manifested through the 8 provinces. Thirdly, delegation is whereby decision making and administrative powers are transferred from one entity to another maybe from a government office to an organization that is semi-independent of government or it is under the government. Example of entities that exercise delegated roles are parastatals and corporate organizations such a city municipality.

Devolution was motivated by the need to have a new constitution that ensures equality in the distribution of wealth across the country. Devolution history in Kenya is quite long since 1963 when the colonial government suggested formational of regional units depending on ethnicity although it never saw light of the day. Between 1970 and 1990 several decentralization units were formed through funding by World Bank and International monetary fund as part of the structural adjustment reforms, which carried on with deconcentration promotion.

After a lengthy period of fighting for a new constitution in order to reduce presidential powers, 67% of Kenyans by vote on August 2010 confirmed a new constitution through referendum that marked the beginning of devolution. The new constitution brought devolved units the government of Kenya confirmed a devolved governance mode of authority in the year 2013. This system of government comprised of 47 counties which were granted partial autonomy from the central government (Kibua & Mwabu, 2008)

The devolved units have been given significant decision-making mandate with minimal interference from the central government. One of the major factors for the push of devolution was real and perceived political challenges that had affected the country since independence. Some of those challenges were inequitable resource distribution and marginalization. The new constitution provided that critical sectors such as health and education be under both national and county governments (Kibua & Mwabu, 2008).

Some of the important arguments put forward on devolution is that it facilitates economic efficiency through the optimization of information flow, public services are brought closer to the common mwananchi and to a greater extent reduces cost of development. Additionally, devolved unit's forms democratic space that allows units of authority to thrive (Deweese, Lobao, & Swanson, 2003).

The main difference between the 2010 constitution and the Lancaster House one is on the size of participation by the people. The new constitution advocates a bigger participation level by the people who live at the grassroots and they are counted when significant decisions are being made. Such type of participation is promised via devolved governance. Article 174 of the 2010 constitution stipulates that the main roles for devolution are: accountable and democratic power exercise promotion, extend self-governance powers to the citizens, promote the participation of people in making decisions on challenges affecting them and promote national unity and cohesion via diversity recognition.

1.1 Devolution around the world

Internationally, bodies such as World bank and International monetary fund, implemented devolution through adoption of structural adjustment programs that promoted deregulation and

decentralization. They began supporting local governments financially directly under the Local Government Reform Program according to (Linda, 2018). Also, several nations in the world are run through devolution and level of success differs across. For instance, in the United Kingdom (UK) concept of devolution didn't involve the community, it reduced access to funds by local authority and changed the emphasis on governance (Willet & Giovannini, 2014). Further, there has been considerable success of devolution in the United States of America with about 200 years and India with about 60 years of experience.

Thailand implemented local administration units Act in the year 1999 with an aim of allocating at least 25 per cent of national budget to local authoritative units. Primary health facilities and ownership was transferred from the health ministry to the local authorities. In Thailand health facilities were only devolved upon meeting two conditions: good governance capable of being in charge of health facilities and secondly 50 % of the staff should be willing to shift from national to local authorities' recruitment. The devolution of health in Thailand allowed local authorities to be responsible for delivery of the primary medical care and in management of staff as well as finances. But the health ministry still is in charge of policy, training and technical aspects of health (Hawkins, 2009). In the Philippines devolution in the first year recorded lower occupancy in the health facilities, a decrease in drugs and medical supplies procurement, there was loss of fiscal and management control in the running of hospital administration, there was low morale recorded among the health workers and in some instances very crucial health personnel resigned from their work stations. All these indicators show that in the Philippines devolution brought more problems than the ones it solved, and it can be attributed to a lack of political will.

At the Regional level, Africa context, post-independence period many nations were governed by one party system which was later opposed as people were oppressed by powerful governments. In addition, most African leaders also realized they had different ideologies and this coupled with other reasons was the basis for multi-party democracy in several nations (Haughton, Counsell, & Vigar, 2008)

Devolution was started in 1996 in Ethiopia as plan to improve health care provision across the country. Reginal levels are where the first devolution recipients and later it was extended to the district levels in year 2002.Devolution created a four-tier system comprising national, regional,

referral and primary health facilities. Districts received grants from regional level authorities. As such district units they exercise the roles of hiring and firing of medical workers, building and maintenance of health facilities (Dubusho, 2009). The country recorded great improvements in health services delivery although there were challenges during the first phases.

In Ghana devolution facilitated government policies implementation since independence. In the year 1993 the local government Act was enacted, and it outlined responsibilities of district assemblies. Health ministry delegated its authority of managing health centers to Ghana Health Service, responsible for operating and managing offices and health centers across the country. With time Ghana Health Facilities devolved into district and regional offices.

Devolution started in 1997 in Uganda under the local government act focused on health, education, agriculture and natural resources management. In Uganda various scholars found out that there is zero health improvement as shown by various health indicators. Devolution did not achieve the set objectives of ensuring greater participation by people in health and education matters. This can be attributed to insufficient capital and staff, lack of participation by the community, weak civil society and a very narrow tax base. Ugandan case shows us that devolution can improve state institutions if the local people are made a part of the decision making process as this will make it possible to hold civil servants accountable (Patrick, 2013).

1.2 Devolution in Kenya

At national level, in Kenya, the idea of devolving certain functions has been in play since independence. In August 2010 the new constitution was passed , it created 47 county governments that are led by governors and Members of County Assembly and this created a platform to devolve functions of central government such as administrative, financial and political roles (Khaunya, Wawire, & Chepng'eno, 2015) . In Kenya a cooperative system of devolution was adopted whereby the national and county governments consult and cooperate on various matters in their operations. Devolution in Kenya is guided by three distinct principles which are: the principle of oversight, this principle deals with the supervision of how the devolved units are run and manage resources and it is carried out by independent institutions such as senate and office of auditor general, secondly the principle of interdependence, this principle emphasizes the interdependence that exists between the national and county governments since they both serve same people, and some

of their roles overlap since the national government normally does policy formulation work while county governments are ones that are involved with implementation part. Thirdly, is the principle of being distinct, by this, it means that every government level such as national and county have distinct boundaries, resource and roles.

To ensure an efficient transition from the national system to the county governance, the new constitution laid out several bodies with the mandate to oversight counties to enhance accountability such as the auditor general's office and the Senate (Ndung'u, 2014). Devolution in Kenya have several objectives such as promotion of equality in the allocation of local and natural resources, ensure that the rights of the minority and marginalized groups are upheld and acknowledge communities rights in the management of their own affairs to promote local development, guarantee that services are easily accessible throughout the country in order to facilitate economic and social development and lastly ensure balances and checks and separating powers. Devolution extended the following powers to county governments such as power to form agencies, power to enter into public and private partnerships to allow service delivery, power to contract, power to delegate some of its roles to officers and other units and power to accomplish various roles.

Article 53 of the new constitution provides the right to basic nutrition, healthcare and shelter to every Kenyan and Article 56 provides that, the state should formulate and put in place frameworks that will make sure that the marginalized and minorities can be able to access to health services, infrastructure and water. In order to meet these rights, devolution divided health provision responsibilities between county and national government and it provided particular guidelines on which services national and county government are to offer. Primary health care provision was the role of the county administrations while national government retained management of national referrals and health policy formulation. In order to allow smooth transition and provision of primary health services to more than 62% Kenyans four main inputs are needed: to start with a well-developed network of health centers are needed, trained and motivated staff are required, supply of necessary medicines and adequate finances to allow the maintenance and operation of health facilities (Mwangi, 2013).

1.3 Problem Statement

The Kenyan constitution promulgation was done on August 27, 2010, and it created a major shift from a central unit of authority to devolved system of governance. As the country embarked on devolution, there were fears of disruption of services which were majorly attributed to the capacity of county governments to deliver services (Timothy, 2017). To ensure the smooth and efficient transition, the transition authority developed several timelines and criteria to assess the preparedness of county governments in taking up devolved functions. However, this criterion was considered to be generic, and as such, it created some challenges in the capability of counties to provide health services. Besides, the newly elected county governments exerted too much pressure on the national government, and consequently, there was a lot of transferred functions without due consideration of how well the county governments are prepared (Linda, 2018).

This paper looks into the gap that exists concerning the health infrastructure in the country as well as access and healthcare workforce and the several methods through which these factors affect health service delivery in devolved systems. This paper aims to achieve this objective by putting into consideration the critical pillars for realizing universal health coverage which include an efficiently operating health system and run by a professionally trained workforce who are properly motivated.

Studies done on devolution in Meru County, such as (Ayub & Keiyoro, 2017) analyzed the impact of devolution on individual health facility ,the Meru referral hospital, such a study therefore cannot be used to examine how devolution affects health in Meru County as its results may not be trusted as a representation of health situation in Meru County. This study comes in and analyses the impact of devolution on the entire health sector case of Meru County.

1.4.The impact of devolution on health?

For Kenyans to be able to access health services it is important that health facilities be physically accessible across the 47 counties. According to a report by (International Rescue, 2015) about 63 percent of citizens have access to health care in government facilities located an hour from their places of residence as distance plays a critical role in determining health demand, the further a facility is from the people the low the health demand and vice versa. It is worth noting that medical

facilities are not equally allocated in the 47 counties. For example, counties in northern Kenya such as Turkana the residents travel long distances for 2 or more days in order to access a health facility which makes their health indicators low below the required level in comparison with other counties. Generally in Kenya, one can note that 50 per cent of the counties have less than 2 health facilities per 10,000 people and less than 4.2 health centers per 100 square kilometers (Ministry of Health, 2015).

There are great differences between one county to the other in terms of the number of medical care workforce. In the country the ratio of medical care personnel to the total population is way beneath WHO recommended ratio of 230 per 100,000 people but it stand at 169 per 100,000 people but it is better compared to other African nations such as Tanzania, Malawi and Uganda (Government of Kenya, 2015). Some counties such as Nairobi and those within central province are more endowed and resourced and hence have a better ratio than those in rural set up. Devolution outlined each county should be responsible for the recruitment and hiring of health workers. And in some counties insufficient manpower have caused industrial unrest, for instance, between January and August 2015 more than half of the counties had strikes by health workers and understaffing was among the main reason for that (International Rescue, 2015). The health sector faces brain drain which was even made more by devolution as it stands between 30 to 40 percent of approximately 600 doctors move abroad in search of better pay and working conditions (Magokha, 2015). The study also found that Kenya lacks a general cancer physician in public hospitals, this is worrying considering the fact that today in Kenya, about 112 people are diagnosed with cancer on daily basis. Specialists such as gynecologists, kidney doctors, engineering technologists in most public hospitals are extremely lower in number against the required number of them and most of them are found only in national referral hospitals and level 5 county hospitals and this leaves the rest particularly in rural areas without those critical personnel.

Some of the reasons why health was devolved are: to ensure that citizens across the country have access to basic health care, to curb discrimination experienced in rural and low potential areas that are less privileged compared to urban areas in terms of health provision, to discourse problems associated with low quality of health care provision, to discourse challenges that come with bureaucracy especially when procuring in order to facilitate better health services provision and

lastly devolution was implemented in order to make it more efficient in delivery of medical care services.

1.5. Research Objectives.

The main objective of the study is analyzing impact of devolution on health care systems in Meru County health facilities. To achieve this objective, the study will examine and answer the following research questions:

1. What is the impact of devolution on healthcare infrastructure?
2. What is the impact of devolution on access to health services?
3. What is the effect of devolution on health care workforce?

Kenya has set an objective of achieving universal health care by 2030. The increased need to achieve these objective means that the study will assist various health sector stakeholders. The main beneficiaries of this study include: National government, it will play a critical role in measuring the goal and assessing how national health policies can be improved. It will benefit county government by pointing out the achievements as well as identify areas that may need improvements in the county health facilities. It will help the community to hold civil servants and elected leaders into account. It will assist the staff and management of health services since part of the objective is to identify areas that need improvements in delivery of health care and ensure improvement of primary and basic medical care. Lastly, the study will add immensely to the growing unit of research regarding devolution and how it is affecting certain areas of governance.

Geographical area under research is Meru County. The sample population used in the study includes patients, clinicians, pharmacists, nurses, doctors, technical hospital staff, and hospital managers. The study began in May 2018 with the introduction, literature review, research design, and methodology. The second part of the study which includes data collection, analysis of data, discussion findings, conclusion and recommendations.

1.6. Justification of the study

The study will be of great significance to several groups in the society, which includes researchers, academicians, county government and the national government where it will greatly help in policy formulations.

County government, central government and policy analysts could utilize the results of the study and examine effectiveness of devolution on health which could aid in the improvement of service delivery to the people.

To the Kenyan citizens the finding of this study will offer important information on their function in the implementation of devolution in their respective counties. The study will also offer insight to the people on the strengths and weaknesses of devolving health.

In future the study will act as a source of literature on health devolution to academicians, while at the same time adding knowledge to the existing body of knowledge by offering information on devolution issues in Kenya, Africa and the world at large.

1.7. Organization of Thesis

The thesis has been arranged as follows: Chapter one: Introduction, Chapter two covers devolution background in Kenya and health devolution theories, Chapter three outlines methodology adopted for the study, Chapter four outlines results and findings and Chapter five highlights Discussion of results and proposed recommendations.

Chapter 2

Literature Review

The chapter outlines briefly an introduction about Meru county, a detailed overview of the available literature on the devolution of health care and an empirical literature reviewing devolution of health care at local and international level. Lastly, it outlines theoretical literature.

2.1 Overview of health sector in Kenya

Kenya gained its independence in 1963 after several years of being a colony of the Britain and became a republic in 1964 with Jomo Kenyatta becoming first Prime minister. Since then several reformations, targets and policies have been pursued aimed at achieving free health provision to the citizens in order to batten productivity, welfare and lower the poverty levels.

In the year 1965 the government did away with user charges for all citizens looking for health services in local public clinics and by the year 1970 a healthcare that is free was introduced in every public health services across the country. But the economy stagnated around the year 1975 following the free medical services introduced and this forced the government to re-introduce the user fees in the year 1989 in order to allow operation of the public health centers to continue. In order to guarantee cost-sharing and financial assistance availability for the medical facilities offering services within the periphery regions, the government came up with District health management boards in 1992.

A health provision framework which will be affordable, acceptable and accessible to all was introduced through a government publication, the Kenya medical policy framework (Ministry of Health, 2015) and its implementation was to be executed via a two 5 year laid down plans which are: National health sector strategic plan 1, that was to be implemented from 1999 to 2004 and National health sector strategic plan 2 which was to be implemented from year 2005 to year 2010. These two frameworks set the public health in a hierarchical order in form of a pyramid with

health facilities in the rural areas at the bottom, the second ones are district and provisional hospitals. At the top of the pyramid there are national referrals such as Kenyatta national and referral hospital, which is currently the biggest referral hospital in Kenya and Moi teaching and referral hospital located at Eldoret.

The government made a commitment to increase health facilities within the county with an aim to make health services closer to the people and reduce disease outbreak and spreading. The national government provided medical services at national, regional and district levels while the missionaries provided services at sub-district levels such as dispensaries and local government offered their services in urban areas. This pattern continued until late 70s when the government abolished it and came up with a more comprehensive system that covered medical facilities in the rural areas which provided preventive and curative health care services. By 2018 health facilities had evolved and there were three main classes of health facilities which are: hospitals, health sub centers such as dispensaries and mobile clinics and health centers. Hospitals included facilities such as Kenyatta national hospital and Moi referral hospital and these two were the tertiary levels with the mandate to handle referral and delicate cases and they get their financing from the national government.

The second category is composed of the health centers such as district hospitals and they are the secondary tier responsible for treating injury cases and offering treatment to medical services that do not need specialized care. Clinics and health sub-centers are managed and controlled by the local authorities and they treat certain part of the populace and they act as the first points of contact between the patient and medical facility. Health sector in Kenya is broadly categorized into three classes: To begin with is the public health sector which comprises of all government health providers such as referral hospitals, provincial and district hospitals and dispensaries. Second category is made up of private health sector that is non-commercial such as NGOs run hospitals, faith-based organizations and the mission health facilities run by churches. The third category is the private for-profit health sector, it comprises of medical supplies manufacturers and distributors as well as private hospitals such as Nairobi hospital, Coptic, Nairobi women's hospital among others.

Currently there are about 9,696 medical facilities in Kenya that are legally registered out of this, about 4,616 are operated and owned by the government which accounts for 48 percent, 3,696 are operated by the private sector which accounts for 38 percent and 1,384 are owned by NGOs or community based organizations which accounts for 14 percent.

In 2006 the ministry of health in Kenya came up with norms to regulate human resources charged with the responsibility to ensure that adequate and qualified personnel for the task and their distribution across the county are adhered to. (Ministry of Health, 2015). Therefore, medical facilities workers are distributed depending on the number of health facilities across the country. At level 4 district hospitals there are specialized clinics that are run by specialized physicians, specialist doctors run provincial hospitals while a majority of the level 2 dispensaries across the country are run by nurses who provide first care services. Because of this the national government invested a lot towards the training of health workers and expanding health structures, by the year 2010 the number of medical workers had increased to 7,129 doctors, 3,097 pharmacists and 898 dentists with majority of them work in private sector because of higher pay and better terms of work.

The health sector in Kenya is financed by 3 main methods which are: public financing accounts for 29 percent, household accounts at 37 percent, private funding accounts for 3 percent and donors stands at 29 percent according to (Government , 2008). The health ministry is the largest medical services provider in the nation via health centers, provisional, district and referral hospitals. An analysis of poverty socio-economic shown that the main problem facing the poor people is affordability of health care services and this called on the government to intervene in offering quality, sufficient and better health services to the populace (Government of Kenya, 2015). Kenya integrated and pursued features of primary medical care services all was aimed at slowing down morbidity and mortality causes, this has made it attract donor financing to ease the implementation process. However, recurrent financial distribution still finances more of curative at 70 percent than preventive at 19 percent measures and this has made the pattern of poor quality medical care services, insufficient inputs such as drugs and this has made the medical facilities at place have no capacity to treat even small and simple health ailments.

A report by (Government , 2008) indicated that some of the health challenges facing the health sector in Kenya includes expensive medical resources such as equipment's and insufficient medical facilities. That is one of the reasons that necessitated devolution in 2013, but health sector in the counties have been experiencing health challenges since the counties were given the autonomy to come up with different ways of raising revenues to supplement budget allocations from the national government, and in some poor counties such as Baringo, Turkana the amount collected is never enough to cater for health personnel salaries and this has led to boycotts which have made citizens from such counties when sick to seek medical assistance from private health facilities which are expensive.

In the year 2001 African heads of state met at Abuja and came up with the Abuja declaration that required every nation to allocate a minimum of 15% of its total GDP but Kenya health allocation stands at 6% of the GDP which falls short of the declaration. The Kenyan government has various ways through which the country can raise funds to cater for medical services, but it faces the challenge of ineffectiveness of some methods to meet the set targets.

After the 2010 new constitution was passed and implemented in 2013 during the first term of President Uhuru Kenyatta, the power to make decisions was delegated and exercised by the regional administrative units called the counties headed by a governor. Offering of basic as well as secondary health care service were delegated to the county governments in order to promote allocation of resources, ameliorate health services delivery to the populace in the long-run and draw decision making powers closer to the local authorities. Periodically the central government discharges funds to the county governments taking into considerations each county's integrated development plans. The Kenya health policy plan of 2012-2013 required every county come up with a health department in order to coordinate and run health services provision for the county and it also developed a framework of health management teams for the county whose mandate is to offer professional and standard technical assistance in order to facilitate the coordination and running of health delivery programs via medical care centers per county.

Devolution separated the roles the national government had to perform and retained and the ones that is responsibility of the county governments. National government was in charge of following functions: financing of the county health programs, in charge and coordinating running of the

national referral hospitals, management of laboratories in all public health facilities, carries out major diseases control programs such as leprosy, malaria and TB formulation of health policies, engaging in public and private partnerships, In charge of all services offered by Kenya health supplies agencies like the National Hospital Insurance Fund, Kenya medical training college and the Kenya medicines and supplies agency. National government also plans and allocates funds for all health services at national level, communication of vital medical information and technological changes and lastly quality assurance and standards. The county governments were charged with: controlling abuse of drugs through campaigns and control of pornography, offering veterinary services except in cases where veterinary professional regulation is required, provision of public health and sanitation services, carrying out disaster management such as during floods, carrying out disease surveillance and offering responses, equipping hospitals with ambulances and lastly the management of health facilities and pharmacies within the county by recruiting qualified staff and stocking the pharmacies with medicines.

2.2 Health Devolution in Kenya

Kenya is one of the six nations that compose the East Africa Community (EAC) whose head office is in Arusha, Tanzania. Kenya estimated population as at March 2019 stands at 51 million with a population growth of 2.48% with urban population of 44.6 % of the total population with an area of approximately 582,000 km².

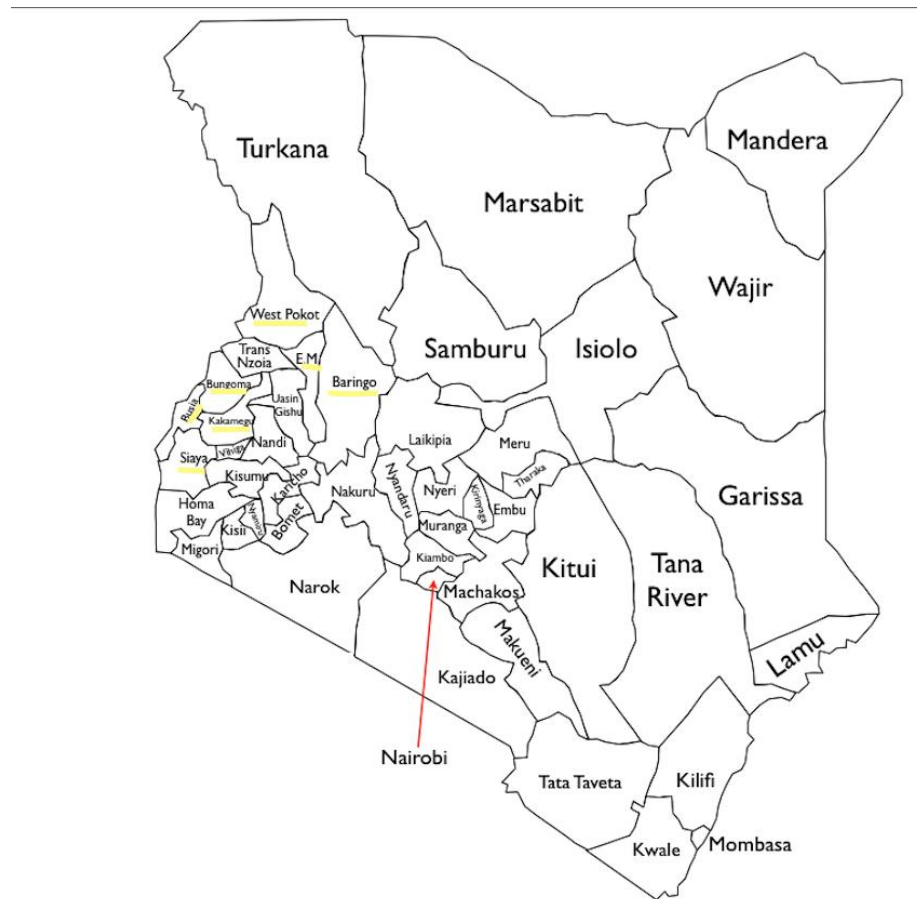
As at 2018, Kenya had a GDP of \$85.980 billion, Inflation stood at 5.04% with 42% population living below poverty line. The major economic sectors in Kenya is agriculture which stands at 75% while service and industry accounts for 25%.

The major element towards achievement of universal health care is a strong, efficient and efficiently managed health system. Robust health infrastructure is essential to compliment these elements. (Kilonzo, Kamaara, & Magak, 2017) defines health infrastructure as medical apparatus, buildings, transportation, communication and ICT facilities. Other essential infrastructure in the Kenyan health system includes national and referral hospitals in the counties, regional, sub-regional and sub-district hospitals, dispensaries, individuals in the private sector, Non-Governmental Organizations and traditional sectors that are informal (Timothy, 2017). Over years,

there has been deficit budgetary allocations for the health ministry. This has contributed to inefficiencies in operating most of these facilities Government of Kenya (2008).

The figure below shows the map of Kenya and its counties headed by a governor.

Figure 2. 1: Map of Kenya and 47 Counties



Source: Google (2019)

Hence, most of these facilities require renovations before institutions of maintenance programs. There are also insufficient premises for priority interventions such as laboratories, theaters and delivery rooms in most health facilities. The most effective way to achieving delivery of quality care would be maintaining health infrastructure in working condition. This in turns led to more people utilizing available health care facilities and services (Munge & Briggs, 2013).

With the establishment of county governments the National government was able to prioritize the presence of a specific number of health facilities in every county by considering what services should be delivered at the primary health facilities (Munge & Briggs, 2013). According to available data on health information management system (HMIS), there are more than 5000 medical structures and equipment in Kenya. Kenyan government runs over 43% of these facilities while individuals operate 41% in the private sector, and non- governmental organizations run the rest 14%. While the government runs and owns a large number of the medical facilities, private individuals operates most of the clinics and nursing homes. The data also indicate that there is an uneven allocation of these medical facilities across the several regions, Government of Kenya (2008)

Lack of sufficient infrastructure has adversely affected the delivery of healthcare and maintenance of health professionals in the public service. These are many cases of specialized doctors complaining of underutilization of their skills, and in most cases, they opt to resign and join the private sector. As a result, patients are forced to seek the services of less qualified healthcare personnel. Others will opt for the private sector which is more expensive. As such, it is impossible to realize the gains that should be provided by the financial risk protection program provided by the government (Barnes , et al., 2010)

But currently most health facilities cannot provide a comprehensive package of primary health care services. This is because there had been low investment in health care facilities as compared to investments in other areas, and it has adversely affected the functionality upon the completion of the investments (Barnes , et al., 2010).

Most investments in health care infrastructure focus on the establishment of modern health centers under the economic stimulus program, Government of Kenya (2008). Besides, there are more than 80 hospital projections under construction. In spite of all these there are some challenges which are affecting the equity in the distribution of infrastructure.

Hospitals ICT sector are well equipped in most public facilities, notably communication gadgets have been adequately provided inorder to ease communication within hospitals. In addition most health facilities in arid and semi-arid areas have been provided with radio equipment for effective

communication. Despite all these efforts, there is insufficient investment in the maintenance of these ICT facilities thus some of them are dilapidated (Barnes , et al., 2010).

The national government in collaboration with the county government have put up mechanisms in place to ensure specific hospitals especially Level 5's have been installed with medical equipment. However, there are several challenges that have prevented the realization of such efforts according to (Zulu, et al., 2014). The main challenge being lack of comprehensive and coordinated investments and limited investment in the maintenance of medical equipment.

On the issue of transport, the county governments have purchased ambulances for their hospitals and health centers. But there are significant gaps in the availability of utility vehicles. To supplement these efforts, it is imperative for the government to invest in maintenance of these investment (Zulu, et al., 2014).

In Kenya, health funding consists of four major sources, namely: public, private, donor household and insurance schemes financing. Households are the biggest source of funding accounting about 35.9%, the government and donors accounts for 30% each. In 2001, African governments passed the Abuja declaration which requires African Nations to set aside a minimum of 15% of GDP towards funding health provision (Kibua & Mwabu, 2008)

However, in Kenya, government funding has consistently remained just above 4% of the GDP falling short of the Abuja target of 15%. Additionally, there is also an uneven distribution of funds to public facilities. According to (Barnes , et al., 2010) report conducted in 2011 by Health Action, over 70% of funds from government funding goes to secondary and tertiary facilities. Further the report indicated that although primary infrastructure is significant in the offering of basic healthcare services, they are poorly funded. Regardless of the numerous efforts made by the donors to bridge the gap of funding in public health facilities, there is a general ten of underfinancing in the health sector (Ndetei & Gitonga, 2011).

The Health Financing Strategy of 2010 was implemented by the government to ensure provision of quality health care to all. This strategy brought about a social solidarity mechanisms whose main purpose was to cushion the poor and the vulnerable (Government of Kenya, 2015). On top of that the Kenyan government proved their commitment to this agenda by reviewing the NHIF act that

enhanced access and benefit to its users. The new constitution provided a legal framework with the aim of making sure that the provision of comprehensive medical care services which is people oriented.

It is important for any plans to recognize the need to incorporate more input from other players in the health sector to reverse the trends in health provision (Munge & Briggs, 2013). Therefore, there is need for active participation of all stakeholders in the provision of healthcare and their efforts should be aimed at providing an efficient health system and lastly the system should include a sector-wide approach and emphasized flexibility for rapid disbursement and constant monitoring of budgetary resources.

For effective & quality health care service to be realized, well trained and well supported health care workforce is mandatory. Health care workforce includes all the personnel involved in enhancing health services. These professionals include technicians, management personnel, doctors, nurses, laboratory specialists among others who even though they do not engage directly with the patients, their services are crucial for the smooth functionality of the health sector.

The healthcare personnel are responsible for the offering of health care services. They comprise a crucial part of the healthcare system, Government of Kenya (2008). Human Resource for Health (HRH) it's comprised of two major parts: Human Resource Development (HRD) and Human Resource Management (HRM). The two form a lifetime pathway for all health workers from training, employment until they exit the health workforce. The coordination among the two determines the success level of a country's health sector (Kumar, 2014)

To effectively assess the health market, it is crucial to study demand and supply sides of the health labor market and examine the difference (Kumar, 2014). The supply side is made up of trained and qualified healthcare workforce such as nurses, physicians among other care givers who willingly work at a given wage rate in the health sector.

The demand for healthcare providers is closely linked with the demand for healthcare services. It is measured by the rate at which both the public and private health facilities hire professional health care providers.

According to the 2012-2030 report, Kenyan government made a commitment towards improving accessibility of quality medical services to the citizens through providing affordable, equitable and quality services (Linda, 2018). The policy covers major health guidelines for both National and County government's health sector.

Since Independence, the government has made significant investments in health sector, however there are still a myriad challenge facing health workforce. The situation has mainly been contributed by the consistent population growth over the years. This has put a lot of pressure on the available workforce. It is therefore important for the government to increase financial allocations for human resource in the health sector as well as provide incentives and better working conditions that will foster retention and motivation among the available workforce (Blaise & Kegels, 2004)

Another health sector challenge in Kenya is the shortage of health workers just like most countries in Africa. According to WHO, Kenya has a significant shortage of healthcare workers. Currently the ratio of doctors to population is 13:10,000 which is low compared to the minimum threshold of the WHO which requires 23 healthcare professionals per 10,000 individuals. In rural areas this condition is even worse (Timothy, 2017).

Health sector in Kenya has experienced a massive loss of qualified health workers mainly caused by poor working conditions and inadequate remunerations. According to various reports, over 5000 Kenyan trained doctors have emigrated while over 3000 have left health sector to join other sectors. Due to this only about 3440 doctors take care of the huge population. Some of the challenges facing the health sector currently have been attributed to devolution (Linda, 2018).

2.3 Theoretical Literature Review

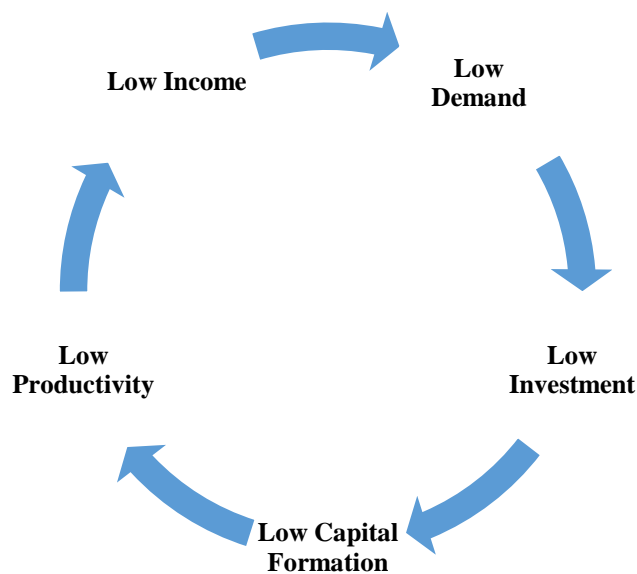
The study was based on two theories, which are: Theory of balanced growth and theory of unbalanced growth.

2.3.1. Theory of Balanced Growth

This theory was formulated by Prof Nurkse (1907-1959). The major tenet of the theory is that it emphasizes the need to make simultaneous investments in several industries as this will lead to bigger markets and lead to an increase in the need to invest.

He postulated that the main impediment of development in Underdeveloped countries is the vicious circle of poverty. The theory shows income is low in underdeveloped countries, which leads to low savings. Low saving will automatically lead to low investment which will consequently lead to low production. The low production will generate low income which will make the demand for goods by consumers low as shown in Figure 2.3 below.

Figure 2. 2: Vicious Cycle of Poverty



Source: Author's Summary

This theory emphasizes that the major hindrance to development is limited market opportunities and narrow markets. As a result of these only complementary investments are capable of creating mutual demand. And thus, for any government to achieve balance it must plan for investment (Merrifield, 2010).

According to (Fernando, 2009) who supported the theory of balanced growth, the study argued that because of low demand for goods, it leads to a low propensity to invest which consequently leads to low capital. And due to low per capita, productivity per worker will be low which in extension leads to poverty.

This study borrows heavily from this theory as it provides insight on how the county governments can improve the welfare of the common mwananchi through investing. The counties should invest in sectors that have higher relation between demand, supply and purchasing power in consumer goods industry and in the production of food (Whitworth & Whitworth, 2010).

2.3.2. The Theory of Unbalanced Growth

This theory was propounded by Hirschman, Rostow, Fleming and Singer as a development strategy to be adopted by those nations that are underdeveloped. The theory emphasizes on the importance of investments in strategic sectors of the economy rather than investing in all economic sectors simultaneously.

This is because all economic sectors are linked together and hence the other sectors where investments are not done will also grow this is because of the linkage effect and thus all sectors will develop. Prof Hirschman asserts that to accelerate the rate of economic growth there is need to create imbalances deliberately. As in underdeveloped countries resources are not enough and the little available should be efficiently utilized. And thus, those strategic sectors should be prioritized. And this is the best strategy for underdeveloped countries to grow.

According to Prof Hirschman, the real challenge towards development of underdeveloped countries is not capital shortage but rather the lack of entrepreneurial skills, and this is a complete contrast to the balanced growth according to (Gardiner, Martin, Sunley, & Tyler, 2013).

This study finds this theory of interest as it provides a totally different perspective on how to achieve balanced growth in the counties. As it emphasizes that the most significant and influential factor for development it's the existence of entrepreneurship ability.

2.4 Health State in counties

Devolution introduced 47 counties in Kenya and they were mandated with the responsibility to oversee: fisheries, agriculture, cultural activities, entertainment of the public and public social amenities, transport system within the county, carrying out of trade and development such as construction of open markets, offering pre-primary education, oversight of public works such as roads construction and offering health services in terms of building hospitals and recruitment of hospital staff.

Kenyan government will ensure that counties have access to sufficient funding in order to allow the counties offer services to the people. Health is one of the sectors that was devolved from the national level to county level. Some counties have recorded success in the implementation of health devolution whilst others are still dragging along, and some have still terribly failed. Devolution implementation led to the introduction of new health care facilities and medical supplies such as medical equipment in all the 47 counties. But most health personnel in majority of the counties are not satisfied with how the hospitals are run in terms of recruitment, enumeration and the working conditions.

There have been several instances whereby the union of doctors and those of nurses have called upon their members to go on strike due to delayed salaries and promotions and some even claim that health should not be a devolved function as the national government managed it better. A report by (KPMG, 2013) which explored the state of health before devolution and after devolution, it investigates whether other nations recorded any gains or experienced losses upon implementing devolution and some of the lessons Kenya as a country can learn from such countries experiences. The report notes that health sector has been greatly centralized since independence with authority concentrated in the capital but after devolution the national government is only mandated with policy and management of only the two referral hospitals while other health related functions were devolved to the counties.

Data has shown that under the national government health sector have been run wrongly and review by the ministry of health revealed that improvements geared towards the health sector have been minimal over the years with some health indicators having been worsened, for instance, neonatal and maternal mortality rates have been on the rise until around 2008 which made

devolution as a cure especially in the marginalized areas in Kenya. A report by the World Bank about access index to medical services indicated that some parts of the nation were completely neglected and forgotten during the centralized system of governance. For example, 8 out of 10 newborns in central Kenya are born in the hospital while the report shown that in northern Kenya only 2 out of 10 newborns were born in a hospital and this led to higher neonatal mortality in such places and therefore need for devolution.

With devolution, it helped in making access to health facilities easier and better though the sector has been facing numerous strikes from the health workers through their union representatives. The World health organization identified Kenya as one country that is critically understaffed in terms of health personnel due to reasons such as brain drain among others. World Health Organization minimum ratio of physicians, midwives and nurses is at 23 per 10,000 while in Kenya the ratio stands at 13 physicians, midwives and nurses per 10.000.

According to a report by (KPMG, 2013) Kenya can learn valuable lessons from nations such as Thailand, Ghana and Ethiopia that greatly benefited from devolved health services, with Ethiopia having devolved its medical sector in 1996 and its system reaped great benefits such as a decrease in the number of under-five mortality rates from 123/1,000 live births to 88/1,000 live births in 2011. These benefits were achieved via a rapid implementation of health extension initiatives in which more than 35,000 health workers were deployed in remote areas to offer medical services. The districts received grants from the regional authorities which they used to come up with their own goals and priorities and also formulate budget distributions depending on the needs of their locality.

This district units were mandated with provision of human resources, setting up of new health facilities and procurement process especially in the purchase of medical supplies such as drugs. In Ghana health was devolved and it is under Ghana Health Service, a body that operates and runs majority of the health facilities, centers and offices in the country. Ghana health service with time it evolved and formed more deconcentrated units with district and regional medical offices. In Thailand the situation has also improved.

The report by (KPMG, 2013) indicated that what has been observed in the 3 nations in the formation of the correct administration and accountability system is very crucial in ensuring that

devolution is successful. In Wajir County health services have greatly improved, since before devolution the residents would travel distances of more than 100 kilometers in order to access a health center, but today more health centers have been put up near the people. New recruitment of doctors which increased their number from 230 to 501 and the building of new maternity wings in hospitals in order to reduce maternal mortality rates.

In most health facilities patients would get prescriptions and then told there are no drugs which they would go and buy at privately owned pharmacies such cases with devolution have greatly reduced as most hospitals are currently well stocked with drugs. The number of health workers employed also increased by 34 percent since devolution came into practice. Since the year 2013, health centers have increased in numbers across the country by 12 per cent as counties can now be able to put up their new hospitals with some like Nandi and Kisii counties being on the process of constructing referral hospitals.

The new health centers put up have increased the number of dispensaries by 12%, maternity theatres increased by 142%, incubators increased by 43%, laboratories increased by 34 per cent while beds increased by a whole 21 per cent. There have also been recorded improvements in imaging facilities across the counties, and thus citizens no longer seek medical attention from the expensive private facilities. Intensive care units have been opened up in Meru, Bomet and Kericho counties.

Before devolution most hospitals did not have emergency services, but today most hospitals in the counties have ambulances which have greatly contributed in saving lives. Many counties now are stocked with drugs and hence patients are not asked to go and buy medicine from outside this is attributed by the fact that before devolution the national government would spend sh.12.9 billion on medicine while today with the county governments the spending on medicine have risen to 19.2 billion shillings showing an increase by 42 per cent. But, majority of the county's defaults paying the medical suppliers such as in Nairobi County, there are lack of drugs since the Kenya Medical Supplies Agency is owed debt to the tune of sh.120 million by the county.

Majority of the county governments spends more than 30 per cent of their budgets on health while national government used to spend only 6 per cent. There has also been an increment in doctors and nurses number in the counties, although a section of them have raised complains over delayed

salaries and promotions, and the county governments have blamed the national government in delaying funds disbursement to the counties.

There has been issues with devolution implementation especially in health matters, but also significant improvements have been recorded and with time the country will reap heavily from devolution.

2.5 Critique of existing literature

A lot of papers have been written about devolution and its impact on various on sectors such as health and on education. This section analyses what various scholars wrote on the subject and identifies gaps that the paper will fill. There are papers that show a positive relationship between devolution and health, others show a negative relationship between devolution and health while some of the scholars found there is no impact of devolution in health.

Some scholars found there is a negative relationship between devolution and health such as (Hawkins, 2009) and (Willet & Giovannini, 2014). According to (Hawkins, 2009), the study found out that in Philippines within one year of implementation of devolution in 1991, the country recorded lower occupancy in the health facilities, a decrease in drugs and medical equipment procurement, there was loss of fiscal and management control in the running of hospital administration opposite of what was expected. The country as a result of devolved health it also recorded low motivation among the health care personnel and in some cases critical health workers resigned from their workstations. All these indicators show that in the Philippines devolution brought more problems than the ones it solved, and it can be attributed to a lack of political will. Also a study by (Willet & Giovannini, 2014) he found out that in the United Kingdom (UK) concept of devolution lacked a crucial factor of community participation and in turn it did not meet the set targets as it has made accessibility of funds by the local governments to significantly reduce and this changed the emphasis on governance.

On the same note other scholars found out that, devolution lead to an improvement in health. According to (Anit, 2016), Brazil introduced a new constitution in 1988 that made access to health a basic right and also introduced a unified health system for all. Devolution changed health model from a privatized system to a state system with the private sector only supplementing the

government service delivery. States and municipal authorities were mandated with health delivery and they were to ensure that health was accessible to all. Primary and secondary health care were provided by state through public and private health facilities. By year 2012, 54.8 % of the population were covered which was a manifestation of health care coverage. Devolution led expansion of community and public health centers which greatly improved health outcomes across the country.

According to (Anit, 2016) China introduced reforms in sectors such as health in 1994 which were designed to cure the inequality that exists between urban and rural dwellers. This is because the urban and rural dwellers have different social, fiscal and economic conditions. Community health workers were then promoted to private medical personnel mandated with the responsibility of providing health to the rural people. This led to an improvement in coverage and quality of health care in rural areas. This decreased infant mortality from 58 to 17 newborns and also it led to a decrease in maternal mortality rates. Another study by (Dubusho, 2009) , found that in Ethiopia introduced the concept of devolution in 1996 as plan to improve the provision of medical care in the nation. Regional levels are where the first devolution recipients and later it was extended to the district levels in year 2002. Devolution created a four-tier system comprising national, regional, referral and primary health facilities. Districts received grants from regional level authorities. As such district units are solely mandated with the role of hiring and firing of health workforce, building and maintenance of health facilities .The country recorded great improvements in health services delivery although there were challenges during the first phases. (Dubusho, 2009). Another case of devolution success is in Mexico where, according to (Anit, 2016), the country achieved a decade success in achieving universal health coverage following the decentralization in 1985 of health from the ministry to the states. There was an increase in private insurance by 4% and more than 50 per cent of the population who did not have health insurance and could only afford public health services they were funded by the states.

Other scholars also found that devolution did not have any impact on health. A study by (Patrick, 2013) he found out that in Uganda there was zero health improvement as shown by various health indicators when devolution was implemented in 1997. He argued that devolution did not achieve the set objectives of ensuring greater participation by people in health and education because of insufficient capital and staff, lack of participation by the community, weak civil society and a very

narrow tax base. Ugandan case shows us that devolution can improve state institutions if the local people are made a part of the decision-making process as this will make it possible to hold civil servants accountable.

Conceptual framework, in this study, the researcher focused on health as the subject to facilitation by devolution. The independent variables include health infrastructure, health funding, hospital leadership, and health care access and hospital human resources.

2.6 Summary

Most of the previous literature reviewed in this section have not clearly shown the trends between devolution and health. The studies have revealed mixed outcomes of devolution on health and hence there is no specific direction in which impact of devolution has on health. Hence there is need for a specific county or county to be individually investigated through empirical data.

Most of the literature reviewed analyzed impact of devolution on health at national levels such as studies by (Anit, 2016) and (Willet & Giovannini, 2014) and their results may not necessarily be trusted as a representative of the impact of devolution. Also, a study by (Patrick, 2013) focused on the impact of devolution on national level and there is need to analyze individual county impacts.

Chapter 3

Methodology

The chapter addresses methodology used in the study. It specifically outlines: Site Description, Research design, population under consideration as well as the sample size, research procedures, the methods of data collection and analysis used in the study.

3.1 Research Design

The study research design was comprised of a description of the site, unit of analysis and the target population. Meru County will be our study site for this Research. Meru County is among the 47 Kenyan counties. By 2018 population of Meru County was projected to be 1.356 million, with an area of 6,936 square kilometers. In addition, the County has 9 constituencies namely: Buuri, Igembe South, Tigania West, Igembe Central, Central Imenti, South Imenti, Igembe North, Tigania East and North Imenti. Meru County is well known for agriculture specifically Miraa Farming.

Meru County is located in the Eastern province, as County 012, located 225 kilometers from Nairobi. The county is bordered by Isiolo County on the northern side, on the southwest side it borders Nyeri County, Tharaka nithi on the southwestern side and Laikipia County on the west. It is believed that the word 'meru' came from the Maasai ethnic group who used to refer to Imenti forests with the Maasai title 'mieru' forests. Current governor of Meru county is Hon. Kiratu Murungi, and Titus Ntuchiu is the deputy governor while Hon Mithika Linturi is the Senator, Wilfred Nyagwanga is the county commissioner and lastly Kawira Mwangaza is the Meru county women representative. The main towns in Meru County are: Timau, which is about 55 kilometers from Meru town and located along Meru-Nanyuki highway and hosts one of the county assembly wards in Buuri constituency. The town is well known for horticultural produce such as roses and ranches. Meru town, it serves as both the administrative and commercial town for Meru County. River Kathita passes across the town and it is mostly known as a business and agriculture hub and has the biggest open-air market in the county. Maua town is about 60 kilometers away from Meru

A descriptive research design was used by the study in order to be able to illustrate the manner in which the various elements of the study are coordinated to address the key research questions, and because it makes it possible to collect data from respondents in natural settings.

To find out the influence of devolution on health infrastructure the respondents will be asked to explain what their perception on devolution influences health care systems. To answer research question 2, on whether devolution influences access of health services, the respondents will be asked whether health services have moved to people since implementation of devolution. To answer research question 3, respondents will be asked whether financing in health care has been timely and sufficient.

In this study, the unit of analysis is the impact of devolution in Meru County health care systems while unit of research comprised of Meru County health workers and patients. In this study, the population target is the 216 health facilities in Meru County. The study utilized a stratified sampling procedure in order to be able to choose sample populations. A study by (Cooper & Schindler, 2006) defines target population as a group of interest from which the individual objects or participants measurements are taken. The population of a study refers to all the objects that the study seeks to investigate. Population is a large set of observations while a sample is a smaller set. Samples are normally used to make observations in instances where the area or population that is under investigation is very big.

In order to achieve the objectives, set the study settled on the impact of devolution on health systems in Meru County as the unit of analysis and Meru county health workers and patients as the unit of observation for the study.

3.2 Sampling Frame, Technique and Size

A sampling frame refers to a list of all the items that compose the population where a sample is obtained (Fram, 2014). It mainly focuses on the population of the study where sampling is done and from where generalizations regarding sample data are made. In this study, the sampling frame is selected health facilities and satellite clinics within Meru County.

Sampling technique refers to the process by which the entities of the sample have been selected. This study applied a stratified and cluster sampling techniques. In these two techniques, the

chances of each case being selected are unknown. Evaluating the characteristics of the population using a representative sample is critical since in cases where the population is large, this process may be costly and time-consuming (Fram, 2014).

According to (Fram, 2014) a sample size refers to a count of individual samples under observation. To achieve a representative sample of the population, it is important to apply sampling techniques which are relevant to the study that you are conducting. A bigger sample size increases the level of accuracy in the results of the data under study (Fram, 2014). This study used a total of 385 respondents selected from various health facilities across the county. The selection of the sample was random and unbiased. The study used (Fisher, Laing, & Strocker, 1998) sample size determination formula, with a confidence interval of 95 percent, this means there is a 5% chance sample results will diverge from the true population average. Margin of error at $\pm 5\%$, therefore with confidence interval at 95%, Z score value will be 1.96, the margin of error will be, $\epsilon = 0.05$, Standard deviation will be $p = 0.5$, $q = (1 - \text{std dev}) = 1 - 0.5 = 0.5$, therefore sample size (n) will be given by the formula:

$$n = \frac{z^2 pq}{e^2}$$

$$n = \frac{(1.96 \times 1.96) \times 0.5 \times 0.5}{0.05 \times 0.05}$$

$$n = 384.16$$

Hence $n = 385$

Stratified sampling technique was therefore applied to select 385 respondents in Meru County health facilities

3.3 Data Collection and Analysis

This research utilized primary data. According to a study by (Creswell, 2008), he defines primary data as data collected for the first time. Data collection methods refer to the mechanisms of used

to gather and measure information on targeted variables in a certain fashion that is systematic and which helps address the research questions and evaluate outcomes (Mitchell & Jolley, 2013) . In collecting primary data, the study utilized closed-ended questionnaires. Closed-ended questionnaires are preferred to ensure uniformity in response to the predetermined questions. The researcher developed these questions and structured as per the research questions of the study. After physically delivering the questionnaires, the respondents were allowed sufficient time to complete the questions. For follow-ups, the study used specific contact persons in each health facility.

Prior to data collection, an introduction letter was obtained from Norwegian University of Life Sciences in the Department of International Environment and Development Studies which was later certified, stamped and approved by the Meru County Chief Health Officer which was transmitted to the respondents to communicate identity of the researcher. Further, the duration, purpose and intended use of the results were communicated to the respondents. During the fieldwork interviews were only carried out on respondents who agreed to be interviewed. The information was treated with confidentiality and names of the respondents were not mentioned.

To verify the validity of the items in the closed questionnaire, a pilot test comprising of 30 respondents from health facilities in South Imenti Sub County was conducted. It helps researcher assess the suitability of the data collection instrument as well as identify challenges that may be encountered during the interviews. Proper adjustments were made to the questions on the basis of responses from our pilot test. Then final questionnaire was reviewed before sending it to the respondents. This questionnaire was supplemented by a letter of introduction that explained interview importance.

To answer the study's research questions on the impact of devolution on healthcare infrastructure, on access to medical care and on health care workforce, data was collected by using both open and close-ended questionnaires that were administered during interviews in various health facilities within Meru County

Qualitative analysis is normally used in examining non-measurable data. To ease referencing the questionnaires were numbered before data collection. After data collection, it was cleaned, sorted and coded for analysis. After verifying all the data entered was correct, descriptive statistics were

generated. According to (Mugenda & Mugenda, 2003) descriptive statistics assists in describing the distribution of measurements, summarizing and organizing the data. The results from the data were presented using figures and tables (Fram, 2014) in order to give a more appealing impression.

In order to achieve content validity, the researcher sought expert opinion from the supervisor and face validity was obtained through carrying out a pilot test which allowed the researcher to edit and correct research questions that seemed like ambiguous. According to a study by (Creswell, 2008) validity of any research instruments is the range by which the outcomes from a study through analysis will show the phenomena under study. Validity is of two types, content validity which deals with the probability a question set will be either misunderstood or misinterpreted. The second type of validity is face validity which is the validity that shows all types of a social set up.

The researcher carried out a reliability test in order to ascertain whether the questionnaire formed were able to give consistent outcomes. This was done through measuring internal consistency. According to (Creswell, 2008), reliability can be defined as the degree through which a research instrument such as questionnaire, interviews produce stable and consistent results.

Chapter Four

Data presentation and results

Chapter four outlined data analysis methods, results and discussion of results. Main objective of research was to examine devolution impact on health care systems in Kenya focusing in Meru County. The study also focused to investigate impact of devolution on health workforce and how devolution influenced the health care infrastructure. It also sought to analyze the impact of devolution on access of health care services by the common citizens.

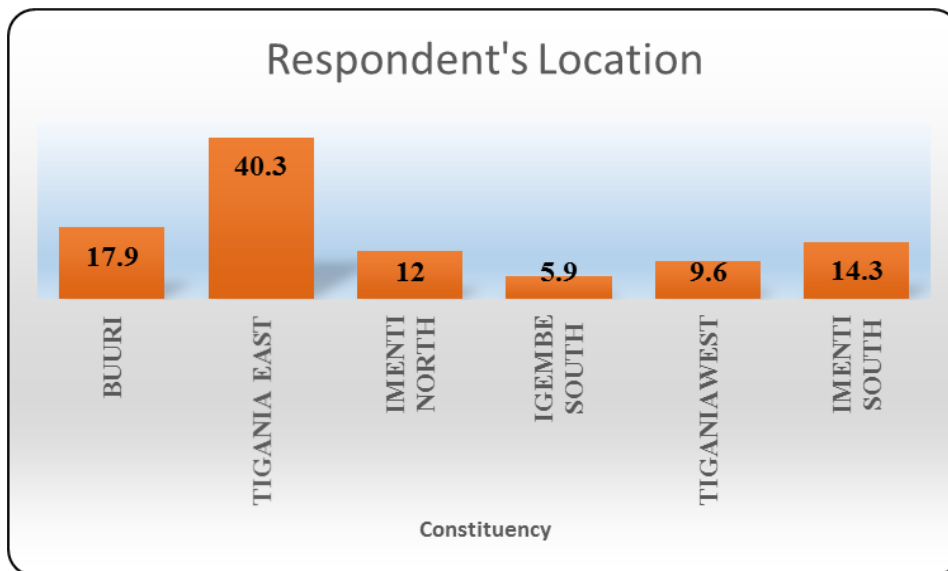
Sample size of the study was 385 respondents (health workers and patients), out of which 335 respondents filled and returned their questionnaires. 50 respondents refused to be interviewed and consequently 50 questionnaires were not filled. The response rate was about 87.01% and according to (Barberia & Biderman, 2005) any response rate above 50% is sufficient for analysis hence 87.01% response rate is very significant for analysis.

4.1 General Respondents Information

Respondents Location

The general information of respondents is location, highest level of education and gender. During interviews respondents were requested to fill their location. The findings shown that 17.9% of the respondents came from Buuri constituency, 40.3% came from Tigania East constituency, 12.0% came from Imenti North Constituency, 5.9% came from Igembe South Constituency, 9.6% of the respondents came from Tigania West constituency while 14.3% of the respondents came from Imenti South constituency all within Meru County as depicted in Figure 4.1 below

Figure 4. 1: Respondents' Location



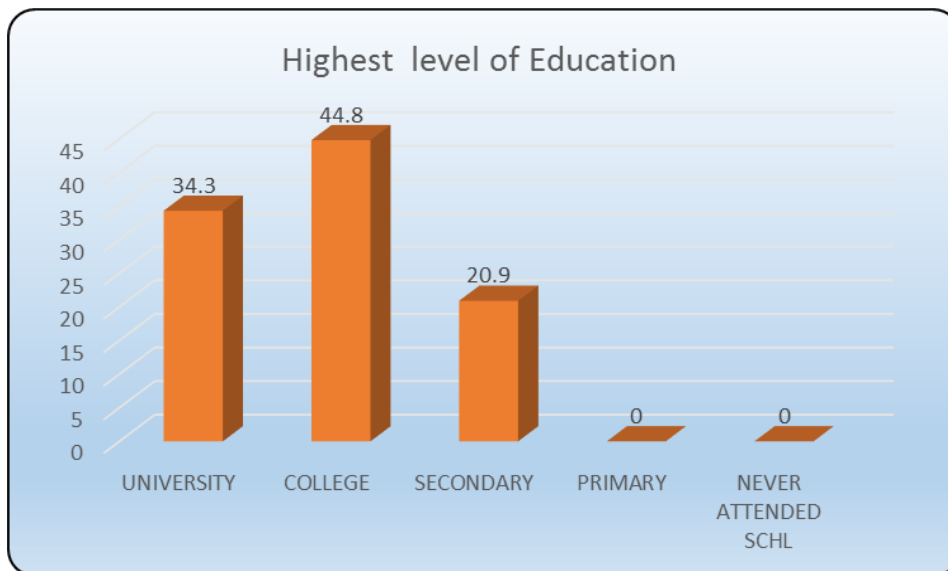
The findings show that, most respondents came from Tigania East Constituency.

Respondent's education levels.

The researcher requested respondents to fill highest educational level obtained .From the findings 34.3% had degrees, 44.8% of the respondents had College education, 20.9% of the respondents had secondary school certificates while none of the respondents never attended school or just had primary school certificate as shown in Figure 4.2 below. The findings indicated that most of the respondents had college education.

The more educated the respondent is, the more he/she will be conversant with what devolution means, its impact and gaps that needs to be filled as compared to the less educated members. From the sample, we can conclude that in Meru County the literacy levels are higher.

Figure 4. 2: Respondents Level of Education

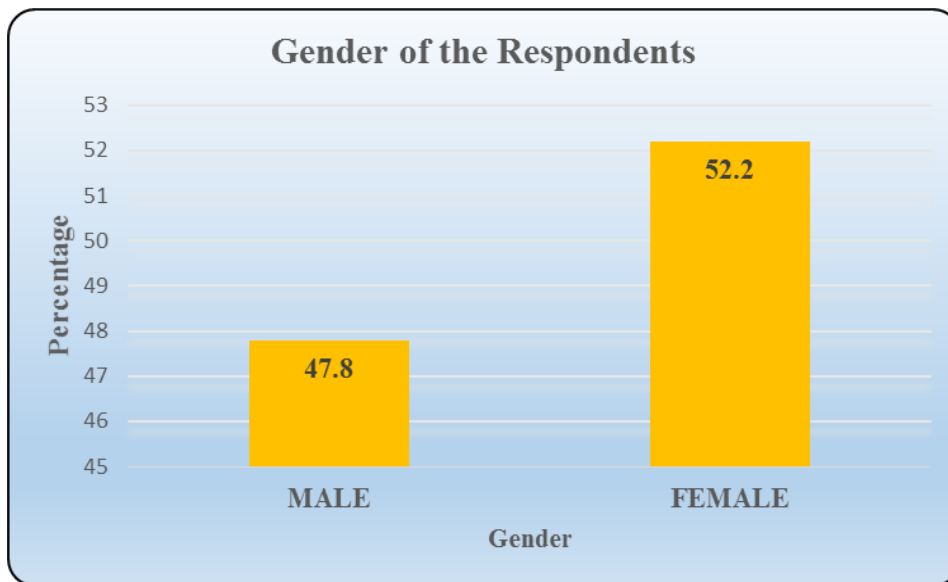


Respondents' gender

The researcher also requested the respondents to indicate their gender. The findings indicated that 47.8% were male while 52.2% of the respondents were female as illustrated in Figure 4.3 below. This demonstrated that majority of the people involved in study were female. According to (Bardhan & Mookherjee, 2006) the study found out that both men and women view matters of development under different perspectives.

Men will view development in terms of infrastructural developments in terms of electricity supply and coverage, road network coverage and the growth of businesses. While on the other hand, women being homemakers will view development in matters of increased accessibility to basic commodities and services such as water provision, health services accessibility as well as education accessibility in terms of schools.

Figure 4. 3: Respondents Gender

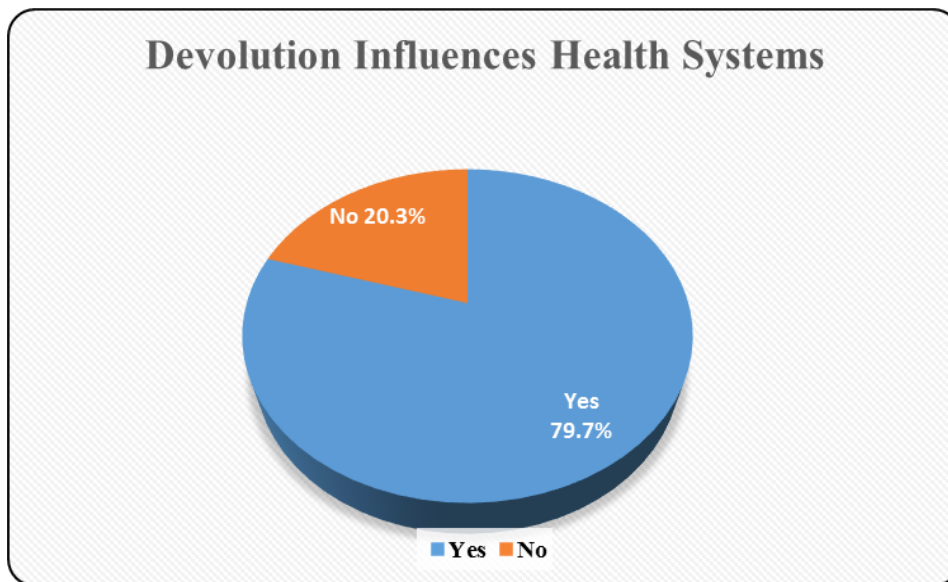


4.2 Impact of health devolution in Meru County

The interviewer requested respondents to indicate their perspective on whether devolution influences health care systems. The study set out interviews, to find out whether devolution influences health care systems (infrastructure, health workers and health services). From the findings 79.7% of the respondents were positive while only 20.3% of the respondents thought otherwise as shown in Figure 4.4 below.

For those who agreed they supported their position by indicating that since devolution was passed and implemented, health services have moved closer to common mwananchi, this was due to an increase in hospital staff. Some respondents indicated that previously medical services were only accessible in Meru Level 5 Referral Hospital but currently they can be able to access the services in the grassroots health facilities such as dispensaries that have been equipped by the County government and also there has been an increase in public participation on matters health.

Figure 4. 4: Respondents perception of whether devolution influences Health Systems



In order to answer research question 2, on what is the impact of devolution on access to health services. The researcher requested the respondents to indicate whether healthcare has improved since implementation of devolution. Respondent was requested to fill his/her level of agreement or disagreement on implementation of devolution. Where SA stood for strongly agree, A was agreeing, N was neutral, and D was disagreeing while SD strongly disagreed. From the findings, majority agreed at 53.9% health provision had improved since the implementation of devolution, 14.7% strongly agreed, 9.8% were both neutral and strongly disagreed while 11.8% disagreed among the respondents.

Secondly, 48.0% respondents agreed that devolution had led to an increase in healthcare workforce in Meru County, 25.5% strongly agreed, 12.7% were neutral and 6.9% both strongly disagreed and disagreed that number of health workers had increased since implementation of devolution. Some respondents reported that ,there was overworking especially in Meru Level 5 hospital which lead to inefficiency, this was in line with a report by (Ministry of Health, 2015) that indicated that the health sector in Kenya still faced major human resource deficiency notwithstanding massive funding injected into the sector since independence and also after devolution. This can be ascribed by the increase in population which persistently exerts pressure on health demand.

Additionally, the findings shown that 17.6% strongly agreed devolution had led to an increase of hospital infrastructure, 42.2% agreed respectively, 21.6% were neutral. Some respondents indicated that they can now access health services in newly constructed health centers such as Miathene and Ikaiga dispensaries. However, among the respondents 13.7% disagreed while 4.9% strongly disagreed that health infrastructure had increased with devolution.

Further, 24.5% of the respondents strongly agreed that since devolution was implemented health services had moved closer to the common mwananchi, 50.1% agreed while 12.7% were both neutral and disagreed that since devolution implementation health care has moved closer to the common mwananchi this was attributed to the fact that more health centers have been constructed in the Sub-Counties and none of respondents strongly disagreed on the issue.

Lastly, majority of respondents agreed at 42.2% that medical supplies and financial allocations to the health sector had improved since the onset of devolution while 9.8% strongly agreed. Out of this 23.5% of the respondents were neutral as to whether financial allocations had improved with devolution. Findings further revealed that 12.7% disagreed and 11.8% strongly disagreed that health sector has improved since devolution started being implement in Meru county.

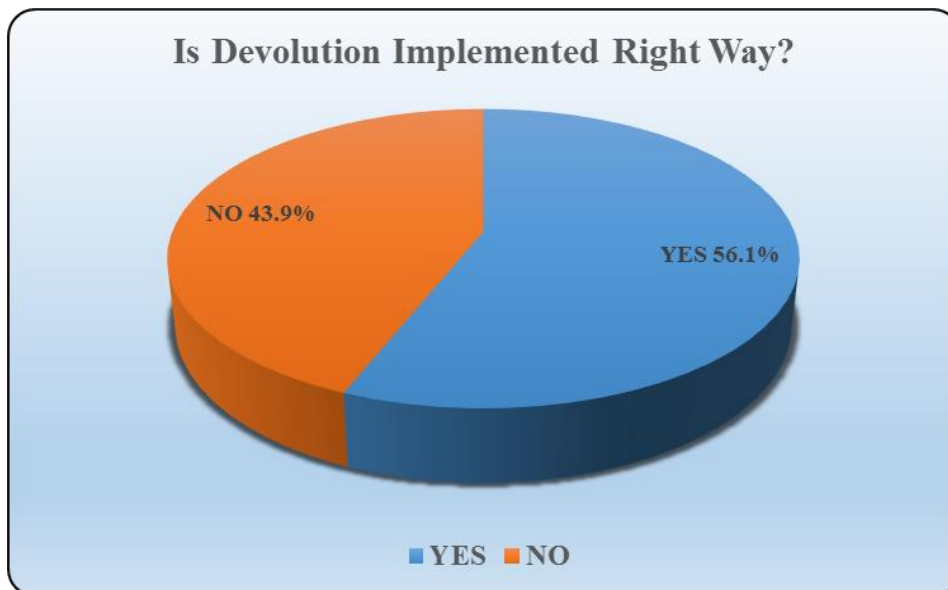
Table 4.1 shows agreement levels among respondents on various statements asked during the interview

Table 4. 1: Implementation of Devolution

Implementation of devolution	Level of Agreement					Total	
	(Percent)						
STATEMENTS	SA	A	N	D	SD	%	N
Healthcare provision has improved since implementation of devolution	14.7	53.9	9.8	11.8	9.8	100	335
Devolution led to health care workforce increase in Meru County health facilities	25.5	48.0	12.7	6.9	6.9	100	335
Devolution has led to an additional and improvement of hospital infrastructure	17.6	42.2	21.6	13.7	4.9	100	335
As a result of devolution, health care has been moved closer to the common mwananchi in the grassroots	24.5	50.1	12.7	12.7	0.0	100	335
Medical supplies and financial allocations to health sector have improved with devolution	9.8	42.2	23.5	12.7	11.8	100	335

To get more insight on devolution the respondents were asked to indicate whether devolution implementation process was being made in the right way in Meru county. The findings shown that 56.1% of the respondents agreed that devolution was implemented in the right way in Meru County while 43.9% of the respondents differed as shown in Figure 4.5 below. From the findings it can be concluded that devolution was implemented in the right way in Meru county.

Figure 4. 5: Respondents Views whether devolution is implemented right way in Meru County



To answer research question 3 on what impact devolution had on health care workforce, the researcher requested respondents to indicate whether health funds were allocated on time for salaries and employment of more staff. The study found out that after devolution the major source of health financing in counties is mostly from the National government. However, 91.1% respondents pointed out that health funds were not received on time while only 8.9% differed. The commitment of any government to the health sector is measured through timely and more financial allocations to the health sector. 90.2% of the respondents disagreed that financial allocations from the National government were sufficient while only 9.8% of the respondents differed.

Majority of the respondents indicated that due to delayed financial allocations from the National government to the County, this has led to go slow among the health workers due to delayed salaries and also lack of medical supplies and drugs in hospitals as suppliers had not been paid. Reports indicate that since devolution health financing had been a challenge which has made Counties health facilities unable to offer primary health care services (Government of Kenya, 2015). Table 4.3 below depicts the findings.

Table 4. 2: Devolution of Health Finance

Health Financing	Frequency		Percent		Total	
	Yes	No	Yes	No	Frequency	Percent
Timely financial allocation	30	305	8.9	91.1	335	100
Sufficient Financial allocation	33	302	9.8	90.2	335	100

4.3 Hospital Leadership styles

The study established that 13.4% of the respondents rated the hospital leadership as excellent in being participatory, effective and up to the task. Participatory leadership is defined as leadership that allows people to fully utilize their full potential and act without any interference. According to (Guay, 2013) positive style of leadership creates a sense of teamwork among the employees. Also, a study by (Kottke & Pelletier, 2013) found out that leaders having strong moral standards may facilitate effective employee performance and positive engagement.

Additionally, the findings also shown that 74.6% of respondents rated hospital leadership as being average. This finding agrees with a study done by (O'Neil, 2008) who noted that in a hospital set up, senior hospital management holds administrative roles and power. This include people in charge of nursing, pharmacy, administration and its mostly headed by a medical superintendent. The ones in control of clinical operations are mostly clinicians and nurses who execute their duties without any specific administration roles.

Lastly, only 12.0% of the respondents indicated that hospital leadership was poorly participatory, poorly effective and was not up to the task. Based on these findings we can conclude that the leadership in most hospitals is one that is effective, participatory and one that is up to the task as illustrated in Table 4.2 below.

Table 4. 3: Respondents Perception on Hospital Leadership

Hospital Leadership Rating	Frequency	Percent
Excellent	45	13.4%
Average	250	74.6%
Poor	40	12.0%
Total	335	100%

4.4 Conclusion

Empirical results generated from the study were analyzed and interpreted concisely in this chapter. The study investigated impact of devolution of health systems (health infrastructure, health workforce and health services) in Kenya with a special focus in Meru County. The research utilized primary data that was collected through both closed and open-ended questionnaires and total of 335 questionnaires were answered and given back. They were then cleaned, coded and entered for analysis.

The findings shown that most of respondents came from Tigania East Constituency at 40.3%. Highest education level of the respondents was at 44.8%., Women were 52.2% while 47.8% were men. Also 79.7% of the respondents agreed that devolution influences health care systems (infrastructure, health workers, and health services) in Meru County while 20.3% differed.

Additionally, 56.1% of the respondents agreed that devolution process kicked off in the right note Meru county including the implementation aspect while 43.9% differed.

Further, 13.4% of the respondents rated hospital leadership as excellent, 74.6% average while only 12.0% rated it as poor. However, 91.1% respondents indicated that health funding was not timely

received while only 8.9% differed. And lastly, 90.2% of the respondents disagreed that financial allocations from the National government were sufficient while only 9.8% of the respondents differed.

Chapter 5

Discussion and Conclusion

This chapter summarizes findings, conclusions and offers recommendations for practice and studies to be done in the future. An analysis of the impact of devolution on health systems with Meru county as the case study was the main objective of the study.

5.1 Summarized Study Findings

Kenyan constitution was passed and promulgated August 27, 2010, it created a shift in the major framework for governance in the country. The major change was a shift from a central authority to a devolved system of authority. The study set out to analyze the impact of devolution on health systems in Meru County. The study utilized primary data which was collected via closed ended questionnaires. The objectives of study were to find out impact of devolution on healthcare infrastructure, impact of devolution on access to health services and to analyze impact of devolution on health care workforce in Meru county.

Salient findings of the study are:

In Meru County 79.7% residents agreed that devolution influences health care systems while only 20.3% of the respondents thought otherwise

The findings revealed that 53.9% of respondents concurred that health provision had battered since the implementation of devolution while 11.8% respondents disagreed. Also, 48.0% respondents agreed that devolution contributed to the increase of healthcare workforce in Meru County while 6.9% of the respondents differed.

The findings also shown that 17.6% strongly agreed, 42.2% agreed that devolution had led to an increase in hospital infrastructure. 21.6% of the respondents were neutral, 13.7% disagreed while 4.9% strongly disagreed. Further, 24.5% strongly agreed ,50.1% agreed, 12.7% were neutral and 0% strongly disagreed that since devolution implementation health care has moved closer to the common mwananchi.

Lastly, 42.2% respondents agreed, 23.5% were neutral while 11.8% strongly disagreed that medical supplies and financial allocations to the health sector had improved since the onset of devolution.

The findings shown that 56.1% of the respondents concurred that devolution was being implemented in the correct way in Meru county while 43.9% differed.

The study found out that health funding was not timely by 91.1% while only 8.9% respondents differed. In addition, 90.2% of the respondents disagreed that financial allocations from the National government were sufficient while only 9.8% of the respondents differed.

5.2 Contribution to knowledge

The study found out that since implementation of devolution especially in health sector service delivery has increased in terms of affordability, availability and accessibility to the common mwananchi.

In addition, the study also revealed that devolution was being implemented in the correct way in Meru county, but it is facing various challenges such as corruption, nepotism, delayed salaries etc. These findings agree with (Wehner, 2000) , the study argued that factors such as inadequacy of funds, poor management and corruption negatively impact devolution implementation.

This study also found out that medical supplies especially in county run pharmacies are not enough and take time before the pharmacies receive them from the suppliers. Further, the study established that health workers such as doctors and nurses are poorly motivated due to delayed promotions and salaries.

Lastly, the study found out that health financing is the biggest challenge towards the realization of the fruits of devolution in Meru County. The finances are not timely and also are insufficient to meet the overall health sector needs in the County.

5.3 Recommendations

The recommendations are founded on the results of this study and are split into two parts. The first section outlines the recommendation to policy makers while second section presents recommendations providing suggestions for future research

The study found that funds allocated to the health sector were received late and also, they were not sufficient. The study recommends that the National governments should come up with appropriate mechanisms that will help counter the challenges associated with release of funds to the counties.

The study also found that leadership was averagely provided in the county. The study recommends that both County government leaders and hospital management should be of people who are up to the task, focused and performance oriented.

The study also found that implementation of devolution faced challenges such as nepotism, corruption, delayed staff promotions etc. The study suggests that the county government should come up with measures to counter corruption by reporting corrupt individuals to the relevant authorities such as to the Ethics and Anti-Corruption Commission.

The study was limited to Meru county and thus its findings may not be generalized to represent the situation in other counties. In this spirit further research needs to be done on impact of devolution on health systems in other counties in Kenya. It also recommends future research on the challenges faced by health sector since devolution was implemented in Kenya.

5.4 Limitations of the study

The major challenge encountered in data collection was health workers would decline to be interviewed on fears of their job security as they thought it was a Meru County data collection operation. The researcher assured the respondents that the data is purely academics and will not be shared publicly to safeguard confidentiality.

Also, some respondents especially patients would demand to be paid in order to be interviewed. The researcher would request them to cooperate since it was for academic and not any profit generation. Those who would insist, researcher would politely stop the interview and proceed.

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Appendices

APPENDIX 1: Individual Survey Questionnaire

THE IMPACT OF DEVOLUTION OF HEALTH CARE SYSTEMS IN KENYA- A CASE STUDY OF MERU COUNTY HEALTH FACILITIES

Individual Survey Questionnaire

Please answer the questions with absolute honesty. All information provided during this interview will be treated as anonymous and with confidentiality. Furthermore, the information will only be used for academic purposes.

Respondent Agrees To Be Interviewed **(Proceed).**

Respondent Does Not Agree To Be Interviewed..... **(End)**

IDENTIFICATION PARTICULARS

Questionnaire ID No.

Administrative Area

Area	Name	Code
Constituency		
District		
Hospital		

Please tick your response/choices as appropriate.

PART A: General Information

1. Gender

Male []

Female []

2. Age Bracket

25 years or below []

26 to 35 years []

36 to 45 years []

46 to 55 years []

56 to 65 years []

3. (a) Patient []

(b) Hospital staff, which capacity do you serve in the hospital?

Doctor []

Pharmacist []

Clinical Officer []

Office Administrator []

Technical Staff []

Hospital Management []

Nurse []

4. What is your highest verifiable level of education?

Never attended School []

Primary school []

Secondary school []

College []

University []

5. Where do you come from?

Within Meru County []

Outside Meru County []

PART B: The Relationship between Devolution and Health Care Systems-Health Infrastructure and Health workforce

6. Do you think devolution influences health care systems?

Yes []

No []

7. If yes, how?

.....
.....
.....
.....

8. The table below relates to healthcare provision since the implementation of devolution.

Please tick the column that best describes your opinion

NB: 5-Strongly Agree (SA): 4-Agree (A): 3-Neutral (N): 2-Disagree (D): 1-Strongly Disagree (SD)

Statement	5-SD	4-A	3-N	2-D	1-SD
-----------	------	-----	-----	-----	------

Healthcare provision has improved since implementation of devolution					
Devolution has led to an increase in the number of healthcare workforce in Meru County health facilities					
Devolution has led to an additional and improvement of hospital infrastructure					
As a result of devolution, health care has been moved closer to the common mwananchi in the grassroots					
Medical supplies and financial allocations to health sector have improved with devolution					

PART C: Factors Affecting Implementation of Devolution of Health Systems

9. Do you think devolution of health services is being implemented in the right way in Meru County?

Yes []

No []

10. If No, why?

.....

.....

.....

.....

.....

11. To the best of your knowledge, is the hospital leadership one that is: participatory, effective and up to the task? Please tick your rating on the leadership.

Excellent []

Average []

Poor []

12. The financing of the health care by the County government is timely and sufficient in the provision of qualified health services.

	Yes (Agree)	No (Disagree)
Timely financial allocation	[<input type="checkbox"/>]	[<input type="checkbox"/>]
Level of financing received sufficient	[<input type="checkbox"/>]	[<input type="checkbox"/>]

Thank you very much for your time and Participation

END OF INTERVIEW



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