INFLUENCE OF DEVOLUTION SUPPORT SYSTEMS ON QUALITY OF HEALTHCARE PROJECTS IN KENYA: A CASE OF WARD-LEVEL PRIORITIZED HEALTHCARE PROJECTS IN KEIYO SOUTH SUB-COUNTY, ELGEYO MARAKWET COUNTY

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DECLARATION

This research project report is my original work and at no point has it been submitted for any award in any other university.

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This research project report has been submitted for examination with my approval as the university supervisor.

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DEDICATION

I dedicate this work to my family; my beloved wife Cynthia Biwot and son Rohan Kipchumba for their immeasurable support. I equally dedicate it to my parents; my father- Samson Chepsat and mother Esther Cherutich who not only sacrificed a lot of resources to educate me all along in my education journey but also knelt down and prayed for me to excel in all my endeavors.

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LIST OF ABBREVIATIONS AND ACRONYMS

ADP	Annual Development Plan
CBOs	Community-Based Organizations
CECM	County Executive Committee Member
CHSIP	County Health Strategic & Investment Plan
CIDP	County Integrated Development Plan
CO	Chief Officer
DHIS	Demographic Health Information System
EMC	Elgeyo Marakwet County
EMCA	Elgeyo Marakwet County Assembly
FBOs	Faith-Based Organizations
FY	Financial Year
GDP	Gross Domestic Product
GHO	Global Health Observatory
GOK	Government of Kenya
HRM	Human Resources for Health
KDHS	Kenya Demographic and Health Survey
MCAs	Members of County Assembly
MDGs	Millennium Development Goals
NACOSTI	National Commission for Science, Technology and Innovation
NT	National Treasury
PP	Public Participation
SDGs	Sustainable Development Goals
SPSS	Statistical Package for the Social Sciences
U5MR	Under 5 Mortality Rate
UHC	Universal Health Coverage
UNICEF	United Nations Children's Fund
USA	United States of America
WHO	World Health Organization

ABSTRACT

Good health is a primary concern for all nations globally and therefore nations worldwide are striving towards coming up with well-thought-out healthcare systems which guarantee citizens healthy lives as well as advocate for and promote wellbeing for everyone. To date, there still exist huge differences in quality of healthcare offered to patients in advanced countries such as France in comparison to countries in Sub-Saharan Africa like Kenya. Some of the factors responsible for the differences include the following: funds allocated to towards financing healthcare, adequacy of healthcare workers, expertise of the healthcare workers, health insurance schemes and technology among others. Constitution of Kenya 2010 indicated right to health as one of the basic human rights that should never be compromised at all cost. This study sought to evaluate the influence of devolution support systems on quality of healthcare projects in Kenya: A case of ward-level prioritized healthcare projects in Keiyo South Sub-County. Funding mechanisms, technical expertise, monitoring and evaluation and capacity of local contractors at the county level were considered to be some of the factors responsible for the influence. The study adopted two theories, that is, equity of access to healthcare theory and theory of change to give more insights concerning fairness in accessing healthcare services and ways and means of organizing activities to produce desired results. Additionally, the report has shown the relationship in the form of conceptual framework between independent variables involved and its influence on quality of healthcare projects. The study used descriptive research design and correlation research design with a target population of 500 persons made up of senior county and sub-county health officials, hospital in-charges, hospital management committee and ward development committee. A sample size of 208 persons was determined using Silverman's formula, out of which 10% of the actual sample was used to collect data in the pilot study which took place in the neighbouring Keiyo North Sub-County to find out how reliable the instruments were. A Cronbach-Alpha coefficient of 0.765 was obtained through split-half technique to check for the reliability of the instruments and since it was found to be above 0.7, the tools were reliable. Quantitative data used simple linear regression model to test the strength of relationship between variables based on observed data and to predict the values of the response variables based on the predictor variable. ANOVA was used to establish the goodness of fit of the linear regression model. It was established that funding mechanisms at county level with $r=0.861$, $r^2=0.741$, $\beta=0.899$, $t=6.305$ and $F_{(1, 187)} =383.817$ at $p=0.000<0.05$, concluded that the variable had a strong positive significant influence on quality of healthcare projects. The study also established that technical expertise at county level with $r=0.714$, $r^2=0.509$, $\beta=0.832$, $t=9.434$ and $F_{(1, 187)} =205.395$ at $p=0.000<0.05$; monitoring and evaluation at county level with $r=0.638$, $r^2=0.407$, $\beta=0.725$, $t=5.496$ and $F_{(1, 187)} =128.686$ at $p=0.000<0.05$; and capacity of local contractors at county level with $r=0.593$, $r^2=0.352$, $\beta=0.608$, $t=5.621$ and $F_{(1, 187)} =232.298$ at $p=0.000<0.05$ had a positive significant influence on quality of healthcare projects. A conclusion was made that funding mechanisms, technical expertise, monitoring and evaluation and capacity of local contractors at the county level influence quality of healthcare projects. The research recommended that it is always important to have expert-guided public participation meetings during project's prioritization. The research suggested that a replica study should be carried out in other devolved functions in Kenya for purposes of comparison. Also, it suggested that other studies should be done on influence of devolution support systems on quality of other devolved functions such as roads, agriculture and water.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Nations globally strive to ensure that their citizens are able to have universal access to healthcare. Nations therefore base their health care development plans on this principle. Between the year 2000-2015, the Millennium Development Goals (MDGS) put forth by the United Nations(UN) achieved population goals in underdeveloped and developing nations. The World Health Organization (WHO,2003) ranked a few countries in terms of quality of healthcare offered and top in the ranking was France and the rest followed as follows: Italy, Spain, Oman, Austria and Japan. America stands out among other countries in terms of the volume of investment put in health systems. The healthcare system in USA take the largest share of its Gross Domestic Product (GDP) (around 18%) as compared to other countries. The United Nations Sustainable Development Goals (SDGs) Report 2019 gave some facts and figures, that is, 81% of all deliveries globally were conducted in the presence of a qualified healthcare worker. Sub-Saharan Africa contribute to two thirds of the total maternal deaths globally and statistics have shown that only 60% of the births are conducted by skilled birth attendants. Worldwide, maternal mortality rate fell by 43%, child mortality recorded a 53% drop, while new HIV infection registered a drop of over 38%. However, the drop in percentages were uneven especially in less developed and developing countries. It was observed that in underprivileged, remote, and hard-to-access areas, avertable mortality remained high (Chan, 2012).

In the year 2015,the United Nations General Assembly developed a new development blue print that aimed at transforming the world through the introduction of the 2030 Agenda. The goal set out in the agenda was to have an healthcare system which guarantee people healthy lives as well as advocate for and promote wellbeing for everyone. Access to healthcare by all, popularly known as Universal Health Coverage (UHC) is considered very critical to achieving SDGs and especially SDG number 3 on good health and well-being. The 2030 Vision for Sustainable Development recognizes and appreciates the pressing need to put quality of care in the fabric of global, regional , and national steps moving towards ensuring well-being for all is promoted (Wangia & Kandie, 2019). From the report by the European Union(EU) on the state of health in Austria in 2017, it was

noted that there was a rise the life expectancy at birth from 78.3 years in the year 2000 to 81.3 years in the year 2015 which is above the EU average of around 80.9 years. Similarly, their health spending is higher as compared to other EU countries . In the year 2015, Austria spent EUR 3808 per person annually on healthcare, the amount which was about EUR 1000 more than average across the European Union. This equated to 10.3% of the GDP- a rise from 9.6% in 2005 and slightly higher than the EU average of 9.9%. Close to 75% of health spending is public financed but the percentage paid out-of-pocket (18%) is higher than in most other developed countries such as Germany, Denmark, and the Netherlands. Quality, effectiveness, efficiency, free access, equitable and needs-based healthcare services are the building blocks for an optimal level of healthcare services for the population in the long run (Probst, 2011).

In comparison to other advanced industrialized countries, the USA have an hybrid healthcare system which is very unique. Most healthcare, even if is funded by the exchequer, its delivery is by the private sector . In the year 2014, it was noted that 48 percent of USA healthcare spending was attributed to private spending , with 28 percent of spending traced to households while 20 percent come from private businesses. 28% of spending was attributed to the central government while the remaining 72% was spent by the state and the local governments. To the contrary, the higher spending is not reflected in the health outcome because the USA has been consistently ranking below in some measures in comparison to nations in the same league around the world for example USA has recorded very little progress in the last 30 years in infant mortality rate and life expectancy rate which currently stands at 78.6 years , up from 75.2 years in the year 1990. Access to healthcare by all has not been achieved as the country has not put in place mechanisms geared towards ensuring that there is universal healthcare coverage for its population and this remains a major challenge , which has resulted in disparities among different population sets regarding health resources, health access and health outcomes(Miller, 2016). According to (Tunstall, 2015), 10.4% of Americans health is still insecure in spite of the operationalization of the Affordable Care Act which was enacted in the year 2010.

According to WHO (2018) report, Africa has recorded quite impressive improvement in health care service provision. However, the sustainability of the gains met can only be realized if countries give priority to the people who need the health services the most and deliver the needed

essential services equitably. According to Asakitipi (2018), Nigeria health policies have gone through noticeable progress in the last 60 years but the country still lacks required quality of healthcare system that is desired by the Nigerians to better their accessibility to health care. A substantial percentage of Nigerians are still struggling with a myriad of health problems. From the statistics by WHO, the maternal mortality rate in Nigeria ranks at the top globally responsible for 19% of maternal deaths globally .It is also estimated that the infant mortality rate in the county is significantly high. It is observed that in 1000 births, the country records an average of 19 deaths with death among children under the age of 5 years standing at 128 per 1000 births. Additionally, WHO estimates that the average life expectancy in Nigeria stands at 54.4 years with female recording a higher life expectancy of 55.4 while that of their male counterparts stands at 53.7.

The expenditure on healthcare by South Africa is significantly higher as compared to other Sub-Saharan African countries .The increased investment allocated to healthcare is guided by the 2001 Abuja declaration, a summit where the African Union member states represented by their heads of state unanimously agreed to progressively increase their country's health expenditures to a tune of 15% of the country's GDP. Despite allocating substantial amount of money to health care, the country is still faced with disparities when it comes to sharing of funds to all sections and citizens. Just like in many other African countries, privately-owned health facilities are way ahead of public health facilities in terms of quality of care offered. The main factor that brings about the variation is the management style and as well as financing mechanisms (Conmy, 2018). In 2019, the life expectancy was approximately 61.5 years for male and 67.7 years for female. The country has been recording a gradual drop in the newborn deaths from approximated 56.5 newborn mortalities for every 1000 live deliveries in the year 2002 down to 22.1 newborn mortalities per 1000 live deliveries in 2019. Additionally, there is a drop in the Under 5 Mortality Rate (U5MR) from 79.0 newborn mortalities for every 1000 live deliveries in 2002 to 28.5 newborn death for every 1000 live deliveries in 2019 (Tibane, 2019).

WHO Global Health Observatory(GHO) data for the year 2015 noted a fragile, underfunded and unevenly spread healthcare structure in Somalia. The funds channeled to healthcare remains quite low which has led to critical shortage of health workers. Due to the poor health systems, around 3.2 million men and women in Somalia are in dire need of emergency health services. An estimated

1.1million people displaced due to insecurity witnessed in Somalia live in deplorable conditions. Mogadishu the country's capital is the most affected and it is here where the risk of measles outbreaks and other waterborne diseases is high because of lower class people who live in overcrowded settlements which are faced with acute water shortage and poor sanitation and hygiene services (WHO, 2015).

The health situation in Uganda is facing a myriad of challenges that include among others, inadequate resources to employ, deploy, and retain human personnel for health, especially in the remote areas. These challenges notwithstanding, the country recorded a rise of life expectancy at birth of 62.2 years up from 45.7 and 64.2 years up from 50.5 years for males and females respectively between the years 1991 to 2014 . The country recorded great milestones between 1990 and 2015 by achieving one MDG target of child health whereby the mortality rate of children under the age of five dropped to 55 from 187 per 1000 live births. Between 1995 to 2015, the maternal mortality ratio dropped to 343 from 684 deaths for every 100,000 live deliveries though the new rate was still short of MDG target but the progress towards achieving the target is quite impressive. Uganda's health system is facing a big threat posed by communicable diseases, which contribute to over 50% of the mortality and morbidity cases (WHO, 2015).

In Kenya, there is mixed healthcare service provision by the government with a few national referral hospitals under the national government, level five downwards to level one facilities under the county governments; privately owned health facilities and by faith-based owned organizations. The health care service provision by the public sector account for approximately 50-60 percent, private sector and faith-based sectors fill up the balance (MOH,2012) . Mulaki & Muchiri (2019), pointed out in a study of Kenya Health System Assessment that there is inadequate health experts and the few that are working are not distributed evenly and more so to the more deserving areas bringing about inequalities in terms of access to quality medical care. Similarly, the study pointed out that devolved governments do not have the requisite expertise to effectively oversight healthcare workers. Health facilities ought to be easily accessible for the catchment population to access healthcare with ease. According to a report by the International Rescue Committee (IRC,2015) , only 63% of the Kenyans are able to get to a public hospital, health centre or dispensary within an hour away from their homes. The gap in distribution of health facilities in

counties is still huge and more so in rural counties. Around 50% of the 47 county governments in Kenya have one health facility for every 10,000 catchment population and less than 4.2 health facilities for every 100km^2 (Kimathi, 2017).

According to the 2018 to 2022 County Integrated Development Plan (CIDP), Elgeyo Marakwet County (EMC) anticipates a population growth of 1.1% annually from the 2019 census of 454,430 people, with majority of this population located in Keiyo South constituency, the second largest of all the four Sub-Counties in EMC. It is also noted that more than half of the population, around 57% is classified as poor and therefore provision of basic amenities is key. Currently, the U5MR stands at 43 in every 1000 live births. On the other hand, the population screened for non-communicable disease is around 5% and it is expected to rise to 25% by the year 2022.

EMC CIDP for the period 2018-2022, gave a breakdown of health facilities within the county which are distributed as follows: One County Referral Hospital, Iten County Referral Hospital, six Sub-county hospitals, 28 health centres, 1 mission hospital, 92 dispensaries and 22 private clinics. According to EMC County Health Strategic & Investment Plan(CHSIP) for the period 2017-2022, most people in the county still lack access to affordable healthcare with an estimated 52 percent of residents being within 5 kilometer radius to the health facility. Mortality rates are still high particularly among women and children. The ratio of doctor to patient in the county is 1:8000 whereas the nurse to patient ratio is 1:1000 (EMC, 2018). According to Demographic Health Information System (DHIS,2017), the top five reported diseases were: the respiratory tract infections, skin disease, diarrhea, pneumonia, and clinical malaria. The highest percentage (around 77%) of the disease burden registered in the outpatient departments are linked to these diseases (DHIS, 2017).

1.2 Statement of the Problem

Quality healthcare provision to citizens is a top priority for most nations globally; and countries have continuously increased allocation of funds towards its financing. In Kenya, there has been significant improvements in the quality of healthcare service delivery after devolution though there still exist some teething challenges. One of the notable challenge is late disbursement of monies to the devolved units and this has adversely affected the daily operations of counties such as

payment of salaries, suppliers, and implementation of county's work plans, programs and development projects (Kipsaat & Mbatia, 2020). Health facilities are unevenly spread across all the 47 counties, with the rural counties being the most affected (Noor *et.al*., 2006). Mwai et.al. (2014), in their assessment on county's health preparedness in Kenya found out that close to 50% of the 47 county governments have less than 2 hospitals for every 10,000 persons and not more than 4.2 hospitals for every $100km^2$. Counties in the remote and marginalized areas will take longer time to develop since the national government does not allocate sufficient resources to assure a basic level of service delivery to its citizens (World bank, 2011).

To ensure resources are devolved further down to the grassroot, Elgeyo Marakwet County Assembly (EMCA) in 2015 passed Equitable Development Act (EDA) which aims at ensuring that there is equal and equitable apportionment of resources for development projects across the 20 wards in the county by allocating 60% of the development funds to the wards directly and project's prioritization to be done strictly by the locals during public participation (PP) meetings although sometimes regions which are considered very remote are never represented in those meetings hence are disadvantaged. In the 2020/21 financial year , EMC Annual Development Plan (ADP) indicated that the county's health department is still faced with poor infrastructural development with primary care units not sufficiently equipped to provide all services which have continuously hindered efficient and timely delivery of health services. In addition, shortages of staff across all cadres have left existing staff with heavy workload (ADP, 2019). The KDHS 2014 report revealed that 35% of deliveries in EMC take place outside health facilities by unskilled birth attendants(KDHS, 2014).

According to EMC 2017-2022 CHSIP, there is no infrastructure planned targeting the most remote and hard-to-access areas other than motorbike and commodity kits. It also revealed that although health facilities that have been constructed in EMC from 2013-2018 have increased from 83 to 129, over half of dispensaries and health centres have broken-down infrastructure especially the ones whose construction dates back to early 1980s . The distribution of health infrastructure is skewed, with some areas especially in the remote and hard-to-access sections of the county are facing significant gaps while others especially in the highlands and urban areas have surplus.

This study was therefore conducted with an aim of providing recommendation on how to bridge the gaps between devolution support systems and the quality of healthcare projects and services.

1.3 Purpose of the Study

To evaluate the influence of devolution supports systems on quality of healthcare projects in Kenya: A case of ward-level prioritized healthcare projects in Keiyo South Sub-County, Elgeyo Marakwet County.

1.4 Objectives of the Study

i. To establish how funding mechanisms at the county level influence the quality of healthcare projects in Keiyo South Sub-County.
ii. To examine how technical expertise at the county level influence the quality of healthcare projects in Keiyo South Sub-County.
iii. To assess how monitoring and evaluation at the county level influence the quality of healthcare projects in Keiyo South Sub-County.
iv. To determine how capacity of local contractors at the county level influence the quality of healthcare projects in Keiyo South Sub-County.

1.5 Research Questions

i. How does funding mechanisms at the county level influence the quality of healthcare projects in Keiyo South Sub-County?
ii. How does technical expertise at the county level influence the quality of healthcare projects in Keiyo South Sub-County?
iii. How does monitoring and evaluation at the county level influence the quality of healthcare projects in Keiyo South Sub-County?
iv. How does capacity of local contractors at the county level influence the quality of healthcare projects in Keiyo South Sub- County?

1.6 Hypothesis of the Study

The four hypotheses shown below were tested in the study:

H_{01}: There is no significant influence of funding mechanisms at the county level on quality of healthcare projects in Keiyo South Sub-County.

H_{02}: There is no significant influence of technical expertise at the county level on quality of healthcare projects in Keiyo South Sub-County.

H_{03}: There is no significant influence of monitoring and evaluation at the county level on quality of healthcare projects in Keiyo South Sub-County.

H_{04}: There is no significant influence of capacity of local contractors at the county level on quality of healthcare projects in Keiyo South Sub-County.

1.7 Significance of the Study

At the end of this study, the researcher gave conclusions and recommendations, some of which may be largely adopted and used by EMC and more so the department of health and other county departments of health across the country in formulating policies, programmes and guidelines which guarantee quality, timely and equitable provision of healthcare services to the citizens. It will also be useful to primary healthcare workers, health facility in-charges, healthcare sponsors and partners, as well as healthcare stakeholders in transforming the way healthcare services are offered. The National government can also make good use of this research study report by having a better understanding of the challenges faced by the county governments when delivering healthcare services to the people and through that, the central government can develop policy guidelines to better the working relationship and partnership with the counties in order to bring a positive change and healthy living for all Kenyans. Additionally, through this study, the community can understand how it can team up with the county government to better the quality of healthcare services provided to them.

1.8 Delimitations of the Study

The study narrowed itself to Keiyo South Sub-County in Elgeyo Marakwet County. The study took place in six wards within the Sub-County: Soy South , Soy North, Metkei , Kabiemit ,

Chepkorio, and Kaptarakwa wards. The study was limited to funding mechanisms for healthcare projects, technical know-how of county staff for health, monitoring and evaluation strategies employed by those responsible for projects supervision, and the capacity of the local contractors at the county level.

The study targeted administrative officers, healthcare workers, ward development committee and hospital management committee within Keiyo South Sub-County.

1.9 Limitations of the Study

The limitations faced by the researcher while carrying out this study include the unwillingness of some county health officials to respond freely and exhaustively to the questions maybe because of fear that the study was politically motivated or was based on some ongoing audit investigations within their knowledge. However, this was addressed by clarifying on the confidentiality of the results and the significance of the study.

Further, the researcher experienced the challenge of language barrier at the community level but to solve this, a local translator was hired. Again, social gatherings and curfew restrictions that had been put in place by the government to contain the spread of COVID-19 virus limited accessibility to the respondents but to ensure that data collection proceeded as planned, the researcher made use of emails and other electronic means of communication to send some of the questionnaires to the respondents.

1.10 Assumptions of the Study

An assumption was made that the selected health facilities and people engaged during the research exercise were a representation of the targeted population and that the people who took part in the study were quite knowledgeable about the topic under study to enable the researcher to draw valid conclusions about the population under study and make appropriate recommendations. Assumptions, additionally, were drawn to the fact that a proper and comprehensive literature review was done and that the methods of data collection, analysis and interpretation were carefully selected. It was also assumed that the questionnaire return rate was sufficient to obtain relevant information for data analysis. Lastly, the analysis of the collected data was assumed to be error free and free from any form of biasness.

1.11 Definition of Significant Terms Used in the Study

Contractor's Capacity- describes contractor's potential to execute all the contractual obligations according to the expectations since he/she has the necessary financial and technical ability.

Devolution: is a method of the shifting of power, authority and funding from the central government to devolved governments aiming at taking governance and delivery of services to the door step of the local people.

Evaluation: refers to systematic investigation of a continuing or finished project to determine its efficiency, effectiveness, impact to the target community as well as its sustainability.

Funding Mechanisms: describes the way finances are allocated and disbursed by the national government to the counties and how counties apportion the received money into various development and recurrent votes.

Healthcare: this is making available healthcare services so that the people can get an array of health promotion, diagnosis, health education, guiding and counseling, screening, cure, disease-management, rehabilitation and palliative care services (WHO, 2006). For this study, healthcare refers to top-notch healthcare services offered at the healthcare facilities in Keiyo South Sub-County.

Local Contractor : refers to a firm or CBO prequalified in EMC and is eligible to be awarded a construction tender.

Monitoring: is a continuous scrutiny and listing down of activities being undertaken in a project to find out whether the project's activities are progressing towards achieving project objectives. It involves providing feedback of how the project is progressing to the financiers, implementers and targeted group.

Prioritized Healthcare Projects: means the healthcare projects that were suggested by the community during public participation meetings according to the relative importance and need in the community.

Quality of Ward-Level Prioritized Healthcare Projects: refers to excellent healthcare services offered at the Sub-County hospitals, health centres, dispensaries, and mobile clinics that are to the standard expected by the catchment population. It includes short distance travelled by a patient to get to an health facility, qualified healthcare service providers, faster response time by the healthcare workers at the facility, availability of ambulances, availability and affordability of drugs among others.

Support Systems: refers to a set of policies, programs and activities put in place by both the national and county governments so as to ensure that devolution is working seamlessly.

Technical Expertise: refers to the technical knowhow needed to accomplish a certain task. For this study, technical expertise means the level of skills and know-how of healthcare professionals at the county beginning with the CECM for health, Chief Officer for health department, Directors, and all other staff working under the department of health in Keiyo South Sub-County.

1.12 Organization of the Study

This research project report is structured into five chapters as follows: Chapter one covers: the background of the study, the statement of the problem, the purpose of the study, the objectives of the study, the research questions, hypothesis of the study, the significance of the study, the delimitations of the study, the limitations of the study, the assumptions of the study, and the definitions of significant terms used in the study.

The second chapter entails the literature review which addresses what earlier scholars have written in relation to the research topic. It further unpacks the variables, the conceptual framework, and the existing research gap. The third chapter covers the research methodology which entails: the research design, the target population, sample size and sampling procedures, research instruments (piloting instruments, validity of instruments, and reliability of instruments), data collection procedures, the data analysis techniques, ethical considerations, and finally operationalization of variables. The fourth chapter entails: presentations, analysis, interpretation and conclusion of the study results. Finally, the fifth chapter presents an outline of the findings, summary, conclusions and finally recommendations of the study. This chapter also summarizes how the study shall be beneficial to the area of study already in existence.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section looked at the available scholarly works done by other researchers years back which relate to this study. The review of earlier studies was guided by the following variables: quality of healthcare projects, funding mechanisms, technical expertise, monitoring and evaluation, and capacity of local contractors. Lastly, the chapter provided a graphical illustration showing the causal correlation between predictor and response variable by way of a conceptual framework. It also summarized literature review and gave a knowledge gap.

2.2 Quality of Healthcare Projects

Good health is very fundamental to our lives in the sense that a healthy being is a wealthy being. Healthcare provision differs globally from one state to another but close to all wealthy nations offer almost similar healthcare services to their citizens except America (Shah, 2011). Easing healthcare access is making people to command, advance their health status, and improve their quality of life (Atupamol, 2017). WHO (2006) gave two perspectives for supporting a focus in healthcare systems. One perspective given is that even in situations where health systems are exceptionally designed and funded, evidence have shown that quality of care offered by the same facility to many different clients vary in standards of health-care delivery. The other perspective applies to developing countries in prioritizing and planning for investment to expand healthcare system in such a way that resources are used prudently to achieve optimum results. The process of improving and upscaling needs should be anchored on the most likely results that can be realized for new investment. High-performing healthcare arrangements provide primary care as specialist package that offer all-inclusive care to patients with myriad of needs. Giving much attention to specialist primary healthcare personnel by investing in their skills and working environment is very key to designing a firm primary care system (OECD, 2017). Improving healthcare quality involves an array of activities that make the healthcare efficient, well-organized, safe and fair (The Health Foundation, 2013).

Accessibility to health is very key to the Dutch healthcare system. By comparing it with other developed countries, most health care services are easily accessible by the people. Close to 99%

of the population are able to get to a general practitioner as well as pharmacy in less than 10 minutes by car . Getting to the nearest health facility requires less than 30 minutes. Also from a financial point of view, the Dutch citizens have insurance covers to take care of healthcare expenses and therefore there is no much strain in paying for healthcare costs (Van den Berg et.al, 2014). According to a study by Li,X et.al, (2008) on quality of primary health care in China, it indicated that the government of China is working towards establishing a robust healthcare system which provides both health protection and social protection for its citizens. The government has shifted from focusing only on economic growth to offering public services that are aimed at bettering the standards of living of the people. The health development is tailored in such a way that it is people-oriented and sustainable (Li, X et.al, 2008)

Kenya Essential Package of Health (KEPH) states that all citizens regardless of their social status who are in need of healthcare services are entitled to access the same healthcare services without undue financial constraints (Mulaki & Muchiri, 2019). Under the Vision 2030 development blue print, Kenya strives to offer a high quality and efficient healthcare system with topnotch standards for the overall betterment of living standards of Kenyans (GOK, 2008). With the establishment of counties, both the central and devolved governments have a responsibility to deliver healthcare services as set out in the KEPH. The Health Management Information System (HMIS) data indicated that more than 5000 health facilities are spread across the counties and the facilities are divided into 3 categories, the privately run facilities leading with 43% followed by public run facilities at 42% and finally the non-governmental organizations (NGOs) taking up the remaining 15% (Gimoi, 2017).

According to Kimathi (2017), only 63% of Kenyans in need of health care services from a public health facilities are in a position to get to the health facility within one hour from their residences. The difficulty in getting to the health facility easily is one of the contributors for decreased demand for healthcare by the people. To cite an example of Turkana county where some residents in the hard-to -access areas take in excess of two days for them to get to a health facility. Health facilities are unevenly spread out across the 47 counties. Inadequate healthcare workers in majority of the counties in Kenya has been one of the grievances put forward by the striking health workers year in year out. Between January and August 2015, more than 22 counties experienced health worker's strike and one of the cited concern was understaffing (Kimathi, 2017). More than 50% of the

county governments have less than 2 health facilities for a catchment population of 10,000 persons and less than 4.2 hospitals for every 100km^2. Highly inhabited counties such as Mombasa and Nairobi have 143 and 124 hospitals within a radius of 100 square kilometers respectively .Counties especially in the northern and coastal Kenya such as Marsabit, Isiolo, and Tana River have the least number of health facilities per 100 square kilometer which may give an impression that these counties are well taken care of in terms of health infrastructure but the reality is that patients travel very long distances to get to an health facility. The study also singled out other counties with less facilities for every 100 kilometers and for every 10,000 people. The counties are: Kilifi, Mandera, Narok, Tana River, Turkana, Bomet and Wajir. People from these counties in need of healthcare services are likely to be adversely affected by the time taken by them to reach the facility because of the long distance as well as the limited capacity of the facilities to cater for everyone within the catchment area (Mwai, D. et.al., 2014).

According to EMC 2017-2022 CHSIP, the health infrastructure in the county vary widely with healthcare being provided by public facilities, FBOs, NGOs and private institutions. In the county health strategic & investment plan, it is noted that more than 50% of these facilities have old and dilapidated structures because their construction dates back to 1980s. There has been no much work done to give the facilities a facelift. Therefore a good number of the current facilities are not meeting the current requirements in terms of their staff numbers, physical infrastructure and medical equipment. There are more than 50 construction projects at various stages of completion but the report noted significant imbalances in the spread of these infrastructure across the county. In addition, most of the hospitals lack modern equipment like radiology equipment, laundry machines and theatre equipment and close to half of the existing medical equipment is too old and technologically behind therefore cannot pass the required standards.

The standard of service delivery at the health facility should meet population desires which are in line with the county and national set standards. To further define quality healthcare, the following aspects are looked into: short distance travelled by a patient to access an healthcare facility, qualified healthcare service providers, quick response time by the healthcare workers at the facility, availability of ambulances all the time, as well as availability and affordability of drugs among others.

2.3 Funding Mechanisms and Quality of Healthcare Projects

Healthcare expenditures in many countries have increased enormously in the past decade. Conversely, it has been noted that there has been huge differences across countries in terms of levels of expenditure and trends in different periods. Because of their capacity, high-income countries spend twice as much of their income on healthcare as compared to less developed and developing countries but the trend in less developed and developing countries has been changing over time as is reflected in gradual increase of funds allocated towards financing healthcare. In this 21st century, developing countries have been greatly boosted by development partners to better their healthcare systems. The financial support provided by development partners that goes towards financing healthcare in developing countries account for about 25% of the total expenditure on healthcare. The funds from development partners if prudently used have a potential of drastically reducing inequalities in health outcomes (Ospina & Roser, 2017) . Netherlands for example, is the largest financier in Europe among the countries under the umbrella of OECD. System of Health Accounts report noted that in the year 2011, Netherlands spent 12% of its GDP on healthcare while Kenya in the year 2017 spent 4.8% of its GDP on healthcare (Van den Berg et.al, 2014). The improvement of healthcare provision in African countries is hugely constrained by shortages in financing. To give an example is Sub-Saharan African countries whose population make up 11% of the total population in the world but their disease burden as stated by International Finance Corporation account for 24% of the global disease burden. What is more worrying is that the regions have not given healthcare the much attention it deserves as seen in their budget allocation to healthcare which is less than 1% of the total global expenditure (Miriti, 2016).

Since the promulgation of Kenya's 2010 constitution, Kenya have had a twin-tier level of government, that is , the central government and forty-seven county governments . These twin governments have brought significant changes in the way devolved functions including health are run. The national Ministry of Health (MOH) deals with development of policies and research issues and overall leadership while on the other hand the county governments have taken up the task of delivery healthcare services to Kenyans (Mulaki & Muchiri,2019). The focus of devolution is to redistribute decision-making authority, finances and management responsibility among central government and the lower level governments (Santiso, 2001). A study comparing devolution in Indonesia and Kenya done by McCollum et al. (2018) indicated that devolution has

transformed power relationships leading to increased fiscal, governmental and political responsibilities at lower level governments which has given citizens an opportunity to participate and determine the way health system should be governed.

Kenya is experiencing very noticeable challenges in financing its healthcare because of the strained and limited budget. Firstly, individuals and households from poor and vulnerable backgrounds and who are the majority are not able to get comprehensive healthcare services because majority of them are not part of healthcare scheme. The second challenge is the division of health financing systems which led to ineffectiveness and inefficiencies in service provision and investment programs. The third issue is myriad of challenges around health systems and public governance; outstanding among these is lack of a working quality assurance mechanisms, ineffective corporate governance as well as accountability mechanisms (Gimoi, 2017).

International Budget Partnership (IBP) report for Kenya in 2019 noted that cash flow transfer by the national government to counties remain a challenge. Counties rely heavily on the national transfers which in most cases are received late in the financial year leaving little time to spend before the books are closed. Health budgets were found to be consistently underspent in most counties. Counties also revealed poor budget formulation and management practices. Kenya's counties over-budget for expenditure and are too optimistic about the revenues and this has been found to cripple down counties development budgets. Late approval of county policies by the County Assembly also is found to slow down the budget implementation. The Public Finance Management(PFM) Act requires that any public funds designated by the county should be created through policies that have been approved by the County Assembly (Lakin & Kinuthia, 2019). The spirit of the Kenyan constitution that talks about monies following functions should be actualized by the national government. To ensure that county projects run uninterrupted, the national government ought to release enough funds to the county governments on time.

2.4 Technical Expertise and Quality of Healthcare Projects

Technical expertise of healthcare workforce is very key to the health sector performance. WHO defines HRH as all professionals and non-professionals with a common objective to better the health status of people (WHO,2006). This is a broader definition which does not only talk of health

care workers such as doctors, nurses and midwives but also incorporates facility administrators, medical superintendents, trainers, and other support staff who play a key role to have a well-functioning health system. HRM is one of the corner stone for any healthcare system to function effectively. Evidence gathered globally have shown that there is a positive linkage between the size of a state's health personnel and the outcome of its healthcare system (MOH, 2014). BMC Health Services Research indicated that the number of healthcare workforce available in health facility affects the quality of care the patients receive in a facility. Managerial support also plays a big role in making the hospital working environment very friendly to both the healthcare workforce and the patients. High level health officials including facility in-charges should pay close attention to the teamwork and unity of the whole workforce. A manager should be in a position to deal with conflicts, and also be seen and be easily accessible to everybody to offer moral support as well as ask for opinion and feedback from the workers on any issue of concern and address it accordingly (Kieft, et al., 2014).

Well trained, inspired and contented healthcare worker is a precondition for effective healthcare transformation which aims at ensuring that there is quality of care, fairness in discharging health services , user satisfaction and efficiency (Oyugi, 2015). Before a patient makes a decision about which doctor to see or which facility to go to, he/she puts into consideration professional competence of the healthcare workforce, personal touch portrayed by the health care professional as well as clinical effectiveness. Human resource's professional brilliance, personal-touch-in-service, caring heart and ethical values have been found out to be responsible in pulling a patient to a certain healthcare setup (Malik & Sharma, 2017). Kenya is faced with health care staff shortages in most of its facilities. The current number of health care workers working in the maternity and newborn care units falls way below the WHO recommendations of having not less than 23 medical doctors, nurses and midwives for every 10,000 people so as to offer the much needed mother and child health services. The current health care structure, the staff working in the maternity and newborn units is 1 doctor and 12 nurses and midwives serving 10,000 clients. The most affected facilities are those in the rural setting and especially areas that are hard to access (Netherlands Enterprise Agency, 2016). Discrepancies in the spread of health experts across the devolved governments in Kenya means that Kenyans living in remote counties especially counties in the northern corridor have a higher probability of experiencing disastrous health financial

burden as well as higher chances of being incapacitated and even sometimes die due to inability to get specialized services (Mulaki & Muchiri, 2019). There exist a very huge inequality in the distribution of health care personnel with the rural areas being on the receiving end. Rural dispensaries have up to 80% gap in the fill rates of their nursing establishments and on the contrary, most sub-county and county hospitals have up to 120% fill rates (Louma, et al., 2010).

The Health Policy Project on HRM indicated that the fraction of doctors per 10,000 people in 47 county governments ranged from 0 to 2 in Mandera and Nairobi respectively. Counties were found to have a higher proportion of nurses ranging from 0.9 for every ten thousand in Mandera to 11.8 for every ten thousand in Isiolo. The quantity and spread of healthcare workers in a nation is very key in influencing the level and standard of care offered to the citizens (Mwai, et.al., 2014). Omondi (2016) argues that most managers of the health facilities are not qualified professional managers despite being in charge of professional health care workforce such as doctors and nurses. This argument is backed up by another study by Mwamuye & Nyamu (2014) on devolution of healthcare system in Kenya which revealed that the management of hospitals in Mombasa county remained in the hands of medical doctors, who, in spite of having a wealth of technical and professional experience, lacked enough high-level decision making and administration skills to manage personnel and to use resources prudently. The health care workforce require a conducive working environment for them to discharge their services optimally. The conductive environment goes beyond the health infrastructure and medical equipment to including training for career progression and proper remuneration.

2.5 Monitoring and Evaluation (M&E) and Quality of Healthcare Projects

M&E of projects entails following up, reviewing, and regulating project's activities to make sure that everything is progressing in the right direction so as to achieve the performance objectives put forth in the project management plan. Monitoring involves a continuous recording, progress measurement and prediction of results. Monitoring is done as per the earlier set targets and its activities are determined in advance at the planning stage. These activities are supervised to make sure that all activities are being executed according to plan and any deviation detected is rectified promptly. If monitoring is carried out as planned, then it becomes a very useful management mechanism that creates a foundation for project evaluation (Njama, 2015). M&E should be

incorporated at the planning and design phases of projects and therefore it begins at the inception of the projects moving all through to the end (PMBOK, 2001). Evaluation aims at finding out whether the project does what it ought to do, while monitoring checks whether the project is doing things the right way (Pritchett et al., 2012).

Monitoring, in an healthcare setup, refers to checking continuously the rate at which program activities are executed to completion so as to achieve performance targets intended. It entails a follow up of program inputs such as staff, finances, facilities, training as well as supplies. Also, monitoring in healthcare environment incorporates tracking of outputs such as number or percentage of trained staff, availability and adequacy of drugs, the percentage increase of target population, number of ambulances bought, and quality of services. Evaluation on the other hand refers to examining progress of a project periodically in order to find out whether the progress is advancing towards achieving set objectives, goals or results. It gives a status overview on outcomes of project or programme activities (MSH, 2012). Monitoring primary health care interventions calls for use of participatory approach to systematically make sure that activities are being undertaken in a manner that guarantees the achievement of the objectives of the intervention. The information generated from monitoring is useful in making the necessary changes for efficiency and effectiveness (Adindu, 2010). Monitoring progress of activities and evaluating outcomes are very fundamental steps to guide those responsible for implementing health projects improve their performance. Monitoring and Evaluation reveals whether a project/ programme or a service is fulfilling the intended goals. It pin points grey areas in a project that needs to be relooked and also shows the strengths of a program and sections of the program that meet or exceed the expectations (Salama, 2010).

Measurement of results is very fundamental to the hospital model developed with the intention of enhancing the quality of service; it provides a way of defining what health facilities actually do in comparison to the earlier set goals in order to pinpoint areas for improvement. The main techniques for gauging hospital performance are: internal assessments, public satisfactory surveys, statistical indicators, and third-party assessment. Systems for assessing hospital performance are supposed to be clearly stated in the national or county action plan for easy performance management and quality checks, as well as putting clear the duties and values of key stakeholders. Coming up with

performance assessment, systems should aim at bettering the performance of the hospital and not pointing out individual failures. The systems should be designed in such a way that it does not depend on one source of data but rather a diverse set of information. The clients as part of stakeholder ought to be engaged fully in developing the system, and the outcome of the assessment should be transparent and open to be accessed by the public (Shaw, 2003).

Most less developed and developing countries have a challenge of producing quality health data. Weak interconnection between monitoring and evaluation systems, data generation sources, inadequate synchronization of numerous data collection and reporting systems have been found to contribute to poor quality data. Other challenges include improper coordination of monitoring and evaluation system which is characterized by duplication and underutilization of nationally defined goals. In Botswana for example, many development partners and stakeholders have joined hands with the government to come up with a new cadre of district monitoring and evaluation health officer to address health data challenges (Mpotu, et.al., 2014).

Monitoring and Evaluation of health systems should be an all-inclusive exercise that include policies, infrastructure, staff capacity, training of staff to sharpen their skills, establishment of data systems, well-functioning referral systems, risks assessment, among other pertinent issues (UN Women, 2011). A report by Uganda Bureau of Statistics in the year 2013 found out that the newborn mortality rate in Uganda in the years 2010-2011 was 54 and a reduction to 31 was expected by 2015 with an aim of continuously reducing newborn mortalities. The ratio of mothers who died for every 100,000 live deliveries in the same period of 2010-2011 was 438 and it was projected to drop to 131 by the year 2015 for the country to progressively move towards achieving the millennium development goal of bettering maternal health. For these targets to be realized, it requires a well thought-out M&E system to be set up which is very strong, effective and efficient which can monitor all deliveries against earlier set targets (Lwanga, 2015). The constitution of Kenya 2010 established monitoring and evaluation as key component in operationalizing activities to ensure transparency, integrity and access to information, and in promoting accountability principles at all levels of healthcare service delivery.

2.6 Capacity of Local Contractors and the Quality of Healthcare Projects

Contracting out works in the health industry refers to the development and execution of a contractual agreement to another party (the principal, purchaser, or contractor) which gives a return to another party in exchange of a specified health services for a determined target group. Contracts give the quantity, quality and the type of services that the provider is expected to deliver. A contract can also specify the anticipated health outcome connected with the delivery of contracted services (Liu, 2004).

Capacity of contractors involves understanding and examining any risk that can befall the contractors and construction works and coming up with mitigation measures ahead of time to handle them .The capacity and proficiency of the construction field in many middle income countries, are still poorly developed and the contractors face numerous challenges ranging from lack of project funds, inadequate skills as well as poor technology among many others. Studies have pointed out that transfer of technology from developed nations to contractors in developing countries hugely contribute to the empowerment of the local contractors. Contractual capacity is the ability of the contractor to successfully implement contractual works to the end within stipulated timeframe while maintaining the quality expected. All eligible contractors in Kenya are required by the procurement laws of Kenya to be prequalified by a government entity concern for them to qualify to be awarded tenders by that entity. Prequalification entails evaluating the capacities of the contractors to assess the capacities of the contractors to effectively execute the contract if awarded. One of the determining factors for successful execution of a project is contractor's technical capability. Some crucial pointers to be checked in order to determine technical capacity of the contractor in Kenya include, the level of schooling, experience level of key staff doing technical works, machinery, equipment , technology used, and the category of the company in compliance with the Ministry of Public Works assessment standards . The capacity of contractors does not only look at the financial and technical aspect of the contractor but also management ability whereby contractors ought to have excellent project management team for the project to be executed as planned to achieve the set goal. The competence of project manager greatly influence project performance (Simiyu, 2018; Bakar, 2006; Akali& Sakaja, 2018; Mushori, 2019; Mwakajo & Kidombo, 2017)

Many previous researches have shown that project quality and duration is influenced by the following: financial capacity of the contractor, decision-making ability and scope variation, equipment availability and quality, material availability, among others. On the other hand, contractors related factors such as supervisory ability, skilled personnel working on the project and decision making ability significantly affect project completion (Mutoro, et.al, 2017). In Kenya, monitoring and evaluation reports done by both governmental and non-governmental agencies have shown that there are some stalled or poorly done construction works that were funded by the exchequer. Financial inadequacy and technical incompetence have been noted to be some of the key factors contributing to poor workmanship.

2.7 Theoretical Framework

The following two theories formed the basis of this study; Equity of access to healthcare theory and Theory of change. The theories are discussed below.

2.7.1 Equity of Access to Healthcare Theory

The proponents of this theory were Goddard & Smith, (2001). The theory came up with a general theoretical framework to be used in examining whether there is equitable access to healthcare. To formulate this theory, the proponents did a very elaborate literature review that covered the period 1990-mid-1997 and focused on United Kingdom health services. The theory mentions that the objective of a properly designed healthcare system is to guarantee equitable access to healthcare services by all those who are in need. It is noted that many governments across the world have made commitments to address the inequalities experienced in accessing healthcare services. To address the equity issues, governments have formulated policy guidelines but the challenge has been operationalization of those policies especially in situations where there is lack of a clear picture of the extent of inequalities in access to healthcare. The theory looked at the demand and supply sides in analyzing access to healthcare where it was found out that equitable access to healthcare is entirely a supply side factor in such a way that equal and equitable access is availed to patients in equal need. Differences in access given by the supply side might be because of the following reasons: availability, quality, and cost of healthcare services (Goddard & Smith, 2001).

The policy makers in most advanced nations and especially in Europe apply Egalitarian principle in addressing health inequalities in their countries. Egalitarian principle states that financing of healthcare system should be done in consideration of the capacity of the patients to meet the cost and the spread of healthcare should be need-based. Despite the overall improvements in healthcare globally, evidence have shown that many third world countries are still struggling to meet healthcare demands of their citizens. Inadequate finances in developing countries has made it difficult for the developing countries to address inequalities in access to healthcare for all because the available funds are not sufficient to fund collection of data that can show the inequities and inequalities of healthcare. Applying equity principle to healthcare in many developing countries has deeply promoted equitable access to healthcare (Manesh, 2005).

According to the WHO's Knowledge Network on Health Systems report, health systems promote health equity when it is designed and managed in a manner that puts into consideration needs of a socially underprivileged and sidelined groups, including women, and the vulnerable and discriminated category of people. Health systems is very useful in ensuring that right to health by all those in need is improved in a way that it may create a universal and equitable access to healthcare with attention paid on the socially disadvantaged and marginalized communities as well as positively influencing the larger social, economic as well as political factors influencing health and health equity (Frenz & Vega, 2010). Governments to always strive towards provision of universal health coverage to all citizens regardless of their socioeconomic status.

2.7.2 Theory of Change

The proponent of this theory was Carol Weiss in the year 1995. The theory is an improvement of program theory of 1990s which was also an upgraded version of evaluation theory. The theory gave a model that shows how a project is expected to deliver results , which can be tested and fine-tuned through monitoring and evaluation (Wachamba, 2013). It gives a detailed explanation and description of why and how a specified variation can happen and the context in which it happens. It works by first pinpointing longer term goals then works in reverse to find out all outcomes that should be factored in for the goals to occur (Shihemi, 2016). This theory is a very useful tool that is used to develop solutions to diverse social challenges.

The Center for Theory of Change mentions that during the process of generating the conduit of change, partners are expected to point out their assumptions concerning the change process so that from their review and test, any assumption that is hard to support or sometimes impossible to achieve can be identified. To make that possible, three assumptions to be considered were given: (i) assumptions about the connection between longer term, intermediate and early outcomes identified, (ii) justifying the claim that all important conditions precedent required for success have been identified; and (iii) explanation supporting the link between program activities and the outcomes they are expected to produce. A description of the nature of change expected should be clearly defined - these entail details of the target population, the level of change expected to happen to show success, and the duration the change is expected to take before it is realized.

United Nations Children's Fund (UNICEF) in the year 2014 released a report which stated that the theory of change gives an explanation detailing the way activities are organized to give outcomes that assist in the achievement of the expected . The theory can be of great importance in developing an intervention at any category for example a project, a programme, or policy . In all these interventions, the theory of change demands that all the planning should be done beforehand. In the planning stage, activities, objectives and the outcomes should be clearly defined. The theory can be used by top management to make strategic planning or programme/policy planning. The decision can be based on the needs and opportunities as well as the necessary action plans required to move from one level to another. This can help in designing and coming up with more realistic goals as well as making clear the accountabilities and institution of similar understanding of the plans to be used to attain the goals (Rogers, 2014).

2.8 Conceptual Framework

This is a summary of the phenomenon being studied together with major variables of the study graphically represented together (Cooper & Schindler, 2008). It is a diagrammatical depiction that illustrates the correlation between predictor and response variables (Young, 2009). Its development gives rise to the variables of this study and their role in the entire research process (Miles & Huberman, 1994). This conceptual framework shows the connection between devolution support systems and quality of ward-level prioritized healthcare projects in Keiyo South Sub-County. The independent variable here is the influence of devolution support systems and the

variables under it are: funding mechanisms, technical expertise, monitoring and evaluation and capacity of local contractors.

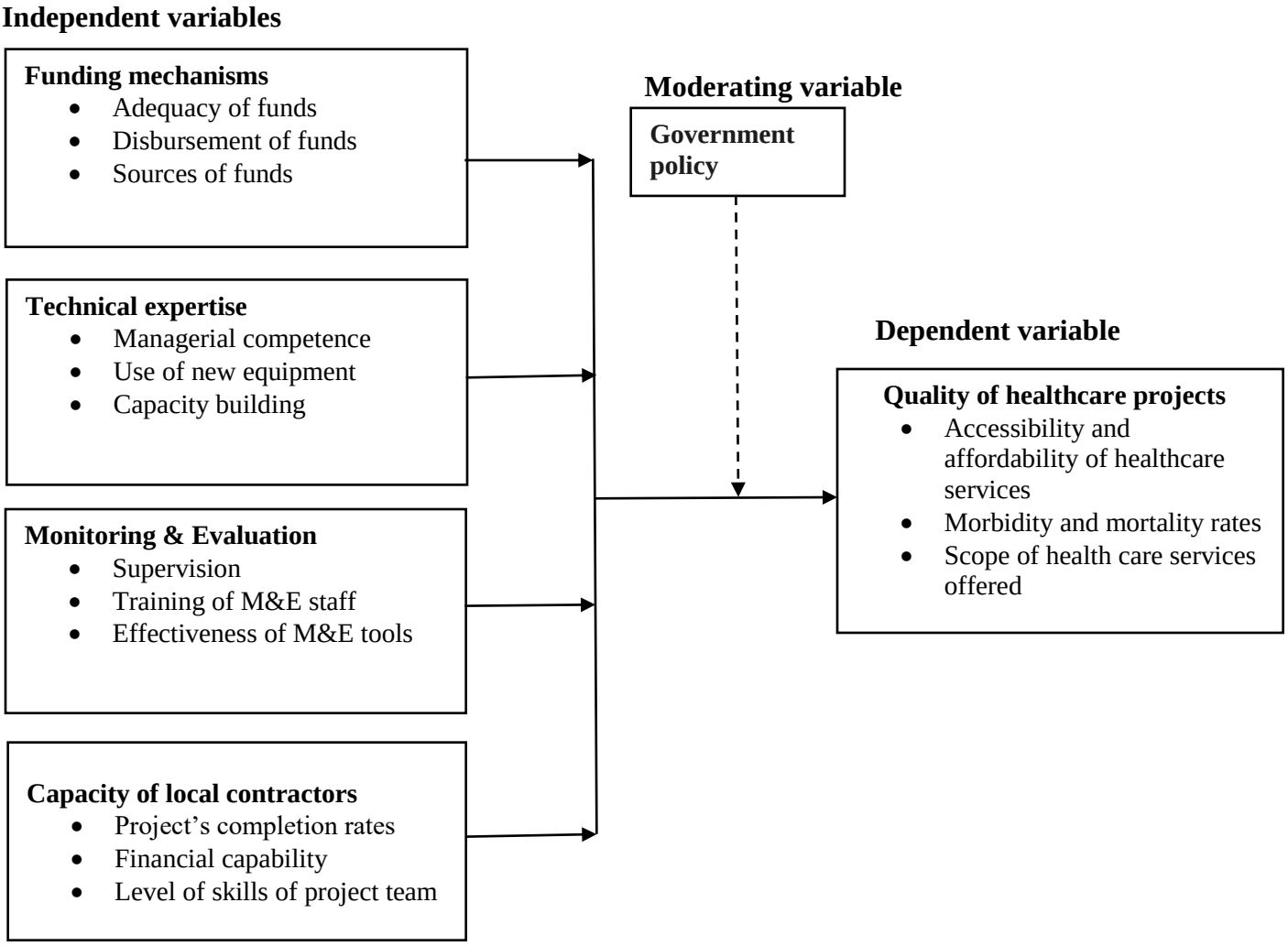

Figure 1: Conceptual Framework of the study

2.9 Summary of Literature Review

In this section, the correlation between funding mechanisms, technical expertise, monitoring and evaluation and capacity of local contractors and quality of healthcare projects was discussed. The listed variables have been found to have an effect on the quality of healthcare projects either positively or negatively. Insufficient and late disbursement of project's funds, low technical expertise, poorly designed and implemented monitoring and evaluation system and inadequate capacity of local contractors to execute their works leads to poor quality healthcare services delivered to the people.

The chapter has also given the prevailing research gaps by reviewing related earlier studies and finding out areas of weaknesses. Though most existing literature focus on health care situation in developed countries, little focus has been given to developing countries. The existing literature in Kenya mostly focus on the general influence of devolution support systems on other sectors with very little focus on healthcare. Thus, the study is intends to fill in the current gap through finding out the influence of devolution support systems on quality of healthcare services received by Kenyans.

2.10 Research Gap

The table below gives the findings and gaps pointed out from the reviewed literature.

Table 2.1: Knowledge gap

Variables	Author (Year)	Title of the Study	Key findings	Knowledge gap
Quality of ward-level prioritized healthcare projects	Malik, J.,& Sharma, V.C, (2018)	Determinants of Patients' choice of healthcare provider: A case of selected private hospitals in Delhi-NCR.	The study revealed nine factors that determine patient's choice of healthcare provider- expertise of health workers, swift access of health services , management, public image, scope of services offered, clinical effectiveness, and quality of infrastructure among others	The study only focused on private health facilities and failed to look at public health facilities.
	Atupamoli, (2017)	Factors influencing access to healthcare service delivery in West Pokot County, Kenya.	The study found out that extension of health facilities available, decentralization of primary healthcare services, training of healthcare service providers and	The study focused on expansion of health facilities, decentralization of primary healthcare services, training of healthcare providers and

			decentralization of health facilities management greatly influence access to health care service delivery.	decentralization of health facilities and did not look at other factors that may influence healthcare service delivery.
	Mulaki, A. & Muchiri, S. (2019)	Kenya Health System Assessment	The quality of healthcare services is affected by inability of the patients to religiously follow clinical guidelines and inadequate supervision contributes to this.	The study focused on inadequate supervision and failed to look at other factors such as financial constraints that may influence adherence to clinical guidelines.
Funding mechanisms	McCollum R.,Limato, R, Otiso, L. et al. (2019)	Health system governance following devolution: Comparing experiences in Kenya and Indonesia.	Inadequate practical experience and community participation with ineffective accountability mechanisms can distort priorities meant for enhancing universal health coverage.	The study concentrated on technical capacity and community engagement and failed to put forth ways of enhancing transparency and accountability in usage of public funds.
	Lakin, J. & Kinuthia, J., (2019)	Roll over: Budget Credibility in Kenya's Counties.	The analysis showed the counties still have a challenge in implementing their approved budget. Much of it affect development spending such as health budgets (below 60 percent, on average)	The study focused on all the 47 counties in Kenya superficially but failed capture critical unique challenges faced by each county.

Technical expertise	Kieft, AMM. et.al (2014)	How nurses and their work environment affect patient experiences of the quality of care: a qualitative study.	The interviewed nurses mentioned essential elements that they believed would make better the quality of nursing care that a patient receives. The elements are: well-trained nurses, cooperative working environment, self-directed nursing practice and sufficient staff, and culture of the community among others.	The research focused on Dutch nurses and there is need to find out the influence of these elements in Kenyan context.
	Mulaki, A. & Muchiri, S. (2019)	Kenya Health System Assessment	The study noted that health workers have a feeling that devolved governments lack requisite expertise to oversight matters of human resources effectively.	The study analyzed at the challenges faced by the county governments and failed to give recommendations on how to improve the competencies of counties to provide effective oversight of human resources for health.
Monitoring and Evaluation	Adindu, (2016)	Effective M&E of Primary Health Care interventions requires Participatory Approach	The study identified four importance of effective primary healthcare evaluation. The evaluation help in determining the following: current health realisms, priority areas,	The study focused on the importance of M&E but failed to look at the capacity of primary healthcare facilities to develop and use M&E systems.

			objectives, and indicators.	
	Njama, (2015)	Determinants of effectiveness of a M&E system for projects: A case of Amref Kenya Wash Programme	The results of the study found out that accessibility of enough funds and effectiveness of M&E system are positively correlated.	The study focused on the connection between the accessibility of money and effectiveness of M&E system and failed to look at other factors that may influence the effectiveness of M&E system.
Capacity of local contractors	Simiyu, (2018)	Capacity of local contractors and performance of Road projects in Nairobi City County, Kenya	The study concluded that the contractor's financial ability, technical ability, organizational ability and regulatory acquiescence have a big influence on the performance of road projects.	The study focused on road construction projects and therefore there is need to look at health projects.
	Bakar, (2006)	Capacity and capability building in the indigenous contractors through technology transfer, Malaysia.	The study showed that the cooperation between local and international contractors in terms of transfer of technology greatly better the quality of contractual works undertaken by the local contractors.	The research focused on Malaysia and therefore there is need to establish the extend of cooperation in Kenyan context.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Under this chapter, the following areas were covered: research design, target population, sample size and sampling procedure, research instruments, validity and reliability of instruments, data collection procedure, data analysis techniques as well as ethical considerations.

3.2 Research Design

Descriptive survey research design and correlational research design were the two designs that were employed in this study. This entails scientifically studying about an object or a phenomenon (Brown *et.al*., 2003). As stated by Cooper & Schindler (2008), a descriptive survey design involves giving a description of the population in consideration to fundamental variables establishing key emphasis towards finding out the existence of relationship among the study variables. The researcher chose this design because the study focused on a large population and a limited geographic scope. Again, this design permits collection of data from respondents in their natural setting. Moreover, the design provides an accurate depiction of the subject characteristics, meets the objectives of the study and allows generalization of the results of the research sample. The researcher administered questionnaires which had both closed-ended and open-end questions to the respondents and interviewed a few respondents at the management level so as to gather sufficient information on various areas of interest (Kothari, 2004).

3.3 Target Population

Wambugu, L.N *et.al* (2015), defined population to mean a set of individuals or objects that have similar features and may or may not be found within the same geographical area. According to Mugenda, OM and Mugenda, AG (1999), a target population can be defined as an entire group of people or items which an investigator would want to generate the results obtained after carrying out a study. The focus for this research was on the following sets of respondents: senior county health officials (CECM, COs, Directors), Sub-County Director for Health, hospital in-charges, hospital management committees, ward development committee which is composed of; MCAs representing each of the six wards in the sub-county , one person representing the private sector in

the ward, one person representing NGOs within the ward, one person representing religious groups in the ward, one person representing the youth, one person representing women, one person representing people with disabilities, one person representing professionals in the ward, ward administrator, one representative of local administrators, and finally three co-opted members with specialized expertise. The selected respondents were very instrumental in getting answers to each of the research questions.

Table 3.1: Target population

Categories	Population
Senior county health officials	6
Facility in-charges	32
Ward development committee	78
Hospital management committee	384
TOTAL	**500**

Source: EMC County Health Strategic & Investment Plan

3.4 Sample Size and Sampling Procedure

This section describes the sample size and sampling procedure used in the study.

3.4.1 Sample Size

Kothari (2005), defined a sample to mean a small segment of the population representing the whole population. Keiyo South Sub-County is composed of six wards namely; Soy South, Soy North, Kaptarakwa, Chepkorio, Kabiemit and Metkei. The study was carried out in all the six wards and a sample of 208 persons was arrived at through calculation using Silverman (2008) formula. This formula was chosen because it was assumed that individual's selection were randomly done without any biasness.

Sample size determination

$$n = \frac{X^2 pqN}{e^2[N-1] + X^2 pq}$$

Where:

e= Expected error

n= Sample size

N= Whole population

X= Level of significance (X=1.96)

p= Probability that an individual has the characteristics or outcome being studied (p=0.5)

q= Probability that an individual does not have the features being studied (p=0.5)

Therefore;

$n= 1.96^2 \times 0.5 \times 0.5 \times 532 / \{ 0.05^2(532-1) + 1.96^2 \times 0.5 \times 0.5\}$

n= 208

Table 3.2: Sampling frame

Sampling	Category	Population	Sample size
Stratified:	Ward development committee	78	32
	Hospital management committee	384	160
	Facility in-charges	32	13
Purposive:	Senior county/Sub-county health officials	6	3
	TOTAL	**500**	**208**

Source: Author

3.4.2 Sampling procedure

This refers to a procedure whereby a comparatively small number of persons, object or event is designated and scrutinized so as to get some information concerning the whole population from which small number was selected from (Mugenda, M.O & Mugenda, G.A, 2008). This study used purposive sampling and stratified sampling technique. This technique entails separating the population into identical subsets and thereafter a sample is randomly taken from each subset (Wambugu, L.N. et.al, 2015). The wards in Keiyo South Sub-county were divided into groups

called strata; Soy South, Soy North, Kaptarakwa, Chepkorio, Kabiemit and Metkei and all the sampled facilities in the sub-county were considered.

3.5 Research Instruments

The study made use of questionnaires and interview guides to gather data from respondents. The questionnaires were considered because according to Owens (2002), questionnaires are known to be self-sufficient, easy to understand, saves time for both researcher and respondents. Also, questionnaires does not influence participant response in any way. The questionnaires were used to collect information from ward development committee, hospital management committee and facility in-charges. The researcher scheduled meetings with senior county and sub-county health officials and interviewed them to get more information on the subject of the study.

3.5.1 Piloting of Instruments

The questionnaires were piloted purposely to identify areas of improvements in terms of wording and arrangement of questions so has to make the instruments more reliable (Ngechu, 2004). Sample of the pilot study is supposed to be made up of at least 10% of the actual samples (Johanson, 2009). Since the main study had 208 samples, 21 of the pre-test questionnaires were administered in the pilot study which took place in the neighbouring Keiyo North Sub-County within EMC. The response that was be gathered from the piloting exercise was used to fine-tune the questionnaires and interview guides that were used the actual study.

3.5.2 Validity of the Instruments

Validity refers to the appropriateness, significance and importance of the conclusions an investigator makes (Wambugu,et. al., 2015). According to Wambugu, et.al.,(2015) content validity means the extent to which an instrument measures that which the researcher wants to measure. To address the content validity, questionnaires were designed in such a way that they included a number of questions on the respondent's knowledge on the study problem. Questions were coined from the information gathered during the literature review in such a way that it could test the knowledge of the respondents on devolution support systems and quality of healthcare projects. Research instrument validity is established through professional judgement and checks (Leedy & Ormrod, 2005) .To ensure the research instruments were valid, the questionnaires were reviewed with guidance of the supervisor to determine its significance to the area of study.

3.5.3 Reliability of the Instruments

Reliability means the level of uniformity that an instrument shows on repetitive trials (Wambugu, et.al, 2015). The questionnaires used in the piloting exercise were similar to the ones that were used in the main study to ensure there was consistency in responses. A Cronbach-Alpha Coefficient was determined by use of Statistical Package for the Social Sciences (SPSS) to check the degree of internal uniformity and validity of questionnaires. The coefficient basically shows how variables are related to each other. As stated by Mugenda, O.M and Mugenda, A.G. 2003, a reliability of not less than 0.70 is recommended. The construct reliability is shown in the table 3.3.

Table 3.3: Reliability Coefficients of the Variables.

Variables	Items	Cronbach Alpha Coefficient result
Funding Mechanisms	9	0.761
Monitoring and Evaluation	9	0.749
Technical Expertise	8	0.768
Capacity of local contractors	11	0.813
Quality of Healthcare Projects	8	0.732
Combined mean		**0.765**

Internal consistency was determined based on how a set of items are closely related to each other. This study made use of Cronbach Alpha range test to determine the internal uniformity with values of Cronbach Alpha oscillating between 0 to 1 meaning that as the values oscillate towards 1, the more reliable the instrument is. As shown on the table above, the coefficient was found to be 0.765, a value which is greater than the recommended Cronbach Alpha value of 0.70. This therefore shows that the instruments that were used in this study were reliable.

3.6 Data Collection Procedure

The collection of data began after all the approvals and permits had been received by the researcher. The university issued the researcher with a recommendation letter. The researcher also obtained a license from NACOSTI. The questionnaires were administered to the respondents by the researcher with the assistance of a research assistant who was contracted for a period of two months. The research assistant was given extensive training on data collection procedures before he began

the work. A few questionnaires were emailed to the respondents who were unreachable physically. Before the interviews, an introductory letter written by the researcher was sent to the senior county and sub-county health officials to enable them prepare in advance for the interview. The interview sessions were made to be as brief as possible to avoid interviewee boredom.

3.7 Data Analysis Techniques

This entails searching as well as organizing research after field work in such a way that it brings out meaning which is easily understood by others (Franklin, *et.al*. 2010). The data obtained from data collection instruments was analyzed using the descriptive statistics using SPSS data analysis software which can analyze both small and huge data (Muijis, 2004). A summary of quantitative data was done using descriptive statistics in the form of mean, SD, percentages and frequency tables. This ensured that the researcher meaningfully described the distribution of scores. By use of inferential statistics, the researcher was able to explain the correlation between variables. The researcher made use of coefficient of correlation to explain the correlation between variables. Zero Correlation Coefficient index shows non-existence of any correlation between variables but as the values move towards either positive or negative 1 indicates a stronger correlation between variables.

3.7.1 Data Hypotheses Testing

The researcher used a simple linear regression model to examine the association between the predictor and response variables. ANOVA was also used to check the goodness of fit of the model. Table 3.4 below illustrates how the hypotheses of the study were tested.

Table 3.4: Hypotheses Testing

Objective	Hypotheses	Model for testing Hypothesis	Results Interpretation
i. To establish how funding mechanisms at county level influence the quality of healthcare projects in Keiyo South Sub- County.	i. H_{01}: There is no significant influence of funding mechanisms at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_1X_1+e$ y= quality of healthcare projects α= constant, β_1= beta coefficient, X_1=funding mechanisms at county level e= error term	$p< 0.05$ reject $H_{01}>$ accept otherwise

ii. To examine how technical expertise at county level influence the quality of healthcare projects in Keiyo South Sub-County.	ii. H_{02}: There is no significant influence of technical expertise at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_2X_2+e$ y= quality of healthcare projects α= constant, β_2= beta coefficient, X_2= technical expertise at county level, e= error term	p <0.05 reject H_{02}> accept otherwise
iii. To assess how M&E at county level influence the quality of healthcare projects in Keiyo South Sub-County.	iii. H_{03}: There is no significant influence of monitoring and evaluation at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_3X_3+e$ y= quality of healthcare projects α= constant, β_3= beta coefficient, X_3= monitoring and evaluation at county level, e= error term	p-value <0.05 reject H_{03}> accept otherwise
iv. To determine how capacity of local contractors at county level influence the quality of healthcare projects in Keiyo South Sub-County.	iv. H_{04}: There is no significant influence of capacity of local contractors at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_4X_4+e$ y= quality of healthcare projects, α= constant, β_4= beta coefficient, X_4=capacity of local contractors at county level e= error term	p-value <0.05 reject H_{04}>accept otherwise

3.8 Ethical Considerations

The Human Research Ethical Committee (HREC) dictates that any research study that involves human subject/ participants should strictly adhere to ethical issues (Mollet, 2013). According to Biber (2005), a researcher must put into consideration the moral integrity of the research process and findings. The researcher followed numerous ethical practices. Due to the sensitivity of data which was to be collected , the researcher obtained in advance authorization permits from NACOSTI and EMC department of health, allowing collection of data from the respondents. A transmittal letter was used to seek consent of respondents. By obtaining consent of the participants, the researcher explained to them the purpose of the study and the kind of information which was expected from them at their own volition. Their responses were handled with lots of confidentiality. Contributions through anonymous participation were meant to protect individual's identities which encouraged honest responses.

3.9 Operationalization of Variables

The table below shows operationalization of variables.

Table 3.5: Operationalization of variables

Objectives of the Study	Variables	Indicators	Scale of measurement	Data Analysis Techniques	Tools of Analysis
	Dependent Variable: Quality of Healthcare Projects	• Prompt services • Accessibility of healthcare services • Affordability of healthcare services • Morbidity rates • Mortality rates • Scope of healthcare services available	Ordinal Interval	Descriptive statistics Inferential statistics	Arithmetic mean Standard deviation Frequencies Percentages Pearson moment correlation Regression analysis ANOVA
To establish how funding mechanism at county level influence the quality of healthcare projects	Independent variable: Funding mechanism	• Adequacy of funds • Timely disbursement of funds • Sources of funds	Ordinal Ratio	Descriptive statistics Inferential statistics	Arithmetic mean Standard deviation Frequencies Percentages Pearson correlation Regression analysis ANOVA
To establish how technical expertise at county level influence quality of healthcare projects	Independent variable: Technical expertise	• Managerial competence • Staff level/Cadres • Use of new equipment • Capacity building	Ordinal Interval	Descriptive statistics Inferential statistics	Arithmetic mean Standard deviation Frequencies Percentages Pearson moment correlation Regression analysis ANOVA

To establish how M&E at county level influence the quality of healthcare projects	Independent variable: Monitoring and Evaluation	• Regular supervision • Training of M&E staff • Effectiveness of M&E tools	Ordinal Interval	Descriptive statistics Inferential statistics	Arithmetic mean Standard deviation Frequencies Percentages Pearson moment correlation Regression analysis ANOVA
To establish how capacity of local contractors at county level influence quality of healthcare projects	Independent variable: Capacity of local contractors	• Project's completion rates • Financial capability • Levels of skills of project team	Ordinal Ratio	Descriptive statistics Inferential statistics	Arithmetic mean Standard deviation Frequencies Percentages Pearson moment correlation Regression analysis ANOVA

CHAPTER FOUR

DATA ANALYSIS, PRESENTATON AND INTERPRETATION

4.1 Introduction

In this chapter, the data obtained after data collection exercise was analyzed, presented and interpreted. The flow of discussion in this chapter is as follows: Introduction, questionnaire return rate, general characteristics of the respondents, data presentation and finally chapter summary. The independent variables used in the study were: Funding mechanisms, Technical expertise, Monitoring and Evaluation and Capacity of the local contractors. SPSS analytical tool was used to compute quantitative data and its analysis was done using simple mean, SD, frequencies and percentages and presentation was done in tables form. Correlation coefficient was used to measure the association between variables. Qualitative data obtained from face-to-face interviews were evaluated using content analysis and reported as direct responses to the questions relating to the study objectives.

4.2 Questionnaire Return Rate

The number of respondents who took part in the research were 208. Out of the 208 questionnaires issued,189 were filled in and returned to the researcher, this translated to 90.87% return rate. This percentage is excellent to draw conclusion from. According to Mugenda & Mugenda (2003), a return rate of 50% is acceptable, 60% is good, 70% is very good and 80% and above is excellent . This response rate was good enough to make in-depth analysis and draw conclusions. The results are shown in Table 4.1.

Table 4.1: Questionnaire Return Rate

Research instrument	**Sample size**	**Percentage**
Questionnaires administered	208	100%
Questionnaires returned	189	90.87%
Questionnaires not returned	19	9.13%
TOTAL	**208**	**100%**

4.3 General Personal Information of the Respondents

The following were the details obtained from the respondents: gender, age category, highest level of education attained and electoral ward based. Out of 208 persons who participated in the study, 103 (54%) were of male gender while 86 (46%) were of female gender. This shows that more males take part in healthcare management in Keiyo South Sub-County but the difference between male and female in leadership positions is less than 10%.

With regards to the age bracket, 60 (32%) were between the age of 18-35 years, 116 (61%) were in the category of 35-60 years and 13 (7%) were in the category of above 60 years. This shows that a higher number of those targeted and who to a large extent take part of healthcare management team in Keiyo south are those who are in the middle ages of between 35 to 60 years. Concerning the level of education, none had PHD or Master's degree qualifications, 32 (17%) had acquired Bachelor's degree qualification, 61 (32%) had attained Diploma qualification, 39 (21%) were Certificate holders, 43 (23%) had completed secondary education and finally, 14 (7%) had attained Primary level education. Concerning the electoral wards where respondents operated from; 28 (15%) were from Soy South Ward, 37 (20%) were from Soy North Ward, 18 (10%) were from Metkei Ward, 36 (19%) were from Chepkorio Ward, 33 (17%) were from Kabiemit Ward and lastly 37 (20%) were from Kaptarakwa Ward. Table 4.2 below gives the respondent's demographic characteristics.

Table 4.2: Demographic Characteristics of the Sample.

		Frequency	**Percent**	**Cumulative percent**
Gender of the Respondent	Male	103	54.5	54.5
	Female	86	45.5	100
	Total	**189**	**100**	
Age of the Respondent	18-35 years	60	31.7	31.7
	36-60 years	16	61.4	93.1
	Over 60 years	13	6.9	100
	Total	**100**	**100**	**100**

Level of Education	Primary	14	7.4	7.4
	Secondary	43	22.8	30.2
	Certificate	39	20.6	50.8
	Diploma	61	32.3	83.1
	Bachelor's Degree	32	16.9	100
	Master's Degree	0	0	
	PHD	0	0	
	Total	**189**	**100**	
Electoral Ward of the Respondent	Soy South	28	14.8	14.8
	Soy North	37	19.6	34.4
	Metkei	18	9.5	43.9
	Kabiemit	33	17.5	61.4
	Chepkorio	36	19.0	80.4
	Kaptarakwa	37	19.6	100
	Total	**189**	**100**	

4.4 Quality of Healthcare Projects

The dependent variable sought to get response on quality of healthcare projects. The respondents were expected to give their feedback on the statements that were given. To measure the response variable, the study made use of a 5-point Likert scale where 5= Strongly Agree ; 4= Agree ; 3= Neutral; 2= Disagree ; and 1= Strongly Disagree . The findings of the analysis on quality of healthcare projects in Keiyo South Sub-county are presented in the Table 4.3 below.

Table 4.3: Quality of Healthcare Projects.

Statement	**5**	**4**	**3**	**2**	**1**		**Mean**	**SDV**
	F (%)	**F (%)**	**F (%)**	**F (%)**	**F (%)**	**n**		

1. Access to affordable healthcare services has improved under devolution.	98 (51.9)	70 (37.0)	12 (6.3)	6 (3.2)	3 (1.6)	189	3.88	0.639
2. Morbidity and mortality rates have significantly reduced because of better medical equipment and availability of adequate health specialists in the health facilities.	100 (52.9)	74 (39.2)	8 (4.2)	3 (1.6)	4 (2.1)	189	3.83	0.653
3. The scope of healthcare services offered in your health facility have significantly increased under devolution.	122 (64.6)	50 (26.5)	12 (6.3)	5 (2.6)	0 (0.0)	189	3.95	0.615
4. Drugs are not always available in your facility pharmacy.	118 (62.4)	46 (24.3)	13 (6.9)	9 (4.8)	3 (1.6)	189	3.92	0.622
5. Your health facility is inadequately staffed.	88 (46.6)	62 (32.8)	7 (25.9)	15 (7.9)	17 (8.9)	189	3.87	1.166
6. Health infrastructural developments are always done as per the standards set.	74 (39.2)	65 (34.4)	8 (4.2)	18 (9.5)	24 (12.7)	189	3.70	1.189
7. Some of the health infrastructures are still in dilapidated state despite funds allocated for their rehabilitation.	102 (53.9)	69 (36.5)	4 (2.1)	6 (3.2)	8 (4.2)	189	3.91	0.638
8. The facility serves the catchment population without straining.	81 (42.9)	64 (33.9)	10 (5.3)	14 (7.4)	20 (10.6)	189	3.74	0.648
Composite Mean							**3.85**	**0.771**

The researcher computed a composite mean and standard deviation which was compared with the mean line item of each statement obtained from the indicators of the variable. Where the line item was found to be lower than the composite mean, the statement had a negative contribution to the outcome of the variable and where the standard deviation of the line item was found to be lower than composite standard deviation then that means the respondents have a different views on the statement.

On the statement that access to affordable healthcare services has improved under devolution, the results obtained were as follows; 98 (51.9%) of those who answered the questionnaires strongly agreed, 70 (37.0%) agreed, 12 (6.3%) were neutral, 6 (3.2%) disagreed, and 3 (1.6%) strongly disagreed. The mean and standard deviation (SDV) for the line statement was 3.88 and 0.639 respectively which was higher than the combined mean of 3.85, meaning that the line statement had a positive influence on the quality of healthcare projects. The results shows that a larger percentage of the respondents agreed with the statement, being represented by 88.9%.

On the statement that morbidity and mortality rates have significantly reduced because of better medical equipment and availability of adequate health specialists in the health facilities, 100 (52.9%) strongly agreed, 74 (39.2%) agreed, 8 (4.2%) were neutral, 3 (1.6%) disagreed, and 4 (2.1%) strongly disagreed. The mean and SDV for the line statement was 3.85 and 0.771 respectively. This suggests that the statement influenced the quality of healthcare projects positively having garnered the support of 92.1% of the respondents.

On the statement that the scope of healthcare services offered in the health facilities have significantly increased under devolution, 122 (64.6%) strongly agreed, 50 (26.5%) agreed, 12 (6.3%) had a neutral point of view, 5 (2.6%) disagreed and 0 (0%) strongly disagreed with the statement. The line statement registered a mean score of 3.95 , higher than the combined mean of 3.85, showing that the statement influence the quality of healthcare projects positively. The statement was largely agreed by 91.1% of the respondents.

On the statement that the drugs are always available in the facility pharmacy, 118 (62.4%) strongly agreed, 46 (24.3%) agreed, 13 (6.9%) were neutral, 9 (4.8%) disagreed and 3 (1.6%) strongly disagreed. The line statement had a mean score of 3.92 and SDV of 0.622 which is higher than the composite mean of 3.85, implying that the line item influenced the quality of healthcare projects positively. Majority of the respondents which translate to 86.7% agreed with the statement.

On the statement that the health facility is adequately staffed, 88 (46.6%) strongly agreed, 62 (32.8%) agreed, 7 (25.9%) were neutral, 15 (7.9%) disagreed and 17 (8.9%) strongly disagreed. The line statement recorded a mean score of 3.87 and SDV of 1.166 which was lower than combined mean of 3.85, suggesting that the line item had a positive influence on the quality of healthcare projects and it was being supported by 79.4% of the respondents.

On the statement that health infrastructural developments are always done as per standards set, 74 (39.2%) strongly agreed, 65 (34.4%) agreed, 8 (4.2%) were neutral, 18 (9.5%) disagreed and 24 (12.7%) strongly disagreed with the statement. This line item had a mean score of 3.70 and standard deviation of 1.189 which was higher than the combined SDV of 0.771. This suggests that the line item had a positive influence on the quality of healthcare projects being supported by 73.6% of the respondents.

On the statement that some of the health infrastructures are still in dilapidated state despite funds allocated for their rehabilitation, 102 (53.9%) strongly agreed, 69 (36.5%) agreed, 4 (2.1%) were neutral, 6 (3.2%) disagreed and 8 (4.2%) strongly disagreed with the statement. The mean and SDV for the line statement was 3.91 and 0.638 respectively which was higher than the combined mean of 3.85. This suggests that the line item had a positive influence on the quality of healthcare projects being supported by 90.4% of the respondents.

On the statement that the facility serves the catchment population without straining, 81 (42.9%) strongly agreed, 64 (33.9%) agreed, 10 (5.3%) were neutral, 14 (7.4%) disagreed and 20 (10.6%) strongly disagreed. The line statement had a mean score of 3.74 and SDV of 0.648 which was lower than the combined mean of 3.85 and SDV of 0.771. This suggests that the line statement influenced the quality of healthcare projects negatively.

4.5 Funding Mechanisms and Quality of Healthcare Projects

The discussion herein focuses on establishing how funding mechanisms at the county level influence the quality of healthcare projects in Keiyo South Sub-County is introduced. To achieve this, the targeted group was expected to give their views based on the level to which they agree or disagree with the statement given by use of a Likert scale of 1 to 5 where 5= Strongly Agree; 4=Agree; 3= Neutral ; 2= Disagree; and 1= Strongly Disagree. The results are presented in Table 4.4.

Table 4.4: Funding Mechanisms at County Level and Quality of Healthcare Projects.

Statement	5 F (%)	4 F (%)	3 F (%)	2 F (%)	1 F (%)	n	Mean	SDV

1. Funds allocated to health projects during public participation are sufficient.	79 (41.8)	43 (22.8)	12 (6.3)	25 (13.2)	30 (15.9)	189	3.84	1.087
2. Every health facility in the ward is benefiting from development funds in every financial year.	83 (43.9)	60 (31.7)	9 (4.8)	16 (8.5)	21 (11.1)	189	3.50	1.051
3. Release of development funds at the county level is sometimes affected by disagreements between the county executive and county assembly.	133 (70.4)	40 (21.2)	16 (8.5)	0 (0.0)	0 (0.0)	189	4.12	0.952
4. The delay to release funds by the national government have adversely affected healthcare projects.	107 (56.6)	64 (33.9)	12 (6.3)	6 (3.2)	0 (0.0)	189	4.05	0.938
5. Physical infrastructure investment is not matched with other investments such as human resource and commodities therefore affecting the functionality of the facilities after completion.	98 (51.9)	53 (28.0)	13 (6.9)	12 (6.3)	13 (6.9)	189	3.92	0.996
6. Budgeting process at the county level takes long to complete hence affecting health care service delivery.	90 (47.6)	67 (35.4)	11 (5.8)	15 (7.9)	6 (3.2)	189	3.86	1.012
7. The absorption rate of health development funds is good.	89 (47.1)	65 (34.4)	9 (4.8)	15 (7.9)	11 (5.8)	189	3.79	1.082
8. Hospital management committee take part in project prioritization.	99 (52.4)	49 (25.9)	24 (12.7)	8 (4.2)	9 (4.8)	189	3.89	1.016
9. Project funds are well utilized	80 (42.3)	30 (15.9)	14 (7.4)	35 (18.5)	30 (15.9)	189	3.63	1.026
Composite Mean							**3.83**	**1.018**

The findings obtained from the first statement on whether funds allocated to health projects during public participation is sufficient, 79 (41.8%) strongly agreed that funds are sufficient, 43 (22.8%) agreed, 12 (6.3%) had a neutral point of view, 25 (13.2%) disagreed and 30 (15.9%) strongly

disagreed with the statement. The statement had a mean score of 3.84 and SDV of 1.087 which is higher than the combined mean of 3.83 . The findings shows that the statement had positive significant influence on the variable and was supported majority of the respondents (64.6%).

The second statement on whether every health facility in the ward is benefiting from development funds in every financial year, 83 (43.9%) strongly agreed, 60 (31.7%) agreed, 9 (4.8%) were neutral, 16 (8.5%) disagreed and 21 (11.1%) strongly disagreed. The line statement had a mean score of 3.50 and SDV of 1.051 which is lower than the combined mean of 3.83 and SDV of 1.018 implying that the line item had insignificant influence on the variable.

The statement number three on whether release of development funds at the county level is sometimes affected by disagreements between the County Assembly and County Executive, 133 (70.4%) strongly agreed, 40 (21.2%) agreed, 16 (8.5%) were neutral, and no one either disagreed or strongly disagreed. The line statement had a mean score of 4.12 and SDV of 0.952 which is higher than the combined mean of 3.83 and SDV of 1.018 respectively. This suggests that the line statement influenced the quality of healthcare projects positively as the predictor variable was backed by majority of the respondents (91.6%).

On the fourth statement, the study recorded the following findings on whether the delay to release funds by the national government have adversely affected healthcare projects; 107 (56.6%) strongly agreed, 64 (33.9%) agreed, 12 (6.3%) were neutral, 6 (3.2%) disagreed and 0 (0%) strongly disagreed. The line statement had a mean score of 4.05 and SDV of 0.938 which is higher than the combined mean of 3.83 and SDV of 1.018 respectively suggesting that the line item influenced the quality of healthcare projects positively, with the statement being supported by 90.5% of the respondents.

On the fifth statement on whether physical infrastructure is matched with other instruments such as human resources and commodities which has an effect on the functionalities of health facilities after completion; 98 (51.9%) strongly agreed, 53 (28.0%) agreed, 13 (6.9%) were neutral, 12 (6.3%) disagreed and 13 (6.9%) strongly disagreed. The mean and SDV for the statement was 3.92 and 0.996 respectively which is higher than the combined mean of 3.83.This suggests that the line item had a positive influence on the quality of healthcare projects and the predictor variable was backed by 79.9% of the respondents.

On the sixth statement on whether the budgeting process at the county level take long to complete hence affecting healthcare service delivery; 90 (47.6%) strongly agreed, 67 (35.4%) agreed, 11 (5.8%) were neutral, 15 (7.9%) disagreed and 6 (3.2%) strongly disagreed. The line statement had a mean score of 3.86 and SDV of 1.012 which is higher than the combined mean of 3.83, this then implies that the line item have a positive influence on the quality of healthcare projects. The predictor variable was supported by 83% of the respondents.

On the seventh statement on whether the absorption rate of health development funds is good; 89 (47.1%) strongly agreed, 65 (34.4%) agreed, 9 (4.8%) were neutral 15 (7.9%) disagreed and 11 (5.8%) strongly disagreed. The line statement recorded a mean score of 3.79 and SDV of 1.082 which is lower than the combined mean of 3.79. This therefore means that the line item had insignificant influence on the quality of healthcare projects.

On the eighth statement on whether hospital management committee take part in project prioritization; 99 (52.4%) strongly agreed, 49 (29.5%) agreed, 24 (12.7%) were neutral, 8 (4.2%) disagreed and 9 (4.8%) strongly disagreed. The line statement had a mean score of 3.89 and SDV of 1.016 which was higher than the combined mean of 3.83 , implying that the statement had positive significant influence on the quality of healthcare projects, the line statement being supported by 81.9% of the respondents.

On the ninth statement, the study recorded the following results on whether project funds are well utilized; 80 (42.3%) strongly agreed, 30 (15.9%) agreed, 14 (7.4%) were neutral, 35 (18.5%) disagreed and 30 (15.9%) strongly disagreed. The line statement had a mean score of 3.63 and SDV of 1.018 which is lower than the combined mean of 3.83, implying that the line item has a negative influence on the quality of healthcare projects.

4.5.1 Correlation Analysis between Funding Mechanisms at County Level and Quality of Healthcare Projects

The researcher aimed at establishing the correlation between funding mechanisms and quality of healthcare projects using correlation coefficient. By determining the association between the variables, the researcher is able to see the strength and direction of relationship between funding mechanisms and quality of healthcare projects. The correlation outcomes are shown in the Table 4.5.

Table 4.5: Correlation Analysis between Funding Mechanisms at County Level and Quality of Healthcare Projects.

Variable		Funding Mechanisms at County Level	Quality of Healthcare Projects
Funding Mechanisms at County Level	Pearson Correlation	1	0.861**
	Sig. (2-Tailed)		0.007
	n	189	189
Quality of Healthcare Projects	Pearson Correlation	0.861**	1
	Sig. (2-Tailed)	0.007	
	n	189	189

**. Correlation is significant at the 0.05 level (2-tailed)

The results above demonstrates existence of a strong positive association of 0.861 between funding mechanisms at county level and quality of healthcare projects, which shows a significant relationship with p-value of 0.007 which is less than the test significance level of 0.05. This means that funding mechanisms at county level influences the quality of healthcare projects.

4.5.2 Regression Analysis of Funding Mechanisms at County Level and Quality of Healthcare Projects

Multivariate analysis was carried out to determine the existence or lack of the correlation between funding mechanisms at the county level and quality of healthcare projects in Keiyo South Sub-County. The first hypothesis was tested using a simple linear regression model to find out if it can satisfy the first objective of the study.

H_{01}: There is no significant influence of funding mechanisms at the county level on quality of healthcare projects in Keiyo South Sub-County.

The test for the first hypothesis was done by use of a linear model shown below;

$y= \alpha+\beta_1 X_1+e$

Where;

y= quality of healthcare projects,

α= constant,

β_1= beta coefficient,

X_1= funding mechanisms at county level and

e= error term

Table 4.6: ANOVA for Funding Mechanisms at County Level and Quality of Healthcare Projects.

Factor	Sum of Squares	df	Mean Square	F	Sig.
Regression	862.392	1	862.392	383.817	0.007[b]
Residual	420.167	187	2.247		
Total	**1282.559**	**188**			

a. Dependent Variable: Quality of Healthcare Projects.

b. Predictors: (Constant) Funding Mechanisms

ANOVA was used to establish the goodness of fit of the linear regression model on Table 4.6. It was established that the F-significance value of 0.007 was less than 0.05 ($p<0.05$). The F-ratio was significant, $F_{(1, 187)} = 383.817$ was significantly larger than the critical value of F=3.86 .This shows that the model was significant.

Table 4.7: Model Summary for Funding Mechanisms at County Level and Quality of Healthcare Projects.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.861[a]	0.741	0.738	1.171

a. Predictors (Constant), Funding mechanisms at the county level.

The findings in Table 4.7 above gives an elaborate description on the degree to which the independent variable contributes to the whole variability of the model. The R^2 is given as 0.741 showing that funding mechanisms at the county level contributes 74.1% of the variations of the dependent variable, quality of healthcare projects. This therefore implies that the other factors

which were not measured in this model accounted for 25.9%. The study made a conclusion that funding mechanisms at the county level have a major influence on the quality of healthcare projects.

Table 4.8: Coefficient of Funding Mechanisms at the County Level and Quality of Healthcare Projects.

	Un-standardized Coefficients		**Standardized Coefficients**	**t**
Variables	**B**	**Std. Error**	**Beta**	
(Constant)	0.899	0.198		4.540
Funding Mechanisms	0.889	0.141	0.861	6.305

a. Dependent Variable: Quality of Healthcare Projects

The results above shows un-standardized beta value of 0.889 pointing out that a unit increase of funding mechanisms at the county level contributed to 88.9% increase in the variations of quality of healthcare projects given funding mechanism at $p<0.05$. The regression model would be such as; Quality of healthcare projects= 0.899+0.889 (funding mechanisms) + e; t= 6.305; $p<0.05$.

The results therefore revealed that funding mechanisms at the county level has a significant influence on quality of healthcare projects. Hence, the null hypothesis of the study was rejected.

The outcome of the current study on the variable funding mechanism at the county level (R^2 =0.741) explains 74.1% of the variations in quality of healthcare projects. The model was deemed significant.

The findings were further supported by analysis of qualitative data acquired from key informers who were interviewed. When asked about the quality of healthcare projects, senior county officials had this to say;

"The quality of healthcare projects has definitely improved post devolution but we are cognizant of the fact that we are still faced with a number of challenges. The county governments rely heavily on the funds from the national government which in most cases delay when it comes to their

disbursement. Funds are normally received towards the end of the second quarter and because of that, project's completion usually fall behind schedule. Concerning the absorption rate of development funds in the health department, 60% of the funds are absorbed and the remaining 40% are rolled over to the next financial year. The reason as to why the county does not achieve 100% absorption rate is because of delayed release of monies from the national government, tedious tendering procedures and contractors who delay projects commencement after award."

These findings agrees with the outcome of a study by Lakin & Kinuthia, (2019) who found out that the slow pace of overall budget execution in counties is to a large extent attributed to delayed release of funds to counties by the national government. The study established that counties receive a substantial percentage of funds very late in the financial year, making it nearly impractical to fully spend them down. Similar findings by Ngigi & Busolo, (2019) on devolution in Kenya established that inadequate allocation of monies to counties is the biggest hindrances to the realization of devolution dreams. The push and pull between the Senate, the Commission of Revenue Allocation and the NT is responsible for the delayed disbursement of funds to the counties.

4.6 Technical Expertise and Quality of Healthcare Projects

The second variable intended to find out how technical expertise at the county level influence the quality of healthcare projects in Keiyo South Sub-County. To realize this, questionnaires were posted to the respondents in such a way it required them to give their opinion on their level of agreement or disagreement with the statement using a Likert scale of 5 to 1 where 5= Strongly Agree , 4= Agree , 3= Neutral , 2= Disagree and 1= Strongly Disagree . The Table 4.5 below shows their the responses.

Table 4.9: Technical Expertise at County Level and Quality of Healthcare Projects.

Statement	**5 F (%)**	**4 F (%)**	**3 F (%)**	**2 F (%)**	**1 F (%)**	**n**	**Mean**	**SDV**
1.Some medical equipment are available in the health facility but not utilized.	109 (57.7)	44 (23.3)	11 (5.8)	12 (6.3)	13 (6.9)	189	3.93	0.933

2.Health workers are offered refresher trainings occasionally by the county government of Elgeyo-Marakwet.	110 (58.2)	60 (31.7)	14 (7.4)	5 (2.6)	0 (0.0)	189	3.98	0.897
3.Health workers have remained in one job group for quite a long time without promotion.	132 (69.8)	14 (7.4)	14 (7.4)	15 (7.9)	14 (7.4)	189	4.24	1.306
4.Health workers are working under a conducive working environment.	104 (55.0)	57 (30.2)	10 (5.3)	9 (4.8)	9 (4.8)	189	3.89	0.888
5.Health workers recruitment is done strictly based on merit.	118 (58.4)	55 (29.1)	0 (0.0)	6 (4.6)	10 (7.9)	189	3.94	0.928
6.Skills inventory for health workers within the facility is lacking.	90 (47.6)	72 (38.1)	15 (7.9)	12 (6.3)	0 (0.0)	189	3.86	0.815
7.Incentives for hard-to-access areas contribute to a higher likelihood of flight-risk health workers posted to the areas.	127 (67.2)	40 (21.2)	12 (6.3)	10 (5.3)	0 (0.0)	189	4.15	0.877
8.The county has policy guideline on competencies and skills required for specific cadres of healthcare workers.	114 (60.3)	52 (27.5)	5 (2.6)	11 (5.8)	7 (3.7)	189	4.05	0.763
Composite Mean							**4.00**	**0.926**

Statement one on the second variable obtained information on available medical equipment which are not utilized at the facility. The results were as follows; 109 (57.7%) strongly agreed, 44 (23.3%) agreed, 11 (5.8%) were neutral, 12 (6.3%) disagreed and 13 (6.9%) strongly disagreed. The line item had a mean score of 3.93 and SDV of 0.926. This implies that the statement contributes positively to the quality of healthcare projects. Majority of the respondents (81%) supported the predictor variable.

On the second statement that health workers are offered refresher trainings occasionally by the county government of Elgeyo Marakwet; 110 (58.2%) strongly agreed, 60 (31.7%) agreed, 14 (7.4%) were neutral, 5 (2.6%) disagreed and no one strongly disagreed. The line statement had a mean score of 3.98 and SDV of 0.897 which is lower than the combined mean and SDV of 4.00

and 0.926 respectively. This therefore means that the line statement had a negative influence on the quality of healthcare projects.

On the third statement that health workers have remained in one job group for quite a long time without promotion; 132 (69.8%) strongly agreed, 14 (7.4%) agreed, 14 (7.4%) were neutral, 15 (7.9%) disagreed and 14 (7.4%) strongly disagreed. The line item had a mean score of 4.24 and SDV of 1.306 which was larger than the combined mean of 4.00 and SDV of 0.926. This suggests that the line item influence the quality of healthcare projects positively and 77.2% of the respondents were in support of it.

On the forth statement on whether health workers are working under a conducive working environment; 104 (55.0%) strongly agreed, 57 (30.2%) agreed, 10 (5.3%) were neutral, 9 (4.8%) disagreed and 9 (4.8%) strongly disagreed with a mean score and SDV of 3.89 and 0.888 respectively. This means that the statement contributes negatively to the variable and should therefore be reviewed.

On the fifth statement on whether healthcare worker's recruitment is done strictly based on merit; 118 (58.4%) strongly agreed, 55 (29.1%) agreed, 0 (0.0%) were neutral, 6 (4.6%) disagreed and 10 (7.9%) strongly disagreed. The mean score and SDV of the line statement was 3.94 and 0.928 respectively. In comparison to the combined mean and SDV of 4.00 and 0.926 respectively, the statement had insignificant influence on the variable and therefore it needs further review.

On the sixth statement on whether availability of skills inventory for health workers within the facility; 90 (47.6%) strongly agreed, 72 (38.1%) agreed, 15 (7.9%) were neutral, 12 (6.3%) disagreed and 0 (0%) strongly disagreed. The mean and SDV for the line statement was 3.86 and 0.815 respectively. As compared to combined mean of 4.00 and SDV of 0.926, the statement had a negative influence on the quality of healthcare project and it needs to be reviewed.

On the seventh statement on whether incentives for hard-to-access areas contribute to a higher likelihood of flight-risk health workers posted to the areas; 127 (67.2%) strongly agreed, 40 (21.2%) agreed, 12 (6.3%) took a neutral position, 10 (5.3%) disagreed and 0 (0.00%) strongly disagreed. The line statement posted a mean and SDV of 4.15 and 0.877 respectively which is higher than the combined mean of 4.00 which means therefore that the statement had a positive influence on

the quality of healthcare projects. The predictor variable was supported by 88.4% of the respondents.

On statement number eight on whether the county have an established policy guideline to guide on competencies and skills required for different cadres of healthcare workers; 114 (60.3%) strongly agreed, 52 (27.5%) agreed, 5 (2.6%) were neutral, 11 (5.8%) disagreed and 7 (3.7%) strongly disagreed. The mean and SDV for the line statement was 4.05 and 0.763 respectively which was higher than the combined mean of 4.00, thus the statement had a positive influence on the quality of healthcare projects. The predictor variable was supported by 87.8% of the respondents.

4.6.1 Correlation Analysis between Technical Expertise at County Level and Quality of Healthcare Projects

The researcher sought to examine the correlation between technical expertise at the county level and quality of healthcare projects using the Pearson Correlation. The findings are useful in determining the strength as well as the direction of association between technical expertise and quality of healthcare projects. The correlation findings are shown in the table below.

Table 4.10: Correlation Analysis between Technical Expertise at County Level and Quality of Healthcare Projects.

Variable		**Technical Expertise**	**Quality of Healthcare Projects**
Technical Expertise	Pearson Correlation	1	0.714**
	Sig. (2-Tailed)		0.000
	n	189	189
Quality of Healthcare Projects	Pearson Correlation	0.714**	1
	Sig. (2-Tailed)	0.000	
	n	189	189

**. Correlation is significant at the 0.05 level (2-tailed)

The findings of the correlation above revealed existence of a strong positive correlation of 0.714 between the explanatory independent variable and dependent variable quality of healthcare

projects. This indicates that technical expertise at the county level had a significant influence on the quality of healthcare projects.

4.6.2 Regression Analysis between Technical Expertise at County Level and Quality of Healthcare Projects

H_{02}: There is no significant influence of technical expertise at the county level on quality of healthcare projects in Keiyo South Sub-County.

The following linear model was used to test the second hypothesis;

$y= \alpha+\beta_2 X_2+e$

Where;

y= Quality of Healthcare Projects;

α= constant,

β_2= beta coefficient,

X_2= Technical Expertise at the County Level and

e= error term

Table 4.11: ANOVA between Technical Expertise at County Level and Quality of Healthcare Projects.

Factor	Sum of Squares	df	Mean Square	F	Sig.
Regression	671.342	1	671.342	205.395	0.000[b]
Residual	611.217	187	3.269		
Total	**1282.559**	**188**			

a. Dependent Variable: Quality of Healthcare Projects.

b. Predictors: (Constant) Technical Expertise

ANOVA was used to test the goodness of fit of the model and the results were as shown above. It was established that the F-significance value of 0.000 was less than 0.05 ($(p<0.05)$. The F-ratio was significant, $F(1, 187) = 205.395$ was greater than the critical value of $F=3.86$. This shows a statistically significant model.

Table 4.12: Model Summary for Technical Expertise at County Level and Quality of Healthcare Projects.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.714[a]	0.509	0.504	1.102

a. Predictors (Constant), Technical Expertise at the County Level

The study results shown above gives a description on the extent at which the independent variable contribute to the whole changeability of the model. The R^2 is given as 0.509 showing that technical expertise at the county level contributed to quality of healthcare projects by 50.9% while other unconsidered factors accounted for 49.1%. The study deduced that technical expertise had a positive significant influence on quality of healthcare projects.

Table 4.13: Coefficients of Technical Expertise at County Level and Quality of Healthcare Projects.

	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
Variables	**B**	**Std. Error**	**Beta**		
(Constant)	0.832	0.194		4.288	0.000
Technical Expertise	0.783	0.083	0.714	9.434	0.000

a. Dependent Variable: Quality of Healthcare Projects

The results above produced un-standardized beta value of 0.783 suggesting that a unit increase of technical expertise at county level led to 78.3% increase in quality of healthcare projects. In general, the model was fit to predict quality of healthcare projects given technical expertise at $p<0.05$. The regression model would be such;

Quality of healthcare projects= 0.832+0.783 (technical expertise) + e ; t=9.434; $p<0.05$.

Thus, the null hypothesis was rejected and its alternative accepted. Therefore, there is a significant influence of technical expertise at county level on quality of healthcare projects.

The researcher went another step further to analyze qualitative data obtained from interviews with an aim of getting a better understanding of the study problem. The senior county officials interviewed had the following to say;

"The county government makes use of Human Resource for Health (HRH) guideline to monitor the skills and competencies requirements of healthcare staff in different levels of care. Due to limited human resource personnel, the requirements of HRH has never been practical to EMC and because of that EMC Public Service Management has designed a tailor-made staff establishment guideline. The department of health gets quarterly reports from facility in-charges about the services offered by their staff. Also community feedback is usually considered when analyzing the quality of care at the facility level."

The findings are in agreement line with the results of Tsofa, Goodman, Gilson, & Molyneux, (2017) in their study on influence of devolution on health workforce and management of commodities. HRH roles were quickly moved from the central government to county governments before proper county-level structures and capability to carry out the stated functions were established. This largely interrupted payment of staff salaries and brought confusion in the HRM management roles.

4.7 Monitoring and Evaluation and Quality of Healthcare Projects

The third variable aimed at finding out how Monitoring and Evaluation at the county level influence the quality of healthcare projects in Keiyo South Sub-County. To realize this, the respondents were asked to give their opinion on their level of agreement or disagreement with the statement using a Likert scale of 5 to 1 where 5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree . Their responses were as shown below.

Table 4.14: Monitoring and Evaluation at County Level and Quality of Healthcare Projects.

Statement	**5 F (%)**	**4 F (%)**	**3 F (%)**	**2 F (%)**	**1 F (%)**	**n**	**Mean**	**SDV**
1. M&E personnel are adequately trained to discharge their duties effectively.	85 (44.9)	70 (37.0)	14 (7.4)	8 (4.2)	12 (6.3)	189	3.75	1.171

2. Key stakeholders are engaged in designing and planning of M&E system and activities.	92 (48.7)	54 (28.6)	11 (5.8)	18 (9.5)	14 (7.4)	189	3.89	1.169
3. M&E plan is followed to the latter.	90 (47.6)	40 (21.2)	7 (3.7)	27 (14.3)	25 (13.2)	189	3.67	1.174
4. There is a separate budget allocation for M&E.	93 (49.2)	51 (26.9)	20 (10.6)	16 (8.5)	9 (4.8)	189	3.87	1.151
5. M&E reports are easily available at the sub-county level.	54 (28.6)	58 (30.7)	13 (6.9)	21 (11.1)	43 (22.8)	189	3.30	1.044
6. M&E committee is facilitated to attend meetings.	115 (60.8)	53 (28.0)	4 (2.1)	7 (3.7)	10 (5.3)	189	4.11	0.616
7. The locals understand the importance of allocating funds for M&E activities during public participation.	100 (52.9)	48 (25.4)	8 (6.3)	18 (9.5)	15 (7.9)	189	4.14	0.608
8. Hospital management committee and ward development committee work hand-in-hand in overseeing health projects.	135 (71.4)	31 (16.4)	17 (9.0)	6 (3.2)	0 (0.0)	189	4.08	0.638
9. The county officials come to the ground to inspect projects.	95 (50.3)	75 (39.7)	2 (1.1)	8 (6.3)	9 (4.8)	189	3.93	0.936
Composite Mean							**3.86**	**1.019**

On the first statement on whether monitoring and evaluation personnel are adequately trained to discharge their duties effectively; 85 (44.8%) strongly agreed, 70 (37.0%) agreed, 14 (7.4%) were neutral, 8 (4.2%) disagreed and 12 (6.3%) strongly disagreed. The line statement had a mean score of 3.75 and SDV of 1.171 which is lower than the combined mean and SDV of 3.86 and 1.019 respectively, thus the statement had a negative influence on the quality of healthcare projects.

On the second statement on whether key stakeholders are usually engaged in designing and planning monitoring and evaluation system and activities; 92 (48.7%) strongly agreed, 54 (28.6%) agreed, 11 (5.8%) were neutral, 18 (9.5%) disagreed and 14 (7.4%) strongly disagreed. The mean and SDV for the line statement was 3.89 and 1.169 respectively which is higher than the combined

mean of 3.86 and SDV of 1.019, suggesting that the line statement positively influenced the quality of healthcare projects being supported by 77.3% of the respondents.

On statement number three on whether monitoring and evaluation plan is usually followed to the latter; 90 (47.6%) strongly agreed, 40 (21.2%) agreed, 7 (3.7%) were neutral, 27 (14.3%) disagreed and 25 (13.2%) strongly disagreed. The statement had a mean of 3.67 and SDV of 1.174 which is lower than the combined mean of 3.86 and SDV of 1.019, suggesting that the line statement influenced the quality of healthcare projects negatively.

The forth statement on whether a separate budget for monitoring and evaluation exercise exist; 93 (49.2%) strongly agreed, 51 (26.9%) agreed, 20 (10.6%) were neutral, 16 (8.5%) disagreed and 9 (4.8%) strongly disagreed. The mean and SDV for the line statement was 3.87 and 1.151 respectively, which is higher than both the combined mean and SDV of 3.86 and 1.019 respectively. This therefore gives an indication that the line statement positively influence the quality of healthcare projects and is being supported by 76.1% of the respondents.

On statement number 5 on whether monitoring and evaluation reports are easily available at the Sub-County level; 54 (28.6%) strongly agreed, 58 (30.7%) agreed, 13 (6.9%) had a neutral attitude, 21 (11.1%) disagreed and 43 (22.8%) strongly disagreed. The mean score and SDV for the line statement was 3.30 and 1.044 respectively which is lower than the combined mean of 3.86 and SDV of 1.019, suggesting that the line statement had insignificant influence on the quality of healthcare projects and therefore it needs to be reviewed.

Statement number 6 on whether monitoring and evaluation committee are facilitated to attend meetings; 115 (60.8%) strongly agreed, 53 (28.0%) agreed, 4 (2.1%) were neutral, 7 (3.7%) disagreed and 10 (5.3%) strongly disagreed. The mean score and SDV for the line statement was 4.11 and 0.616 respectively which was higher than the combined mean of 3.86, suggesting that the line statement had a positive influence on the quality of healthcare projects. The predictor variable was supported by 88.8% of the respondents.

The seventh statement on whether the locals understand the importance of allocating funds for monitoring and evaluation activities during public participation; 100 (52.9%) strongly agreed, 48 (25.4%) agreed, 8 (6.3%) were neutral, 18 (9.5%) disagreed and 15 (7.9%) strongly disagreed. The line statement had a mean score of 4.14 and SDV of 0.608 which is higher than the combined mean

of 3.86, implying that the line item influence the quality of healthcare projects positively. The predictor variable got the backing of 78.3% of the respondents.

On the eighth statement on whether hospital management committee and ward development committee work hand-in-hand in overseeing health projects; 135 (71.4%) strongly agreed, 31 (16.4%) agreed, 17 (9.0%) were neutral, 6 (3.2%) disagreed and 0 (0%) strongly disagreed. The line statement had a mean score of 4.08 and SDV of 0.638 which is greater than the combined mean of 3.86, suggesting that the line item influenced the quality of healthcare projects positively and is being supported by 87.8% of the respondents.

On statement number 9 on whether county officials usually carry out project's inspection visits on the sites; 95 (50.3%) strongly agreed, 75 (39.7%) agreed, 2 (1.1%) had a neutral opinion, 8 (6.3%) disagreed and 9 (4.8%) strongly disagreed. The mean and SDV for the line statement is 3.93 and 0.936 respectively which is greater than the composite mean of 3.86, pointing out that the line item influence the quality of healthcare projects positively. The predictor was supported by 90% of the respondents.

4.7.1 Correlation Analysis between Monitoring and Evaluation at County Level and Quality of Healthcare Projects

The researcher made use of Pearson's correlation to find out the association between M&E and quality of healthcare projects. The values gotten from the correlation analysis had a range of between +1 and -1 where +1 shows existence of a perfect positive correlation and -1 shows existence of a perfect negative correlation. This shows the strength and direction of association between the predictor and the response variable. The correlation results are shown below.

Table 4.15: Correlation Analysis between Monitoring and Evaluation at County Level and Quality of Healthcare Projects.

Variable		Monitoring and Evaluation	Quality of Healthcare Projects
Monitoring and Evaluation	Pearson Correlation	1	0.638**
	Sig. (2-Tailed)		0.013
	n	189	189

Quality of Healthcare Projects	Pearson Correlation	0.638**	1
	Sig. (2-Tailed)	0.013	
	n	189	189

**. Correlation is significant at the 0.05 level (2-tailed)

The above results shows a statistically significant association between the predictor and response variable since the p-value 0.013 was less than the alpha value of 0.05. The results revealed a moderate positive correlation of 0.638 between the explanatory variable M&E and dependent variable quality of healthcare projects. This indicates that M&E has a significant influence on quality of healthcare projects.

4.7.2 Regression Analysis for Monitoring and Evaluation at County Level and Quality of Healthcare Projects

H_{03}: There is no significant influence of M&E at the county level on quality of healthcare projects in Keiyo South Sub-County.

The third hypothesis of the study was tested using the model shown below;

$y= \alpha+\beta_3X_3+e$

Where;

y= Quality of Healthcare Projects;

α= constant,

β_2= beta coefficient,

X_2= M&E at the County Level and

e= error term

Table 4.16: ANOVA between Monitoring and Evaluation at County Level and Quality of Healthcare Projects.

Factor	Sum of Squares	df	Mean Square	F	Sig.
Regression	522.821	1	522.821	128.686	0.013[b]
Residual	759.738	187	4.062		

Total	**1282.559**	**188**

a. Dependent Variable: Quality of Healthcare Projects.

b. Predictors: (Constant) Monitoring and Evaluation.

ANOVA was used to establish the appropriateness of the regression model in Table 4.16. It was established that the F-significance value of 0.013 was less than 0.05 ($p<0.05$). The F-ratio was significant, $F_{(1, 187)} = 128.686$ was larger than the critical value of F=3.86

This shows that the model was significant.

Table 4.17: Model Summary for Monitoring and Evaluation at County Level and Quality of Healthcare Projects.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.638[a]	0.407	0.402	1.257

a. Predictors (Constant), M&E

The study results shown above gives justification on the level to which the independent variable contributes to the whole changeability of the model. The R^2 is provided as 0.407 pointing out that monitoring and evaluation at the county level contributed 40.7% on the quality of healthcare projects and other factors not put under consideration in this model accounted for 59.3%. The study deduced that M&E at the county level has a positive significant influence on the quality on the healthcare projects.

Table 4.18: Coefficients of Monitoring and Evaluation at County Level and Quality of Healthcare Projects

	Un-standardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
Variables	**B**	**Std. Error**	**Beta**		
(Constant)	0.725	0.208		3.486	0.000
Monitoring and Evaluation	0.687	0.125	0.638	5.496	0.013

a. Dependent Variable: Quality of Healthcare Projects

The findings in Table 4.18 gave un-standardized beta value of 0.687 showing that a unit increase of M&E contributed to 68.7% increase in quality of healthcare projects. Overall model was deemed suitable to predict quality of healthcare projects given M&E at $p<0.05$.

The regression model would be such as;

Quality of healthcare projects= 0.725+0.687 (Monitoring and Evaluation) +e ; t=5.496; $p<0.05$.

Thus, the null hypothesis of the study was rejected and its alternative accepted.

Therefore, there is a significant influence of M&E on quality of healthcare projects.

The researcher sought to link the quantitative findings of the study with the qualitative findings gathered using interview guides. Here is the view of the interviewed county health officials;

''Monitoring and Evaluation system for health department is well designed, having a clear organizational structure. The health department has designed a strategic plan which is strictly followed. Also, quarterly reports are generated which provides direction for the department. Projects can be easily distinguished and duplication of works is not possible because the county government has developed the following guidelines: County Integrated Development Plan (CIDP), Hospital Strategic Plan (HSP) and Annual Work Plan (AWP). ''

The findings above are in agreement with the outcome of a study undertaken by Onyango, (2017) on effectiveness of M&E system during implementation of projects at the county level which found out that counties usually have M&E plan is more often than not developed at the proposal stage in an inclusive approach involving all the stakeholders. Project M&E plan was found out to be very key during project's implementation.

4.8 Capacity of Local Contractors and Quality of Healthcare Projects

The forth variable of the study sought to examine how capacity of local contractors at the county level influence the quality of healthcare projects in Keiyo South Sub-County. To achieve this, the respondents were asked provide their responses on whether they agree or disagree with the statement using a Likert scale of 5 to 1 where 5= Strongly Agree , 4= Agree , 3= Neutral, 2= Disagree and 1= Strongly Disagree. The results are presented below.

Table 4.19: Capacity of Local Contractors at County Level and Quality of Healthcare Projects.

Statement	5 F (%)	4 F (%)	3 F (%)	2 F (%)	1 F (%)	n	Mean	SDV
1. Local contractors have relevant work experience and thus complete projects on time.	90 (47.6)	72 (38.1)	15 (7.9)	12 (6.3)	0 (0.0)	189	3.86	0.815
2. Local contractors have sufficient funds to execute any awarded contract to completion.	93 (49.2)	51 (26.9)	20 (10.6)	16 (8.5)	9 (4.8)	189	3.81	1.151
3. Local contractors receive advance payment at the start of a project.	54 (28.6)	58 (30.7)	13 (6.9)	21 (11.1)	43 (22.8)	189	3.39	1.044
4. Local contractor's technical employees have the best training hence quality management of construction projects.	100 (52.9)	48 (25.4)	8 (6.3)	18 (9.5)	15 (7.9)	189	4.14	0.608
5. Local contractors have adequate capacity in interpreting plans.	102 (53.9)	69 (36.5)	4 (2.1)	6 (3.2)	8 (4.2)	189	3.91	0.638
6. Local contractors have challenges using IFMIS.	95 (50.3)	75 (39.7)	2 (1.1)	8 (6.3)	9 (4.8)	189	3.93	0.936
7. It takes time following up payments at the county treasury by the local contractors.	98 (51.9)	53 (28.0)	13 (6.9)	12 (6.3)	13 (6.9)	189	3.92	0.996
8. County staff delay project's inspection.	90 (47.6)	67 (35.4)	11 (5.8)	15 (7.9)	6 (3.2)	189	3.86	1.012
9. Project's fees are used for the right purpose	89 (47.1)	65 (34.4)	9 (4.8)	15 (7.9)	11 (5.8)	189	3.79	1.082
10. The county exercises fairness in the distribution of projects to all contractors.	99 (52.4)	49 (25.9)	24 (12.7)	8 (4.2)	9 (4.8)	189	3.89	1.016

11.	Contractors sometimes get frustrated by community leaders when implementing projects.	112 (59.3)	51 (26.9)	7 (3.7)	7 (3.7)	12 (6.3)	189	3.98	0.940
Composite Mean								**3.27**	**0.977**

The first statement under the forth variable sought to find out whether local contractors have relevant work experience and thus complete projects on time. The results showed that most of the respondents 90 (47.6%) strongly agreed, 72 (38.1%) agreed, 15 (7.9%) were neutral, 12 (6.3%) disagreed and 0(0.0%) strongly disagreed with the statement. The statement obtained a mean of 3.86 and SDV of 0.815. This implies that the statement had a positive contribution to the variable, capacity of local contractors since when compared to the combined mean (3.27), the statement had a greater mean (3.86). The predictor variable was backed by 85.7% of the respondents.

The second statement on whether local contractors have sufficient funds to execute any awarded project to completion; 93 (49.2%) strongly agreed, 51 (26.9%) agreed, 20 (10.6%) were neutral, 16 (8.5%) disagreed, and 9 (4.8%) strongly disagreed. The mean score and SDV for the line statement was 3.81 and 1.151 respectively which is higher than the combined mean of 3.27, suggesting that the line item influenced the quality of healthcare projects positively and is being supported by 76.1% of the respondents.

The third statement on whether local contractors receive advance payment at the start of the project; 54 (28.6%) strongly agreed, 58 (30.7%) agreed, 13 (6.9%) were neutral, 21 (11.1%) disagreed and 43 (22.8%) strongly disagreed. The line statement had a mean score of 3.39 and SDV of 1.044 which was higher than the combined mean of 3.27 and SDV of 0.977. This shows that the line item had a positive contribution on the quality of healthcare projects. The predictor variable was supported by 59.3% of the respondents.

The forth statement on whether local contractor's technical employees have the best training hence quality management of construction projects; 100 (52.9%) strongly agreed, 48 (25.4%) agreed, 8 (6.3%) were neutral, 18 (9.5%) disagreed and 15 (7.9%) strongly disagreed. The mean and standard deviation for the line statement is 4.14 and 0.608 respectively, suggesting that the line statement influenced the quality of healthcare projects positively and is being supported by 78.3% of the respondents.

The fifth statement sought to find out whether local contractors have adequate capacity in interpreting plans; 102 (53.9%) strongly agreed, 69 (36.5%) agreed, 4 (2.1%) were neutral, 6 (3.2%) disagreed and 8 (4.2%) strongly disagreed. The mean and SDV for the line statement is 3.91 and 0.638 respectively which is higher than the combined mean of 3.27, suggesting that the line item influenced the quality of healthcare positively. 90.4% of the respondents were in agreement of the predictor variable.

The sixth statement sought to find out whether local contractors face any challenges when using IFMIS; 95 (50.3%), 75 (39.7%) agreed, 2 (1.1%) were neutral, 8 (6.3%) disagreed and 9 (4.8%) strongly disagreed. The line statement registered a mean of 3.93 and SDV of 0.936 which is higher than the combined mean (3.27). This suggests that the line item had a positive influence on the quality of healthcare projects. The predictor variable was supported by 90% of the respondents.

On the seventh statement on whether it takes time following up payments at the county treasury by the local contractors; 98 (51.8%) strongly agreed, 53 (28.0%) agreed, 13 (6.9%) were neutral, 12 (6.3%) disagreed and 13 (6.9%) strongly disagreed. The line statement registered a mean of 3.92 and SDV of 0.996. In comparison to combined mean of 3.27, the higher mean (3.92) of the line statement suggest that the statement contributed positively to quality of healthcare projects. The predictor variable was supported by 79.8% of the respondents.

The eighth statement on whether county staff delay project's inspection; 90 (47.6%) strongly agreed, 67 (35.4%) agreed, 11 (5.8%) were neutral, 15 (7.9%) disagreed and 6 (3.2%) and strongly disagreed. The line statement recorded a mean of 3.86 and SDV of 1.012 which is higher than the combined mean and SDV of 3.27 and 0.977 respectively. This therefore implies that the line item influenced the quality of healthcare projects positively. 83% of the respondents supported the predictor variable.

The ninth statement sought to find out whether project's fees are used for the intended purpose; 89 (47.1%) strongly agreed, 65 (34.4%) agreed, 9 (4.8%) were neutral, 15 (7.9%) disagreed and 11 (5.8%) strongly disagreed. The line statement recorded a mean and SDV of 3.79 and 1.082 respectively which is lower than the combined mean of 3.27 and SDV of 0.977, suggesting that the line item influence the quality of healthcare projects positively and is being supported by 81.5% of the respondents.

On the tenth statement on whether the county exercises fairness in the distribution of projects to all contractors; 99 (52.4%) strongly agreed, 49 (25.9%) agreed, 24 (12.7%) were neutral, 8 (4.2%) disagreed and 9 (4.8%) strongly disagreed. The line statement registered a mean score of 3.89 and SDV of 1.016 which is higher than the combined mean of 3.27 and SDV of 0.997. This shows that the line item influenced the quality of healthcare projects positively and the predictor variable got the support of 78.3% of the respondents.

On the eleventh statement on whether contractors face any frustrations from the community leaders when implementing projects; 112 (59.3%) strongly agreed, 51 (26.9%) agreed, 7 (3.7%) were neutral, 7 (3.7%) disagreed and 12 (6.3%) strongly disagreed. The mean and SDV of the line item are 3.98 and 0.940 respectively which is higher than the combined mean of 3.27, suggesting that the line item influenced the quality of healthcare projects positively and is being supported by 86.2% of the respondents.

4.8.1 Correlation Analysis between Capacity of Local Contractors at County Level and Quality of Healthcare Projects

The correlation sought to find out the association between capacity of local contractors at the county level and quality of healthcare projects using the Pearson's correlation. This helps in establishing the strength and direction of relationship between capacity of local contractors and quality of healthcare projects. The correlation results are shown below.

Table 4.20: Correlation Analysis between Capacity of Local Contractors at County Level and Quality of Healthcare Projects.

Variable		**Capacity of local contractors**	**Quality of Healthcare Projects**
Capacity of local contractors	Pearson Correlation	1	0.593**
	Sig. (2-Tailed)		0.000
	N	189	189
Quality of Healthcare Projects	Pearson Correlation	0.593**	1
	Sig. (2-Tailed)	0.000	
	N	189	189

**. Correlation is significant at the 0.05 level (2-tailed)

The results posted on Table 4.20 shows the connection between capacity of local contractors at the county level and quality of healthcare projects. The results were compared in relation to the strength and direction of relationship where -1 shows a perfect negative correlation whereas +1 shows a perfect positive correlation. Correlation results between 0.1-0.3 were regarded as weak correlations, 0.4-0.6 as moderate correlations and 0.7-0-9 as strong correlations. The results revealed a moderate positive correlation of 0.593 between capacity of local contractors and quality of healthcare projects, which indicate a significant relationship with p-value of 0.000 which is less than the test level of significance 0.05. This indicates that capacity of local contractors at county level influences quality of healthcare projects.

4.8.2 Regression Analysis for Capacity of Local Contractors at the County Level and Quality of Healthcare Projects

H_{04}: There is no significant influence on capacity of local contractors at the county level on quality of healthcare projects in Keiyo South Sub-County.

The linear regression model below was used to test the fourth hypothesis;

$y= \alpha+\beta_4 X_4+e$

Where;

y= Quality of healthcare projects;

α= constant,

β_2= beta coefficient,

X_2= capacity of local contractor at county level and

e= error term

Table 4.21: ANOVA between Capacity of Local Contractors at County Level and Quality of Healthcare Projects.

Factor	Sum of Squares	df	Mean Square	F	Sig.
Regression	710.560	1	710.560	232.298	0.000[b]
Residual	571.999	187	3.059		
Total	**1282.559**	**188**			

a. Dependent Variable: Quality of Healthcare Projects.

b. Predictors: (Constant) Capacity of local contractors

ANOVA was used to find out the goodness of fit of the regression model in Table 4.21. It was established that the F-significance value of 0.000 was less than 0.05 ($p<0.05$). The F-ratio was significant, $F_{(1, 187)} = 232.298$ was larger than the critical value of F=3.86. This therefore means that the model was significant.

Table 4.22: Model Summary for Capacity of Local Contractors and Quality of Healthcare Projects.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.593[a]	0.352	0.347	1.242

a. Predictors (Constant), capacity of local contractors

The findings shown above gives details on the level at which the independent variable contributes to the overall changeability of the model. The R^2 is given as 0.352 showing that capacity of local contractors contributes to about 35.2% of the variations in the response variable, quality of healthcare projects. The findings indicate that other unconsidered factors accounted for 64.8%. The study concluded that capacity of local contractors have a positive significant influence on quality of healthcare projects.

Table 4.23: Coefficients of Capacity of Local Contractors at County Level and Quality of Healthcare Projects.

	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
Variables	**B**	**Std. Error**	**Beta**		
(Constant)	0.608	0.124		4.903	0.000
Capacity of local contractors	0.624	0.111	0.593	5.621	0.000

a. Dependent Variable: Quality of Healthcare Projects

The findings above gave un-standardized coefficient of 0.624, suggesting that a unit increase of capacity of local contractors contributed to 62.4% increase in the variations of quality of healthcare projects. The whole model was fit to predict quality of healthcare projects given capacity of local contractors at $p=0.000<0.05$. The regression model would be as such;

Quality of healthcare projects= 0.608+0.624 (capacity of local contractors) + e; $t=5.621$; $p<0.05$.

Thus, the null hypothesis of the study was rejected and its alternative accepted. Therefore, there is a significant influence of capacity of local contractors on quality of healthcare projects.

The researcher linked the quantitative results of the study with the qualitative findings gathered using interview guides. The interviewed senior county officials had the following to say;

"Some contractors have financial difficulties hence delayed completion of projects but to minimize the chances of getting a contractor with inadequate financial ability, the county government usually does background checks of all contractors before awarding contracts. A few contractors sometimes do shoddy works but project supervisors never approve such works until they are re-done to the expectations. There is also 10% retainer money from every contract which gathers for any substandard works done by the contractors."

The findings of the study concurs with the outcome of a research carried out by Mutoro *et.al*., (2017) on effect of contractor capacity and M&E on completion of projects. The study established that most contractors lacked capacity in terms of financial resources to support construction expenses, to lack of key personnel needed for the project. It also found out that most contractors do not have all equipment and tools necessary for the project before commencing construction works while some lacked adequate and relevant work-experience as well as good site management skills such as planning, and implementation of scheduling and controls.

4.9 Summary of Results of the Test Hypotheses

A summary of the outcomes from the hypotheses of the study are shown below.

Table 4.24: Summary of Results of the Test Hypotheses

Objective	Hypothesis	Regression Model	Results	Decision as a result of empirical evidence
1. To establish how funding mechanisms at county level influence the quality of healthcare projects in Keiyo South Sub-County.	1. H_{01}: There is no significant influence of funding mechanisms at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_1X_1+e$	{R=0.861, R^2=0.741, β=0.889, t=6.305, $F_{(1,187)}$ = 383.817; p<0.05}	Reject H_{01} **Accept the alternative**
2. To examine how technical expertise at county level influence the quality of healthcare projects in Keiyo South Sub-County.	2. H_{02}: There is no significant influence of technical expertise at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_2X_2+e$	{R=0.714, R^2=0.509, β=0.783, t=9.434, $F_{(1,187)}$ = 205.395; p<0.05}	Reject H_{02} **Accept the alternative**
3. To assess how M&E at county level influence the quality of healthcare projects in Keiyo South Sub-County.	3. H_{03}: There is no significant influence of monitoring and evaluation at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_3X_3+e$	{R=0.638, R^2=0.407, β=0.687, t=5.496, $F_{(1,187)}$ = 128.686; p<0.05}	Reject H_{03} **Accept the alternative**

4. To determine how capacity of local contractors at county level influence the quality of healthcare projects in Keiyo South Sub-County.	4. H_{04}: There is no significant influence of capacity of local contractors at the county level on quality of healthcare projects in Keiyo South Sub-County.	$y= \alpha+\beta_4X_4+e$	{R=0.593, R^2=0.352, β=0.624, t=5.621, $F(_{1,187})$ = 232.298; p<0.05}	Reject H_{04} **Accept the alternative**

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings of the study, conclusion, recommendations. Additionally, suggestions of areas for further research for specific research objectives are given. Furthermore, the chapter summarizes the study's contribution of the existing body of knowledge.

5.2 Summary of the Findings

The findings obtained in chapter four are summarized by looking at each of the four predictor variables and their relationship with the response variable.

5.2.1 Funding Mechanisms and Quality of Healthcare Projects

Objective one of the study aimed at establishing how funding mechanisms at the county level influence quality of healthcare projects in Keiyo South Sub-County. The combined mean was 3.83 and the SDV was 1.018. The researcher tested the null hypothesis of the study which was framed as follows; funding mechanisms at the county level has no significant influence on quality of healthcare projects in Keiyo South Sub-County. The study revealed the following: R= 0.861, R^2=0.741, β=0.889, t= 6.305, F ($_{1,187}$) =383.817, p<0.05. The findings shows that funding mechanisms at the county level explained 74.1% of the variations in the quality of healthcare projects in Keiyo South Sub-County. Therefore the null hypothesis was rejected and the conclusion made was that funding mechanisms at the county level has significant influence on quality of healthcare projects in Keiyo South Sub-County.

5.2.2 Technical Expertise at County Level and Quality of Healthcare Projects

Objective two of the study sought to examine how technical expertise at county level influence the quality of healthcare projects in Keiyo South Sub-County. The research tested the null hypothesis of the study which was stated as follows; technical expertise at the county level has no significant influence on quality of healthcare projects in Keiyo South Sub-County. The study revealed the following: R= 0.714, R^2=0.509, β=0.783, t= 9.434, F ($_{1,187}$) =205.395, p<0.05. The findings indicated that technical expertise at county level explained 50.9% of the variations in quality of healthcare projects in Keiyo South Sub-County. Thus, the null hypothesis was rejected and a

conclusion arrived at was that technical expertise at the county level has significant influence on quality of healthcare projects in Keiyo South Sub-County.

5.2.3 Monitoring and Evaluation and Quality of Healthcare Projects

The third objective sought to assess how monitoring and evaluation at the county level influence quality of healthcare projects in Keiyo South Sub-County. The research tested the null hypothesis of the study which was stated as follows; monitoring and evaluation at county level has no significant influence on quality of healthcare projects in Keiyo South Sub-County. The study observed the following: R=0.638, R^2=0.407, β=0.687, t=5.496, F ($_{1,187}$) = 128.686, p<0.05. It was established that monitoring and evaluation explained 40.7% of the variations in quality of healthcare projects in Keiyo South Sub-County. The null hypothesis was rejected and the study made a conclusion that monitoring and evaluation at the county level has significant influence on quality of healthcare projects in Keiyo South Sub-County.

5.2.4 Capacity of Local Contractors and Quality of Healthcare Projects

The fourth objective sought to determine how local contractors at the county level influence the quality of healthcare projects in Keiyo South Sub-County. The research tested the null hypothesis of the study which was as follows: capacity of local contractors at the county level has no significant influence on quality of healthcare projects in Keiyo South Sub-County. The study found out the following: R=0.593, R^2=0.352, β=0.624, t=5.621, F ($_{1,187}$) =232.298 , p<0.05. It was established that capacity of local contractors at county level explained 35.2% of the variations in quality of healthcare projects in Keiyo South Sub-County. The null hypothesis was rejected and the study concluded that capacity of local contractors at the county level has a significant influence on quality of healthcare projects in Keiyo South Sub-County.

5.3 Conclusion of the Study

The purpose of this study was to investigate the influence of devolution support systems on quality of healthcare projects in Keiyo South Sub-County. The first objective sought to establish how funding mechanisms at the county level influence quality of healthcare projects in Keiyo South Sub-County. The research findings showed existence of a strong positive correlation between funding mechanisms at the county level and quality of healthcare projects. Allocation of sufficient funds towards financing healthcare projects during public participation meetings, swift approval

and release of development funds to counties as well as good absorption of those funds with prudent use contribute to improvement in quality of healthcare projects.

Objective two of the study sought to examine how technical expertise at the county level influence the quality of healthcare projects in Keiyo South Sub-County. The research findings established that a strong positive relationship exist between technical expertise at county level and quality of healthcare projects. Proper utilization of medical equipment, refresher trainings for healthcare workforce, merit-based recruitment of healthcare workers as well as timely remuneration and promotion of healthcare workers has an influence on the quality of healthcare projects.

Objective three of the study aimed at assessing how monitoring and evaluation at the county level influence quality of healthcare projects. The research findings established there exists a strong positive correlation between monitoring and evaluation and quality of healthcare projects. Proper training of monitoring and evaluation personnel, engagement of key stakeholders when designing and planning of monitoring and evaluation systems and activities, allocation of sufficient funding towards monitoring and evaluation activities as well as motivation of monitoring and evaluation personnel affects the quality of healthcare projects.

The fourth objective of the study sought to determine how capacity of local contractors at the county level influence the quality of healthcare projects in Keiyo South Sub-County. The research findings revealed that a strong positive relationship exist between capacity of local contractors and quality of healthcare projects. Work experience of local contractors, ability of local contractors to interpret plans and the nature of working relationship between local contractors and community leaders affects quality of healthcare projects.

5.4 Recommendations

The researcher gave four recommendations as shown below:

1. The research established that funding mechanisms at the county level is very key in determining the quality of healthcare projects. The study therefore makes a recommendation that there should be a thorough consultations spearheaded by experts involving all healthcare stakeholders during ward-level public participation meetings so as to prioritize health projects putting in mind expert advice especially on the costings of the project as well as scope which ensures that the physical infrastructure is matched with the

necessary medical equipment, medical personnel and commodities . The study further recommends that the national government should at all times give top priority to counties when it comes to release of funds to counties. The funds should always be released on time. The county governments on the other end should fasten the necessary legislations required for fund's operationalization.

2. The research found out that technical expertise at the county level significantly influence the quality of healthcare projects. The study makes a recommendation that counties should design a continuous professional development policy which ensures that healthcare workers are well versed with technological advancements in the healthcare sector and this can be achieved through targeted trainings of healthcare workers. The study further recommends that healthcare workers should be motivated by way of timely payment of salaries and allowances, guaranteed promotions, and creation of a conducive working environment.
3. The study established that monitoring and evaluation at the county level have significant influence on the quality of healthcare projects. The study puts forth a recommendation that every time a new health project is proposed by the community through their representatives at public participation forums, the county technical personnel should insist to the local leadership the importance of incorporating monitoring and evaluation component to be part of the project scope. Monitoring and evaluation department should be well staffed and funded for it to discharge its mandate optimally.
4. The study established that capacity of local contractors at the county level significantly influence the quality of healthcare projects. The study makes a recommendation that the county governments should support local contractors through organizing training sessions where contractors are trained on the use of IFMIS, step-by-step procedures during project implementation, approval stages, documentations required to process payment as well as ways of handling any hostility that may arise between contractors and community leaders.

5.5 Suggestions for Further Research

The study suggested the following areas to be researched further:

1. A study similar to this study should be undertaken in other county governments in Kenya for purposes of comparison.
2. This study having limited itself to quality of healthcare projects, other studies should be done to investigate the influence of devolution support systems on quality of other devolved functions such as agriculture, water and roads.
3. A research should be conducted to investigate the quality of primary care services at the county health facilities by focusing primarily on the nature and quality of care and not on the brick and mortar.
4. Human resource for health being one of the key building blocks in any health-care setup, an in-depth research should be carried out to establish any key challenges faced by healthcare workers in Kenya.

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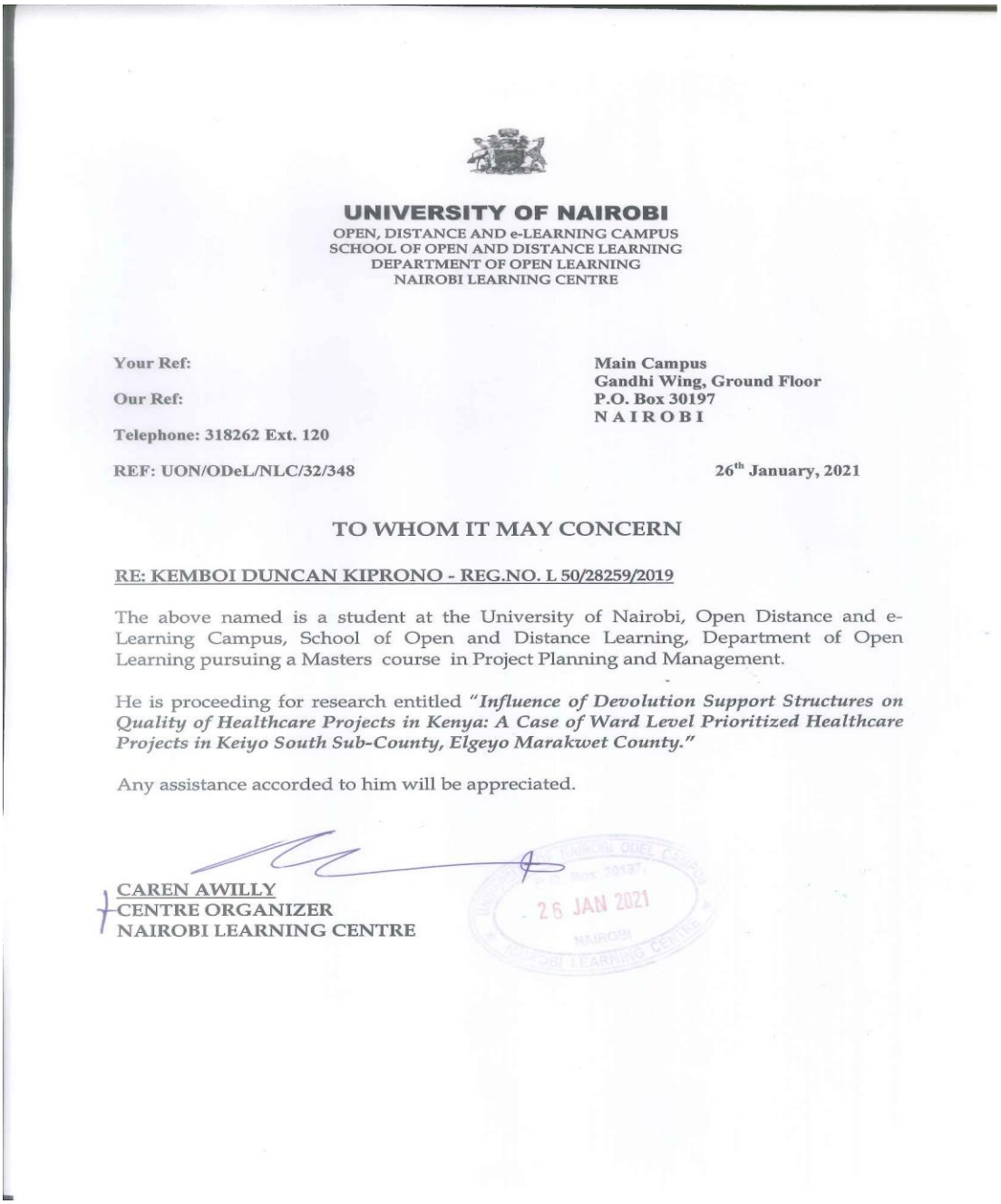
APPENDICES

Appendix I: University of Nairobi Research Permit Certification



UNIVERSITY OF NAIROBI
OPEN, DISTANCE AND e-LEARNING CAMPUS
SCHOOL OF OPEN AND DISTANCE LEARNING
DEPARTMENT OF OPEN LEARNING
NAIROBI LEARNING CENTRE

Your Ref:

Our Ref:

Telephone: 318262 Ext. 120

Main Campus
Gandhi Wing, Ground Floor
P.O. Box 30197
N A I R O B I

REF: UON/ODeL/NLC/32/348

26th January, 2021

TO WHOM IT MAY CONCERN

RE: KEMBOI DUNCAN KIPRONO - REG.NO. L 50/28259/2019

The above named is a student at the University of Nairobi, Open Distance and e-Learning Campus, School of Open and Distance Learning, Department of Open Learning pursuing a Masters course in Project Planning and Management.

He is proceeding for research entitled ***"Influence of Devolution Support Structures on Quality of Healthcare Projects in Kenya: A Case of Ward Level Prioritized Healthcare Projects in Keiyo South Sub-County, Elgeyo Marakwet County."***

Any assistance accorded to him will be appreciated.

CAREN AWILLY
CENTRE ORGANIZER
NAIROBI LEARNING CENTRE

26 JAN 2021

Appendix II: NACOSTI Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **124861**

Date of Issue: **04/February/2021**

RESEARCH LICENSE

This is to Certify that Mr.. DUNCAN Kiprono KEMBOI of University of Nairobi, has been licensed to conduct research in Elgeyo-Marakwet on the topic: "INFLUENCE OF DEVOLUTION SUPPORT STRUCTURES ON QUALITY OF HEALTHCARE PROJECTS IN KENYA: A CASE OF WARD-LEVEL PRIORITIZED HEALTHCARE PROJECTS IN KEIYO SOUTH SUB-COUNTY, ELGEYO MARAKWET COUNTY" for the period ending : 04/February/2022.

License No: **NACOSTI/P/21/8806**

124861

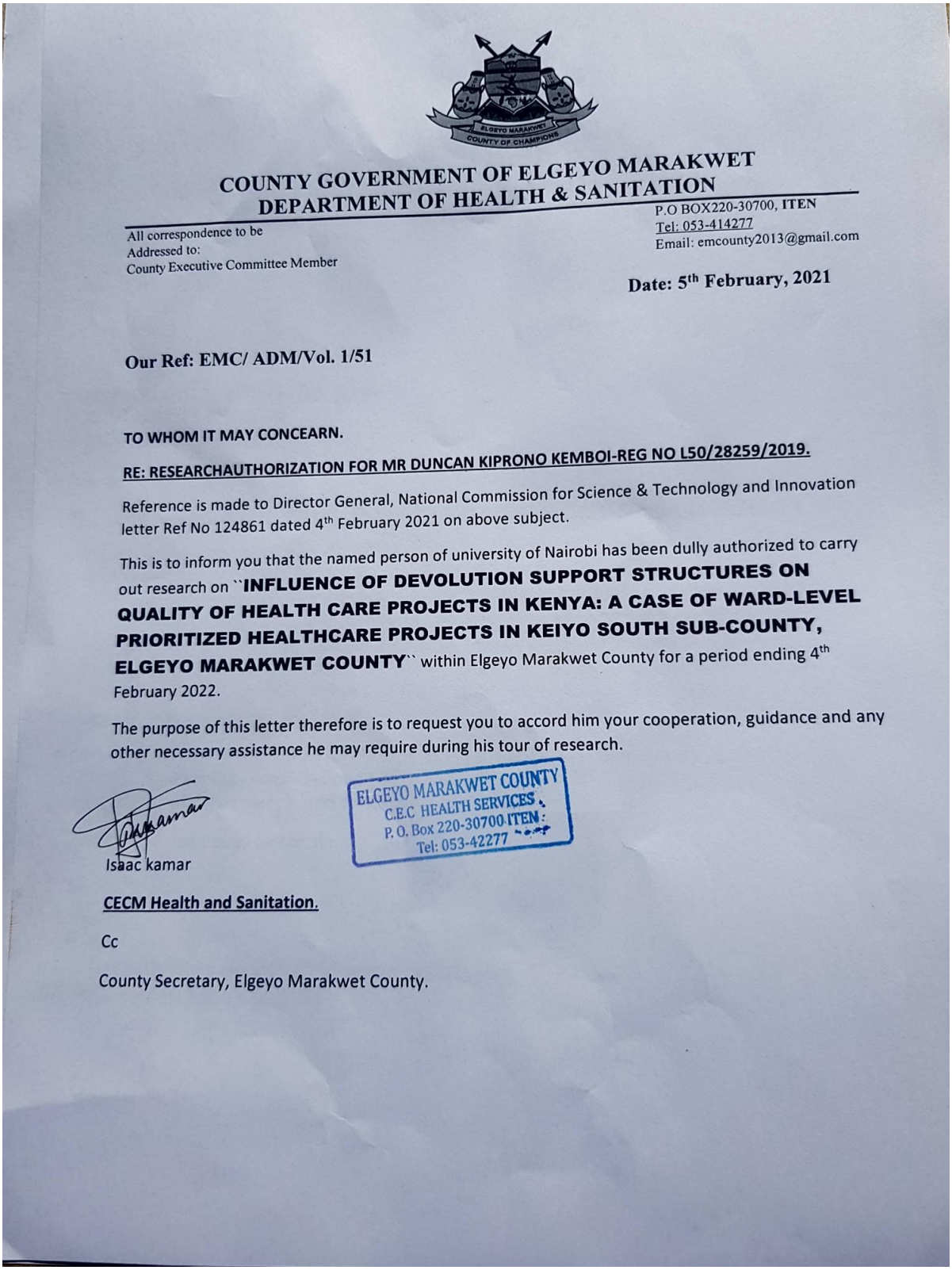
Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix III: County CEC of Health & Sanitation Authorization



COUNTY GOVERNMENT OF ELGEYO MARAKWET
DEPARTMENT OF HEALTH & SANITATION

All correspondence to be
Addressed to:
County Executive Committee Member

P.O BOX220-30700, ITEN
Tel: 053-414277
Email: emcounty2013@gmail.com

Date: 5th February, 2021

Our Ref: EMC/ ADM/Vol. 1/51

TO WHOM IT MAY CONCEARN.

RE: RESEARCHAUTHORIZATION FOR MR DUNCAN KIPRONO KEMBOI-REG NO L50/28259/2019.

Reference is made to Director General, National Commission for Science & Technology and Innovation letter Ref No 124861 dated 4th February 2021 on above subject.

This is to inform you that the named person of university of Nairobi has been dully authorized to carry out research on ``**INFLUENCE OF DEVOLUTION SUPPORT STRUCTURES ON QUALITY OF HEALTH CARE PROJECTS IN KENYA: A CASE OF WARD-LEVEL PRIORITIZED HEALTHCARE PROJECTS IN KEIYO SOUTH SUB-COUNTY, ELGEYO MARAKWET COUNTY**`` within Elgeyo Marakwet County for a period ending 4th February 2022.

The purpose of this letter therefore is to request you to accord him your cooperation, guidance and any other necessary assistance he may require during his tour of research.

ELGEYO MARAKWET COUNTY
C.E.C HEALTH SERVICES
P. O. Box 220-30700 ITEN
Tel: 053-42277

Isaac kamar

CECM Health and Sanitation.

Cc

County Secretary, Elgeyo Marakwet County.

Appendix IV: Letter of Transmittal

Kemboi Duncan Kiprono
P.O Box 17324-00100
Nairobi.
Email: Duncan.kemboi.dk23@gmail.com
Phone : 0711264424

November 30, 2020

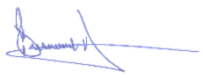
Greetings,

RE : REQUEST FOR YOUR PARTICIPATION IN A RESEARCH STUDY.

I am a Masters student at the University of Nairobi pursuing Project Planning and Management. To fulfil the conditions for course, I am undertaking a research study on **"Influence of Devolution Support Systems on Quality of Healthcare Projects in Kenya with a Case of Ward-level Prioritized Healthcare Projects in Keiyo South Sub-County."** The findings obtained through this study shall be used by Elgeyo Marakwet County, Council of Governors, MoH, and other development partners to formulate policies and make decisions on matters devolution and healthcare delivery at the grassroot level.

I am kindly asking you to fill in the attached questionnaire/ interview guide as accurate as possible so as to enable me generate the required data for this study. I guarantee you that your identity will not be revealed at any point. For this reason therefore, please never indicate your name anywhere in the questionnaire. I wish to thanks in advance for agreeing to be part of this important exercise.

Yours sincerely,



Duncan Kemboi

L50/28259/2019

Appendix V: Questionnaire for Facility In-charges and Hospital Management Committee

The questionnaire has been developed in order to collect data on influence of devolution support systems on quality of healthcare projects in Kenya with a case of ward-level prioritized healthcare projects in Keiyo South Sub-County. Kindly answer all the questions appropriately.

Section A: Demographic Information

1. Gender

Male ( ) Female ( )

2. Age

18-35 ( )

35-60 ( )

Above 60 ( )

3. Highest level of education

PHD ( )

Master's Degree ( )

Bachelor's Degree ( )

Diploma ( )

Certificate ( )

K.C.S.E ( )

K.C.P.E ( )

Others (please specify)……..

Section B: Quality of Healthcare Projects

4. According to you, do you think patients are satisfied with the services they are getting in your health facility?

Yes ( )

No ( )

5. If your answer above is a No, what are some of their concerns that you are aware of?

……

……

6. Kindly rate the following statements on quality of healthcare projects using a scale of **5= Strongly Agree;4=Agree; 3= Neutral; 2=Disagree; and 1=Strongly Disagree**

Statement	**5**	**4**	**3**	**2**	**1**
Access to affordable healthcare services has improved under devolution					
Morbidity and mortality rates have significantly reduced because of better medical equipment and availability of adequate health specialists in the health facilities					
The scope of healthcare services offered in your health facility have significantly increased under devolution					
Drugs are not always available in your facility pharmacy					
Your health facility is inadequately staffed					
Health infrastructural developments are always done as per the standards set					
Some of the health infrastructures are still in dilapidated state despite funds allocated for their rehabilitation					
There is always a standby ambulance at the facility					

Appendix VI: Questionnaire for Ward Development Committee

The questionnaire has been developed in order to collect data on influence of devolution support systems on quality of healthcare projects in Kenya with a case of ward-level prioritized healthcare projects in Keiyo South Sub-County. Kindly answer all the questions appropriately.

Section A: Demographic Information

1. Gender

Male ( ) Female ( )

2. Age

18-35 ( )

35-60 ( )

Above 60 ( )

3. Highest level of education

PHD ( )

Master's Degree ( )

Bachelor's Degree ( )

Diploma ( )

Certificate ( )

K.C.S.E ( )

K.C.P.E ( )

Others (please specify)……..

Section B: Funding Mechanisms

4. What is the major source of finances to public health facilities?

( ) National government

( ) County government

( ) Development partners

5. Do health facilities receive finances on time to enable them deliver services effectively?

( ) Yes

( ) No

6. Kindly rate the following statements on funding mechanisms using a scale of **5= Strongly Agree;4=Agree; 3= Neutral; 2=Disagree; and 1= Strongly Disagree**

Statements	**5**	**4**	**3**	**2**	**1**
Funds allocated to health projects during public participation are sufficient					
Every health facility in the ward is benefiting from development funds in every financial year					
Release of development funds at the county level is sometimes hindered by push and pull between the County Executive and County Assembly					
The delay to release funds release by the national government have adversely affected healthcare projects					
Physical infrastructure investment is not matched with other investments such as human resource and commodities therefore affecting the functionality of the facilities after completion					
Budgeting process at the county level takes long to complete hence affecting health care service delivery					
The absorption rate of health development funds is good					
Hospital management committee take part in project prioritization					
Project funds are well utilized					

Section C: Monitoring and Evaluation (M&E)

7. Kindly rate the following statements on M&E using a scale of **5=Strongly Agree;4=Agree; 3=Neutral; 2=Disagree; and 1=Strongly Disagree**

Statement	**5**	**4**	**3**	**2**	**1**
M&E personnel are adequately trained to discharge their duties effectively					
Key stakeholders are engaged in designing and planning of M&E system and activities					

M&E plan is followed to the latter					
There is a separate budget allocation for M&E					
M&E reports are easily available at the sub-county level					
M&E committee is facilitated to attend meetings					
The locals understand the importance of allocating funds for M&E activities during public participation					
Hospital management committee and ward development committee work hand-in-hand in overseeing health projects					
The community takes part in monitoring of health projects					
The county officials come to the ground to inspect projects					

Appendix VII: Questionnaire for Facility In-charges

The questionnaire has been developed in order to collect data on influence of devolution support systems on quality of healthcare projects in Kenya with a case of ward-level prioritized healthcare projects in Keiyo South Sub-County. Kindly answer all the questions appropriately.

Section A: Demographic Information

1. Gender

Male ( ) Female ( )

2. Age

18-35 ( )

35-59 ( )

3. Highest level of education

PHD ( )

Master's Degree ( )

Bachelor's Degree ( )

Diploma ( )

Certificate ( )

K.C.S.E ( )

K.C.P.E ( )

Others (please specify)……..

Section B: Technical Expertise

4. How many years of management experience do you have?

1-3 ( )

3-5 ( )

Above 5 ( )

5. Has there been health worker's strike in your facility ?

( ) Yes

( ) No

6. If yes above, what was their grievances?

……

……

7. Kindly rate the following statements on technical expertise using a scale of **5= Strongly Agree;4=Agree; 3= Neutral; 2=Disagree; and 1=Strongly Disagree**

Statement	**5**	**4**	**3**	**2**	**1**
Some medical equipment lie idle in your facility because staff do not know how to use them					
Health workers are offered refresher trainings occasionally by the county government of Elgeyo Marakwet					
Health workers have remained in one job group for a very long time without promotion					

Health workers are working under a conducive working environment					
Health workers recruitment is done strictly based on merit					
Skills inventory for health workers within the facility is lacking					
Lack of incentives for hard-to-access areas contribute to a higher likelihood of flight-risk health workers posted to those areas					
The county lack policy guideline on to guide capabilities and skills necessary for particular cadres of healthcare workers					

Appendix VIII: Questionnaire for the Local Contractors

The questionnaire has been developed in order to collect data on influence of devolution support systems on quality of healthcare projects in Kenya with a case of ward-level prioritized healthcare projects in Keiyo South Sub-County. Kindly answer all the questions appropriately.

Section A: Demographic Information

1. Gender

Male ( ) Female ( )

2. Age

18-35 ( )

35-59 ( )

3. Highest level of education

PHD ( )

Master's Degree ( )

Bachelor's Degree ( )

Diploma ( )

Certificate ( )

K.C.S.E ( )

K.C.P.E ( )

Others (please specify)……..

Section B: Capacity of Local Contractors

4. Which category do you fall in?

Youth contractor ( )

Women contractor ( )

PWD ( )

General Contractor ( )

5.Have you ever been awarded a contract and abandoned it midway?

Yes ( )

No ( )

6. If yes above, what lead to you abandoning it?

……

……

7. Have you been awarded contract in Keiyo South to do works for health department?

Yes ( )

No ( )

8. If yes above, what was the nature of the contract?

……

……

9. Did you encounter any challenges executing the works above?

Yes ( )

No ( )

10. If yes above, what were the challenges you encountered?

……

……

11. Kindly rate the following statements on capacity of local contractors using a scale of **5= Strongly Agree;4=Agree; 3= Neutral; 2=Disagree; and 1=Strongly Disagree**

Statement	**5**	**4**	**3**	**2**	**1**
Local contractors have relevant work experience and thus complete projects on time					
Local contractors have sufficient funds to execute any awarded contract to completion					
Local contractors receive advance down payment at start of a project					
Local contractor's technical employees have the best training quality management of construction projects					
Local contractors have adequate capacity in interpreting plans					
Local contractors have challenges using IFMIS					
It takes time following up payments at the County Treasury					
County staff delay project's inspection					
Project's fees are used for the right purpose					
The county exercises fairness in the distribution of projects to all contractors					
Contractors sometimes get frustrated by community leaders when implementing projects					

Thanks for your participation

Appendix IX: Interview Schedule for Senior County/ Sub-County Health Officials

1. How does release of funds by the central government to the counties affect the health projects execution? Is it only the national government to blame for the delayed flow of project's funds or the county assembly procedures contribute to the delay. Are there health projects you can cite which have stalled because of delayed funding?

……
……
……

2. How is the absorption rate of development funds in the health department? Do you have roll over funds and what could be the main contributor to this?

.....
.....

3. Is it easy to distinguish between healthcare projects financed by the county government, national government and those funded through conditional grants and other development partners ? What monitoring and evaluation mechanisms are in place to monitor each of these projects to ensure that each achieves the intended objective ?

……
……

4. What efforts have been put in place to offer targeted trainings to healthcare workers in the different cadres. Is there a training policy for the health department? Do you have a policy guideline regulating the skill and competence requirement for specific cadres and how as it been effective in distributing health workers to different work stations

……
……
……

5. What can you say about health monitoring and evaluation system at the county level. Is it well designed and planned to achieve the desired results? Is the M&E department well-funded and adequately staffed to function optimally?

……

……

……

6. To what extend do contractor's financial and technical capacity influence the quality of healthcare projects in Keiyo South Sub-county?

……

……

Thanks for sparing time out your busy schedule to attend to this interview

Appendix X: Distribution of County Health Facilities

Facility type	GOK	FBOs	Private	Totals
Hospitals	7	2	0	9
Health centres	25	5	1	31
Dispensaries	101	3	0	104
Clinics	0	0	22	22
Chemists	0	0	24	24
Community units	46	0	0	46