

**DETERMINANTS OF IMPLEMENTATION OF COUNTY HEALTH PROGRAMME: A  
CASE OF TURKANA WEST SUB COUNTY,  
KENYA**

**BY**

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This research project is my original work and has not been presented for any award in any other University.

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## **DEDICATION**

This work is dedicated to my dad Mr. Joash Okelloh Onyimbi, my mum, Celestine Okelloh, my lovely wife Hellen Adhiambo and my son Fortune Lucent, whose support and encouragement remained my source of inspiration during my study period.

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## **LIST OF ACKRONYMS AND ABBREVIATIONS**

**CHMT**-County Health Management Team  
**CRA**- Commission on Revenue Allocation  
**CSO**- Civil Society organizations  
**DHIS**- District Health Information Systems  
**GHS**- Ghana Health Services  
**GOK**- Government of Kenya  
**HFMC**- Health Facility Management Committee  
**HF**- Health Facility  
**ICT**- Information and Communication Technology  
**IMF**- International Monetary Fund  
**IMR**- Infant Mortality Ratio  
**KDHS**- Kenya Demographic and Health Survey  
**KHSSP**- Kenya Health Sector Strategic and Investment Plan  
**KIPPRA**- Kenya Institute of Policy Research and Analysis  
**MDG**- Millennium Development Goals  
**MFL**- Master Facility List  
**MOH**- Ministry of Health  
**MMR**- Maternal Mortality Ratio  
**NGO**- Non Governmental organization  
**SCHMT**-Sub County health management Team  
**SPSS**- Statistical Package for Social Sciences  
**SWAp**- Sector Wide Approach  
**UNICEF**- United Nations Children’s Fund  
**USAID**- United States Agency for International Development  
**WHO**- World Health Organization

## ABSTRACT

Centralization has been at the core of Kenyan governance since independence with power concentrated in the capital. As a result, Kenya has been marked by spatial inequalities during this period of time. It is against this backdrop that healthcare devolution is currently taking place in Kenya. The Kenya Health Policy 2012 – 2030 provides guidance to the health sector in terms of identifying and outlining the activities in achieving the government's health goals. Most Counties in Kenya, since the devolution of health sector, are faced with challenges ranging from the referral systems, decentralization of staffing roles and the implementation of the devolution process. It is important to recognize that implementation of County health programme is critical to the attainment of the highest possible health standards in a manner responsive to the population needs. The purpose of the study was to establish the determinants of implementation of County Health programme in Turkana West Sub County. The objectives of the study was to establish the influence of financial resources on the implementation of County health programme, explore the extent to which human resource capacities influence the implementation of County health programme, to determine the extent to which stakeholders support influence the implementation of County health programme and to establish the extent to which infrastructure influence implementation of County health programme. The study was conducted in Turkana West Sub County on 96 health facilities' staff and 4 Sub County Health Management Team members. The study employed a descriptive cross sectional design. Validity was ensured through pilot testing and seeking the experts' judgment while reliability was established through test pre-test and checking the consistency of the responses to the questions. Data collection involved administration of questionnaires and conducting Key Informant Interviews. Quantitative data was coded, entered and analyzed using frequency counts and percentages, with the aid of SPSS Version 17 and Microsoft excel. The data was presented using tables. Qualitative analysis involved grouping the data with similar content as per thematic areas then analyzing by cross referencing. The study established that the County health programme is currently underfunded with 86 (90%) of the respondents stating that the funding level is inadequate to support the health programme. Further analysis showed that source of funding influence the implementation of the County health programme ( $P < 0.05$ ) and that adequacy of financial resources as a single factor may not significantly have any influence ( $P > 0.05$ ). The study also established that the health programme is understaffed with 69 (72%) of the respondents stating that staffing level is inadequate to support the health programme. The study revealed that stakeholders currently play an important role with 89 (93%) of the respondents acknowledging that stakeholders support the implementation of the County health programme. The study recommends that health planners should explore various healthcare financing reforms like improving allocation, proper management of existing health resources and increase the role of private sector in healthcare. Ensure equitable distribution of staff by numbers and cadres, their skills development and motivation. There is need for active engagement with stakeholders in planning and implementation health service delivery activities including resource mobilization to bridge financial gaps. Support infrastructure development for the County health programme and put in place mechanisms for regular maintenance of medical equipments. The researcher recommends that further studies need to be conducted on the factors influencing the effectiveness of Turkana County Health programme, determinants of health staff performance in the County and cost recovery health financing approach in hard to reach populations of Turkana County.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

Decentralization in health care systems has become extremely popular over the last decade; many countries are decentralizing the management of their health care systems (Kolehmainen-Aitken, 1999). Decentralization reforms are producing an ongoing restructuring of the public sector all over the world. In the United States, for instance, the primary responsibility for a number of social programs has been shifted back to the states. In Italy, Spain, and other countries, there has been increasing fiscal powers for regional and local authorities. A great deal of interest in the fiscal decentralization issue has also emerged in the developing world. In this case, decentralization is mainly regarded as a political alternative to the central planning failure to achieve continuous economic growth (Akin et al., 2001).

Health care decentralization is becoming a trend in many nations. In the last two decades, health sector decentralization policies have been implemented on a broad scale throughout the developing world. Decentralization, often in combination with health finance reform, has been touted as a key means of improving health sector performance and promoting social and economic development (World Bank, 1993). The preliminary data from the field, however, indicate that results have been mixed, at best. In some cases, these limitations have resulted in a backlash against the reforms and an initiative for recentralization.

In Canada, health care services are mostly publicly financed and they offer comprehensive and universal insurance to Canadian citizens. Since Canada became a nation, following the Constitution Act of 1867, provinces have borne the primary responsibility for health care. Thus, among other functions, provinces regulate hospitals and other health institutions, they decide the financing schedules with health professionals, and they set global budgets for hospitals. Provincial governments are also responsible for the final health care costs of their jurisdiction (Banting and Corbett, 2002). On the other hand, health services at the Canadian territories have

been directly managed and delivered by the federal government until beginning of the 1980s (CFHC, 2002).

The territories have constitutional arrangements, determined by the Parliament of Canada, that differ from those of the provinces. The federal government's role in the system is limited to the direct provision of health services to specific sectors of the population, and to the management of the activities of health protection, disease prevention, and health promotion (WHO, 2005).

In Pakistan, the country had poor health indicators at the beginning of the 21<sup>st</sup> century and the government primary health care facilities were under-used. Most of the population relied on the private sector including unqualified and traditional practitioners for basic health care. The local government plan promulgated in 2000 aimed to extend democracy at local levels, to increase accountability, and to improve delivery of public services including health care. A key intention of devolution was to improve the lot of disadvantaged members of the society, such as women and the very poor. Prior to devolution, the delivery of health services was the responsibility of the four provincial governments; under the local government plan, the provinces remained responsible for planning and monitoring of health services but delivery of most health services, including management of human resources for health, became a district function. During the first three years of devolved local government in Pakistan, government health services did not improve from the point of view of the public, who continued to choose private health services and to rate these services more positively than government services (Jalal, S., and Inam-ul-Haq, 2014).

In developing countries, the increasing decentralization of health care services has been mostly a response to the impetus in the promotion of primary health care by international donor organizations, such as the World Health Organization or UNICEF (Akin et al., 2001). For instance, the concept of devolution in Ethiopia was introduced in 1996 and was seen as the primary strategy to improve health service delivery. It formed part of a broader devolution strategy across different sectors of which healthcare was one. Devolution first took place at regional level and was further extended to the district level in the year 2002. Through devolution, a four-tiered system of care facilities was created; national referral hospitals, regional referral hospitals, district hospitals and, lastly, primary healthcare facilities. The devolution mechanism



entailed districts receiving block grants from regional government and they, in turn, were entitled to set their own priorities and determine further budget allocation to healthcare facilities based on local needs. As such, the district levels are responsible for human resource management, health facility construction and supply chain processes.

Decentralization has also played a pivotal role in the government policy in Ghana ever since it became an independent country. The Ministry of Health of Ghana has delegated the responsibility of managing its facilities to an autonomous entity created in 1996, the Ghana Health Service (GHS). The GHS is responsible for managing and operating most of the country's facilities and offices. Ghana is an example where important building blocks are in place; they have established district health offices and District Assemblies, which have responsibilities ranging from planning and budgeting to operational management of health facilities to prevention and health promotion. There is, however, no legal or policy framework that enforces a coordinated approach for these entities on a district level. As is seen in Ghana, different role players impact on the performance of the local health systems. Since there is no overarching strategy, policies, or regulations, many stakeholders have a limited understanding of government's plans and process objectives in terms of decentralization, deconcentration and devolution of responsibilities to sub-national levels (KPMG, 2013)

In the Kenyan since independence in 1963, the power has been concentrated in the capital. As a result of this, Kenya has been marked by spatial inequalities during this period of time (World Bank, 2012). It is against this backdrop that healthcare devolution is currently taking place. Article 174 of the Kenya Constitution clearly articulates the rationale behind devolution as, among other reasons, self-governance, economic development and equitable sharing of national and local resources. Kenya's devolution has been described by the World Bank as "one of the most ambitious implemented globally" because, besides the creation of 47 new counties, the process has also involved the creation of new systems of administration that have absorbed some or all of the prior systems of administration (World bank Group, 2012).

The Constitution of Kenya 2010 provides the overarching legal framework for a comprehensive rights-based approach delivery of health services. The Constitution provides that every person has a right to the highest attainable standard of health, which includes reproductive health rights, right to accessible to reasonable standards of sanitation, right to be free from hunger and have adequate food/quality, right to clean and safe water in adequate quantities and that a person shall not be denied emergency medical treatment (GOK 2010). Under the devolved government, the Kenya Health Policy 2012 – 2030, provides guidance for the achievement of the highest standard of health through supporting provision of equitable, affordable and quality health and related services at the highest attainable standards to all Kenyans, including a monitoring and evaluation framework that aligns national and county level goals. The policy provides an institutional framework that specifies the new institutional and management arrangements required under the devolved system, and it is aligned to Kenya’s Vision 2030, the Constitution of Kenya and other global health commitments.

The programme business plans focusing on specific services will be used to mobilize resources for respective focus areas, while investment plans meant for decision making at the counties, referral facilities and Semi Autonomous Government Agencies, and will provide information and guidance on annual targets and budgeting processes. Under the Kenyan devolved system, healthcare governance occurs at the national and the County levels. At the national level, the Ministry of Health (MOH) is responsible for providing stewardship and guidance. At the county level, county departments of health are responsible for coordinating and managing the delivery of health services. The roles of the MOH and those of the county departments of health are outlined in the fourth schedule of the Constitution of Kenya. The two levels of government, while independent, will cooperate to achieve the governance and management objectives (Kenya Health Policy 2012 – 2030). Funding for county level functions is primarily from the national government. The revenue allocation formula as presented by the Commission for Revenue Allocation (CRA) which takes into account the county population, poverty level, land area, basic equal share and fiscal responsibility.

Turkana County is inhabited by marginalized nomadic pastoral communities whose source of livelihood are mainly animals. Within the county, there is discrepancy between the needs of the

pastoralists and the structure of the health system, which is yet to be resolved by the Government of Kenya. As seen in the table 1.1 Turkana’s health indicators fall far short of the targets.

**Table 1.1: Selected Health and Development Indicators for Turkana County**

	<b>IMR</b> <b>/1000</b>	<b>U5MR</b> <b>/1000</b>	<b>MMR</b> <b>/100,000</b>	<b>FP coverage</b> <b>%</b>	<b>Contraceptive</b> <b>prevalence</b>	<b>ANC 4</b> <b>%</b>	<b>Skilled</b> <b>Birth %</b>
<b>Turkana</b>	66	220	600	8.1	19	13.7	5.6
<b>Kenya</b>	52	74	488	46	46	47	44
<b>MDG target</b>	25	32	95	100	79	99	98

Source: Kenya DHS 2008/9

Turkana County, like most other Counties in Kenya, since the devolution of health sector has been grappling with numerous health challenges. Such challenges range from health infrastructure, emergency response and rescue, health supplies and health workforce among other key challenges. The county is faced with challenges on the referral systems, decentralization of staffing roles, and the implementation of the devolution process. It is worth noting that healthcare is an essential service, which must be implemented cautiously when the counties have the capacities to run it, including ability to manage and pay their own healthcare providers. Under the devolved health system in Turkana County, there is the County Health Management Team (CHMT), Sub County Health Management teams, health facilities and the various community health units (KHSSP, 2012-2018). It is important to recognize that implementation of County health programme is critical to the attainment of the highest possible health standards in a manner responsive to the population needs. The study therefore focused on establishing the determinants of implementation of County Health programme.

### **1.1.1 Financial Resources**

Sufficient financial resources are necessary requirement for the implementation of County health programme interventions. Lessons learnt so far indicate that national governments still have strong say into what budgets are allocated to what County, including what parameters underpin the size of the budget. With limited financial resource base coupled with huge financial demand

from other sectors, the risk of Counties allocating insufficient finances that is not able to fund healthcare within the County is imminent. The remaining option is to seek funding from other sources to bridge the gap to support healthcare.

### **1.1.2 Human Resource capacity**

Recruitment and hiring of staff for devolved functions are the counties' responsibilities. It remains unclear on what the Ministry of Health will be able to do to support the efficient management of the healthcare workforce and ensure that the poorer Counties retain their best staff. Key areas of concern include availability of appropriate and equitably distributed health workers, attraction and retention of required health workers, improving of institutional and health worker performance, and training capacity building. According to Joint Learning Initiative 2004 key human resources issues and their impact on the health system include; low and possibly declining levels of medical human resources, geographic imbalances where urban areas have higher concentrations of trained healthcare personnel than rural areas, imbalance of skills' mix and poor skills and high degree of absenteeism.

### **1.1.3 Stakeholders support**

Effective decentralization must recognize the vital role of stakeholders in resource mobilization and the process of planning and implementation of health programmes. County health programme put in place mechanisms of bringing all stakeholders together in defining health priorities and resource requirements for effective service delivery and to establish common planning, implementation, disbursement, reporting and accounting systems, based on existing government arrangements.

### **1.1.4 Infrastructure**

Infrastructure is very critical to the success of any health programme. It refers to investments relating to physical infrastructure, medical equipments, communication and ICT and transport. Health facilities therefore need to conform to certain level of standards with respect to

infrastructure and equipment, which should be geared towards achieving equitable geographical access to health care. In addition, health programmes need to investment in maintenance of medical equipment. Availability and functionality of diagnostic and medical equipment is critical in treatment.

## **1.2 Statement of the problem**

Healthcare provision under the devolved system of government as provided for in the constitution of Kenya (2010) is a new concept in the Kenyan healthcare system. County health programmes are just establishing at the moment with the County health managers faced with dilemma on several decision making issues including resource allocation to support critical areas within the health sector. Kenya's key health indicators have deteriorated over time. Most recent evidence indicate that Maternity mortality has worsened nationally from 414/100,000 in 2003 to 488/100,000 in 2008 (KNBS and ICF Macro, 2010) while delivery of skilled birth attendant has only marginally improved from 42 to 44%. Stunting rates among children below five years has remained unchanged between 2003 and 2008. Turkana County has severely suffered poor health outcomes. KNBS and ICF Macro, 2010 indicate that the County is performing poorly when it comes to key health indicators. Turkana County has the worst maternal and child mortality rates, estimated to be higher than the national average at 600/100,000 and 170/1000 respectively against the national average of 448/100,000 and 23/1000 respectively. The under-five mortality rates are even higher at 220/1000 against the national figures that is 74/1000. In Turkana, women and children particularly suffer from preventable communicable diseases such as malaria, measles, trachoma, diarrhoea, acute respiratory tract infections, HIV/AIDS and Hydatid diseases. These ailments are mainly due to scarcity of water, poor access to health services, low literacy levels, strong negative cultural beliefs.

In the recent past, in the media, the health care workers in the country have come out strongly against devolution of health services, arguing that medical and other essential services should not be run by the counties. The healthcare workers strikes have been witnessed as well as resignation of medical doctors, sending mixed signals about the ability and preparedness of the counties to manage the health workforce. It is important to recognize that implementation of the County

health programme is critical to the attainment of the highest possible health standards in a manner responsive to the population needs, and that decentralized planning and implementation of health services has been suggested as one of the solutions that could help narrow the gaps in health outcomes.

Most research on programmes have focused on the effectiveness of specific interventions, rather than on the effectiveness of the implementation process or the relationship between implementation and outcomes, but reviews of the research offer strong support that the level of implementation affects the outcomes obtained in promotion and prevention programs (Durlak and Dupre, 2008). It is important that the County focus its attention on the way the health programme is implemented in order to improve health outcomes. The study undertook to establish key determinants of implementation of County health programme so that they are given proper attention and to inform decision making.

### **1.3 The purpose of the study**

The purpose of the study was to establish the determinants of implementation of County Health Programme in Turkana West Sub County, Kenya

### **1.4 Objectives of the study**

The study worked towards achieving the following research objectives:

- i. To establish the influence of financial resources on the implementation of County Health programme.
- ii. To explore the extent to which human resource capacities influence the implementation of County Health programme.
- iii. To determine the extent to which stakeholders support influence the implementation of County Health programme.
- iv. To establish the extent to which infrastructure influence implementation of County Health programme.

## **1.5 Research questions**

The study worked towards addressing the following research questions:

- i. How does availability of financial resources influence implementation of County Health programme?
- ii. To what extent do human resource capacities influence the implementation of County Health programme?
- iii. To what extent does stakeholders' support influence the implementation of County Health programme?
- iv. How does infrastructure influence the implementation of County Health programme?

## **1.6 Significance of the study**

The Kenyan health sector in Kenya is currently fully devolved. This requires County health teams to develop sustainable health programmes based on local needs and priorities and ensure its implementation. It is hoped that the findings of this study will support key decision making at the County planning level by providing insights into critical areas in the implementation of the Turkana County health programme and make recommendations for improvement. It is also expected that the findings of this study will serve to increase the knowledge of the health managers at the County and the sub County levels on what is required for successful implementation of the devolved County health programme, giving insights on key priority areas to focus on. It is also hoped that the study will aid the County and sub County health management teams in developing and updating existing guidelines for implementation of County health programme. It is expected that the findings of this study will help health stakeholders within the sub County to change their perception about their role in the implementation of the County health programme.

### **1.7 Basic assumptions of the study**

The study was based on the assumption that all the information required will be provided by the respondents within the required timeframe. The other assumption is that finances will be available and there will be no constraints and hindrance to the research and that the respondents will be transparent, honest and truthful in their responses to the research questions.

### **1.8 Limitation of the study**

First, the study was limited to descriptive research design. Some respondents are never prompt in answering the questions as per the expectations of the researcher. This study relied solely on the responses from the respondents that are prone to biases. As a solution to this, the researcher had to explain to the respondents the significance of the study so as to convince them to give truthful information for the study. The researcher ensured that the study is started at the right time to allow for the completion of the study at the right time within the available limited resources.

### **1.8 De-limitation of study**

The study will be conducted in Turkana West Sub County of Turkana County. According to National census, 2009, Turkana West sub County has a population of 207,080 and covers an area of 15,444.80 Sq. Km. Turkana West Sub County is a remote, impoverished and marginalized district in North West Kenya. KDHS 2008/09 indicate that the Sub County's health and development indicators are amongst the worst globally with 84% of the population lives below the poverty line. Over 80% of the population is nomadic pastoralists who depend upon livestock as their main source of livelihood. Turkana's West pastoralist population is significantly underserved with health services and is out of reach of mainstream services and resources. The study will primarily target health facility staff at the various health facilities and Sub County Health Management team. Turkana west sub County has a well established and functional SCHMT that will make the study easier. The study will also be delimited to a few determinants of implementation of County health programme namely financial availability, human resource capacity, stakeholders' support and infrastructure.



## 1.9 Operational definition of terms

The following is the definition of key terms as used in this research study:

**Determinants:** Selected factors that are presumed to have influence on the implementation of County Health Programme; they include financial resources, human resource capacity, stakeholders support and infrastructure.

**Stakeholders support:** active participation of an individual, organization or agency that is not part of the sub County health management or health facility team in planning, implementation, monitoring and evaluation of health activities as well as resource mobilization for the County health programme.

**Human resource capacity:** availability, knowledge, skills and experiences among the health workers who are involved in the implementation of health programme.

**Infrastructure:** refers to investments in the health programme relating to physical infrastructure like buildings, medical equipments communication and Information and Communication Technology and transport.

**County Health programme:** refers to an organization created to coordinate, direct the work and supervise the delivery of a number of health related projects that all contribute to a provision of equitable, affordable and quality health services to residents of the County.

## 1.10 Organization of the study

The study has been organized in five chapters; chapter one concerns the introduction to the study. It presents the background of study, followed by statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations and delimitation, basic assumptions, definition of significant terms and organization of the study.

Chapter two represents the introduction, literature review on the determinants of the implementation of the County health programme along the following themes: Financial resources on implementation of County health programme, human resources on implementation of County health programme, stakeholders' support on implementation of County health programme and infrastructure on implementation of County health programme. It also highlights the theoretical and conceptual framework of the study.

Chapter three describes the methodology that will be used to conduct the study which includes research designs, sampling techniques, the population from which the data is to be obtained, the research procedures, control measures, data collection techniques and data analysis.

Chapter four focuses on data analysis, presentation, discussion and interpretation which has the following: the respondent return rate, demographic characteristics of respondents, analysis of the data to be collected, interpretation and discussion based on the themes and subthemes from the objectives.

Chapter five consist of summary of findings, conclusions, recommendations, suggestions for further research and the contribution to the body of knowledge.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviews literature on the determinants of implementation of County health programme by looking at the following themes: availability of financial resources, human resource capacities, stakeholders support and infrastructure.

#### 2.2 Financial resources and implementation of County health programme

Sustainable health care programmes are built on reliable access to human, capital and consumable resources. Financial resources are mainly used for the provision of health facilities, purchase of drugs and health equipment, personnel remuneration, and operations and maintenance (KIPPRA, 2004). Identifying, securing, and sustaining funding are the greatest challenges to establishing sustainable health programmes (Osorio et al., 2000). Most countries feel constant pressure because expenditure is increasing and resources are scarce. Health policy makers and health programme planners are therefore faced with the options of containing costs, increasing funding for health services or both. Concern about an expenditure crisis in health care programmes has led to the introduction of major changes in how health care is organized and financed. Mosca, (2007) indicated in his study that demographic, supply-related and socio-economic factors impact on overall health care costs and a decentralized health care setting implies higher health expenditure.

The relationship between health expenditures and health outcomes is not always clear. Although evidence tenuously demonstrates a positive relationship between public spending on health and selected health indicators, it falls far short of a definitive statement (Filmer and Pritchett 1999) As in the case of health services and health outcomes, health spending is often not pro-poor (Gwatkin et al., 2003). In other studies, Bonilla-Chacin et al. (2005) examined the level, composition and allocation of public spending on health programmes, in light of the evolution of

the health systems during the transition towards decentralization in the poorest seven counties of the former Soviet Union and his study revealed that the financial constraints experienced during that period were reflected in the decrease of healthcare quality, the collapse of the already inefficient public health activities, and the increased incidence of out-of-pocket expenditures and these factors, alongside the increase in poverty, resulted in a decrease in healthcare utilization in the former Soviet Union.

Whereas many forms of health programme financing mechanisms for Europe were focused on containing costs, in developing countries particularly Africa, health financing reforms have been motivated by growing demand for better health care at a time when governments are faced with shrinking resources and can no longer honor its traditional commitment to providing free care. Economic crises are said to challenge welfare states by forcing them to cut expenditure by pursuing reforms aimed at cost containment and efficiency enhancing strategies. However, the question has yet to be posed as to whether decisions affecting health care policy during acute economic crises are indeed fundamentally different than what can normally be observed over the longer period of cost containment policy (Frisina and Götze, 2011). According to Leighton (1995) financing health care programmes has become very prominent for many governments in Africa.

Driven both by the need for greater efficiency and calls for increases in patient choice and participation, these reforms have taken on different forms across the regions, but the main features have been decentralization of healthcare programmes, increased user fees and the introduction of forms of health insurance (Willis, 2009). John, 2007 conducted a study to estimate the amount of additional resources needed to scale up maternal and newborn health services within the context of the Millennium Development Goals, and to inform countries, donors and multilateral agencies about the resources needed to achieve these goals. His study revealed that projections of future financial costs may be used as a starting point for mobilizing global resources. He suggested that further research is needed to measure the costs of health system reforms, such as recruiting, training and retaining a sufficient number of personnel. In other related studies, Borghi et al. (2006) pointed out that coverage of cost-effective maternal health services remains poor due to insufficient supply and inadequate demand for these services

among the poorest groups; households pay too great a share of the costs of maternal health services, or do not seek care because they cannot afford the costs. Available evidence creates a strong case for removal of user fees and provision of universal coverage for pregnant women, particularly for delivery care. In this regard, donors need to increase financial contributions for maternal health in low-income countries to help fill the resource gap and resource tracking at country and donor levels will help hold countries and donors to account for their commitments to achieving the maternal health MDG (Borghi et al., 2006)

Health programmes financing reforms in sub-Saharan Africa is classified into three strategies; raising revenue through cost recovery techniques, improving allocation and management of existing health resources and increasing the role of the private sector in predominantly government-based health systems (Vogel, 1990). Given the inadequate and declining government financial support to health care programmes, many countries in the sub-region have concentrated their health financing reforms primarily on the first strategy, which is raising revenue through cost recovery techniques. Through this system, Ministries of Health have introduced most commonly used cost recovery approaches for public health services through user fees for services, medicines or both (Langenbrunner et al., 2001). Other techniques practiced include community based health insurance, pre-payment plans and private health insurance. The practice of charging user fees for medical services at public facilities has been adopted throughout much of the world and Nolan and Turbut, 1993 suggest that the overall effect is negative: use decreases, particularly among the poor, and frequently, administrative costs of collecting the fees are higher than the revenue generated. Further, Kivumbi and Kintu (2002) suggest that granting waivers and exemptions for the poor is difficult, if not impossible.

Given the findings, many have called for the abolition of user fees, including the United Nations Millennium Project (2005) and the Commission for Africa (2005). Other people have argued, however, that absent resources to fund drug purchases, provide facilities with some discretionary funding, and motivate providers, use of primary health care by the poor will remain low because of both poor quality and lack of drugs, and the poor will purchase these essential services on the private market. The Bamako Initiative shows that user fees may be an important revenue source where institutions are weak, resources are limited, and the choice is between having drugs or not

having them (World Bank 2003). As the World Bank (2003) points out, user fees, as with other public policy decisions, must balance protection of the poor, efficiency in allocation, and the ability to guarantee that services can be implemented and sustained.

According to the Kenya Human Development Report (1999), government financing of health expenditure is about 60 percent of what is required to provide minimum health services, therefore implying that healthcare delivery in Kenya is under-funded. This is accentuated by inefficiency of the system, including lack of cost-effectiveness in service delivery. According to Obonyo et al. (1997) the government finances 50 percent, private payments; insurance and out of pockets finances 42 percent and donors, NGOs, missions and other institutions finance 6 percent of recurrent healthcare costs. Deeming (2004) indicated that despite decentralization of Health services, only about a fifth of growth funds were at the discretion of purchasers as most are taken by national priorities and pay for price inflation. He further notes that the extent to which decentralization measures will change the perceptions of those working in the service remains to be seen, and it is only then will the government be able to claim a truly decentralized service.

In order to improve the allocative efficiency of health sector resources, Kenya Health Policy 2012 – 2030 advocates for a shift towards increasing financial resources to community programmes and preventive measures, which are more cost effective in reducing disease incidence and burden. This is in line with donor funding under the development vote which has been shifted to promotive and preventive health services. Most African governments have endorsed the principles of primary health care laid out in the Alma Ata declaration of 1978. Often, however, patterns of investment and recurrent resource allocation are not consistent with official statements of health sector strategy (USAID, 1995). The 1978 Alma Ata declaration on primary health care (WHO and UNICEF 1978) was informed by a number of well described, small-scale health and development efforts in a range of settings. Large employers have been analyzing health care claims data for several years, primarily in an effort to gain better control over health care benefit spending. Though the effort has been worthy, most analyses have been shaped around the paradigm of health care cost being the product of the price of each service and the use of services (Henderson, 1995)

During the past decade, a new reform instrument known as the Sector Wide Approach (SWAp) has heavily influenced health financing. Concomitantly, the World Bank and the International Monetary Fund (IMF) have imposed a series of requirements and instruments to ensure that external assistance is targeted to the poor. Starting in the mid-1990s, donors and recipient countries established the SWAp to address the limitations of project based forms of donor assistance, to ensure that overall health reform goals were met, to reduce large transaction costs for countries, and to establish genuine partnerships between donors and countries in which both had rights and responsibilities (McLaughlin, 2004). A key aspect of this approach is to improve countries' policy-making processes, including budget and public expenditure management, by capturing all funding sources and expenditures and by putting resource allocation decisions into a medium-term budget and expenditure framework that is based on national priorities (Foster 1999). According to Institute for Health Sector Development, 2003, to date, SWAps are in various stages of development and implementation, and few conform fully to the specifications listed above.

### **2.3 Human resources and implementation of County health programme**

Decentralization of political and administrative power, combined with a civil service reform, is increasingly prevalent components of health sector reform. The wider implications of decentralization for human resources development are, however, poorly researched and inadequately understood (Kolehmainen and Newbrander, 1997). Organizational structures, roles, and responsibilities may become inappropriate, conflict with each other, be disputed or poorly communicated. The viability of developing health services and human resources in a coordinated manner may be in jeopardy because of deteriorating databases, reduced planning capacity, inequitable or inappropriate staff allocation, or decentralization-induced difficulties in career development (Liu et al., 2006).

It is evident that there are further ways that decentralized health financing systems can contribute towards health workforce recruitment, performance and retention. In particular, providing the ministry of health with autonomy, by delinking the health workforce from the civil workforce and providing strategic performance incentives, are means by which health workers can be

successfully recruited and retained. However, such policies work only if health system objectives are aligned with appropriate institutional and incentive structures (Haji et al., 2010). Alwan and Hornby, 2002 argue that “health for all” is not achievable in most countries without health sector reform that incorporates a process of coordinated health and human resources development and suggests that the starting point for many countries should be a rigorous appraisal of the current state of human resources development in health.

High quality and accessible health services cannot be delivered without sufficient numbers of well skilled, well-distributed and well managed health workers. According to National Human Resources for Health Strategic Plan 2009–2012, the erosion of Kenya’s key health indicators; life expectancy, infant mortality and maternal mortality during the last two decades can be traced at least in part to the deterioration of the health work force. The acute shortage, inequitable distribution and inadequate skills of health workers have contributed to this negative trend. Staff shortages are particularly acute in hard-to-reach regions.

Human resource investments need to be designed to address availability of appropriate and equitably distributed health workers, attraction and retention of required health workers, improving of institutional and health worker performance, and training capacity building and development of the Health Workforce (KHSSP III). Appropriate human resources capacity is critical for the effective implementation of health programmes. Bach (2000) notes that salaries account for 50 to 80 percent of health sectors’ recurrent costs. It has also been noted that the number of health workers is related to the level of development because of the tight resource constraints and because of supply constraints, often exacerbated by migration of skilled workers (Awases, Gbary, and Chatora, 2003).

Africa, where the disease burden is high and increasing rapidly, the number of health workers is particularly low. In most countries in Africa, the shortage of healthcare workers is not unique to Kenya. Kenya is one of the countries identified by the WHO as having a “critical shortage” of healthcare workers (WHO, 2010). The WHO has set a minimum threshold of 23 doctors, nurses and midwives per population of 10 000 as necessary for the delivery of essential child and maternal health services. Kenya’s most recent ratio stands at 13 per 10 000 (WHO, 2010). This



shortage is markedly worse in the rural areas where, as noted in a recent study by Transparency International (2011), under-staffing levels of between 50 and 80 percent were documented at provincial and rural health facilities. Norms and Standards for Health Service Delivery in Kenya (MOH 2007) defines that a dispensary (level II health facility) should have at least 2 nursing staff, 2 Community Health Extension Workers (CHEW), 2 general attendants and 1 watch man. A health centre (level II facility) should at least have 1 clinical officer, 1 outpatient support, 1 management support, 14 nursing staff. Human resources are the most important part of a functional health system (WHO, 2000). Recently, attention has focused on the fact that progress toward health-related Millennium Development Goals (MDGs) is seriously impeded by a lack of human resources in health, with serious implications for child survival and health goals.

A study in six African countries showed that most health workers intend to migrate for higher salaries. In Ghana, 70 percent of 1995 medical graduates had emigrated by 1999 (Awase, Gbary, and Chatora, 2003). Pay differentials provide strong incentives to migrate. Studies on developing services to meet the Millennium Development Goals emphasize the importance of making health workers with the appropriate skills available and motivating them (Jha and Mills, 2002). The problems include lack of technical skills, low motivation, and poor support networks (Kurowski et al., 2003). A health worker will accept a job if the benefits of doing so outweigh the opportunity cost. Improving recruitment and retention requires either offering higher rewards that make alternative employment less attractive or making qualifications less portable; that is, less likely to be recognized in other countries. Health workers will choose to train and increase their skills if the rewards of doing so exceed the cost. In general, the supply of skilled professionals rises as rewards increase, because more will seek training, more will return to the workforce, and fewer will move to other jobs or other countries. Because health workers value both financial and nonfinancial rewards, they will work for lower salaries if other job characteristics are attractive.

The causes of health human resources problems in developing countries are complex, and attempts to address them must reflect this complexity. The individual health worker level serves as a starting point for exploring the determinants of health worker behavior and performance;

performance here means productivity and quality of services (Kyaddondo and White, 2003). Individuals respond to individual concerns through coping strategies, such as informal and dual practices, with associated consequences. There are multiple links between individual health worker behavior and organizational and systemic factors. Most of the comparatively scarce evidence on the relative importance of financial and other incentives for health workers at the individual level comes from developed countries. Two findings emerge from recruitment and turnover studies. First, at extremely low salaries, financial incentives are particularly important. Second, at least half of the variation in turnover can be attributed to financial incentives (Gray and Phillips, 1996). These findings leave considerable scope for improving retention using organizational changes, but such changes will be only partially successful if much better financial rewards are available elsewhere. International migration has increased as restrictions on moves to high-income countries have been eased (Bach, 2000). Many developed countries have shortages of health professionals and actively recruit from low-income countries, thereby raising the opportunity cost of remaining at home.

Health sector reforms have been widespread in recent years, but these reforms have focused more on structures and financing and less on human resource issues (Martineau and Buchan, 2000). Other government reforms aimed mainly at improving efficiency and reducing the cost of government administration have often had large effects on the health workforce (Corkery, 2000). Some changes have attempted to introduce better incentives, such as performance-related pay and renewable contracts, and to remove underperformers and ghost workers. Evidence on the effects of these reforms suggests that more emphasis should have been placed on designing incentives to improve performance and retention and on moving further away from workforce quotas and norms. The World Health Report 2000 defines incentives for health workers as “all the rewards and punishments that providers face as a consequence of the organizations in which they work, the institutions under which they operate, and the specific interventions they provide”

Aligning health worker and system objectives is difficult; the aim is to have satisfied health workers who are motivated to work harder (Hicks and Adams, 2001). Evidence is limited, but financial and nonfinancial incentives are mutually reinforcing, and changing the culture of the

health system to make goals more readily understood and shared can make financial incentives more powerful. Such change in the organization of healthcare programmes can be politically sensitive because it can give health sector workers advantages over other public employees. Incentives may also have conflicting effects; for example, decentralization might create the autonomy needed for effective management, but without transparent management and career structures and job security, providers might view such a change as a threat (Kyaddondo and White, 2003).

#### **2.4 Stakeholders' support and implementation of County health programme**

Appeal to stakeholders and involving them in decisions and the processes through which decisions are made are becoming touch stones of "best practice," both clinical and managerial, in health care. Understanding the incentives of stakeholders and employing effective management practices with various stakeholder groups is essential for program management and sustainability (Kathryn et al., 2004). Stakeholders' involvement in decision-making is possible and can work well, but it demands commitment from the entire organization, specific managerial arrangements and, depending on the circumstances, it can be costly (Culyer, 2005).

Stakeholder consultation is important for defining "relevant reasons" for priority-setting decisions in the circumstances. Research on public participation in healthcare priority setting has shown that, although public stakeholders are generally reluctant to be responsible for making priority setting decisions, they are interested in having input into how priorities are set, for instance in developing the criteria that will be used to set priorities (Abelson et al., 1995).

Focus groups with multidisciplinary groups of internal stakeholders or individual meetings with community partners may disclose valuable information about current health services activities, community health needs and opportunities for enhanced service quality or resource utilization, locally or regionally (Abelson et al., 1995).

Devolution of healthcare system in Ghana faced performance challenges since there was no overarching strategy and many stakeholders had limited understanding of government's plans and process objectives in terms of decentralization, deconcentration and devolution of responsibilities to sub-national levels (Bernard F, 2012). In the case of Ghana, there was no

national implementation strategy and that process objectives were not always shared and communicated with stakeholders (Bernard F, 2012).

The Kenya health system assessment, 2010, noted that there is a need for the government to bring in all the interested stakeholders, such the private sector and civil society organizations, and to provide incentives to strengthen their participation in the sector policy process and planning. The Kenya Health Policy 2012 – 2030 has put in place various mechanisms to facilitate the participation of faith-based organizations (FBO) and civil society organizations (CSO) in setting the health policy agenda in Kenya, including Kenya Health Sector Wide Approach to planning (SWAp) and the Joint Program of Work and Funding (JPWF). According to Health & Development Networks (HDN), 2009 functioning community networks, linkages and partnerships are essential to enable effective delivery of activities and services. Strong informal and formal relationships between communities, community actors and other stakeholders enable them to work in complementary and mutually reinforcing ways, maximizing the use of resources and avoiding unnecessary duplication and competition.

Effective decentralization should recognize the complementary roles of the various stakeholders in promoting health at the local level. The Kenya Health Policy recognizes the role that various stakeholders play in realization of the country's health goals. The full Implementation of health programme under the devolved system of government require multi-sectoral effort and approach with various health stakeholders playing different roles which are complimentary and synergistic at all levels of health care service in the devolved government systems (KHSSP III). These responsibilities and roles are geared towards the realization of the right to health. KHSSP, 2012-2018 outlines the various stakeholders in the health sector as the individuals, households, and communities public sector, regulatory bodies and professional bodies/associations whose mandate is drawn from that of the State, and have an effect on health. It also includes non state actors like CSOs and external actors like the bilateral and multilateral actors that draw their mandate from out of Kenya, but support national programmes.

The District Health Stakeholders Forum (DHSF) was established by the Ministry of Health to bring all partners and stakeholders together in defining health priorities and resource requirements for effective service delivery and to establish common planning, implementation, disbursement, reporting and accounting systems, based on existing government arrangements, thereby helping to reduce the administrative burden. This is in recognition of the vital role of stakeholders' involvement in the process of planning and implementation of health plans (Kapiriri et al., 2003). The NHSSP II end term review stressed on the need to operationalize the planning and review cycles and all frameworks at all levels. Planning and reviewing of stakeholders engagements each year to ensure priorities are being implemented at each level from national to county levels, and the need to re-invigorate the sector partnership and coordination framework (KHSSP, 2012-2018). KHSSP 2012-2018 further realizes that effective governance and regulatory frameworks are the main vehicles through which the health targets set under the KHSSP can be achieved as it allows all health sector stakeholders to collaborate and coordinate their actions, recognizing each one's specific responsibilities. Each County shall have a Forum bringing together the above mentioned actors operating within the County, to coordinate health actions within the County. Membership and Terms of Reference shall be similar to those of the Health Sector Coordinating Committee. The County Health management team shall operate as its Secretariat (KHSSP III)

## **2.5 Infrastructure and implementation of County health programme**

In the past four decades there has been a succession of different approaches to the development of infrastructure for the delivery of health services. There have been striking similarities among these approaches in both direction and timing in many different countries, particularly in the developing world. While the general trend has been strongly in the direction of a more comprehensive, integrated health infrastructure, there have been important regressions from this path. It is suggested that the recent attention given to the delivery of 'selective' packages of interventions has often diverted energy and resources from the essential task of developing comprehensive, efficient and effective health services (Smith DL et al., 1988). As part of an integrated health system, healthcare infrastructure should be planned and evaluated in

conjunction with the services it supports. However, this is challenging because of uncertainty about future requirements due to technological, demographic, medical and policy change.

KHSSP, 2012-2018 defines infrastructure as all investments relating to physical infrastructure, medical equipment, communication and ICT and transport. In Kenya the Health Infrastructure distribution remains skewed overall, with some areas of the County facing significant gaps while others have optimum numbers. With establishment of Counties, the National level prioritize establishment of a minimum number of health facilities, based on the expected services as defined in the KEPH (KHSSP III). An infrastructure norm has been defined for each level, to outline the minimum expectations for physical infrastructure, communication and ICT, transport, and equipment. It should be emphasized that this only defines the minimum that the sector will work towards ensuring equitable availability of health infrastructure, based on its actual workload. Though the physical infrastructure for health provision in Kenya has expanded rapidly, distribution and coverage remains uneven especially in rural areas. Maintenance of public sector health facilities has been a big problem and a major burden for the Ministry of Health (KIPPRA, 2004). KIPPRA report further notes that although there has been a massive expansion of health infrastructure since independence, increasing population and demand for healthcare outstrips the ability of the government to provide effective health services.

The country's service delivery system infrastructure includes the national teaching and referral hospitals (Kenyatta National Teaching and Referral Hospital and Moi Teaching and Referral Hospital), provincial hospitals, district and sub-district hospitals, health centers and dispensaries. The private sector delivers approximately one-third of the outpatient care and 14% of inpatient care in the country (GOK, 2009a). The Kenya Health System Assessment, 2010, noted that the two national teaching and referral hospitals consume 16 percent of the ministries' recurrent budgets (GOK, 2009d). This leaves very little for capital development, as reflected in low investment in expansion of health facilities and replacement of aging buildings and equipment, resulting in dilapidated infrastructure across all levels.

Long lasting infrastructure therefore needs to support healthcare programme processes that change rapidly. Infrastructure therefore needs to be able to adapt to these changes, and planning tools need to recognize the interdependencies within the care service and care infrastructure system (Bayer et al., 2007)

## **2.6 Theoretical framework**

This study is based on Vince Whitman (2005) framing model on implementation on of policies and practice. The model presents one possible framework of twelve major factors that play a role in successful implementation. The framework is based on review of the extensive literature on diffusion of innovation, technology transfer, implementation research, and education reform research. The framework also draws on considerable tacit knowledge from the design and operation of large scale training and technical assistance centers that provide services to international, national, state, and local agencies in their implementation of innovations and evidence-based programs. Among the factors in the wheel time and resources such as human, financial, technical, and material are essential to ensuring change in policy and practice. There must be the workforce with the human capacity and potential, who can dedicate adequate time to implement new programs. One of the most common reasons a project fails is that managers fail to ascertain whether their staff and system are ready to take it on. Systems must determine realistically how much time will be needed and assess staff readiness and willingness to move in the new direction.

Research on use of the Social-Ecological Model (Langford, 2003), reports on the importance of participation across levels and sectors in society for successful implementation of public health innovations (Glasgow and Emmons, 2007). The Social-Ecological Model takes into consideration the complex interplay between individual, relationship, community, and societal factors. Providing professional development and ongoing opportunities for coaching and peer leaning throughout the process of implementing an innovation are important methods to use. Professional development should persist beyond the team training, to provide numerous and frequent opportunities for implementers to receive ongoing coaching and mentoring as well as support and exchange from their peers over time, especially as they try new things (Vince

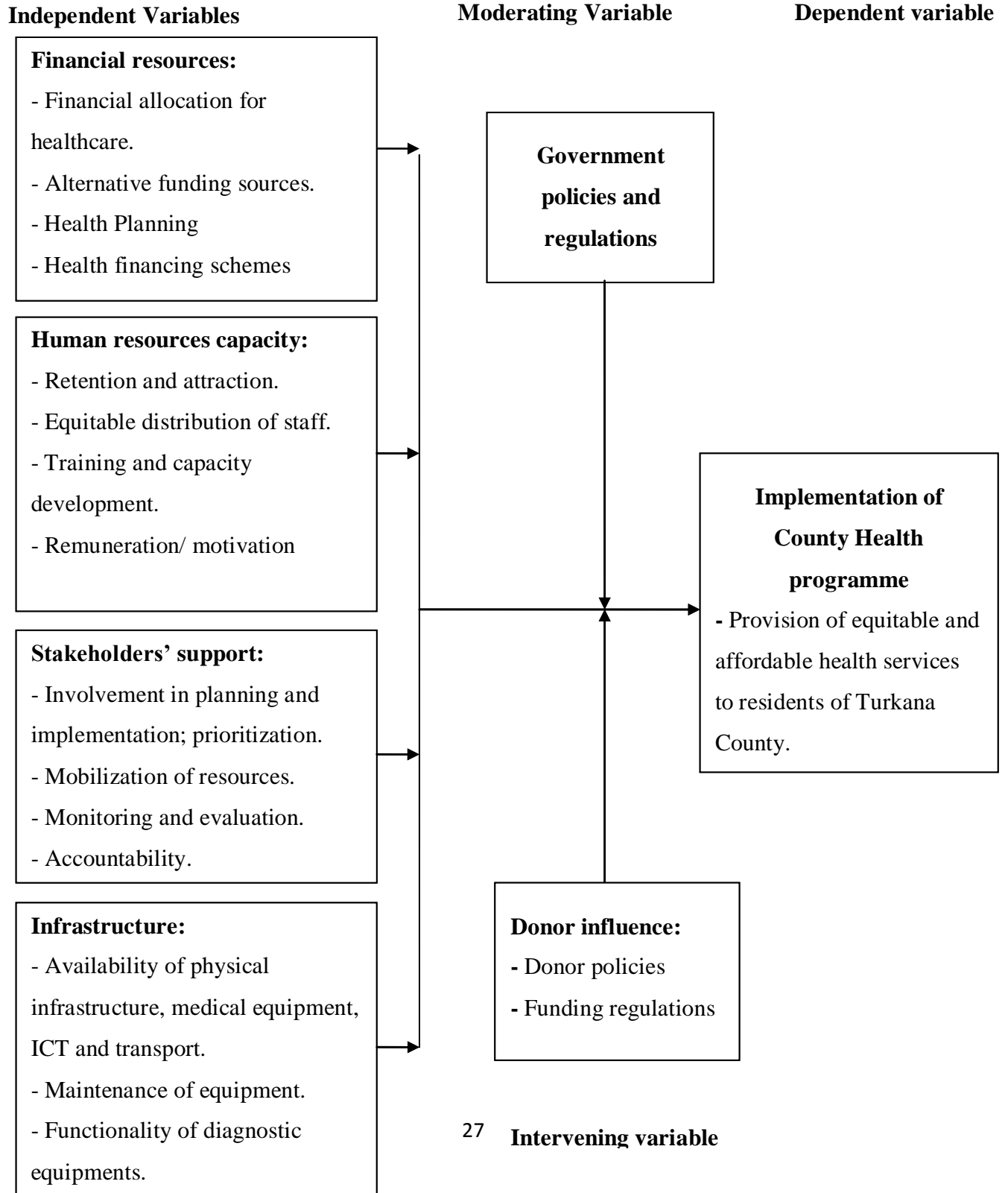
Whitman, 2005). Change can be stimulated and driven by a range of factors in the macro environment. Such factors can include government laws and regulations, and major economic, demographic, health, and social-political changes.

Actions taken by major donors, such as United Nations agencies, foundations, and the World Bank, all influence governments in their development priorities. Other researchers have identified similar factors to those depicted in the Wheel. For example, an examination of 81 implementation studies with quantitative or qualitative data on factors that affect the implementation process also pointed to a similar number of factors: “funding, a positive work climate, shared decision-making, coordination with other agencies, formulation of tasks, leadership, program champions, administrative support, providers’ skill proficiency, training, and technical assistance” (Durlak and Dupre, 2008).



## 2.7 Conceptual Framework

This study will be guided by the following conceptual framework.



The independent variables includes financial resources; financial allocation for healthcare by the county government, alternative sources of funding for healthcare, planning and prioritization of health needs as well as the available health financing schemes. Human resources capacity addresses retention and attraction of human resources, equitable distribution of staff, training and capacity development, remuneration and motivation, and staff performance improvement. Stakeholders' support addresses involvement of stakeholders in planning and implementation, mobilization of resources, monitoring, evaluation and accountability. Infrastructure addresses issues to do with availability of physical infrastructure, medical equipment, ICT and transport. It also looks into maintenance and functionality of diagnostic equipment. The dependent variable which is implementation of County health programme shows how the residents enjoy provision quality health services through implementation of health facility plans. Finally, moderating variable which refer to government policies and intervening variable which is donor influence; donor policies and funding regulations.

## **2.8 Knowledge Gap**

The new Kenyan Constitution promulgated in 2010 established Counties as new administrative regions with their own autonomous government structures (GOK, 2010). The constitution also identified health services as one of the functions to be devolved thereby paving way for the creation of County health programme. Since this is a new concept, the County health managers have since struggled to keep the health programme running. It is important that they understand key elements that is critical to the implementation of a health programme. This will enable them make proper decisions and identify key areas to focus on to ensure that the health programme is delivering healthcare services.

## **2.9 Summary of literature review**

From the literature reviewed, it was evident that sustainable health care programmes are built on reliable access to human, capital and consumable resources. It was evident that identifying, securing, and sustaining funding are the greatest challenges to establishing sustainable health programmes. Health programme planners are faced with the options of containing costs,

increasing funding for health services or both. It came out that concern about an expenditure crisis in health care programmes has led to the introduction of major changes in how health care is organized and financed.

Decentralized health financing systems can contribute towards health workforce recruitment, performance and retention. In particular, providing the ministry of health with autonomy, by delinking the health workforce from the civil workforce and providing strategic performance incentives, are means by which health workers can be successfully recruited and retained. However, it was noted that such policies work only if health system objectives are aligned with appropriate institutional and incentive structures (Haji et al., 2010). ‘Health for all’ is not achievable in most countries without health sector reform that incorporates a process of coordinated health and human resources development.

Involving stakeholders in decisions and the processes through which decisions are made are becoming touch stones of "best practice," both clinical and managerial, in health care. Understanding the incentives of stakeholders and employing effective management practices with various stakeholder groups is essential for program management and sustainability. Stakeholder consultation is important for defining “relevant reasons” for priority-setting decisions in the circumstances.

Despite the fact that the physical infrastructure for health provision in Kenya has expanded rapidly, distribution and coverage remains uneven especially in rural areas. Maintenance of public sector health facilities has been a big problem and a major burden for the Ministry of Health (KIPPRA, 2004). Long lasting infrastructure therefore needs to support healthcare programme processes that change rapidly. Infrastructure needs to be able to adapt to these changes, and planning tools need to recognize the interdependencies within the care service and care infrastructure system (Bayer et al., 2007)

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the procedures that were used in conducting the study. It includes research design, target population, sample size, sample and sampling procedure, the research instruments, validity and reliability of instruments, data collection procedures, data analysis, time schedule and budget.

#### **3.2 The research Design**

The study employed a descriptive cross sectional research design. According to Kombo and Tromp (2006) descriptive research design is the process of explaining the state of affairs as it exists. Descriptive is not only restricted fact finding but also results into the formulation of important principles of knowledge and solution to significant problems (Kerlinger, 1969). This research design was useful since the intention of the study was to describe the situation as it is at the health facilities in the Sub County, and to demonstrate relationships. It was also flexible in the sense that a wide range of information could be gathered, which is the case for this study. The survey was cross-sectional in nature as data was collected at one point in time. Cross sectional study design has been recommended by Babbie, (2009), for gathering information on a population at a single point in time. The study entailed conducting interviews to health facility staff using structured questionnaires and Key Informant interview guide and both quantitative and qualitative techniques were used to collect and analyze data.

#### **3.3 Target population**

The target population is “that population to which the researcher wants to generalize the results of the study” (Mugenda and Mugenda, 2003). The study targeted a population comprising of the 105 health facility staff at the 18 functional health facilities within Turkana West Sub County according to Master Facility List in the District Health Information Systems (DHIS). The study

also targeted 4 Turkana West Sub County core Health Management Team members. The unit of analysis was the health facility.

### **3.4 Sample size and Sampling Procedure**

Under this section the study discusses the sample size and sampling procedures that were adopted for the study.

#### **3.4.1 Sample size**

The study was conducted in all the 18 health facilities in Turkana West Sub County comprising of 105 staff members and 4 Sub County Health Management Team members. Turkana West Sub County Health Management Team members include Sub County Medical officer of Health, Sub County Public Health Nurse, Sub County Public Health Officer and Sub county Health Records and Information Officer. Census was used in this study because the entire population was small and that it provided detailed information that helped the researcher to clearly understand the characteristics of the population being studied as a whole while providing a benchmark data about the population for future studies.

#### **3.4.2 Sampling procedures**

The study employed census in which the entire population was taken into account. In sampling when a sample from a population is generated there will always be margin for error, whereas in case of Census, entire population is taken into account and as such it is most accurate. When whole population is taken into account, data collection is called Census Method (Sigdel, 2011). Census is most accurate compared to sampling and it is applicable where the entire population is small and it also provides detailed information about the characteristics of the population as a whole. In this study data was therefore collected from 105 health facility staff and the 4 SCHMT in the Sub County, which represents the two entire populations.

### **3.5 Research Instruments**

The research tools that were used for data collection were structured questionnaire and Key Informant Interview (KII) guide. A questionnaire was relevant to this study because large amount of data could be collected from a large number of people in a short period of time, it upholds confidentiality, it has no interviewer bias and it is relatively cost effective. It was also relevant since can reach a large number of people more easily.

The questionnaire had both open ended and closed ended questions. The questionnaire and KII guide were divided into sections in relation to the variables under study so as to extract specific information from the respondent that would address research objectives and seek to answer research questions. The variables were financial resources, human resource capacity, stakeholders support and infrastructure.

#### **3.5.1 Pilot testing of the instruments**

The research tools were pretested to ensure that items in the instruments are stated clearly and have the same meaning to all respondents. The researcher was able to assess the clarity of the instruments, their ease of use, appropriateness and completeness before actual data collection. This was done in Turkana North Sub County which is outside the study area to avoid the response set, distortion of data and subjectivity of the responses. For this study 5 health facilities' staff and 2 SCHMT members were selected for the pilot study. The data collected from the pilot study was not included in the study but was used to correct the instruments. The pilot testing was to enable the researcher to obtain sum assessment of the questions validity and likely reliability of the data that would be collected. Preliminary analysis using the pilot test data was undertaken to ensure that the data collected answers the research questions.

#### **3.5.2 Validity of the instruments**

The validity of the research instruments in a measure to the extent to which the instruments measure what they are intended to measure. A research instrument is valid if it actually measures what it is supposed to measure and data collected accurately represent the respondents' opinions

(Amin 2002). To ensure validity, the researcher ensured the questionnaires have instructions to be followed and the questions are written in simple language which the respondent can easily understand. The researcher also gave the instruments to the two supervisors to evaluate the relevance of each item in the instrument to the objectives. The researcher also conducted a pilot study to ensure validity.

### **3.5.3 Reliability of the instruments**

Reliability measures the extent to which a research instruments yields consistent results or data after repeated trials (Mugenda and Mugenda, 2003). If a measure has been developed and is said to be reliable, it means that if applied repeatedly to measure phenomenon, it would produce same results (Gatara, 2010). The researcher ensured that the questions in the questionnaire are designed using simple language that is easy to understand by the respondents. In addition, the researcher conducted test pre-test study on the instruments which involve administering the same questionnaires twice to health facility staff in similar conditions in Turkana North Sub County. This enabled the researcher to correct the questions that would attract varied responses as a result of vagueness or lack of clarity. It also enabled the researcher to capture important comments and suggestions from the respondents that was used to improve the efficiency of the instrument. The inconsistencies and other weaknesses detected in the items were reviewed and retesting done.

### **3.6 Data collection procedures**

Before the research was conducted the researcher sought permission to conduct the study from the University of Nairobi and thereafter obtain permit from the National Commission for Science, Technology and Innovation (NACOSTI). The researcher obtained permission from the Sub County Medical Officer of Health before the study commenced. The researcher ensured that data collection team is well trained on research ethics and use of data collection tool. The researcher also ensured that the tools and the cover letters are printed and availed in time. The respondents were contacted directly and the research assistants delivered the questionnaires with cover letters to the respondents. Key informant interviews to the SCHMT were conducted by the researcher. Data collected were both qualitative and quantitative data. Triangulation was used to

corroborate the findings using evidence from different data sources. Secondary data was collected from the line ministry's offices, health facilities, library reference books, journals, dissertations and thesis, abstracts and research reports among others.

### **3.7 Data Analysis techniques**

During data analysis the data was grouped, organized and categorized according to specific objectives and research questions. Quantitative data captured were coded, entered and analyzed using Statistical Package for Social Sciences (SPSS) Version 17. The data was analyzed using frequency counts and percentages to allow the use of descriptive statistic. Presentation was in the form of tables. Qualitative analysis on the other hand involved grouping all the data with similar content, organizing them in relation to the thematic areas then analyzing by cross referencing. The analyzed data was presented using tables. Dependency of implementation of health programme was established against financial resources, human resources, stakeholders support and availability of infrastructure variables using a logistic regression model. Binary regression analysis was carried out to establish the prediction of the variables on implementation of health programme.

### **3.8 Ethical considerations**

The researcher ensured that no harm is allowed to the respondents as a result of their participation in the research, their right to privacy is respected and that they are not subjected to undue pressure. The respondents were provided with sufficient information about the survey so as to be able to give informed consent concerning participation and the use of the data collected. Before information was collected, informed consent was sought from the respondents and anonymity maintained. The information provided by the respondent was treated with confidentiality and for the research purpose only. During the study due consideration was made to avoid plagiarism by ensuring that other peoples' work is duly acknowledged.



## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter presents the study findings which have been analyzed, presented, interpreted and discussed in line with the study objectives under sub-thematic areas; response return rate, demographic characteristics of respondents, health facilities' background information, financial resources and implementation of the County health programme, human resource capacity and implementation of the County health programme, stakeholders support and implementation of the County health programme, and infrastructure and implementation of the County health programme.

#### **4.2 Questionnaire response rate**

Data collection instruments were administered in a period of two weeks. A total of 96 out of 105 questionnaires were successfully completed and returned giving a response rate of 91%. The response rate was achieved due to the fact that the researcher received support from the Sub County Health Management Team (SCHMT) who emphasized on the significance of the study to the health facility in-charges. The facility in-charges in turn mobilized the rest of their facilities' staff to participate in the research.

The high response return rate among the respondents was also attributed to the fact that the research instruments were collected from the respondents as soon as they finished answering the questions. This reduced chances of misplacement or loss of instruments. The researcher also followed up with research assistants on the progress of the data collection to determine the number of instruments issued and those filled and returned.

### 4.3 Demographic Characteristics of Respondents

This section presents the demographic characteristics of the respondent with an aim of establishing the general background of the respondents that participated in the study. The areas that will be discussed include gender, staff responsibility in the facility and how long they have served at the facility.

#### 4.3.1 Distribution of Respondents by gender

The researcher was interested in establishing the gender composition of the respondents. To establish this, the respondents were asked to state whether they are female or male. The results were tabulated in frequencies and percentages and presented in the Table 4.1.

**Table 4.1 Distribution of the Respondents by Gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	53	55
Female	43	45
<b>Total</b>	<b>96</b>	<b>100</b>

According to the findings in table 4.1, 53 (55%) were male respondents while 43 (45%) were female. From the study, it is clear that in Turkana West Sub County, there are slightly more male members of staff than their female counterparts. This could be attributed to the harsh working conditions in the Turkana County.

#### 4.3.2 Distribution of respondents by role at the facility

The researcher was interested in establishing the role played by the various respondents at the health facilities. This was to help validating some information and also considering that that some information could only be provided by some carders at the health facilities, for example facility in charges. The results were tabulated in frequencies and percentages and presented in the Table 4.2.

**Table 4.2: Distribution of Respondents by their Role at the Facilities**

<b>Role at the facility</b>	<b>Frequency</b>	<b>Percent</b>
Facility in charge	19	19.8
Unit in charge	10	10.4
Service provider	64	66.7
Others	3	3.1
<b>Total</b>	<b>96</b>	<b>100</b>

According to the research findings in Table 4.2, majority of the respondents in the study were general service providers 64 (67%) while the rest were facility in-charges 19 (20%), unit in-charges 10 (10%) and others 3 (3%). The general service providers include nurses, nutritionists, clinical officers who do not have other responsibilities apart for direct service provisions, while the others include facilities' support staffs counting data clerks and accountants.

#### **4.3.3 Distribution of Respondents by duration of service at the facility**

The researcher was interested in establishing the duration of time that the staff had served in their respective health facilities. This was to help the researcher to evaluate whether their responses are founded on their experience in working at the various health facilities or not. In order to establish this, the respondents were asked to state how long they had served at the various facilities. The results were tabulated in frequencies and percentages and presented in Table 4.3.

**Table 4.3 Distribution of Respondents by Duration of Service at the Facility**

<b>Duration of service</b>	<b>Frequency</b>	<b>Percent</b>
Less than one year	27	28.1
Over 1 year	69	71.9
<b>Total</b>	<b>96</b>	<b>100</b>

According to the findings in Table 4.3, those who had stayed in the facility for less than 1 year were 27 (28%) while those that had stayed at the facility for over 1 year were the majority 69

(72%). This indicates that majority of the respondents had stayed at the facilities for a considerable period of time. This was important for the researcher as a confirmation that majority of the respondents based their responses on their practical experience in working at the health facilities and the Sub County for a considerable duration of time.

#### 4.4 Health facilities background information

This section presents the background information about the various health facilities that were targeted during the study. The areas discussed include location of the facility, level of service provision, facility ownership and distribution of health facility staff by cadre.

##### 4.4.1 Health facilities' characteristics

The researcher was interested in having a basic understanding of the characteristics of the health facilities that the study targeted in terms of the location of the facility, ownership of the facilities and the level of facility as per the Kenya Essential Package for Health (KEPH). The results were tabulated in frequencies and percentages and presented in Table 4.4.

**Table 4.4: Health Facilities' Background Information**

		Facility location			
		Rural		Urban	
		Frequency	%	Frequency	%
<b>Level of service delivery</b>	Level II: Dispensary	10	91	1	9
	Level II: Health Centre	2	67	1	33
	Level III: Sub-County Hospital	0	0	2	100
	<b>Total</b>	<b>12</b>	<b>13</b>	<b>4</b>	<b>4</b>
<b>Ownership of facility</b>	County Government	8	80	2	20
	FBO	3	60	2	40
	Private	1	100	0	0
	<b>Total</b>	<b>12</b>	<b>13</b>	<b>4</b>	<b>4</b>

Study results in Table 4.4 above shows that majority 12 (75%) of the health facilities in Turkana West Sub County are located in the rural areas, while the rest 4 (25%) are located in the urban areas of the sub County. Majority 11 (69%) of the health facilities in Turkana West Sub County are dispensaries; classified as level II facilities under KEPH (KHSSP III). 3 (19%) health facilities are health centres; classified under level II facilities, while the remaining 2 (13%) are Sub County Hospital, also classified as level III facilities. The highest level of service delivery at the sub county is level III. The study also established that majority of health facilities in the Sub County 10 (63%) are owned by the County government of Turkana, while 6 (37%) are owned by Faith Based Organizations mainly Catholic Diocese of Lodwar (4 facilities) and African Inland Church (2 facilities). Since majority of the health facilities are located in the rural areas which are vast with poor roads and poor communication networks, it is important that the health programme planners invests on health infrastructure to improve service delivery. Also considering the vastness of the Sub County there is need to increase the number of health facilities since the current average distance between health facilities which is 20-50 Kilometers is far beyond the recommended average of between 5-10 Kilometers (MOH 2005)

#### **4.4.2 Distribution of health facility staff by cadre**

The researcher was interested in establishing the distribution of the various health facilities' staff by cadre at the various health facilities. In order to establish this, the respondents were asked during data collection process to state their cadre. The results were tabulated in frequencies and percentages and presented in Table 4.5.

**Table 4.5: Distribution of Health Facility Staff by Cadre**

<b>Staff Cadre</b>	<b>Frequency</b>	<b>Percent</b>
Doctors	2	1
Nurses	46	34
Health administrators	2	1
Clinical officers	12	9
Public Health officers	4	3
Pharmacists	7	5
Laboratory technicians/technologists	7	5
Health records officers	5	4
Nutritionists	11	8
Physiotherapists/occupational therapists	1	1
Radiographers	1	1
Security officers/watchmen	37	27
<b>Total</b>	<b>135</b>	<b>100</b>

According to the findings in Table 4.5, the majority of the healthcare workers 46 (34%) are nurses and 37 (27%) are general attendants and watchmen. National Human Resources for Health Strategic Plan, indicate that nurses comprise the majority of all the registered key professionals' medical personnel (MOMS and MOPHS, 2009). The relatively high proportion of nurses compared to other cadres involved in the study is a normal occurrence and was therefore expected. The study established that doctors and public health officers comprise of only 2 (1%) and 4 (3%) of the total health workforce in Turkana West sub County respectively. It should be noted that for optimal health service provision, health facilities must have the right mix of health professionals and support staff in terms of number and cadre (MOH 2007). The study therefore established that Turkana West sub County health facility staffing distribution at the various facilities falls way below the minimum required to deliver quality health services at the health facilities.

## 4.5 Financial Resources and implementation of County health programme

The first objective of study was to establish the influence of financial resources on the implementation of the county health programme. The results have been presented, interpreted and discussed under the following sub themes; sources of funding for Turkana County health programme, adequacy of financial resources for the health programme, health facility planning, health facility budgeting, relationship between funding source and health facility planning, relationship between development and implementation of health facility plans, and the influence of various finance related variables on implementation of health facility plans.

### 4.5.1 Sources of funding for Turkana County Health Programme

In order to establish the main sources of funding for the county health programme, the respondents were asked to state the main source of funding for the health facilities they are attached. The results were tabulated in frequencies and percentages and presented in Table 4.6.

**Table 4.6: Main Sources of Funding for the County Health Programme**

Sources of funding	Frequency	Percent
County	43	44.8
Facility IGAs	14	14.6
HSSF	25	26
CSOs	14	14.6
<b>Total</b>	<b>96</b>	<b>100</b>

From Table 4.6, 43 (44%) of the respondents mentioned the County government of Turkana as the main source of funding while 25 (26%) mentioned Health Sector Service Fund (HSSF). Other sources mentioned include facility Income Generating Activities (IGAs) 14 (14.6%) and Civil Society Organizations 14 (14.6%). This outcome is in line with the current constitution of Kenya, under the current devolved system of government, which mandates the County government to be fully responsible for ensuring that the health programme is financed. The government funding in Turkana West Sub County of 70% (44% Sub County funding and 26%

HSSF) is consistent with the Kenya Human Development Report (1999) that indicated that the government financing of health expenditure is about 60 percent of what is required to provide minimum health services. Given that it is the constitutional responsibility of the government to provide minimum healthcare to its citizens, it implies that healthcare delivery in Kenya is still under-funded and therefore there is a gap in healthcare funding. Since Turkana County is among the formerly marginalized areas in Kenya, it is starting from a relatively lower position as compared to other Counties in Kenya and requires more investment in the health sector to enable the health programme to pick up and compete at the same levels with other Counties in Kenya.

#### **4.5.2 Adequacy of financial resources for the County Health Programme**

The study sought to gather the opinions of the respondents on the adequacy of the financial resources currently available for the health facilities for implementation of various health activities. The responses for the respondents were tabulated in frequencies and percentages and presented in Table 4.7.

**Table 4.7: Perception of the Respondents on Adequacy of Financial Resources**

<b>Adequacy of financial resources</b>	<b>Frequency</b>	<b>Percent</b>
Financial resources adequate	10	10.4
Financial resources inadequate	86	89.6
<b>Total</b>	<b>96</b>	<b>100</b>

From Table 4.7, majority of the respondents 86 (90%) felt that the finances are inadequate and only 10 (10%) felt that the finances were adequate. Other related studies have equally identified lack of adequate finances as a challenge in implementing district level health plans. In their study involving 57 districts in Kenya, Ndavi et al. (2009) noted that implementation of district health plans was on schedule in only 13 (23%) districts with lack of funds being given as the major challenge in the districts. An analysis of the Kenyan Health System by Wamai (2009) also revealed inadequate funding as a major challenge to implementation of health services at the decentralized levels. The study therefore insinuates that for the health programme to be



implemented there should be an important link between health planning and resource allocation to enable the plans to be implemented.

In a Key Informant Interview with the Sub County Public Health Nurse (SCPHN) gave his opinion regarding the adequacy of financial resources to support the health programme. He stated that

*“The funding to the health facility is very small that cannot allow the facilities to meet their needs, and in addition the replenishment is quite inconsistent to allow for smooth implementation of health facility plans”.*

The interview with the SCPHN revealed that the current funding to the health facilities from the County is not only inadequate to support the health programme but also its replenishment is very inconsistent to allow for smooth implementation of the health activities at the facility level and this influence the overall implementation of the health programme. Given this inadequacy of financial resources to support the teething health care system and other competing priorities, the County health planners need to concentrate on health financing reforms to sustain the health programme. Such reforms may entail raising revenue through cost recovery techniques like user fees for services, medicines or both, improve allocation and management of existing health resources and increase the role of the private sector in the health programme. Studies have indicated that providing adequate and sustainable financial resources for healthcare is very critical to establishing strong health programmes. Osorio et al. (2000), for example noted that identifying, securing, and sustaining funding are the greatest challenges to establishing sustainable health programs. On the contrary, studies have also indicated that the relationship between health expenditures and health outcomes is not always clear. Although evidence tenuously demonstrates a positive relationship between public spending on health and selected health indicators, it falls far short of a definitive statement (Filmer and Pritchett 1999).

#### **4.5.3 Facility Health Planning**

The researcher was interested in ascertaining whether the various health facilities in the sub County have health facility plans as a basis for budgeting and implementation of health related activities. In order to establish this, the respondents were asked to state whether they have health

facility plans or not. The responses were tabulated in frequencies and percentages and presented in Table 4.8.

**Table 4.8: Availability of Facility Health Plans**

<b>Availability of health plans</b>	<b>Frequency</b>	<b>Percent</b>
Health plans available	69	71.9
Health plans not available	10	10.4
Don't know	17	17.7
<b>Total</b>	<b>96</b>	<b>100.0</b>

From Table 4.8, 69 (71%) of the respondents agreed that their facilities have health facility plans, 10 (10%) indicated that their facilities did not have the plans while 17 (18%) indicated that they were not aware of the existence of the plans at their facilities. Health planners should emphasize that every health facility has health plans; this is because the health facility plans builds into and informs the County health programme plans.

Health facility plans are important tools because they form the basis for facility quarterly budgeting, financial allocation to the facilities and subsequently financial allocation for the entire health programme. Chatora R. and Tumusiime P. (2004), notes that health facility planning is critical to the implementation of the district health services and it forms the basis upon which the implementation of the district health services are measured. District health managers and health facilities' in charges for the various dispensaries, health centres, and hospitals should be key players in the health planning process and will be responsible for implementing their health plans and budgets (Chatora R. and Tumusiime P. 2004). Lack of such plans at the facilities' indicates that County health planning not informed by the needs generated at the facilities' level.

#### 4.5.4 Relationship between funding source and health facility planning

The researcher was interested in finding out the relationship between funding source and health facility planning. The responses on various funding sources for the health activities were cross tabulated against the responses on the availability of health facility plans as shown in Table 4.9.

**Table 4.9: Relationship between Sources of Funding and Existence of Health Plans**

		Main Source of Finance							
		Sub County		IGAs		HSSF		CSOs	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
<b>Plan</b>	<b>Yes</b>	2	11	2	11	10	56	4	22
<b>Availability</b>	<b>No</b>	0	0	0	0	0	0	1	100

A look at the relationship between funding source and the existence of health facility plan in Table 4.9 shows that 10 (55%) of those who responded that their facilities had health facility plan are funded through Health Sector Service Fund (HSSF). This can be attributed to the fact that HSSF that is channeled directly to the health facilities requires that every facility have developed a health plan. It is important to note that only 2 (11%) of government funded facilities responded to be having health plans. This is important because the County government, which is currently the main source of funding for healthcare activities at the County seemingly does not emphasize on the need to have health plans in place. In order to ensure that funding is based on evidence, health facility plans should be emphasized by the health planners as a tool for priority setting. Planning at the health facilities and the implementation of such plans has a significant influence on resource allocation for the health programme as well as the implementation of the health programme.

#### 4.5.5 Health facility planning and implementation of County health programme

The researcher was interested in finding out the relationship between involvement of various parties in health facility planning and implementation of the health programme. Responses on

whether the plans are implemented or not were cross tabulated against the responses on who participated in the development of the health plans as shown in Table 4.10.

**Table 4.10: Development Health Plans and Implementation of Health Programme**

		Implementation of health programme					
		Implemented		Not implemented		Unaware	
		Frequency	%	Frequency	%	Frequency	%
<b>Participation in the plan development</b>	Facility in charge	6	35	10	59	1	6
	FMC	41	95	2	5	0	0
	Stakeholders	3	100	0	0	0	0
	SCHMT	6	100	0	0	0	0

From Table 4.10, it was established that there exists a relationship between participation in the development of facility health plans and implementation of the health programme. Implementation was highest 41 (95%) where Facility Management Committee (FMC) were actively engaged in health facility planning. FMC members are very critical to the running of facility affairs as well as accountability. Given the role they play at the health facilities, their active participation in planning increases the likelihood of various health activities being implemented at the facility level and subsequently the overall County health programme.

#### **4.5.6 Health facility budgeting**

The researcher was interested in gathering information regarding how the overall County health programme budget is arrived at and what influences the size of this budget. To achieve this, the respondents were asked to state what determines the size of their health facility budgets. The responses were tabulated and presented in the Table 4.11.

**Table 4.11: Responses on Factors Determining the Size Facility Budgets**

		<b>Catchment population</b>	<b>Level of Facility</b>	<b>Fixed from County</b>	<b>Facility Plans</b>	<b>Total</b>
	<b>Yes</b>	16	40	8	0	64
<b>Availability of Budget</b>	<b>No</b>	0	1	0	0	1
	<b>Total</b>	<b>16</b>	<b>41</b>	<b>8</b>	<b>0</b>	<b>65</b>

Results from Table 4.11 indicate that 16 (25%) of the responses indicated that catchment population determines quarterly budgets. 40 (63%) of the responses indicated level of health facility while 8 (13%) indicated that they are fixed at the County. From the table it is noteworthy that despite the importance of health facility plans in determining health facility budgets and subsequently the overall County health programme budgets, no response 0 (0%) indicated that health facility plans determine the budget.

Health facility plans are important tools that form the basis for health facility budgeting and financial allocation to the facilities (Chatora R. and Tumusiime P. 2004). Since health facility plans are important in determining the overall health programme budgets, proper planning at health facility influences financial allocation to the overall County health budget.

#### **4.5.7 Finance variables and their influence on the County health programme**

In order to analyze the determinants of implementation of the County health programme, a binary logistic regression model was used. Each independent variable hypothetically affects the probability of implementation of the County health programme. In this case the researcher designed the various finance related predictor variables into binary variables to effectively use the logistic regression model. A reference variable is set against which odds of occurrence of implementation of the County health programme are measured.

Table 4.12 provides a summary of relationship between finance related variables on the implementation of County health programme.

**Table 4.12: Financial Variables and Implementation of the Health Programme**

	P Value	Odds ratio Exp (β)
<b>Sources of funding and County health programme implementation</b>		
Sources of funding and health programme implementation	0.000	
Health facility IGAs		Reference
Sub-County/County sources	0.373	3.444
Health sector Service fund (HSSF)	0.013	0.081
<b>Adequacy of financial resources and County health programme implementation</b>		
	0.217	
Adequacy of financial resources		

Table 4.12 shows that implementation of the County health programme is influenced by source of funding with a p value of 0.000 ( $p < 0.05$ ). The result further shows that adequacy of financial resources does not significantly influence whether the health programme is implemented or not with a p-value of 0.217 ( $p > 0.05$ ). This means that the health programme can be implemented for improvement of selected services provision areas irrespective of whether the funds are available to take care of all the needs at the health facility levels.

The study further examined the odds ratio for finance related variables. The results demonstrates that the odd of the health programme being implemented is more than 3.4 times higher in the health facilities funded by County government than health facilities funded by Income generating activities (IGAs). On the other hand, the odds of health facility financed by Health Sector Service Fund implementing Health programme activities at the facilities is low compared to health facilities funding its activities from Income Generating Activities with odds ratio of 0.081.

#### **4.6 Human Resources capacity and implementation of County health programme**

The second objective of study was to explore the extent to which human resources capacity influence the implementation of the county health programme. The results have been presented, interpreted and discussed under the following sub themes; adequacy of staffing levels at the

health facilities, distribution of health staff by employer, human resources challenges and human resources related variables on implementation of health facility plans.

#### 4.6.1 Staffing levels at the health facilities

The researcher was interested in establishing the adequacy of staffing at the various health facilities in the Sub County. In order to achieve this, the respondents were asked to state whether they felt that the staffing level is adequate or not. The responses were tabulated in frequencies and percentages and presented in Table 4.13.

**Table 4.13: Adequacy of Staffing Levels at the Health Facilities**

<b>Staffing Adequate</b>	<b>Frequency</b>	<b>Percent</b>
Yes	27	28
No	69	72
<b>Total</b>	<b>96</b>	<b>100</b>

Results from Table 4.13, 69 (72%) of the respondents felt that the staffing levels are inadequate while only 27 (28%) felt that staffing was adequate. It is important to note that high quality and accessible health services cannot be delivered without sufficient numbers of well skilled, well-distributed and well managed healthcare workers. Inadequacy of staffing at the various health facilities adversely affects service provision. The government of Kenya Norms and Standards for health service delivery (MOH 2007) provides clear guidelines on minimum human resources requirement at each level of service delivery. Human resources norms are rationally defined for different service delivery levels of the health system and is aimed at qualifying the expected types of staff cadres needed at each level of service delivery and to quantify the numbers of the different identified staff cadres needed at every level. As defined by the norms and standards, for instance, a dispensary (level II health facility) should have at least 2 nursing staff, 2 community health extension workers (CHEW), 2 general attendants and 1 watch man. A health centre (level II facility) should at least have 1 clinical officer, 1 outpatient support, 1 management support, 14 nursing staff (MOH 2007). A review of the staffing of the sub County in Table 4.5 indicates that it is way below the minimum standards set by the government.

#### 4.6.2 Distribution of health facility staff by employer

The researcher was interested in establishing the main employer for various staff at the Sub County. In order to establish this, the respondents were asked to state their employer at the various health facilities they are attached to. The responses were tabulated in frequencies and percentages and presented in Table 4.14.

**Table 4.14: Distribution of Health Facility Staff by Employer**

<b>Employer</b>	<b>Frequency</b>	<b>Percent</b>
County Government	36	38
CSOs (NGO/ FBOs)	57	59
Others	3	3
<b>Total</b>	<b>96</b>	<b>100</b>

Results in Table 4.1 shows that majority 57(59%) of the health workforce within the Sub County are hired by Civil Society Organizations (CSOs). The County government account for 36 (38%) of the total sub County Staff. This is an area of concern since CSOs run projects that have a defined period of time. Imperatively therefore the County health programme planners need to put in place mechanisms of hiring staff to support County health programme to avoid acute shortages when CSO projects in the County terminate. It is important to note that the county is likely to face critical shortage of staff to support health facilities when CSOs projects terminate.

#### 4.6.3 Human Resource challenges at the health facilities

The researcher sought to establish the various human resource challenges affecting the implementation of health programme activities in the Sub County. During the Key Informant Interview with the Sub County Public Health Nurse (SCPHN) who is directly in charge of the various health facilities in the sub county he stated that

*”There is high staff turnover, most staff stay away from their families, some are posted under disciplinary action, and there is hard life in terms of food”*



From the statement the SCPHN stated categorically that there is high turnover of staff since most staff work away from their families and in areas where life is generally hard in terms of food. He added that some health staff are posted to the County for disciplinary action hence have low work motivation. This indicates that majority of the staff working in the sub County are not motivated enough to work and perceive themselves to be under punishment as they deliver services.

National Human Resources for Health Strategic Plan (2009–2012), notes that the erosion of Kenya's key health indicators; life expectancy, infant mortality and maternal mortality during the last two decades can be traced at least in part to the deterioration of the health work force. Studies have indicated that attention has focused on the fact that progress toward health-related Millennium Development Goals (MDGs) is seriously impeded by a lack of human resources in health, with serious implications for child survival and health goals. In other studies, WHO, 2000 indicated that that human resources are the most important part of a functional health system. The County health programme planners In this regard the County health planners need to put in place mechanisms for motivating health staff if the health programme is to be successfully and sustainably implemented.

#### **4.6.4 Human Resource variables and implementation of the County health programme**

The study examined the relationship between various human resources related variables and their influence on implementation of County health programme. The variables selected were duration of contract, adequacy of staffing and training of health facility in-charges of financial management. Logistic regression model was used to determine the influence of human resources variable on implementation of the county health programme. In this case the researcher designed the human resource related predictor variables into binary variables to effectively use the logistic regression model. A reference variable is set against which odds of occurrence of implementation of the County health programme are measured. Table 4.15 provides a summary of relationship between the various human resources relates variables on the implementation of health programme.

**Table 4.15: Human Resources variables and Implementation of the Health Programme**

	P Value	Odds ratio Exp ( $\beta$ )
<b>Length of staff contract and implementation of the health programme</b>		
Less than 1 year		Reference
Over 1 year	0.921	1.133
<b>Adequacy of staffing and implementation of the health programme</b>		
Inadequate Health workforce		Reference
Adequate health workforce	0.784	1.220
<b>Training of health staff in management and implementation of the health programme</b>		
Facility in-charges not trained on management		Reference
Facility in-charges trained on management	0.211	4.091

Table 4.15 shows that there is no significant relationship between length of staff contracts and implementation of the County health programme, p value of 0.921 ( $p > 0.05$ ), adequacy of staffing with a p value of 0.784 ( $p > 0.05$ ) and training on management with a p value of 0.211 ( $p > 0.05$ ). The length of staff contract, adequacy of staffing or training in management does not significantly influence implementation of the County health programme.

The study further examined the odds ratio for the same human resources related variables. The results demonstrates that the odd or the likelihood of the County health programme being implemented is more than 4 times higher when health facility in charges are trained on management and have management skills than when they are not completely trained (odds ratio of 4.091). It also demonstrates that the odd or the likelihood of county health programme being implemented is higher when there is adequate staffing than when there is inadequate staffing (odds ratio of 1.22).

## 4.7 Stakeholders support and implementation of County health programme

The third objective of the study was to determine the extent to which stakeholders support influence the implementation of County Health program. The results under this section have been presented, interpreted and discussed under the following sub themes; stakeholders support, involvement of stakeholders in implementation of health activities, involvement of various categories of stakeholders/parties in the development health plans, involvement of various parties in the implementation of health plans and relationship between involvement of stakeholders and implementation of health facility plans.

### 4.7.1 Perception of health facility staff on stakeholders' support

The researcher was interested in establishing the perception of the healthcare workers regarding the support they receive from the stakeholders at their various health facilities. The respondents were asked to state whether they get support from the various stakeholders and the responses were tabulated in frequencies and percentages and presented in Table 4.16.

**Table 4.16: Perception of the Respondents on Stakeholders' Support**

<b>Support from stakeholders</b>	<b>Frequency</b>	<b>Percent</b>
Get support from stakeholders	89	93
No support from stakeholders	7	7
<b>Total</b>	<b>96</b>	<b>100</b>

From Table 4.16, 89 (93%) of the respondents indicated that they get support from stakeholders while only 7 (7%) indicated that they do not get support from stakeholders. It is noteworthy that majority of the respondents acknowledged the role played by stakeholders within their facilities. This is in line with the Kenya Health Policy Framework paper (1994) and the National Health Sector Strategic plan (1999-2004) which emphasized that effective decentralization must recognize the effective roles of the various stakeholders in promoting health at the local level. The study results showed that stakeholders are actively involved in the support of health related activities in the respective health facilities. The key stakeholders mentioned during the study

included International Rescue Committee (IRC), Elizabeth Glazier Pediatric and AIDS Foundation (EGPAF), Amref Health Africa in Kenya, UNICEF, AphiaPlus Imarisha, Kenya Airport Authority (KAA) and Ministry of Health. The key support provided by the stakeholders are fund mobilization for implementation of health facility plans, recruitment and remuneration of service providers and support staff, procurement and distribution of essential drugs and medical equipments, support to service delivery including medical outreaches and support for specialized training.

#### 4.7.2 Involvement of stakeholders in health facility planning

The researcher was interested in establishing whether stakeholders are actively involved in the planning for health services at the facilities' level. In order to establish this, the respondents were asked to state which actors are involved in the development of health facility plans. The responses were tabulated in frequencies and percentages and presented in Table 4.17.

**Table 4.17: Involvement of Various Parties in the Development of Facility Plans**

<b>Parties</b>	<b>Frequency</b>	<b>Percent</b>
Facility in charge	17	25
FMC	43	62
CSOs	3	4
SCHMT	6	9
<b>Total</b>	<b>69</b>	<b>100</b>

Table 4.17, majority of the respondents 43 (62%) mentioned FMCs, 17 (25%) indicated that facility in charges, 6 (9%) SCHMT while only 3 (4%) mentioned CSOs. It can be noted that the involvement of the SCHMT is negligible at best with only 6 (9%) of the respondents alluding to their active involvement in the development of health facility plans. Given that the SCHMT is responsible for technical support in the development, implementation and monitoring of the GOK and non GOK health programmes (MOH 2005), their lack of involvement in development plans raises questions on the quality of such plans, and ultimately the County health programme plans.

The Ministry of health underscores the need for all stakeholders in health, to collaborate in the inception, planning, design, implementation and monitoring and evaluation of health programmes (MOH 2005). Studies have shown that appeal to stakeholders and involving them in decisions and the processes through which decisions are made are becoming touch stones of "best practice," in health care programmes. Kathryn et al.,(2004) suggested that understanding the incentives of stakeholders and employing effective management practices with various stakeholder groups is essential for health programme management and sustainability. In other related studies, the Kenya Health System Assessment, 2010, noted that there is a need for the government to bring in all the interested stakeholders, such the private sector and civil society organizations, and to provide incentives to strengthen their participation in the sector policy process and planning as this is critical to the success and sustainability of healthcare programmes.

#### **4.7.3 Involvement of stakeholders in the implementation of the health programme**

Apart from involvement of stakeholders in planning, the researcher was keen on establishing whether stakeholders are actively involved in the implementation of health programme activities. The respondents were asked to state whether stakeholders are involved in the implementation of health related activities. The responses were tabulated in frequencies and percentages and presented in Table 4.18.

**Table 4.18: Stakeholders' Involvement in the Implementation of Health Programme**

<b>Stakeholders' involvement</b>	<b>Frequency</b>	<b>Percent</b>
Stakeholders involved	77	80
Stakeholders not involved	19	20
<b>Total</b>	<b>96</b>	<b>100</b>

Results shown in Table 4.17 above shows that in terms of implementation of health activities, 77 (80%) of the respondents indicated that stakeholders are engaged in the implementation of service delivery activities as compared to only 19 (20%) who responded to the contrary. This indicates that though CSOs play a key role in financing health activities and supporting the

implementation of health service delivery activities around the facilities, they are minimally involved in planning.

Studies have shown that engagement with multidisciplinary groups of stakeholders may disclose valuable information about current health services activities, community health needs and opportunities for enhanced service quality or resource utilization, locally or regionally (Abelson et al., 1995). Chitama et al., (2011) identified the role of actors in playing a significant role in planning and decision making process, and assessing priority setting process in healthcare programmes. It is noteworthy that active involvement of stakeholders in all aspects of planning and implementation at the health facilities will go along in improving the health programme at the County level.

#### 4.7.4 Stakeholders involvement and implementation of the health programme

The study examined the relationship between stakeholders' involvement and its influence on implementation of health facility plan. Logistic regression model was used to determine the influence of involvement of stakeholders in management of health facilities on implementation of the county health programme. A reference variable is set against which odds of occurrence of implementation of the County health programme are measured. Table 4.19 shows summary of relationship between stakeholders' involvement and the implementation of health programme.

**Table 4.19: Stakeholders' Involvement and Implementation of Health Programme**

	P Value	Odds ratio Exp (β)
<b>Stakeholders' involvement and implementation of health programme</b>		
Stakeholders not involved in facility management		Reference
Stakeholders involved in facility management	0.919	1.091

Table 4.19 shows that there is no significant relationship between stakeholders involvement in the management of the facility and the implementation of the County health programme, p value of 0.919 ( $p > 0.05$ ). This means that there is no significant relationship between involvement of

stakeholders in facility management and implementation of the health programme. Involvement of stakeholders in facility management will not necessarily lead to the implementation of County health programme unless other institutional measures are put in place to ensure implementation of the health programme at the facility level. The study further established that the odd or the likelihood of health programme being implemented is almost equal (odds ratio 1.091) when stakeholders are engaged and when the stakeholders are not engaged.

#### **4.8 Infrastructure and implementation of County health programme**

The fourth objective of study was to establish the extent to which infrastructure influence implementation of County Health programme. The results under this section have been presented, interpreted and discussed under the following sub themes; adequacy of infrastructure for service delivery, adequacy of medical equipments for service delivery, maintenance of medical and diagnostic equipments, response to medical emergencies and relationship between adequacy of infrastructure and its influence on implementation of health facility plans.

##### **4.8.1 Adequacy of physical infrastructure for service delivery**

The researcher was interested in establishing the perception of the healthcare workers on the adequacy of infrastructure. To achieve this, the respondents were asked to state whether they felt that the available infrastructure is adequate to deliver healthcare services at the facilities. The responses were tabulated in frequencies and percentages and presented in Table 4.20.

**Table 4.20: Adequacy in Physical Infrastructure at the Health Facilities**

<b>Adequacy of infrastructure</b>	<b>Frequency</b>	<b>Percent</b>
Adequate	39	40.6
Not Adequate	57	59.4
<b>Total</b>	<b>96</b>	<b>100</b>

From Table 4.20, majority of the respondents 57 (59%) felt that the infrastructure available were not adequate while 39(41%) felt otherwise. The inadequacy of medical equipments was further

conformed during Key Informant Interview with the SCPHN who stated that the level of available infrastructure is still below what is required to deliver quality health services. The study reveals that the level of infrastructure within the sub county cannot support the health programme. For instance, in the Sub County the distance between most health facilities range from 20-50 Kilometers apart against the recommended range of between 5-10 kilometers (MOH 2005). This is telling in terms of infrastructure deficits in the sub County. Various studies have underscored the role of health infrastructure in supporting healthcare processes. Bayer et al., 2007 emphasized that infrastructure needs to support healthcare processes that change rapidly, and that infrastructure needs to be able to adapt to these changes. He adds that health planning tools need to recognize the interdependencies within the care service and care infrastructure system.

#### **4.8.2 Adequacy of medical and diagnostic equipment for service delivery**

The study sought opinion of the respondents regarding the adequacy of medical and diagnostic equipments within the health facilities in the sub county. To achieve this, the respondents were asked to state whether they felt that the available medical equipments is adequate to deliver healthcare services at the facilities. The responses were tabulated in frequencies and percentages and presented in Table 4.2.

**Table 4.21: Adequacy of Medical and Diagnostic Equipment at the Health Facilities**

<b>Adequacy of equipment</b>	<b>Frequency</b>	<b>%</b>
Adequate	31	32
Inadequate	65	68
<b>Total</b>	<b>96</b>	<b>100</b>

From table 4.21, 65 (68%) of the respondents indicated that the medical equipments were not adequate enough to support service delivery while 31 (32%) felt that the medical equipment were adequate. Inadequacy in medical equipment and supplies as indicated by the respondents is in concomitance with Kenya Health Policy 2012-2030 which noted that there are still key gaps in



medical equipments in Kenya. The study therefore established that there is need for further investment in medical equipment. The Kenya Health Policy 2012-2030 further notes that there is lack of comprehensive, coordinated investment and there is limited investment in maintenance of medical equipment.

During a Key Informant Interview with Sub County Medical Officer of Health (SCMOH) for Turkana West sub County, he stated that

*“In most of the facilities in the Sub County, basic medical equipments, theatres, laboratory diagnostic equipments, emergency equipment and life saving gadgets are seriously lacking; this makes it difficult to deliver quality medical services to people.”*

For the interview it became evident that medical and diagnostic equipments are lacking in the sub County and this makes it quite difficult to deliver quality health services to the people. It should be noted that just like in the case for infrastructure, medical equipments are equally important in healthcare programmes and their inadequacy as indicated by the study points to need for further allocation of resources. Making sure that health facilities have adequate supplies, equipment and drugs is essential if people are to have confidence in health services and health workers (Kaur, M., and Hall, S, 2001).

#### **4.8.3 Maintenance of medical and diagnostic equipment for service delivery**

The researcher was interested in gathering further information on how the health programme is equipped in terms of maintenance of medical equipments. To achieve this, the respondents were asked to state how their facilities ensure maintenance of existing equipment. The responses were tabulated in frequencies and percentages and presented in Table 4.22.

**Table 4.22: Maintenance of Medical and Diagnostic Equipment at the Facilities**

<b>Maintenance of equipment</b>	<b>Frequency</b>	<b>%</b>
Do internal servicing	8	8
No servicing	87	91
Seek support from partners	1	1
<b>Total</b>	<b>96</b>	<b>100</b>

Table 4.22, shows that no proper maintenance is done on medical equipment at the facilities 87 (91%). 8 (8%) responded that they conduct internal maintenance of equipments while 1 (1%) indicated that they rely on support from partners. Facilities that can afford internal maintenance are privately owned by Faith Based Organizations. Public facilities on the other hand demonstrated their inability to support maintenance due to inadequate resources. The Kenya Health Policy 2012 -2013 emphasizes that availability and functionality of diagnostic and medical equipment is critical in treatment, and that most of medical equipment used in public health facilities is old and therefore characterized by frequent breakdowns. Just like in other areas, it is noteworthy that, the available equipment in the Sub County falls far short of the numbers required to support the County health programme.

Studies have shown that maintenance of medical equipments is one of the biggest challenges to healthcare programmes in Kenya. For instance, KIPPRA, 2004 noted that maintenance of public sector health facilities in Kenya has been a big problem and a major burden for the Ministry of Health. The equipment may be available but if measures are not taken to routinely maintain such equipments then the investment may be a waste. Kaur, M., and Hall, S, 2001 noted that there is no point in obtaining items if the staff do not have the expertise or information to use them effectively or if you cannot access maintenance support and technical back up. It is worth noting that County health programme planner should put in place systems ensuring that Planned Preventive Maintenance (PPM) is conducted.

#### 4.8.4 Facilities' response to medical emergencies and referrals

The researcher was interested in establishing how the health facilities are equipped in terms of management of medical emergencies. To achieve this, the respondents were asked to state how their facilities manage medical emergencies and referral. The responses were tabulated in frequencies and percentages and presented in Table 4.23.

**Table 4.23: Response to Medical Emergencies and Referrals**

<b>Response to emergencies</b>	<b>Frequency</b>	<b>Percent</b>
Motor bikes	24	20
Use ambulance	2	2
Use partners vehicles	91	76
Hire Vehicle	3	3
<b>Total</b>	<b>120</b>	<b>100</b>

From Table 4.23, 91 (76%) of the responses indicated that they use partner vehicles/ambulances to refer cases while 24 (20%) of the responses indicated motorbikes. 3 (%) of the responses indicated that they hire vehicles while only 2 (2%) if the responses use ambulance. It is important to note that no response indicated that Community Health Workers (CHWs) conduct referral. The Norms and Standards for health service delivery (MOH 2007) indicate that CHWs are responsible for conducting referrals including emergency cases from the Community (level I) to other levels of service delivery. In other related services, KPMG, 2013 indicated that community health services should be responsible for the identification of cases that need to be managed at higher levels of care, as defined by the health sector hence plays an important role in referral. It is important to note that the Sub County relies solely on partner vehicles to conduct referrals. The county health planners need to invest on infrastructure for referral in the form of vehicles and ambulances and also strengthen community health services at level I.

#### 4.8.5 Infrastructure related variables on implementation of the health programme

The study examined the relationship between adequacy of infrastructure and its influence on implementation of health facility plan. Logistic regression model was used to determine the influence of infrastructure on implementation of the county health programme. A reference variable is set against which odds of occurrence of implementation of the County health programme are measured. Table 4.24 provides a summary of relationship between relationship between adequacy of infrastructure and implementation of the health programme.

**Table 4.24: Adequacy of infrastructure and implementation of the health programme**

<b>Adequacy of infrastructure</b>	Odds ratio	
	P Value	Exp (β)
Facilities with inadequate infrastructure		Reference
Facilities with adequate infrastructure	0.522	1.579

Table 4.24 above shows there is no significant relationship between adequacy of infrastructure and implementation of health programme, p value of 0.522 ( $p > 0.05$ ). This shows that whether the existing infrastructure is adequate or not, it does not in any way influence implementation of the County health programme. The study also established that the odd of the County health programme being implemented is almost twice (odds ratio 1.579) when infrastructure is adequate than inadequate infrastructure. There is a high likelihood of the county health programme being implemented when the infrastructure is adequate than when it is inadequate.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter summarizes the major findings, conclusions and recommendations of the study on the themes that were discussed in chapter four, and suggestions for further investigations.

#### **5.2 Summary of findings**

The study investigated the determinants of implementation of the County health programme in Turkana West sub County, Kenya. This is in light of the fact that the health sector is currently fully devolved with planning and implementation fully in the hands of the County government. Devolution being a new concept in Kenya, the study sought to establish the determinants of implementation of the county health programme with an aim of informing the County health planners on how well they can best implement the health programme.

Financial resources have a significant influence the implementation of the County health programme and hence a determinant of implementation of the County health programme. From the study, the government is the main funder of health activities in the County through the County government of Turkana 43 (44%) and HSSF 25(26%), while the other source mentioned was CSOs 14 (14.6%). Despite the County government being the main funder of the health programme, the study established that the County health programme is currently underfunded with majority of the respondents 86 (90%) stating that the finances are inadequate to support the healthcare programme. The SCPHN during a Key Informant Interview session strongly pointed out that funding to the health facilities from the County is currently not only inadequate but also very inconsistent to run health activities. This is in line with a study that was conducted by Osorio et al., (2000), which noted that identifying, securing, and sustaining funding are the greatest challenges to establishing sustainable health programmes. Implementation of the health

programmes is anchored on the health plans being developed and implemented at the facilities level and the study established that health planning is done in most facilities, with 69 (71.9%) of the respondents confirming this. The planning was however more common 10 (56%) in facilities that are funded through Health Sector Service Fund (HSSF). In his study, Chatora R. and Tumusiime P. 2004 noted that health facility planning is critical to the implementation of the district health services and it forms the basis upon which the implementation of the district health services (currently referred to as the Sub County) is measured. Logistic regression analysis for variables showed that the implementation of health plan at the facilities' is significantly influenced by source of funding with a p value of 0.000 ( $p < 0.05$ ). Since various funding sources have different preconditions for funding, a funding source must ensure that funding is pegged on proper planning and that implementation is as per the priorities set out in the plans. Adequacy of financial resources as a single factor, however, does not significantly influence whether health plans are implemented or not with a p-value of 0.217 ( $p > 0.05$ ).

Human resources capacities influence the implementation of the County health programme. From the study, the health facilities in the sub county are understaffed with 69 (72%) of the respondents stating that staffing levels are inadequate to support the health programme. This is in line with the Kenya National Human Resources for Health Strategic Plan (2009–2012) that noted that the erosion of Kenya's key health indicators; life expectancy, infant mortality and maternal mortality during the last two decades can be traced at least in part to the deterioration of the health work force. In addition, the Kenya Norms and Standards for health service delivery (MOH 2007) provides clear guidelines on minimum human resources requirement at each level of service delivery, and a review of the staffing at the sub County indicates that it is way below the minimum standards set by the government. The study also established that majority 57(59%) of the health workforce within the Sub County are hired by Civil Society Organizations (CSOs) and that the County government account for 36 (38%) of the total sub County Staff. It is noteworthy that the county is likely to face critical shortage of staff to support health facilities when CSOs projects terminate. During an Interview with the Sub County Public Health Nurse (SCPHN) who is directly in charge of the various health facilities in the sub county he stated categorically that there is high turnover of staff since most staff work away from their families, life is generally

hard in the County in terms of food and that staff are posted to the County for disciplinary action hence have low work motivation. Logistic regression analysis for variables revealed that there is no significant relationship between adequacy of staffing at the facilities and implementation of the County health programme with a p value of 0.784 ( $p > 0.05$ ).

Stakeholders support is a determinant of implementation of the health programme. From the study, stakeholders are actively involved in the support of health related activities in the health facilities with 89 (93%) of the respondents acknowledging that support. This is in line with the National Health Sector Strategic plan (1999-2004) which emphasized that effective decentralization must recognize the effective roles of the various stakeholders in promoting health at the local level. In terms of implementation of health related activities, the study revealed that that stakeholders are engaged in the implementation of health service delivery activities with 77 (80%) of the respondents agreeing to this. In a related study, Chitama et al. (2011) stated that actors in play a significant role in planning and decision making process, and assessing priority setting process in healthcare programmes. Logistic regression analysis for variables showed that there is no significant relationship between stakeholders involvement in the management of the facility and the implementation of the County health programme, p value of 0.919 ( $p > 0.05$ ).

The study established that health infrastructure and equipments significantly influence the implementation of the County health programme. Results of the study revealed that the health infrastructure is inadequate in the sub county with majority of the respondents 57 (59%) stating the available is not adequate. The SCPHN stated during a Key Informant Interview that the level of infrastructure is still below what is required to deliver quality health services. For instance, the distance between most facilities in the sub County range from 20-50 Kilometers apart against the recommended range of between 5-10 kilometers (MOH 2005). In a related study, Bayer et al., (2007) emphasized that infrastructure needs to support healthcare processes that change rapidly, and that infrastructure needs to be able to adapt to these changes. The Sub county is not well furnished in terms of medical equipment with 65 (68%) of the respondents stating inadequacy. Inadequacy in medical equipment and supplies as indicated by the respondents is in concomitance with Kenya Health Policy 2012-2030 which noted that there are still key gaps in medical equipments in Kenya. Just like infrastructure,

medical equipments are important in healthcare programmes. In their studies, Kaur, M., and Hall, S, 2001 stated that making sure that health facilities have adequate supplies, equipment and drugs is essential if people are to have confidence in health services. The study further revealed that that no proper maintenance measures are in place with 87 (91%) of the respondents stating that no maintenance is done to equipment due to inadequate resources. From the Kenya Health Policy 2012 -2013, it is emphasized that availability and functionality of diagnostic and medical equipment is critical in treatment. The Sub County is not well prepared in terms of management of medical emergencies and referrals. 91 (76%) of the responses indicated that they use partner vehicles to refer cases meaning that Sub County relies solely on partner vehicles to conduct referrals. No response indicated that Community Health Workers (CHWs) conduct referral despite the fact that Norms and Standards for health service delivery (MOH 2007) indicate that CHWs are responsible for conducting referrals including emergency cases from the Community (level I) to other levels of service delivery. Logistic regression analysis for variables established that the odd of facility health plans being implemented is almost twice (odds ratio 1.579) when infrastructure is adequate.

### **5.3 Conclusions**

From the above findings, the study came up with various conclusions on the determinants of implementation of County health programmes in Turkana West Sub County. As per the objectives

#### **5.3.1 Influence of Financial resources on implementation County health programme**

From the findings, it was established that adequacy of funding significantly influence the implementation of the County health programme. This is because the health programme requires sufficient and consistent funding to support key components of the health programme including staffing, infrastructure, equipment and supplies. However adequacy of finances a single factor may not guarantee implementation. The study established that source of funding for the health programme influence the implementation of the health programme activities, p vale of 0.000 ( $p < 0.05$ ). This is because carious sources of funding have different preconditions, for instance HSSF require plans to be in place before funding is availed. Health facility planning and



budgeting play a key role in determining the overall County health programme plans and financial allocation and hence a key factor in influencing implementation of the County health programme.

### **5.3.2 Human resources and implementation of County health programme**

According to the findings, the study concluded that adequacy of human resources influence the implementation of the county health programme, and that healthcare programmes require adequate, well motivated staff of various cadres to perform. The sub County currently relies on staff hired by the various CSOs to run the health facilities. This is not sustainable since CSO projects are for a specified period beyond which the health programme is likely to suffer acute shortage of staffing. Training of staff in planning and management including financial management influences the implementation of the county health programme in the sense that staffs require management skills to be able to plan and implement health plans at the facility level. The study however established that the length of contract for health facility staff have no influence on the implementation of the county health programme.

### **5.3.3 Stakeholders' support and implementation of County health programme**

From the study, stakeholders support and engagement influences the implementation of the county health programme. Stakeholders provide support to health facilities ranging from financing of health activities, recruitment of staff, procurement of essential drugs and medical equipments, support medical outreaches and training for staff. Stakeholders currently support the implementation of health programme plans through bridging financial gaps. Active involvement of stakeholders in planning and budgeting and engaging them in resource mobilization are critical to making them effective in supporting the County health programme.

### **5.3.4 Infrastructure and implementation of County health programme**

The study revealed that adequacy of physical infrastructure and equipments influence the implementation of the county health programme and that odd of facility health plans being implemented is almost twice (odds ratio 1.579) when infrastructure is adequate than when it is

inadequate. This is because healthcare programmes require both physical infrastructure and equipments to perform. There should be mechanisms put in place to ensure that the equipments are properly serviced and maintained to avoid breakdowns that would cripple delivery of health services. From the study, referral system needs to be strengthened to support healthcare service and to ensure that medical emergencies are addressed effectively.

#### **5.4 Recommendations**

Based on the study findings and discussions, the researcher proposes the following recommendations:

1. During the next financial year, it is important that health programme planners should explore various healthcare financing reforms like cost recovery techniques, improve allocation and management of existing health resources and increase the role of private sector in healthcare financing. Health facility planning should also strengthen to provide evidence for increasing health budgetary allocation.
2. County health planners need to address staffing problems at the health facilities. That is equitable distribution of staff by numbers and cadres, mechanisms for skills development, and motivation for staff at the various health facilities in the sub county.
3. Health planners should actively engage stakeholders in the development and implementation of health programme plans. In addition mechanisms should be put in place to ensure that stakeholders are engaged in resource mobilization activities to bridge financial gaps in the county healthcare programme.
4. There is need for the county health planners to advocate for increased resource allocation to support infrastructure development initiatives; physical infrastructure and medical equipments. Attention should also be given to maintenance for physical infrastructure and medical equipments. Proper referral mechanisms should also be strengthened to address medical emergencies especially in hard to reach areas of the County.

## 5.5 Contribution to the body of knowledge

**Table 5.1 Contribution to the Body of Knowledge**

<b>Objectives</b>	<b>Contribution to the body of knowledge</b>
To establish the influence of financial resources on the implementation of County Health programme.	Source of funding at the health facilities influence the implementation of the County health programme. Adequacy of financial resources as a single factor does not significantly influence whether health programme implemented or not.
To explore the extent to which human resource capacities influence the implementation of County Health programme.	The likelihood of health programme plans being implemented is higher when there is adequate staffing than when there is inadequate staffing. The study however established that the length of contract for health facility staff have no influence on the implementation of the county health programme.
To determine the extent to which stakeholders support influence the implementation of County Health programme.	Active involvement of stakeholders in planning and budgeting and resource mobilization are critical to making them effective in supporting the County health programme.
To establish the extent to which infrastructure influence implementation of County Health programme.	There is a high likelihood of the County health programme being implemented when the infrastructure is adequate than when it is inadequate. Adequacy of infrastructure strongly influences the implementation of the County health programme.

## 5.6 Suggestions for further studies

The study basically looked at the determinants of implementation of the County health programme in Turkana West Sub County. The study recommends that further research should be conducted in the following areas:

- Factors affecting the effectiveness of the Turkana County Health programme.
- A study on the determinants of health workers performance in Turkana West Sub County.
- A study on cost recovery health financing approaches for poor and hard to reach populations of Turkana County.

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## **APPENDIX I: LETTER OF TRANSMITTAL**

OKELLOH JOHN KUTNA  
P.O. BOX 7484-40100  
KISUMU

Dear Respondent,

### **REF: PERMISSION TO CONDUCT A RESEARCH PROJECT STUDY**

My name is **Okelloh John Kutna (Reg. L50/63701/2013)**, a student of the University of Nairobi pursuing Masters of Arts Degree in Project Planning and Management. My main aim of writing this letter is to seek for permission to conduct a research project study. I am interested in finding out the determinants of implementation of County Health programme in Turkana West sub County. I am kindly requesting for your assistance in responding honestly to all items in the questionnaire. All information given will be treated with utmost confidentiality and will be used only for the intended purpose.

In case of any information or clarification, please contact the researcher on mobile number 0727734081

Your cooperation and assistance will be highly appreciated.

Yours faithfully,

Okelloh John Kutna  
**Student University of Nairobi**

## APPENDIX 2: HEALTH FACILITY STAFF QUESTIONNAIRE

### Introduction and consent

Hello, my name is.....and I am a student at University of Nairobi pursuing a Masters Degree Course in Project Planning and Management. I am conducting a study to establish the determinants of implementation of County Health programme in Turkana West Sub County. It is expected that the study will provide insights on key areas that the health programme should focus on so as to improve the County health programme. You have been selected to join this study because you are a staff at this health facility. The information collected will only be used for the purposes I have informed you about and will be confidential. Participating in this study is voluntary; however, we hope that you will participate since your views are very important to us. You may choose not to answer any question.

### Consent statement

Are you willing to take part in this study?

Yes, I have been informed about the study and have been given a chance to ask questions.	Continue with the interview.
No. I will not take part in this study.	Stop here and thank the respondent

Respondent's Name (Optional) .....

Q1. Date: .....

Q2. Interviewer's Name: .....

**Section A: Health Facility Data (To be filled by facility in charge or someone acting on his/her behalf)**

Q3. Facility Name: \_\_\_\_\_

Questions	Responses	Tick appropriately
Q4. Location of the facility	Rural	
	Urban	
Q5. What is the level of this facility	Level 1: Dispensary	
	Level 1: Health Centre	
	Sub County Hospital	
	County Referral Hospital	
	Any other (mention)	
Q6. What type of your health facility is this?	Government facility	
	FBO facility	
	Private Facility	
	Any other (Specify)	
Q7. Health Facility staff (Insert number of available staff)		
Cadre	Number	
7.1 Doctor		
7.2 Nurse		
7.3 Clinical officer		

7.4 Health Administration Officer	
7.5 Public Health Officer	
7.6 Pharmacist	
7.7 Lab technologist/technician	
7.8 Health records officer	
7.9 Nutritionist	
7.10 Physiotherapist/occupational	
7.11 Radiographer	
7.12 Community health Volunteers	
7.13 Security/watchman	
7.14 Any other ( <i>probe for non medical staff</i> )	

Section B: Financial Resources (To be filled by all respondents)

Questions	Responses	Tick appropriately
Q8. What are the main sources of facility finances at the moment?	Sub County/County	
	Facility IGAs	
	HSSF	
	Any Other source. Specify	
Q9. Does this facility have a facility health plan?	Yes	
	No	Go to Q14
	Don't Know	Go to Q14



Q10. Who came up with the health Plan? <i>(Multiple responses are accepted.)</i>	Facility in charge		
	Facility management committee		
	Stakeholders/ Partners forum		
	SCHMT		
	CHMT		
	Any other <i>(mention)</i>		
	Don't Know		
Q11. Is the health plan, is it being implemented?	Yes		Go to Q13
	No		
	Don't Know		Go to Q13
Q12. Why is it not being implemented? <i>(Multiple responses are accepted.)</i>			
Q13. What are some of the challenges faced in the implementation of health facility plans? <i>(Multiple responses are accepted.)</i>			
Q14. Does this facility have a quarterly budget?	Yes		
	No		Go to Q16
	Don't Know		Go to Q16
Q15. What determines the size of your quarterly budget? <i>Multiple answers allowed</i>	Catchment population		
	Geographical area size served		
	Level of Health facility		
	Fixed from Ministry/County		
	Facility health plans		

	Any other (specify)		
Q16. How does this facility account for its facility expenditure? <i>Multiple answers allowed</i>	Payment vouchers receipts etc		
	Review of books of accounts		
	Regular audits		
	Approvals from FMC		
	Any other (Specify)		
Q17. Do you have any training on financial management?	Yes		
	No		
Q18. Do you think the financial resources available are adequate enough to meet the needs of this facility?	Yes		
	No		Go to Q19
Q19. Why			
Q20. How does this facility bridge the financial gap to support healthcare?			

**Section C: Human Resource Capacity (To be filled by all respondents)**

Questions	Responses	Tick appropriately
Q21. What is your main responsibility in this health facility?	Facility in-charge	
	Unit in-charge	
	Service provider	
	Community representative	
	Other (Specify)	

Q22. How long have you served in this facility?	Less than one year	
	1-3 years	
	3-5 years	
	More than 5 years	
Q23. Who is your employer in this facility?	County Government	
	NGO (State the name)	
	FBO (state the name)	
	Any other (specify)	
Q24. What are your current terms of employment?	Permanent and pensionable	
	Probation	
	Contract	
	Casual	
	Other (Specify)	
Q25. Do you think you are competent enough to handle the role assigned to you at this level of service delivery?	Yes	
	No	
Q26. Explain your answer above		
Q27. Do you think the staff level is adequate enough to run this facility?	Yes	
	No	
Q28. In your opinion, what are the gaps in terms of workforce in your facility? <i>Multiple answers allowed</i>		
Q29. What are some of your training needs/gaps? <i>Multiple answers allowed</i>		
Q30. List some of the challenges you and your colleagues face as they deliver services in this facility?		

<i>Multiple answers allowed</i>		
Q31. In your opinion, do these challenges affect service delivery activities at this health facility?	Affect to some extent	
	Affect greatly	
	Does not affect at all	Go to Q33
Q32. Explain how? <i>Multiple answers allowed</i>		

#### **Section D: Stakeholders Support (all respondents)**

Questions	Responses	Tick appropriately
Q33. Who are some of your stakeholders at this facility? List them		
Q34. Do you get support from these stakeholders as far as service delivery is concerned?	Yes	
	No	Go to Q36
Q35. list the nature of support ( <i>Multiple answers allowed</i> )		
Q36. In your opinion does the facility engage the various stakeholders in the management of the facility?	Yes	
	No	Go to Q38
Q37. If Yes, How? <i>Multiple answers allowed</i>		
Q38. In your opinion does this facility engage the various stakeholders in the implementation of the health plans/activities?	Yes	
	No	Go to Q40
Q39. If Yes, How? <i>Multiple answers allowed</i>		
Q40. In your opinion does this facility seek the opinion of your stakeholders regarding implementation of service delivery activities at the facility?	Yes	
	No	Go to Q42

Q41. If Yes, How? <i>Multiple answers allowed</i>		
Q42. In your own opinion, do you believe that stakeholders are important to this facility as far as service delivery is concerned?	Yes	
	No	Go to Q44
Q43. If Yes, How? <i>Multiple answers allowed</i>		
Q44. Can you suggest better ways you think stakeholders can be engaged to enhance efficient service delivery? <i>Multiple answers allowed</i>		

**Section E: Infrastructure (all respondents)**

Questions	Responses	State Number
Q45. Do you think the physical infrastructure of this facility is adequate to support the health needs of this facility at its level of service delivery?	Yes	
	No	
Q46. Explain your answer. <i>Multiple answers allowed</i>		
Q47. Do you think the medical equipments available are able to meet the needs of this facility at its level of service delivery?	Yes	
	No	
Q48. Explain your answer above. <i>Multiple answers allowed</i>		
Q49. What are some of the gaps in regards to medical equipments in regards to this level of facility?		
Q50. How does this facility address medical emergencies and referrals?		
Q51. How is the facility equipped in terms of maintenance of medical/diagnostic equipment?		

## APPENDIX 3: KEY INFORMANT INTERVIEW GUIDE

Respondent's Name (Optional) .....

Position: .....

Date .....

### **Introduction and consent**

#### **Explain the importance of recording**

#### **Take notes**

### **Section A: Financial Resources**

How does the Sub County finance its health activities at the moment?

What determines the size of Sub County quarterly budget? Explain

Does the Sub County have a health plan?

How does the Sub County implement the health plans? Explain your answer

In your opinion is the financial allocation to this Sub County able to meet its needs? Explain

How does the Sub County bridge the gap to support healthcare? Explain...

### **Section B: Human Resources Capacity**

Are your staffs adequately trained to meet healthcare needs at the various levels of service delivery? Explain your answer

What are some of your staff training needs/gaps

What are some of the staffing challenges you face in this Sub County? Explain

How do these challenges affect health service delivery activities?

What mechanisms would you put in place to enhance attraction and retention of required staff?

How do you ensure equitable distribution of staff within the sub county?

### **Section C: Stakeholders Support**

Who are some of your stakeholders at the Sub County level? List them

What type of support do you get from these from these stakeholders as far as service delivery is concerned?

How do you engage the various stakeholders in the development and implementation of health plans?

In your own opinion, do you believe that stakeholders are important in improving implementation of service delivery activities in the sub County? How?

Can you suggest better ways you think stakeholders can be engaged to enhance efficient service delivery? List

### **Section D: Infrastructure**

Do you think the physical infrastructure of facilities in this sub County is adequate. Explain

Do you think the medical equipments available are able to meet the needs of these facilities? Explain.

What are some of the gaps in regards to medical equipments in this sub County?

How is the Sub County equipped address medical emergencies and referrals?

How is the Sub County equipped in terms of maintenance of medical/diagnostic equipment?

## APPENDIX 4: RESEARCH AUTHORIZATION LETTER- NACOSTI



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No.

Date:

7<sup>th</sup> July, 2014

NACOSTI/P/14/0725/2260

John Kutna Okelloh  
University of Nairobi  
P.O.Box 30197-00100  
NAIROBI.

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Determinants of implementation of County Health Programme: A case of Turkana West Sub County, Kenya.*" I am pleased to inform you that you have been authorized to undertake research in **Turkana County** for a period ending **31<sup>st</sup> August, 2014.**

You are advised to report to **the County Commissioner and the County Director of Education, Turkana County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

  
SAID HUSSEIN  
FOR: SECRETARY/CEO

Copy to:

The County Commissioner  
The County Director of Education  
Turkana County.



*National Commission for Science, Technology and Innovation is ISO 9001:2008 Certified*



**APPENDIX 5: RESEARCH AUTHORIZATION LETTER UON**



**UNIVERSITY OF NAIROBI  
COLLEGE OF EDUCATION AND EXTERNAL STUDIES  
SCHOOL OF CONTINUING AND DISTANCE EDUCATION**

Our Ref.: UON/CEES/KSM/1/16

University of Nairobi Plaza,  
Oginga Odinga Street  
P.O. BOX 825,  
KISUMU.

Telephone: Kisumu 057-2021534

3<sup>rd</sup> June, 2014

**TO WHOM IT MAY CONCERN**

**RE: OELLOH JOHN KUTNA- REG NO. L50/63701/2013**

This is to confirm to you that the above named Okelloh John Kutna is a student of The University of Nairobi pursuing masters in project planning and management at Kisumu Campus.

**John** has completed his course work and examination successfully and is now undertaking his research work which is a pre-requisite for the course. The research is entitled **“Determinants of implementation of County Health Programme: A case of Turkana West Sub County, Kenya”**. The purpose of this letter therefore is to request you to allow the student to access the data or information he may need for purpose of this study. The data is required for his academic purposes only and not for any other reasons. We would appreciate any assistance that may be given to enable him carry out the study.

Yours faithfully,

  
DR. RAPHAEL ONDEKO NYONJE  
**RESIDENT LECTURER**  
KISUMU CAMPUS



**ISO 9001: 2008 CERTIFIED**

*The Fountain of Knowledge Providing Leadership in Academic Excellence*


# APPENDIX 6: RESEARCH PERMIT

**THIS IS TO CERTIFY THAT:**  
**MR. JOHN KUTNA OKELLOH**  
**of UNIVERSITY OF NAIROBI, 7484-40100**  
**KISUMU, has been permitted to conduct**  
**research in Turkana County**  
**on the topic: DETERMINANTS OF**  
**IMPLEMENTATION OF COUNTY HEALTH**  
**PROGRAMME: A CASE OF TURKANA**  
**WEST SUB COUNTY, KENYA**  
**for the period ending:**  
**31st August, 2014**

**Permit No. : NACOSTI/P/14/0725/2260**  
**Date Of Issue : 7th July, 2014**  
**Fee Received : Ksh 1000**

*[Signature]*  
**Applicant's Signature**

*[Signature]*  
**National Secretary**  
**National Commission for Science, Technology and Innovation**



**CONDITIONS**

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**

**REPUBLIC OF KENYA**  
**NACOSTI**  
**National Commission for Science, Technology and Innovation**

**RESEARCH CLEARANCE PERMIT**

**Serial No. A: 2186**  
**CONDITIONS: see back page**