

**INFLUENCE OF FACILITY IMPROVEMENT FUNDS ON
DEVELOPMENT OF AMENITY WINGS IN PUBLIC LEVEL IV
HOSPITALS IN KISII COUNTY**

BY

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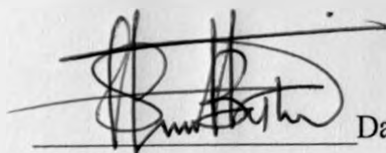
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**A RESEARCH PROJECT REPORT SUBMITTED IN
PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD
OF THE DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND
MANAGEMENT OF THE UNIVERSITY OF NAIROBI.**

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DECLARATION


This research project is my original work and has not been presented for a degree or any other award in any other university.

 Date: 14/11/2012

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

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DEDICATION

I dedicate this work to my mother Grace , for the incessant prayers and constant words of encouragement, Carol my love, Gerald and Eric for their love and support.

ACKNOWLEDGEMENT

I wish to express my sincere appreciation to my supervisor Dr. Christopher Gakuu whose positive criticism and guidance led me in writing this proposal. Special thanks to Mr. Joseph Awino, Mr. Yona Sakaja, Dr. Ouru Nyaega , Dr James Kiige and Mr Mengo Onsembe and all my other lecturers for their insight and comments which were pivotal in developing this report.I wish also to express my sincerest gratitude to the D.C. and M.O.H officers in Kisii County without whose consent this research would not have been possible. I also wish to thank all the medical superintendents, hospital administrators, public health officers and health records officers in the thirteen hospitals in Kisii County for their time to assist me with all the relevant information required to develop this work. This report would not have been successful without the input of Caroline Aunga who typed the work. I must also thank Dr. Kimutai Cheruiyot for the material and moral support. I also thank Dr Jamlick Karumbi for vital information that led to the development of this work. Finally I acknowledge Fred Momanyi, Tony Onani, Dr Isaac Masoni and all my good friends who gave me moral support during the development of this work.

ABSTRACT

This study sought to examine the influence of facility improvement funds on the development of amenity wings in public level IV hospitals in Kisii County. Studies have shown that the number of people seeking services in public hospitals can be increased significantly if the physical infrastructure is well developed. The objectives that aided this study were, to establish the influences of: level of funding, time of funds disbursement, facility income generating potential and health stakeholder participation on physical infrastructure development. The study evaluated four hypotheses which were: H_{01} : There is no significant relationship between the level of funding and development of amenity wings in public level IV hospitals in Kisii County; H_{02} : There is no significant relationship between the time of facility improvement funds disbursement and development of amenity wings in public level IV hospitals in Kisii County; H_{03} : There is no significant relationship between facility income generating potential and development of amenity wings in public level IV hospitals in Kisii County; H_{04} : There is no relationship between health sector stakeholders' participation and development of amenity wings in public level IV hospitals in Kisii County. The significance of this study is that it may help public hospitals, health stakeholders and the ministry of health to plan for infrastructure development. The main themes in chapter two were: facility improvement funds, level of funding, time of funds disbursement, facility income generating potential and health stakeholder participation. The study adopted descriptive survey design where qualitative and quantitative data was collected. The study population was 52 which consisted of 13 medical superintendents, 13 health records information officers, 13 public health officers and 13 health administrative officers. The entire population was sampled using the census survey method. Data was analyzed using statistical package for social sciences v16 (SPSS) and Chi Square was used to test the hypotheses. The findings of the study indicated that facility improvement funds (FIF) could be used in development of amenity wings in public hospitals. To do this, FIF incomes need to be boosted where possible. The study therefore advocates for harnessing stakeholder resources in order to augment incomes from FIF so as to make amenity wing development fully feasible in the short term. The study contributed to the body of Knowledge by linking FIF to hospital infrastructure development with special focus on amenity wings. The study recommends that public hospitals should reduce reliance on treasury by coming up with cost cutting innovations as well as reducing loss of income in key service delivery points. Further research can be carried out to establish the attitudes of healthcare workers on the patients they serve and a comparative study may be conducted to investigate whether actual FIF income generated has been used for other infrastructure development projects in public level IV hospitals in Kisii County for the last five years.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIE :	Authority to Incur Expenditure
CDF :	Constituency Development Fund
FIF :	Facility Improvement Fund
GHE :	Government Health Expenditure
GOK :	Government of Kenya
HAO:	Hospital Administrative Officer
HMC :	Hospital Management Team
HMT:	Hospital Management Team
HRIO:	Health Records Information Officer
KEPH:	Kenya Essential Package for Health
M/SUPT:	Medical Superintendent
MOMS :	Ministry of Medical Services
MOPHS :	Ministry of Public Health and Sanitation
NHIF :	National Hospital Insurance Fund
PHO:	Public Health Officer
WHO :	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1: Background of the Study

Access to basic health services of acceptable quality is still denied to many of the world's poorest people against a backdrop of severely underfunded health systems. Yet, a shortage of resources at the facility level is a contributor to failure to deliver quality services, and this also presents a barrier to access. Some have argued that user charges can generate vital resources at the local level and help provide good quality services.(Lagarde & Palmer,2007) Facility improvement funds or User fees for health care, are also referred to as cost sharing, cost recovery or co-payment, and are widespread around the developing world, despite mounting opposition to them.

Healthcare systems in Central and Eastern Europe are facing increasing budgetary shortfalls. Following the political changes of 1989, Bulgaria retained a government-funded state health system. However, the government has faced repeated crises, with spending on health declining consistently in the face of national economic collapse. The consequences of reduced health sector funding have been exacerbated by an increased demand for health services. Research also suggests that under-the-counter payments for healthcare in Bulgaria have become important sources of extra-budgetary revenue for individual healthcare facilities.(Delcheva & Balabinova,1997)

In most cases, user fees have occurred spontaneously as a result of: the scarcity of public financing; the prominence of the public system in the supply of essential healthcare; the government's inability to allocate adequate financing to its health system; the readiness of the poor and the better-off to pay fees as a way of reducing the travel and time costs of alternative sources of care; the low salaries of health workers; the limited public control over

pricing practices by public providers; and the lack of key medical supplies such as drugs (Gottret & Scheiber,2006). In many cases, user fees are the main way of maintaining some liquidity (readily usable cash) in the lowest tiers of the health system, thus acting as essential life blood to these systems.

In Cambodia, the Ministry of Health (MOH) encourages user fee schemes at operational district level. By allowing revenue to be retained at the health facility level, the MOH aims to improve health care delivery--and consequently service utilization--through increased salaries to health facility staff and increases in operations budgets (Jacobs & Price, 2004). In common with many developing countries, Vietnam has begun to introduce user fees at community and district level. This is part response to the transformation of the economy, economic recession, and the growing acceptability of alternative forms of health finance (Ensor & San ,1996).

User fees for health services are not new in Africa. A few countries in Anglophone Africa, for instance, Ethiopia, Namibia, and South Africa, have had national user fee systems for years, while in many others, charges have historically been applied in both governmental and nongovernmental facilities (Nolan and Turbat 1995).

One principal vehicle for implementation of user fees is the Bamako Initiative (BI), adopted by African health ministers in 1987, and aimed primarily at increasing availability of resources for essential drugs. It proposed decentralising health decision making to the district level; establishing a realistic national drug policy; and providing basic essential drugs. The Initiative was promoted by the United Nations Children's Fund (UNICEF) and World Health Organization (WHO), and stressed the need for community and individual self-reliance and participation in planning, organisation, operation and control of primary healthcare, making fullest use of local, national and other available resources. Accordingly, the BI advocated a combination of financing by users, communities, districts and the central government, depending on the specific circumstances in each country. It stipulated that fees collected from

patients should not replace existing health budgets. The community would control locally generated funds with consideration for protecting the poorest.(The Bamako Initiative,1987)

In some African countries, the desire to increase revenues has been the main reason for adopting user fees. The share of revenues coming from user fees has been small, well below the 10 or 20 per cent anticipated in World Bank documents (such as Lessons from cost recovery in health.) Even if the share of user fee revenue seems low, it is often argued that this extra revenue source at the local level enables purchase of items that would otherwise not be afforded, such as a continuous stock of drugs, incentive payments for staff or additional staff. These have proven to be essential in keeping social services functioning and in improving the quality of care (Hutton, 2004).

The cost-sharing program continues to be an important source of revenue for the hospitals. This revenue has permitted many hospitals to keep operating in the face of rising costs and declining support from the government.

Since independence in 1963, Kenya has had a predominantly tax-funded health system, but gradually introduced a series of health financing policy changes. In 1989, user fees, or 'cost-sharing' were introduced. User fees were abolished for outpatient care in 1990, inspired by concerns about social justice, but re-introduced in 1992 because of budgetary constraints. (Carrin, 2007)

At national level, the Economic Recovery Strategy (ERS) and the National Development Plan 2004–2009 together present Kenya's road map for economic recovery for the next five years. ERS is anchored in four pillars: achieving rapid economic growth in a stable macroeconomic environment; strengthening the institutions of governance; rehabilitating and expanding physical infrastructure; and investing in the poor.(The Economic Recovery Strategy for Wealth and Employment Creation (ERSWEC 2003–2007) is the Kenyan equivalent of the poverty reduction strategy papers (PRSP).(NHSSP II,2005)

1.2: Statement of the Problem

Financing of health care infrastructure has been a priority area in recent years. Level four public facilities provide referral facilities to the level II and III health facilities. They have also been cited as the potential providers of healthcare services for the more than 200,000 people in the civil service, following the recent introduction of the health care insurance scheme for civil servants. These facilities need an infrastructure facelift to restore the public confidence in public hospitals and improve the demand of health service seeking behaviours in these hospitals.

In 2005/2006, government health expenditure (GHE) accounted for 5.73% of total government's budget. This proportion increased to 7.9% in 2006/2007. In 2007/2008, GHE as a percentage of government's budget declined to 6.4% and to 6.0% in 2008/2009. Total government health expenditure as a share of GDP has remained below 2% in the last decade.(Chuma & Okungu, 2011). In the face of declining government expenditure on health care, there is need for health facilities to utilize their self generated funds to improve infrastructure in the facilities so as to improve the physical image of the facilities.

Keeping the health infrastructure and the equipment in good condition would undoubtedly change the public's perception of good quality care and this in turn would encourage people to use the available health services (NHSSP II). The rehabilitation, upgrading and construction of 7 health centres has contributed to a substantial increase in the number of patients, from 85% to 168% for health centres for which data is available. Utilisation of general outpatient services has substantially increased in the health centres which were rehabilitated or upgraded by the project. For example, in Trans Mara District, the utilisation of Lolgorian Health Centre for outpatient services has increased from 9,857 to

23,415 (138%) consultations per year between 2005 and 2008 for a catchment population of 15,172 inhabitants.(Sergent & Charo, 2008)

A dire need for amenity wings in public level IV hospitals has been occasioned by the recent confusion surrounding where civil servants under the civil service insurance scheme should be attended to when they visit public hospitals and also the rising cost of healthcare in the private sector in Kenya. This means that more middle level income earners will prefer to get health care services from public hospital if the infrastructure is made attractive and service provision is improved.

There is a perception among some members of the communities that since some of the district hospitals (public level IV hospitals) are old and ill-equipped, their status should be changed to that of health centres and the new health centres should rather become district hospitals.(Sergent & Charo, 2008). Lack of well constructed consultation rooms and wards for the civil servants and other middle income earners are serving as a huge deterrent for them visiting public hospitals. In order for them to be wooed to the public hospitals, upgrading, renovation and setting up of well equipped consultation rooms and wards is imperative. Therefore, this study sought to investigate influence of facility improvement funds in developing amenity wings in public level IV hospitals in Kisii County.

1.3: Purpose of the Study

The purpose of this study was to determine the influence of facility improvement funds on development of amenity wings in public level IV hospitals in Kisii County.

1.4: Objectives of the Study

The objective of this study were as outlined below:

1. To determine the influence of the level of funding on development of amenity wings in

public level IV hospitals in Kisii County.

2. To establish the extent to which time of Facility Improvement Fund disbursement influences development of amenity wings in public level IV hospitals in Kisii County.
3. To explore the influence of facility income generating potential on development of amenity wings in public level IV hospitals in Kisii County.
4. To examine the influence of health sector stakeholders' participation on development of amenity wings in public level IV hospitals in Kisii County.

1.5: Research Hypotheses

Ho₁ : There is no significant relationship between the level of funding and development of amenity wings in public level IV hospitals in Kisii County.

Ho₂ : There is no significant relationship between the time of facility improvement funds disbursement and development of amenity wings in public level IV hospitals in Kisii County.

Ho₃ : There is no significant relationship between facility income generating potential and development of amenity wings in public level IV hospitals in Kisii County.

Ho₄ : There is no relationship between health sector stakeholders' participation and development of amenity wings in public level IV hospitals in Kisii County.

1.6: Significance of the Study

This study may help public hospitals, the Ministry of Medical Services and The Ministry of Public Health and Sanitation to plan for infrastructure development. It may also be used by partners co-financing health care service provision to reinforce infrastructure development in public hospitals in Kenya. The study may also be of help to NHIF to find out the level of commitment to making the civil servants scheme a success by the accredited hospitals.

1.7: Limitations of the Study

The willingness of the respondents to participate in the research cannot be influenced by the researcher without influencing the outcome of the research. This will be overcome by allowing the respondents to fill in the questionnaires at their convenience.

Respondents with poor records may provide responses that are not accurate and may compromise the outcome of this research. This will be overcome by confirming whether the hospital records are updated in the DHIS2 (District Health Information Systems 2), an online software program for updating hospital records.

1.8: Delimitations of the study

The focus of this study was mainly on the possible usage of FIF funding to develop amenity wings in public level IV hospitals in Kisii County. The study was conducted in 13 public level IV hospitals in Kisii County. These were the hospitals that offer medical services to civil servants insured by NHIF.

The focus was on medical superintendents, Health administrative officers, Health record information officers and Public health officers. These cadres were included in the study

because they are the custodians of vital records and work experiences by virtue of their job descriptions that are necessary for this research.

1.9: Basic assumptions of the study

An assumption is any fact that a researcher takes to be true without actually verifying it (Mugenda & Mugenda, 2003) This study was carried out on the assumption that the public level IV hospitals have all been accredited by NHIF to provide the civil servants based in Kisii County with medical care. The study also assumes that the target groups have all the relevant records in place from which references may be made for purposes of this study.

1.10: Definition of Significant Terms as Used in the Study.

Authority to incur expenditure (AIE)-Refers to a go ahead to use approved government finances that exist in the hospitals vote heads in the district treasury.

Amenity wings-Refers to infrastructure that is separate from existing infrastructure in terms of staffing, services rendered and and/or location. This infrastructure also refers to consultation rooms and wards that will be used by the civil servants when they visit public hospitals under the medical insurance cover of NHIF.

Facility improvement funds (FIF) - Refers to money generated by the hospital for services rendered to patients. Also referred to as user fees, cost sharing funds or out of pocket spending.

National Hospital Insurance Fund (NHIF) - Refers to the government parastatal that is the insurer of all civil servants in Kenya

Public level IV hospitals- Refers to primary care providing hospitals and comprises of both district and sub district hospitals in Kisii County.

1.11. Organization of the Study.

This research project report is organized in five chapters. Chapter One, introduced the study, statement of the problem, purpose of the study, objectives of the study, research hypotheses, significance of the study, limitations of the study, Delimitations of the study, basic assumption of the study and definitions of the significant terms.

Chapter Two, examined the pertinent literature related to the study which included the various factors influencing the development of amenity wings using facility improvement funds as well as the theoretical and perceived conceptual frameworks

Chapter Three, described the research methodology that was used in conducting the study. This included: an introduction, research design, area of study, target population, sample size and sampling procedure; research instruments, validity and reliability of the instruments, data collection procedures and data analysis techniques.

Chapter four, comprised of data analysis, presentations, interpretations and discussions. Finally, chapter five had summary of findings, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1: Introduction

This chapter explored the related literature on the influence of facility improvement funds in developing amenity wings in public level IV hospitals in Kisii County. It focused on variables such as: level of funding, time, facility income generating potential and health stakeholder participation. The chapter also related the variables through a conceptual framework and explored the related theory. It also gave a summary of the literature.

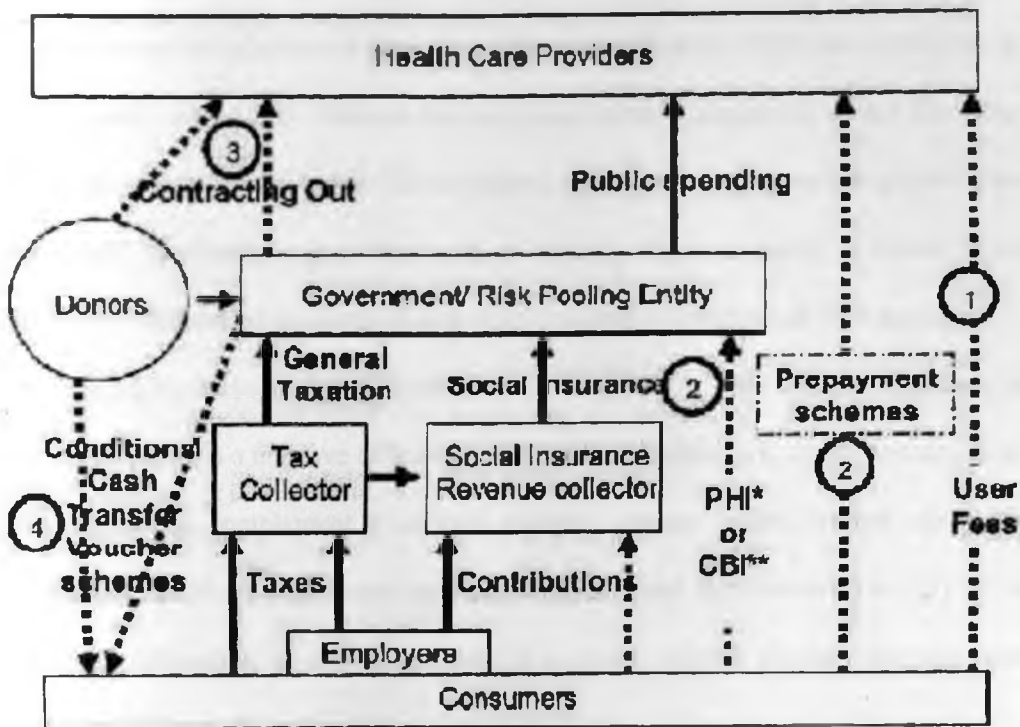
2.2: Facility Improvement Funds in Hospital Infrastructure Development

Equity and universal coverage currently dominate policy debates worldwide. Health financing approaches are central to universal coverage. The way funds are collected, pooled, and used to purchase or provide services should be carefully considered to ensure that population needs are addressed under a universal health system. (Chuma & Okungu, 2011)

National patterns of health financing depend to differing degrees on resources from governments, social and private insurance schemes, foreign donors, non-governmental organizations, communities and households. Low and middle income countries (LMIC) tend to rely on a combination of scarce government resources, donor funded projects and typically high levels of household contributions. (Lagarde & Palmer, 2010)

Health financing mechanisms are often delineated into the three main functions they are supposed to fulfil: collection of revenues, pooling of funds and purchase of services (Schieber 1997; WHO 2000; Preker 2004). The Figure 1 below expands upon these categories to demonstrate financial flows that occur in low income countries between donors, governments, healthcare providers and healthcare consumers. The principal features of financing mechanisms in low income settings are:

Figure 1: Financial Flows that Occur in Low Income Countries Between Donors, Governments, Healthcare Providers and Healthcare Consumers



Source: adapted from Dreschler and Jutting (2005)

*PHI: Private Health Insurance

**CBI: Community-Based Insurance

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The low tax base which means that government financing is not an important source of funding relative to wealthier countries (Schieber 1997).

Donor financing, which may go directly to providers, to households or to the government.

A number of different healthcare providers in the public and private sectors including drug sellers, General Practitioners, NGOs and government clinics and hospitals.

Increasing interest in contracting with private providers or non-governmental organizations to scale up service delivery rapidly (Loevinsohn, 2005).

The predominance of out of pocket spending by households to finance their healthcare

needs. This is in the form of direct payments, payment into an insurance scheme, or by purchase of a 'health card' that gives access to services for a defined period of time. Each of the three functions of a health financing system identified by WHO are of interest. Besides, some recently introduced schemes that may also increase access but do not lie within these categories will also be included. These original approaches have been introduced to complete 'traditional' mechanisms (*see* Figure 1) in order to improve equity in access to care, for instance by stimulating the demand side with vouchers or conditional cash transfers.

According to its supporters (World Bank 1987), FIF or user fees are supposed to fulfil three objectives: 1) To improve efficiency of use and diminish "frivolous" consumption, 2) To raise revenue to complement traditional funding sources (public budget) and therefore improve personnel motivation and service quality (if used appropriately) and 3) To improve equity of distribution of health services in a given country through the reallocation of resources collected through user fees.

The first two objectives were directly linked to the implementation of user fees: as a financial barrier they should deter people from seeking needless health care, and when patients pay them they constitute a source of revenue for the facility or the system. Conversely, the third goal depends on other decisions and policy implementation. Economic theory predicts that an increase in the price of a specific good will lead generally lead to a decrease in its consumption. Advocates of user fees have argued that the collected revenue would, however, improve the quality of services delivered, and hence compensate for the negative effects of user fees. (Lagarde & Palmer, 2010)

Globally, hospital infrastructure is widely agreed to be the basic point of entry for all people seeking health care intervention at the hospital level. This infrastructure basically comprises of buildings, equipment and I.C.T technologies. The Romanian government, for instance, in 2004 adopted the national strategy regarding the health services (Government

decision number 1088/2004). This strategy was based on: The strategy development work of 1998 (Basis for world bank loan); The government of Romania health reforms agenda(2002) and the National hospital rationalisation strategy(World Bank,2003). The strategy sought to ensure adequate and sustainable financing in order to stimulate hospital performance; Close, convert or restructure unnecessary or unutilised hospital units to reduce financial losses and to recuperate these resources for developing new priorities in the health system (Romanian national hospital master plan, 2004)

Hospital infrastructure is part of public infrastructure. More and more European countries are turning to project financing to finance their public infrastructure development. The UK, which pioneered the adoption of project finance in this field, has been followed by Italy, Spain, France, Portugal and Germany and more recently by Greece, Czech Republic and Poland. Beginning in the late 1990's, Italy has steadily amplified its use of project financing and public private partnerships in key sectors such as healthcare as an alternative way of funding the modernisation of its health facilities and hospitals (Contarino; Grosso & Mistretta ,2009)

In Africa, healthcare infrastructure financing is a priority development area in most countries. In Ghana, Ho Municipal hospital made it a priority to rehabilitate prime resource generating points in the hospital. Repairs were carried out at the operation theatre in 2006, and major operations started again. In July 2006, the National Health Insurance Scheme (NHIS) temporarily accredited the hospital. The Medical superintendent initiated a registration drive in the district, together with the district NHIS office. At the end of the year, the proportion of patients registered with the NHIS had risen to 13,1%. Subsequently, the hospital began the rehabilitation of the mortuary, for which the hospital staff agreed to lend funds from their Staff Welfare Funds. The mortuary commenced operations in 2007. After the emergency repairs in 2006, major rehabilitation works started in 2007, leading to the

opening of the rehabilitated maternity ward in 2007, and of the pharmacy, laboratory and the offices of the Health Information System (HIS) department in 2008. At the outpatient department, the roofing of the building was reconstructed and an extension was made to the structure. A start was made with the installation of networked computers at every service point, the accounting and HIS offices. (Marchal, 2010)

In Kenya, hospital infrastructure development is a key priority area for the government in a bid to ensure access to health care for all is achieved. Financing of hospital infrastructure has been achieved through concerted efforts between government and donor funding. This has been successful in meeting part of the hefty costs involved. Most public hospitals have embarked on using their collections to improve their facilities in line with the current ongoing hospital reforms in the country.

The many years of neglect caused by budgetary insufficiencies has reduced most facilities to a sorry state that requires rehabilitation before a maintenance programme can be instituted. Some of Kenya's health facilities lack adequate premises for priority interventions, such as delivery rooms, maternity, laboratories, theatres, etc.(NHSSP II,2005)

The Kenyan health sector relies heavily on out-of-pocket payments (OOPs). OOPs are charged for health services sought from both the public and private sector. Out-of-pocket payments as percentage of total health expenditure accounted for 44.8% and 29.1% in 2001/2002 and 2005/2006 respectively. OOPs spending per capita amounted to Kenya shillings (KES) 819 (US\$ 11.7) in 2003 and KES 578 (US\$ 8.3) in 2007. (Chuma & Okungu, 2011) The out of pocket payments also referred to as the facility improvement funds are collected and banked in government recognised hospital bank accounts and amounts collected are budgeted for on a quarterly basis. Part of this budget usually includes funds for infrastructure repairs or new infrastructure development.

Facility improvement funds (FIF) can be used for development of the new consultation rooms and wards, here in referred to as the amenity wings. To provide a clear understanding of FIF in development of amenity wings in public level IV hospitals in Kisii County, four main areas were identified, these are: level of funding, time of disbursement, facility income generating potential and health stakeholder participation.

All the four areas are interdependent, and FIF aided infrastructure development cannot take place without the involvement of the aforementioned factors.

2.2.1: Influence of the Level of Funding on Development of Amenity Wings in Public

Level IV Hospitals in Kisii County.

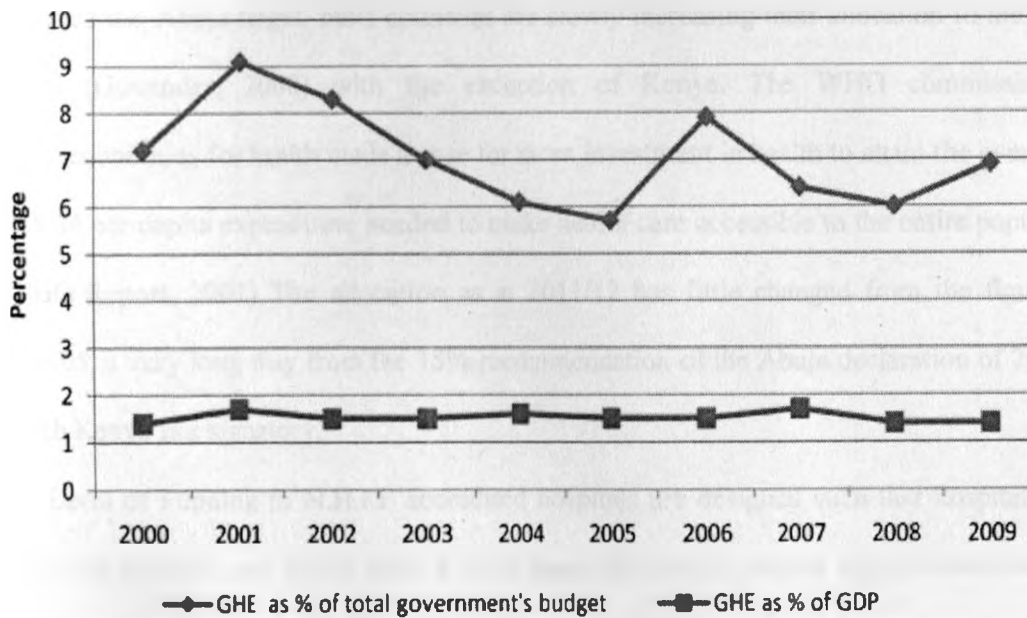
Globally there exists an enormous mismatch between countries' health financing needs and their current health spending. Developing countries account for 84 percent of global population and 90 percent of the global disease burden, but only 12 percent of global health spending. The poorest countries bear an even higher share of the burden of disease and injury, yet they have the fewest resources for financing health services. (Gottret & Schieber,2006)

Unfavourable economic conditions in Sub-Saharan Africa have meant public austerity and a deceleration in government health spending. (Ogbu & Gallagher, 1992) Reductions in government resources for health care often result in less efficient mixing of resources and hence less health care delivery, in quality and quantity terms. With the recent trends in health care spending in Africa there should be greater effort to increase the efficient use of these increasingly scarce resources, yet the trend in resource mix has been in the opposite direction. Given the input to public health care of local communities, as well as the provision of private health care, it would seem that government spending on health care should be counter-cyclical, i.e. government health spending should accelerate during periods of economic downturns. Such counter-cyclical spending would tend to offset the difficulties facing local

communities and the declining ability of individuals to pay for private health care. (Ogbu & Gallagher, 1992) .Amount of funding of hospital infrastructure development can make the difference between success and failure in infrastructure projects.

Kenya has been experiencing a stagnating contribution from the public sector to health, from US \$12 per person in 1990 to US \$6 per person in 2002. The Government budget % allocated to health was 6.9% in 2004/05 (NHSSP II) The figure 2 below demonstrates this using a ten year trend in government health expenditure for the years 2000-2009.

Figure 2: Government Health Expenditure as Proportion of Government's Budget and GDP.



Source : Adapted from (Chuma & Okungu ,2011)

Health financing remains an issue in Kenya, both because the level of funding is insufficient in spite of government's fiscal effort (USD 10.9 per capita in 2006/2007 against the WHO recommendation of USD 34, but on a rising trend from USD 6.4 per capita in 2003/04) and because of inadequate resource allocation. Health expenditure in urban areas represents 70% of government's spending on health, but yet only 20% of Kenyans live in urban areas. The Government intends to improve the equity of resource distribution through

the introduction of a system to channel funds directly to health care facilities and the increase of resources allocated to underserved areas through the Health Sector Service Fund. (Sergent & Charo , 2008)

An important indicator of government's commitment to health is the proportion of government's budget allocated to the sector. In 2001, African heads of states met in Abuja and committed to allocating at least 15% of annual budgets to the health sector. Government spending on health in Kenya is less than half the Abuja target (Ministry of Health. Public expenditure review 2008. 2009) and has been declining, in addition to being the lowest in East and Southern Africa (Govender, 2008) Although very few African countries have achieved the Abuja target, most countries are slowly increasing their allocation to the health sector (Govender, 2008) with the exception of Kenya. The WHO commission on Macroeconomics for health made a case for more investment in health to attain the average of US\$ 34 per capita expenditure needed to make health care accessible to the entire population (WHO Report, 2001) The allocation as at 2011/12 has little changed from the figures in 2004/05, a very long way from the 15% recommendation of the Abuja declaration of 2001 of which Kenya is a signatory.

Level of Funding to N.H.I.F accredited hospitals are designed such that hospitals with large bed capacity and which offer a wide range of services receive higher reimbursement rates than smaller hospitals. (Chuma & Okungu, 2011) This in effect means the larger the hospital the better the level of NHIF funding.

All Kenyans are entitled to health care provided through government facilities if they can pay user fees. Through tax revenue, the government subsidises all services provided in public health facilities and also meets the costs of waivers and exemptions for specific groups of the population. (Chuma & Okungu, 2011) Funding at the national level in Kenya for each level IV hospitals is determined from the national lump sum using a Resource Allocation

Criteria (RAC) which considers factors such as poverty levels, New AIDS cases, women of reproductive age, Number of government facilities in a district, number of children under the age of 5 as well as the land area. As shown in the table below:

Table 2.1: Resource Allocation Criteria in Kenya

HEALTH CENTRES AND DISPENSARIES	
VARIABLES	WEIGHT
Infrastructure	0.15
Under fives	0.2
Poverty levels	0.3
HIV/AIDS cases	0.05
Female population (15-49 years)	0.2
Area (Square kilometers)	0.1
TOTAL	1.0
DISTRICT HOSPITALS	
VARIABLES	WEIGHT
Poverty	0.2
Beds utilized	0.4
Outpatient cases	0.2
Accident prone facilities	0.05
Fuel Costs	0.15
TOTAL	1.0

Source: Adapted from (Briscombe, Sharma & Saunders, 2010)

These funds are allocated to level IV and other health facilities in the district in the form of AIEs (Authority to Incur Expenditure). The amount received will determine the

amount of infrastructure and other developments that will be carried out in a quarter (3 month period), before the next allocation is made.

As far as government spending is concerned, the Ministry of Finance sets three-year budget ceilings for each sector in Kenya. In practical terms this means that the Ministry of Health creates a budget based on what the Ministry of Finance has said it will allocate for health expenditures rather than submits a budget request based on actual needs. The Ministry of Health then disseminates the funds it receives through its District Health Management Boards. There are two components of the Kenyan health budget – a recurrent budget which covers staff salaries, maintenance, and pharmaceutical procurement, and the development budget, which funds construction of new facilities and program implementation. According to the WHO, the Government of Kenya covers about 38.7% of the overall expenditures on health, while private expenditures account for 61.3% of overall spending. In 2006 80% of private expenditures were out of pocket payments for health services.

At the facility level, hospitals can influence their level of FIF funding through adoption of recommendations outlined in the FIF operations manual, Health centres, 2002. The recommendations outlined in the manual have been successfully adopted by hospitals at all levels of care across the country with a few amendments in recent times.

2.2.2: Influence of Time of Facility Improvement Fund Disbursement on Development of Amenity Wings in Public Level IV Hospitals in Kisii County.

The Ministry of Medical Services has been implementing the financial management system presented in Treasury Circular 3/2000 for the last five years. The use of this system in supporting smooth operations of programmes has not been successful, however, particularly at the lower levels of management. Quarterly financial disbursements that are released to districts through Authority to Incur Expenditure (AIE) often arrive very late at the DHMT

office. Statements of expenditure (SOE) from the districts arrive back at the central level even later. The delays on both sides have made it difficult to utilize the money for its intended purpose. This in turn leads to serious under-expenditure of approved budgets arising from the inherent complex accounting system (complicated and time consuming mechanisms for financial flow and too many accounting documents required).(NHSSP II, 2005)

Public funds are transferred from the Ministry of Finance to MOMS and MOPHS, who in turn transfer funds to the districts. Districts develop annual operations plans and prepare budgets for the year, which they submit to the district headquarters for consideration. The annual operation plans and budgets form the basis for resource allocation to the facilities. There exist two resource allocation formulas in Kenya, designed to allocate resources to primary level facilities (dispensaries and health centres) and district hospitals. The formulas include variables related to population structure, disease burden, infrastructure, poverty levels, utilisation patterns and hospital capacity. Informal discussions with MOMS and MOPHS officials suggested the formulas are hardly applied and were initially developed to allocate operation and maintenance costs only. (Chuma & Okungu,2011) The inability to follow the laid down formulae for resource allocation leads to delays in disbursing of funds for utilisation at the health facility level. The main indicators captured in the current formulas relate to infrastructure and utilisation patterns, which suggest that they allow for historical allocation. Need based indicators that have been widely shown to promote equity in resource allocation including population size, infant mortality and under five mortality are not included in the formulas (McIntyre, 2008).

Other reforms targeting the primary care level involve ensuring that these facilities receive their budget allocations on time. Health centres and dispensaries have in the past spent less than half of their budgetary allocations and cited delays in receiving funds from the district as one of the major reasons for the under spending (Ministry of Health. Public expenditure

review 2008. 2009) For example, in 2008/09, dispensaries and health centres only spent 36.7% of budget allocations.

2.2.3: Influence of Facility Income Generating Potential on Development of Amenity

Wings in Public Level IV Hospital in Kisii County

Revenue collection in developing countries is the art of the possible, not the optimal. Although there are numerous public and private sources for raising revenues, the institutional realities of developing countries often preclude the use of the most equitable and efficient revenue-raising mechanisms. Revenue-raising capacities increase as country incomes increase (as a result of greater formalization of the economy, greater ability of individuals and businesses to pay, and better tax administration). Low income countries collect some 18 percent of their GDP as government revenues, severely limiting their ability to finance essential public services. (Gottret & Schieber, 2006)

Conceptualizing that some health care may be considered 'necessary' for survival (by defining necessary and discretionary care as two separate goods) provides important price effect predictions on the demand for health care and welfare. Where 'necessary' care accounts for a relatively large proportion of total health care services, although increases in health care prices may not reduce the total care demanded, the price increases will have an income-depressing effect, reducing the consumption of other goods through the diversion of resources. The wider the bouquet of 'necessary' care provided by a facility the higher the potential for generation of more income for the health facility. (Heller, 1986)

However, different positions arise in establishing the nature of curative care in developing countries. One is that the externalities arising from curative care are low and costs of fee collection could be kept low and therefore it is feasible to implement user fees as a means of increasing the available resources for health care, and increasing efficiency and equity (World Bank: *World Development Report*, World Bank, Washington D.C., 1993)

It is also argued that in a situation where the government is faced with limited resources from tax revenues (as is the case in most developing countries), supply will be constrained without cost recovery and a significant level of excess demand will prevail. In this circumstance, a user fee that relaxes the government's budget constraint would allow a higher level of provision of services, reducing the excess demand.(Dyna,2001)

Although 'cost recovery' is the solution to health sector budget constraints, when user fees are used to achieve this objective it leads to welfare losses and inefficiency. More recently, such efficiency arguments in favour of user fees have focused on the need to provide the correct price signals to encourage the appropriate use of the 'referral' system and reduce the perceived excessive use of the tertiary system, particularly by the higher income groups in developing countries. An evaluation is being made that these patients are using the wrong kind of health care for their needs (the assumption is that unit costs of tertiary facilities are higher than in primary facilities and that minor illnesses could equally well be treated in a primary facility). This ignores the fact that patients make their decisions because they perceive health care offered at the primary levels to be of poorer quality. (Dyna,2001)

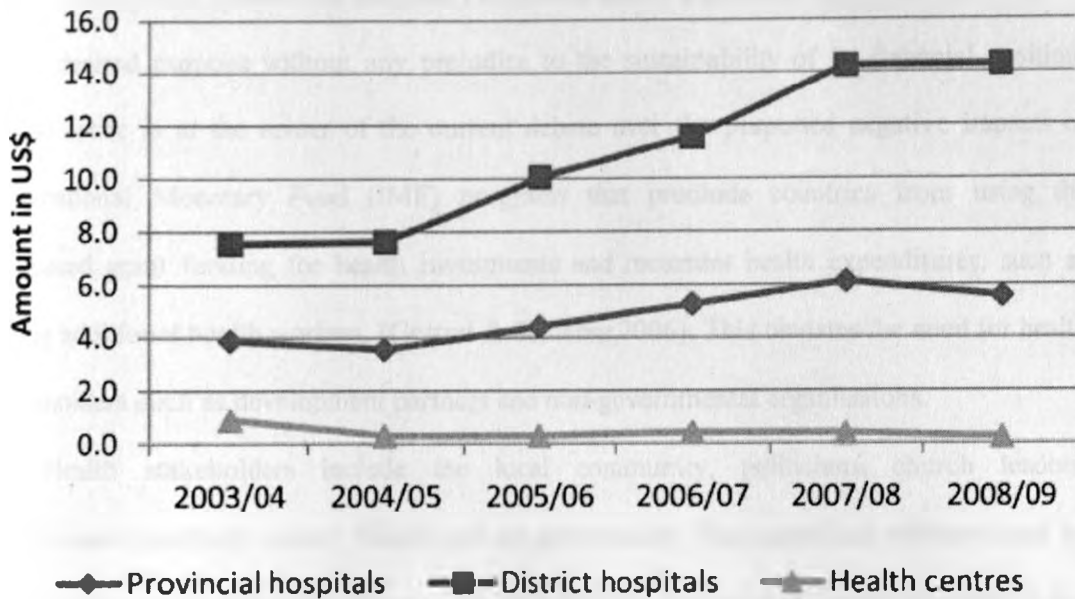
Much of the population is widely dispersed in rural areas. The bulk of the population is self-employed in small-scale subsistence agriculture and receives income in kind. Transactions are difficult to trace. High rates of illiteracy, poor accounting standards, and lack of records on expenses limit the use of personal income or profits taxes. In urban areas there is a large informal sector of small and transient firms.(Gottret & Schieber,2006)

This is also true for the case of Kisii County, Kenya

The amount of user fees revenue generated from public health facilities has increased gradually over the years. Total user fees collections amounted to US\$ 13.2 million in 2003/2004. It increased to US\$ 18.7 million in 2005. In 2008, total user fees revenue from all public health facilities amounted to US\$ 25.7 million. Revenue collected at provincial and

district hospitals show an increasing trend since 2003, while revenue collection at health centers and dispensaries has been on the decline as shown in Figure 3. below (Chuma & Okungu, 2011)

Figure 3: Trends in User Fees Revenue



Source : Adapted from (Chuma & Okungu ,2011)

The case of Kisii level V hospital, a model hospital in the region shows that infrastructure development is positively impacted by more revenue collection. In 2002 the hospital’s average monthly collections were just above Kshs 1 Million and infrastructure development was almost absent. In comparison much has been achieved in 2012 with average monthly collections in excess of Kshs 9 Million with new wings and renovations making the hospital physically appealing (Kisii Level V hospital Records). This can only be achieved in the presence of financial integrity and accountability.

2.2.4: Influence of Health Stakeholder Participation on Development of Amenity Wings in Public Level IV Hospital in Kisii County

Large proposed increases in public health spending must be considered in the context of the available *fiscal space*—the budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of its financial position. Fiscal space is at the center of the current debate over the purported negative impacts of International Monetary Fund (IMF) programs that preclude countries from using the increased grant funding for health investments and recurrent health expenditures, such as hiring additional health workers. (Gottret & Schieber,2006). This obviates the need for health stakeholders such as development partners and non-governmental organisations.

Health stakeholders include the local community, politicians, church leaders, development partners, donors, NGOs and the government. The intertwined influence cast by the presence of all the actors above can be a recipe for disaster in the event of mistrust and lack of co-operation. Development of amenity wings and other infrastructural activity involves significant sums of money. Therefore accountability levels should be very high for meaningful development to take place.

Some donors have allocated money to the Kenyan government to support the employment of nurses in remote rural areas. Donor funds under this arrangement are used to pay nurses salaries employed on a contract basis. There is no agency responsible for ensuring that public funds allocated to health providers are used appropriately.(Chuma & Okungu,2011)

Development assistance for health has risen steadily since 1990 from about \$2 billion to more than \$10 billion in 2003.⁹ Much of the post-2000 increase can be credited to an increasing number of global partnerships and a significant rise in private philanthropic funding—notably by the Bill and Melinda Gates Foundation. Partnerships and philanthropies

have joined efforts to increase awareness and finance aimed at the eradication of major diseases. Global programs—such as the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM); the Global Alliance for Vaccines and Immunization; Roll Back Malaria; the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR); and several others—represented roughly 15 percent of total health aid in 2002 and 20 percent in 2003 (Michaud 2003). In many countries, there has been rapid growth of nongovernmental organizations (NGOs), which appears to be at least partially attributable to partnership opportunities created by GFATM and other funding agencies. GFATM support has contributed to innovations in public-private arrangements; many different types of partnerships were observed in different contexts.(Gottrett & Scheiber , 2006) The United Kingdom also commits significant bilateral funds to the health sector, followed by Denmark, Germany, Japan and the Netherlands. The European Union has committed funds to health programming in Kenya, and Kenya receives support from the World Bank and agencies within the United Nations system, including WHO, UNAIDS, UNICEF and UNFPA. The Clinton Foundation is active in Kenya’s health sector, as are faith-based organizations such as Catholic Relief Services, Lutheran World Relief, and the Aga Khan Foundation.

Countries that strive to meet the Millennium Development Goals on health through a multisector and growth approach will have to emphasize not only increasing investments in sectors that directly promote improved health outcomes, but also pursue efforts that influence growth rates. Recent World Bank work in this area suggests that those efforts involve trade, infrastructure, and the policies and institutions required for attracting investment, such as mechanisms for the protection of property rights and reliable judicial systems (Leipziger and others 2003; Paternostro, Rajaram, and Tiongson 2004; Herrera and Pan 2005).

Sources of funding are expected to include the Government of Kenya, cost sharing, the National Social Health Insurance Fund, development partners and others. Even so, two

resource gaps are identified. The first gap is the difference between the resources available and the cost of implementing the minimum Kenya Essential Package for Health (KEPH). The second, larger, gap is the difference between the available resources and the cost of KEPH plus non-KEPH. These gaps can be bridged by additional allocations from the Treasury and/or donor contributions. (NHSSP II, 2005)

2.3: Theoretical Framework

This research was grounded in the game theory. Game theory is a method of studying strategic decision making. More formally, it is "the study of mathematical models of conflict and cooperation between intelligent rational decision-makers". The main proponent of the modern game theory is John von Neumann who advanced it in a paper in 1928. The modern game theory began with the idea regarding the existence of mixed-strategy equilibria in two-person zero-sum games and its proof by John von Neumann. (Neumann, 1928) Von Neumann's original proof used Brouwer's fixed-point theorem on continuous mappings into compact convex sets, which became a standard method in game theory and mathematical economics. His paper was followed by his 1944 book *Theory of Games and Economic Behaviour*, with Oskar Morgenstern, which considered cooperative games of several players. The second edition of this book provided an axiomatic theory of expected utility, which allowed mathematical statisticians and economists to treat decision-making under uncertainty. This theory was developed extensively in the 1950s by many scholars. As a method of applied mathematics, game theory has been used to study a wide variety of human and animal behaviours.

Financial decision making involves two separate and distinct considerations. One, is forming probability beliefs about potential returns from various assets and two, is allocating financial resources among assets on the basis of these beliefs (Latane & Tuttle, 1966)

This research was hinged on the first consideration above. The probability belief was that, if money was spent on development of amenity wings in public level IV hospitals, then many civil servants and other middle level income earners would be attracted to receive medical interventions in public hospitals at the amenity wings. This in return would increase financial returns to the hospitals as a result of payments made to the hospitals by NHIF for civil servants and other employees in the private sector who sought treatment from the public hospitals.

2.4: Perceived Conceptual Framework

The perceived conceptual framework is captured as follows:

2.4.1: Introduction

This section covered the conceptual framework that guided this study. Experience suggests that when developing the research questions it is very beneficial to also diagram the problem or topic. This is often called a conceptual framework. According to (Miles & Huberman, 1994), A conceptual framework explains, either graphically or in narrative form [diagrams are much preferred], the main things to be studied - the key factors, constructs or variables - and the presumed relationships among them.

The study was guided by the following conceptual framework:

Figure 4: Conceptual Framework Showing Relationships of Variables.

INDEPENDENT VARIABLES

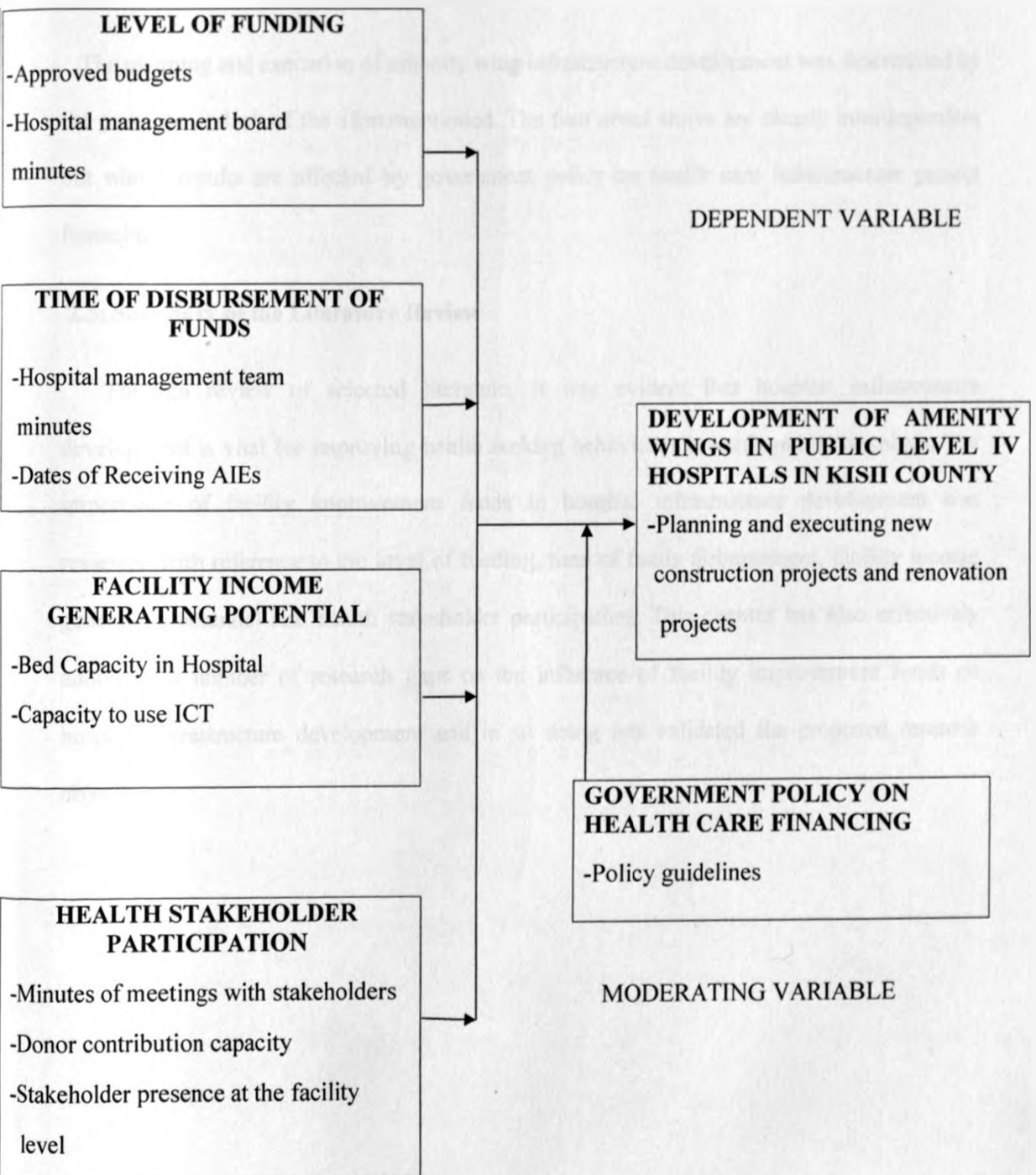


Figure 4 above shows that the four areas of : level of funding, time of fund disbursement, facility income generating potential and health stakeholder participation are independent variables in the development of amenity wings in public level IV hospitals in Kisii county.

The planning and execution of amenity wing infrastructure development was determined by the presence or lack of the aforementioned. The four areas above are clearly interdependent but whose results are affected by government policy on health care infrastructure project financing.

2.5: Summary of the Literature Review

Through review of selected literature, it was evident that hospital infrastructure development is vital for improving health seeking behaviours towards public hospitals. The importance of facility improvement funds in hospital infrastructure development was reviewed with reference to the level of funding, time of funds disbursement, facility income generating potential and health stakeholder participation. This chapter has also effectively addressed a number of research gaps on the influence of facility improvement funds on hospital infrastructure development and in so doing has validated the proposed research objectives.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1: Introduction

This chapter presented a detailed description of the research design that was used in conducting the study which included the research design, the target population, sample and sample selection, data collection methods, data collection instruments, the validity and reliability of the instruments and data analysis procedures.

3.2: Research Design

This was a descriptive study of the current situation with regard to the influence of facility improvement funds on health development projects of amenity wings in public level IV hospital in Kisii County. Descriptive research is a process of collecting data in order to obtain precise information concerning current status of subjects in the study (Mugenda & Mugenda, 2003). This descriptive study determined and reported the way things are. The descriptive method was preferred because there was need to describe facility improvement funds with regard to its influence in health infrastructure development; this helped to ascertain the viability of the projects. The indicators of performance were either evidence of renovations or new construction projects. Descriptive data was collected using questionnaire method. The above design was preferred because it enabled the researcher to interact with key hospital management staff and thus get a deeper insight into the funds allocation strategies in public level IV hospitals in Kisii County and the feelings of the key staff towards their current strategies.

3.3: The Target Population

This section explored the study population from which the sample will be drawn. Population according to Tuckman (1972), is the total target group who would, in the ideal world, be the subjects a researcher is interested in gaining information from and drawing conclusions. The target population consisted of 13 public level IV hospitals in Kisii County consisting of 13 medical superintendents, 13 health records information officers, 13 public health officers, 13 health administrative officers. This is illustrated by the table 3.1 below

Table 3.1. Data on Target Population for Study.

Study Population	Total Population
Medical Superintendents,	13
Health records information officers,	13
Public health officers,	13
Health administrative officers.	13
Total	52

3.4: Sample and Sampling Procedure

Sampling is the process of selecting units (e.g., people, organizations) from a population of interest so that by studying the sample we may fairly generalize our results back to the population from which they were chosen.(Trochim,2006) The sample size and sampling procedure was captured as follows:

3.4.1: Sample Size

Kisii County was selected based on the fact that it has little to no infrastructural provision for the new civil service health insurance scheme. For purposes of this study the sample size chosen was the entire target population using the census survey technique.

3.4.2: Sampling Procedure

Sample selection is the process of selecting a number of individuals or objects from a target population such that the selected group contains characteristics reflective of those found in the entire group.(Mugenda & Mugenda, 2003). The study adopted the census survey technique to sample all the 13 level IV hospitals in Kisii County. This is a technique in which a researcher is allowed to use cases that have required information with respect to the objectives of the study. (Mugenda & Mugenda, 2003)

3.5: Research Instruments

Research instruments are simply devices for obtaining information relevant to your research project,(Wilkinson & Birmingham,2003) This research used questionnaires.While questionnaires can be very detailed, covering many subjects or issues, they can also be very simple and focus on one important area.(Wilkinson & Birmingham,2003)

Self administered questionnaires were used to collect information from the entire target population in all the public level IV hospitals in Kisii County.

The questionnaire administered to the four cadres in table 3.1 above was intended to collect information about Facility Improvement Fund collection, approved budgets and authorization to spend the money, projected expenditure plans from annual operation plans and how they influence development of amenity wings in public level IV hospital in Kisii County. The questionnaire was divided into five sections for purposes of this research.

Section A dealt with demographic information and is generally meant to provide information about the respondents. Section B provided general information about the hospital, it sought to find out physical size of the hospital, Catchment population served and the hospital workload. Section C of the questionnaire sought information on level of funding

of the hospital, time of funds disbursement, facility income generating potential, and health stakeholder participation influence on development of amenity wings in the hospitals.

Section D sought to establish whether the hospitals had space for construction of new buildings and also whether they had old or unused buildings that could be renovated and converted to amenity wings.

Section E focussed on feasibility and sustainability of the projects. It also looked into the availability of health care workers to be deployed to work in the amenity wings and possible adjustments to be made to the current structures to accommodate the new changes. Finally it looked into viability with the current resource endowment, financing gaps that may arise and how the gaps can be bridged.

3.5.1: Pilot Study and Validity of Instruments

A pilot study was carried out in Kisii County to validate the research instruments. It was done prior to collecting data in the field. The purpose was to refine the questionnaire. Three level IV hospitals in Kisii County were randomly picked for this purpose and questionnaires administered to each of the four cadres in table 3.1 above. The findings of the pilot instruments were then analysed and necessary modifications made and the instruments retested, using the same respondents interviewed in the pilot study.

A research is deemed valid only if it actually studies what it set out to study and only if the findings are verifiable. (Saunders, 2000) Validity is therefore the degree to which test measures what it is intended to measure. Content validity allows for a researcher to measure intended domains of indicators or content of a particular concept. Validity has therefore to do with the accuracy of the data obtained in a study prior to using the questionnaires and it was ensured that they were pilot tested.

The testing was important to establish the content validity of the instruments which were used and to improve the questions, format and scales. The purpose of the pilot testing

was to refine the questionnaire so that respondents had no problems in responding to the questions and as such there would be no problem in recording data.

3.5.2: Reliability of the Instruments

A study is reliable only if another researcher, using the same procedure and studying the same phenomenon, arrives at similar, or comparable, findings (Sekaran, 2003). Reliability in the true research is influenced by random error (Mugenda and Mugenda, 2003). Having realised that respondents could be biased or simply not in the mood to answer the questions with any degree of interest or simply tick off response option without reading or considering them (Sekaran, 2003), necessary measures will be taken. The researcher will ensure that the questionnaires will be carefully read through to curb any logical flaws and ensured that responses given by any one respondent were not contradictory (Hair, 1992). In addition, and to better ensure reliability, filling the questionnaires will be scheduled at the respondents' convenience and will be administered personally.

Table 3.2: Calculating Reliability Using SPSS (v16)

		LOF1	LOF2
LOF1	Pearson Correlation	1	.710
	Sig. (2-tailed)		.034
	N	47	47
LOF2	Pearson Correlation	.710	1
	Sig. (2-tailed)	.034	
	N	47	47

LOF1- The hospital funds generated in one quarter are all budgeted for and used in the next quarter.

LOF2- The hospital has proper resource allocation criteria to aid in departmental budgetary allocations

The calculated reliability using SPSS (v16) gives a Pearson's correlation coefficient of +0.710. Values between 0.7 and 1.0 indicate a strong positive linear relationship via a firm linear rule. This means that the test re-test reliability of the instruments is good.

3.6: Data collection procedures

A letter of introduction from the university was used to obtain a research permit. Letters were sent to all the public level IV hospitals through the medical superintendents in preparation for the questionnaires. Questionnaires to all the 52 officers in the target population were administered by the researcher in person to ensure full response.

A pilot study to test the research instruments was undertaken. The collection of data took three and a half weeks and everyday findings were compiled. By the end of the three and a half weeks, all the data collected was compiled together and analysis was done in the days that followed.

3.7: Data analysis techniques

The Statistical Package for the Social Sciences (SPSS) computer package for data analysis (Version 16) was used after information from the raw data had been properly scrutinised to avoid inaccuracy and inconsistency. The data collected in the study was analyzed using both qualitative and quantitative analysis. Thematic summarization was used to analyze qualitative data.

To check for the relationship between variables, Chi Square test (χ^2) was used. This utilized the responses that were generated from the questionnaires. This technique was used to test the hypotheses. The significance level was maintained at .05 and appropriate degree of freedom.

After correcting errors that had influence on data analysis, the data was coded to facilitate analysis and ensure both accuracy and relevance of the analysis (Miles & Huberman, 1994). The coding was guided by both the researcher's conceptual framework

and the research hypotheses. In this respect topics that were related were categorized, while identifying the themes. The coded material was placed under the major themes and relevant materials to certain topics were put together for description.

Objectives	Types of variables	indicators	Measure	Level of scale	Data collection method	Approach of analysis	Type of analysis	Level of analysis
	Independent							
To determine the influence of the level of funding in the health development projects of amenity wings in public level IV hospitals in Kisii county	level of funding	-Approved budgets -Hospital management board minutes	Amount of funds received Evidence of minutes of meetings		Questionnaire	Survey	Quantitative and Qualitative	Descriptive
To establish the extent to which time of Facility Improvement Fund disbursement influences the health development projects of amenity wings in public level IV hospitals in Kisii county	time of Facility Improvement Fund disbursement	- Hospital management team minutes - Dates of receiving AIEs	Evidence of minutes of meetings Dates in hospital records	Ordinal & Ratio	Questionnaire	Survey	Quantitative and Qualitative	Descriptive

<p>To explore the influence of facility income generating potential in the health development projects of amenity wings in public level IV hospitals in Kisii county.</p>	<p>facility income generating potential</p>	<p>- Bed capacity in the hospital</p> <p>- Capacity to use ICT</p>	<p>Number of beds</p> <p>Number of computers</p> <p>Number of staff trained on ICT</p>		<p>Questionnaire</p>	<p>Survey</p>	<p>Quantitative and Qualitative</p>	<p>Descriptive</p>
<p>To examine the influence of health sector stakeholders' participation in the health development projects of amenity wings in public level IV hospitals in Kisii county.</p>	<p>health sector stakeholders' participation</p>	<p>- Minutes of meetings with stakeholders.</p> <p>-Donor contribution capacity</p> <p>-Stakeholder presence at the facility level</p>	<p>Evidence of meetings in record</p> <p>Number of past projects completed</p> <p>Number of times visitors book is signed</p>	<p>Ordinal & Ratio</p>	<p>Questionnaire</p>	<p>Survey</p>	<p>Quantitative and Qualitative</p>	<p>Descriptive</p>

	Dependent variable							
Development of amenity wings in public level iv hospitals	Planning and Executing new construction projects	Number of new projects	Ordinal & Ratio					
	Planning and Executing Renovation projects	Number of renovation projects	Ordinal & Ratio					

CHAPTER FOUR

DATA ANALYSIS, PRESENTATIONS AND INTERPRETATIONS

4.1: Introduction

On the basis of data collected using questionnaires from the key hospital personnel; that is, medical superintendents, hospital administrative officers, health records information officers and public health officers, the study sought to establish the influence of facility improvement funds in the development of amenity wings in public level IV hospitals in Kisii County. Data collected was analysed to capture demographic information, general hospital information and the influence of facility improvement funds in health development projects. Descriptive statistics such as frequencies and percentages were used to analyse responses from various questionnaire items.

On the other hand, an inferential statistic, Chi-square (χ^2) test was used to establish the implications of responses to various items in the questionnaire and also to test the study hypothesis at .05 level of significance and appropriate degree of freedom. For the purpose of this study, the Chi-square (χ^2) was used to test the following hypotheses:

H_{01} : There is no significant relationship between the level of funding and development of amenity wings in public level IV hospitals in Kisii County.

H_{02} : There is no significant relationship between the time of facility improvement funds disbursement and development of amenity wings in public level IV hospitals in Kisii County.

H_{03} : There is no significant relationship between facility income generating potential and development of amenity wings in public level IV hospitals in Kisii County.

Ho₄ : There is no relationship between health sector stakeholders' participation and development of amenity wings in public level IV hospitals in Kisii County.

4.2: Return Rate of Instruments

A total of 52 respondents were administered with 52 questionnaires and 47 of the questionnaires were returned. All the 47 questionnaires administered were valid. The 47 valid questionnaires represented 90.38% return rate. This rate was above 75% minimum advocated by Tuckman(1972).This high response rate was realized because the questionnaires were taken in person and collected in person. Also most of the staff were easily accessible to the researcher.

4.3: Demographic Characteristics

This section described the characteristics of the respondents used in the study. Demographic characteristics involve features like age, gender, educational level and work experience. The demographic characteristics were looked at in order to gain understanding of the respondent's background which was perceived as critical in the analysis of the data obtained.

4.3.1: Characteristics of the Respondents by Ages.

The study considered age as an important factor. Respondents were asked to state their ages. This would help elicit the category that is largely involved in hospital development project's work and if this has a net effect on opinions about implementation of the health development projects in public level IV hospital in Kisii County. In response to this, out of 47 respondents,14 were aged between 20-29 distributed as follows: 42.9% of m/supts, 0.0% of HAOs, 57.1% HRIOs and 0.0% PHOs. 18 were aged between 30-39 distributed as follows: 33.3% of m/supts, 16.7% of HAOs, 16.7% HRIOs and 33.3% PHOs.10 were aged between

40-49 distributed as follows: 0.0% of med supts, 60.0% of HAOs, 10.0% HRIOs and 30.0% PHOs. 5 were aged between 50-59 distributed as follows: 20.0% of m/supts, 60.0% of HAOs, 0.0% HRIOs and 20.0% PHOs.

Table 4.1: Age Distribution of the Respondents

Age of Respondent	M/SUPTs	HAOs	HRIOs	PHOs	TOTAL
20-29	6 (42.3%)	0 (0.0%)	8 (57.1%)	0 (0.0%)	14 (100%)
30-39	6 (33.3%)	3 (16.7%)	3 (16.7%)	6 (33.3%)	18 (100%)
40-49	0 (0.0%)	6 (60.0%)	1 (10.0%)	3 (30.0%)	10 (100%)
50-59	1 (20.0%)	3 (60.0%)	0 (0.0%)	1 (20.0%)	5 (100%)
TOTAL	13 (27.7%)	12 (25.5%)	12 (25.5%)	10 (21.3%)	47 (100%)

The Table 4.1 indicated that there were more relatively young respondents, that is, between the ages of 20-39 constituting 68.1%. This indicated that the most productive age group formed the majority of the 13 hospitals. This illustrates that the activities of the hospitals as well as critical decisions can be effectively undertaken.

4.3.2: Education Level of Respondents.

The characteristic was important to the study as it revealed the education background of the respondents. As such respondents were asked to give their education level which included the M/SUPTs, HAOs, HRIOs and PHOs. The respondents gave their education level as illustrated below in Table 4.2

Table 4.2: Education Level of Respondents

Education					
Level of Respondents	M/SUPTs	HAOs	HRIOs	PHOs	TOTAL
College (e.g KMTC)	5 (12.8%)	12 (30.8%)	12 (30.8%)	10 (25.5%)	39 (100%)
University	8 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0. 0%)
TOTAL	13 (27.7%)	12 (25.5%)	12 (25.5%)	10 (21.3%)	47 (100%)

Table 4.2 depicts that majority of the respondents had college level education .Out of 47 respondents, 39 had a middle level college of education distributed as follows: 12.8% of M/SUPTs 30.8% of HAOs, 30.8% HRIOs and 25.6% PHOs,8 had a university level of education distributed as follows: 100.0% of M/SUPTs, 0.0% of HAOs, 0.0% HRIOs and 0.0% PHOs. %. This clearly meant that a substantial proportion of the hospital staff only had college education. The data indicated that all the hospital staff had a high level of education. A situation that would definitely impact on decision making pertaining to the implementation of infrastructure development project activities such as proposal writing, planning and budgeting.

4.4: The Influence of the Level of Funding in the Development of Amenity Wings in

Public Level IV Hospitals in Kisii County.

The level of funding has been cited by literature as important in establishing infrastructure development projects in public hospitals. To provide a baseline understanding of this, respondents were asked to respond to questions on budgeting at the facility level, departmental resource allocation and dependence on treasury for resource provision. In support to this objective the study sought to establish whether the hospitals had made any

budgetary provisions for the development of amenity wings in the current financial year (2012-2013). The responses were summarised in the tables 4.3, 4.4, 4.5 and 4.6 below

4.4.1: Hospital Resource Allocation Criteria

Each hospital should have a workable resource allocation criteria for it to perform optimally. The researcher sought to establish whether this fact is being practised in Kisii county. Table 4.3 highlighted on this and the results obtained were as follows:

Table 4.3: Hospital Resource Allocation Criteria

Respondent's Position	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	1 (7.7%)	0 (0.0%)	6 (46.2%)	6 (46.2%)	13 (100%)
HAO	1 (8.3%)	0 (0.0%)	6 (50.0%)	5 (41.7%)	12 (100%)
HRIO	1 (8.3%)	4 (33.3%)	5 (41.7%)	2 (16.7%)	12 (100%)
PHO	1 (10.0%)	2 (20.0%)	4 (40.0%)	3 (30.0%)	10 (100%)
TOTAL	4 (8.5%)	6 (12.8%)	21 (44.7%)	16 (34.0%)	47 (100%)

From the above Table, the study found out that: 8.5% of the respondents disagreed, 12.8% were not sure, 44.7% agreed and 34% strongly agreed. These findings suggested that the hospitals demonstrated a good ability to allocate funds and as such able to allocate resources for infrastructure development appropriately when the need arises.

4.4.2: Dependence on the Central Government Resources by the Facility

With regard to the dependence on the central government's recurrent expenditure the study established in Table 4.3, that 60.4% of the respondents believe that public level IV hospitals in Kisii County heavily rely on the government's recurrent expenditure. This

comprised of 42.6% who agreed and 12.8% who strongly agreed. However 14.9% disagreed, 23.4% strongly disagreed. This suggested some respondents believed that their facilities could operate comfortably with their FIF without reliance on treasury.

Table 4.4: Dependence on the Central Government Resources by the Facility

Respondent's Position	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	2 (15.4%)	3 (23.1%)	0 (0.0%)	6 (42.6%)	2 (15.4%)	13(100%)
HAO	2 (16.7%)	3 (25.0%)	0 (0.0%)	5 (41.7%)	2 (16.7%)	12(100%)
HRIO	2 (16.7%)	1 (8.3%)	2 (16.7%)	5 (41.7%)	2 (16.7%)	12(100%)
PHO	1 (10.0%)	4 (40.0%)	1 (10.0%)	4(40.0%)	0 (0.0%)	10(100%)
TOTAL	7 (14.9%)	11 (23.4%)	3 (6.4%)	20 (42.6%)	6 (12.8%)	47(100%)

The overall implication is that without funding from the central government most facilities will be grounded.

4.4.3: Infrastructure Development Plans for the Current Financial Year (2012-2013)

Table 4.5 tried to highlight on the infrastructure development plans of the public level IV hospitals in Kisii County with regard to development of amenity wings in the current financial year.

Table 4.5: Infrastructure Development Plans for the Current Financial Year (2012-2013)

Respondent's Position	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	6 (46.2%)	5 (38.5%)	0 (0.0%)	1 (7.7%)	1(7.7%)	13(100%)
HAO	3 (25.0%)	7 (58.3%)	0 (0.0%)	1 (8.3%)	1(8.3%)	12(100%)
HRIO	1 (8.3%)	6 (50.0%)	3 (25.0%)	1 (8.3%)	1(8.3%)	12(100%)
PHO	2 (20.0%)	6 (60.0%)	1 (10.0%)	1(10.0%)	0 (0.0%)	10(100%)
TOTAL	12 (25.5%)	24 (51.1%)	4 (8.5%)	4 (8.5%)	3 (6.4%)	47(100%)

The findings in the table above indicated that 25.5% of the respondents strongly disagreed, 51.1% disagreed, 8.5% were not sure, 8.5% agreed and 6.4% strongly agreed. This suggested that only 14.9% of the respondents have made provisions for infrastructure development in the current financial year. The implication of this is that majority of the public level IV hospitals in Kisii County have no plans for development of amenity wings in the current financial year even though the same may feature in the respective facility five year strategic plan.

4.4.4: Findings on the First Study Hypothesis

Test of hypothesis entailed the study of relationship between the independent variable using Chi square test (χ^2). For the purposes of this research confidence level was maintained at 5% and appropriate degree of freedom, as advocated by many social science researchers (Punch, 2004). On the basis of earlier research on development of amenity wings, the researcher was interested in confirming or rejecting the notion that there is no significant relationship

between the level of funding and the development of amenity wings in public level IV hospitals in Kisii County. To establish the relationship between level of funding and development of amenity wings in public level IV hospital in Kisii County, Chi square test (χ^2) was used to test the hypothesis:

***H₀₁**: There is no significant relationship between the level of funding and development of amenity wings in public level IV hospitals in Kisii county.*

The null hypothesis stated above was determined by the findings of the Chi square calculation on Table 4.6. The study focussed on budgeting at the facility level and reliance on funds from treasury on development of amenity wings in public level IV hospitals in Kisii County. From the Chi-square computation calculated value was 23.70 with a degree of freedom, (df) of 12. From the Chi-square tables .05 significance level had a corresponding p-value of 21.82.

Clearly the computed chi-square was greater than the critical value (21.82). The null hypothesis ***H₀₁*** was therefore rejected; this implied that there was a significant relationship between the level of funding and the development of amenity wings in public level IV hospitals in Kisii County.

Table 4.6: Influence of the Level of Funding on Development of Amenity Wings in Public Level IV Hospitals in Kisii County

Level of Funding	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
LOF1	0 (0.0%)	0 (0.0%)	0 (0.0%)	19 (40.4%)	28(59.6%)	47(100%)
LOF2	0 (0.0%)	4 (8.5%)	6 (12.8%)	21 (44.7%)	16(34.0%)	47(100%)
LOF3	10(21.3%)	23(48.9%)	3(6.4%)	9 (19.1%)	2(4.3%)	47(100%)
LOF4	7(14.9%)	11(23.4%)	3(6.4%)	20 (42.6%)	6(12.8%)	47(100%)
LOF5	13(27.7%)	22(46.8%)	6(12.8%)	4 (8.5%)	2(4.3%)	47(100%)
LOF6	12(25.5%)	24(51.1%)	4 (8.5%)	4 (8.5%)	3(6.4%)	47(100%)
TOTAL	42 (14.9%)	84 (29.8%)	22 (7.8%)	77 (27.3%)	57 (20.2%)	282(100%)

LOF1- The hospital funds generated in one quarter are all budgeted for and used in the next quarter.

LOF2- The hospital has proper resource allocation criteria to aid in departmental budgetary allocations

LOF3- The hospital budget allocates enough money to maintenance of hospital infrastructure

LOF4- The hospital relies heavily on funds from treasury's recurrent expenditure

LOF5- The hospital has a savings plan in place to keep money for future development projects

LOF6- The hospital has made provisions for amenity wings development in the current annual operation plan (for the year 2012-2013)

Chi-square(χ^2) = 23.696

Degree of freedom= 12

P-Value = 21.822

Confidence level = .05

4.5: The Influence of the Time of Funds Disbursement in the Development of Amenity

Wings in Public Level IV Hospitals in Kisii County.

With regard to funds disbursement the study explored the influences of the hospital board approval time and time of receiving of AIEs from the provincial office in the Ministry of Medical Services on the development of amenity wings in public level IV hospitals in Kisii County. The focus was on timelines between budget at the facility level and receipt of funds for development activities within the facility. The study hypothesized that the extent to which time of FIF disbursement had an influence on the development of amenity wings in public level IV hospitals in Kisii County.

4.5.1: Hospital Board Approval of Facility Budgets

Table 4.7 highlighted on whether the hospital board approves the departmental budgets in good time. From the responses received, 14.9% disagreed with this, 6.4% were not sure, 53.2% agreed and 25.5% strongly agreed. This is depicted in the Table 4.7 below. The findings suggested that time of budget approval favours the development of amenity wings in public level IV hospitals in Kisii County. This has the implication that were there to be funds approved for infrastructure development the hospital board would be more than willing to endorse so as to enable the new developments to commence.

Table 4.7: Hospital Board Approval of Facility Budgets

Respondent's Position	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	0 (0.0%)	1 (7.7%)	8 (61.5%)	4 (30.8%)	13 (100%)
HAO	0 (0.0%)	0 (0.0%)	6 (50.0%)	6 (50.0%)	12 (100%)
HRIO	4(33.3%)	2 (16.7%)	4 (33.3%)	2 (16.7%)	12 (100%)
PHO	3 (30.0%)	0(0.0%)	7 (70.0%)	0 (0.0%)	10 (100%)
TOTAL	7 (14.9%)	3 (6.4%)	25 (53.2%)	12 (25.5%)	47 (100%)

4.5.2: Timelines Between Budgeting and Receiving of AIEs at the Facility Level

Timelines between budgeting and receiving of AIEs is a contentious issue according to literature. The study sought to investigate this through questionnaire responses and came up with findings as captured in the table below:

Table 4.8: Timelines Between Budgeting and Receiving of AIEs at the Facility Level

Respondent's Position	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	0 (0.0%)	5 (38.5%)	1 (7.7%)	6 (46.2%)	1(7.7%)	13(100%)
HAO	1 (8.3%)	3 (25.0%)	0 (0.0%)	5 (41.7%)	3(25.0%)	12(100%)
HRIO	0 (0.0%)	6 (50.0%)	0 (0.0%)	4(33.3%)	2(16.7%)	12(100%)
PHO	1 (10.0%)	2 (20.0%)	0(0.0%)	2(20.0%)	5 (50.0%)	10(100%)
TOTAL	2 (4.3%)	16 (34.0%)	1 (2.1%)	17 (36.2%)	11 (23.4%)	47(100%)

From the above Table 4.3% strongly disagreed, 34% disagreed, 2.1% were not sure, 35.2% agreed and 23.4% strongly agreed. The findings suggested that the AIEs are sent in good time for the majority. The few who receive them late probably do so because the time in which the budgeting is done and approved at the facility level has a direct bearing on the time of receipt of AIEs. Sending of budgets late implies receiving the AIEs late therefore that amenity wings can be developed if funds are available to be budgeted for, without fear of missing critical project milestones due to fund disbursement delays.

4.5.3: Findings on the Second Study Hypothesis

The second objective of the study was to establish the relationship between the time of disbursement of funds and the development of amenity wings in public level IV hospitals in Kisii County. On the basis of earlier studies on FIF, the researcher was interested in

confirming or rejecting the notion that there was no significant relationship between time of funds disbursement and the development of amenity wings in public level IV hospitals in Kisii County. To establish the relationship between the variables, a chi-square test (χ^2) was used to test the hypothesis:

Ho₂: There is no significant relationship between the time of facility improvement funds disbursement and development of amenity wings in public level IV hospitals in Kisii county.

The hypothesis was tested by timelines between budgeting and approval and the attitudes of the respondents towards these variables. The relationship between budgeting timelines and hospital board approval was examined with reference to time of funds disbursement. Computed Chi-square (χ^2) for contribution of time of funds disbursement was 13.15, with a degree of freedom(df) of 12, and a P-value of 13.04 at .05 significance level. The implication on the objective was that there was a significant relationship between time of funds disbursement and the development of amenity wings in public level IV hospitals in Kisii County. The null hypothesis was thus rejected and, thus validating the notion that time of funds disbursement has a direct influence on the development of amenity wings in public level IV hospitals in Kisii County.

Table 4.9: Influence of Time of Funds Disbursement on the Development of Amenity

Wings in Public Level IV Hospitals in Kisii County

Level of Funding	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
TOD1	1 (2.1%)	1 (2.1%)	1 (2.1%)	24 (51.1%)	20(42.6%)	47(100%)
TOD2	0 (0.0%)	7(14.7%)	3 (6.4%)	25 (53.3%)	12(25.5%)	47(100%)
TOD3	2(4.3%)	16(34.0%)	1(2.1%)	17 (36.2%)	11(23.4%)	47(100%)
TOD4	7(14.9%)	28(59.8%)	4(8.5%)	8 (17.0%)	0(0.0%)	47(100%)
TOTAL	10 (14.9%)	52(27.7%)	8(4.3%)	74 (39.4%)	43 (22.9%)	188(100%)

TOD1- There is timely compilation of FIF departmental budgets

TOD2- The hospital board approves the departmental budgets in good time

TOD3- There are no delays in receiving AIE from the provincial office of the ministry of health

TOD4- The time frame between budgeting and receiving of AIE is too long

Chi-square(χ^2)= 13.145

Degree of freedom= 12

P-Value = 13.04

Confidence level = .05

4.6: To Determine the Influence of Facility Income Generating Potential on the

Development of Amenity Wings in Public Level IV Hospitals in Kisii County

The third objective of the study was to establish the influence of facility income generation potential on the development of amenity wings in public level IV hospitals in Kisii County. Specifically the researcher focussed on whether increased bed capacity will translate to more income for the hospital and whether there is loss of hospital income at key points of service delivery in the hospital.

4.6.1: Increased Bed Capacity

Increased bed capacity has been touted as a potential income generating activity in public hospitals with those with larger bed capacity generating more funds, according to literature. This was studied in the Table 4.10 below. The study sought to verify from the respondents' perspective the influence of bed capacity on the facility's income generating potential and came up with the following findings: 2.1% disagreed, 2.1% were not sure, 40.4% agreed and 55.3% strongly agreed. This suggested that the findings are consistent with existing literature. This also means that the income generating potential can be improved with the construction of amenity wings in public level IV hospitals in Kisii County. This has the implication that if more funds are availed through increased bed capacity then more infrastructure development activities can be carried out due to the availability of more funds for the development activities.

Table 4.10: Increased Bed Capacity

Respondent's Position	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	0 (0.0%)	0 (0.0%)	5 (38.5%)	8 (61.5%)	13 (100%)
HAO	1 (8.3%)	0 (0.0%)	7 (58.3%)	4 (33.3%)	12 (100%)
HRIO	0(0.0%)	1 (8.3%)	6 (50.0%)	5 (41.7%)	12 (100%)
PHO	0 (0.0%)	0(0.0%)	1 (10.0%)	9 (90.0%)	10 (100%)
TOTAL	1 (2.1%)	1 (2.1%)	19 (40.4%)	26 (55.3%)	47 (100%)

4.6.2: Loss of Income in Key Areas of Service Delivery.

Loss of income in key areas of service delivery has been implicated in the public health sector corruption indicator survey of 2009. The findings of the survey are also sought to be investigated in this study. The study assesses the situation in Kisii County based on the sentiments expressed in the questionnaire as captured in Table 4.11 below: 8.5% of the respondents strongly disagreed, 29.8% disagreed this summed up to 38.3%, 19.1% were not sure, 31.9% agreed and 10.6% strongly agreed. The mixed picture suggested that the vice is still believed to be present by 42.5% of the respondents. This implies that the facilities true income generating potential is stifled by loss of income in key areas of service delivery through corruption. This directly impacts on the ability of the facility to develop amenity wings from FIF generated within the facilities. This implication was verified by the hypothesis testing in 4.6.3.

Table 4.11: Loss of Income in Key Areas of Service Delivery

Respondent's Position	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	2 (15.4%)	5 (38.5%)	2(15.4%)	4(30.8%)	0(0.0%)	13(100%)
HAO	2 (16.7%)	3 (25.0%)	2 (16.7%)	2(16.7%)	3(25.0%)	12(100%)
HRIO	0 (0.0%)	4 (33.3%)	3 (25.0%)	4(33.3%)	1(8.3%)	12(100%)
PHO	0 (0.0%)	2 (20.0%)	2(20.0%)	5(50.0%)	1(10.0%)	10(100%)
TOTAL	4 (8.5%)	14 (29.8%)	9 (19.1%)	15(31.9%)	5(10.6%)	47(100%)

4.6.3: Findings on the Third Study Hypothesis

The third objective was to establish the relationship between increased bed capacity and loss of income in key areas of service delivery as part of facility income generating potential on amenity wing development in public level IV hospitals in Kisii County. On the basis of existing literature on facility income generating potential, the researcher was interested in confirming or rejecting the notion that there was no relationship between facility income generating potential and the development of amenity wings in public level hospitals in Kisii County. To establish the relationship between the variables, a Chi-square (χ^2) was used to test the following hypothesis:

Ho₃ : There is no significant relationship between facility income generating potential and the development of amenity wings in public level IV hospitals in Kisii County.

This hypothesis was tested by changes in various income generating attributes and the attitude of the respondents towards these variables. The relationship between the variables was examined with reference to facility income generating potential. Computed Chi-square (χ^2) for the influence of facility income generation potential on development of amenity wings in public level IV hospitals in Kisii County was 12.26, with a degree of freedom (df) of 12, and a P-value of 11.15 at .05 significance level. The implication on the objective was that there was a significant relationship between facility income generating potential and development of amenity wings in public level IV hospitals in Kisii County. The null hypothesis was thus rejected, thus validating the notion that facility income generating potential influences development of amenity wings in public level IV hospitals in Kisii County. This is shown in Table 4.12 below:

Table 4.12: Influence of Facility Income Generating Potential in the Development of Amenity Wings in Public Level IV Hospitals in Kisii County

Level of Funding	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
FIGP1	0 (0.0%)	1 (2.1%)	1 (2.1%)	17 (36.2%)	28(59.6%)	47(100%)
FIGP2	0 (0.0%)	1(2.1%)	1 (2.1%)	19 (40.4%)	26(55.3%)	47(100%)
FIGP3	4(8.5%)	14(29.8%)	9(19.1%)	15(31.9%)	5(10.6%)	47(100%)
FIGP4	0(0.0%)	10(21.3%)	9(19.1%)	20 (42.6%)	5(10.6%)	47(100%)
FIGP5	3(6.4%)	10(21.3%)	9(19.1%)	20(42.6%)	5(10.6%)	47(100%)
TOTAL	7 (3.0%)	35 (14.9%)	27(11.4%)	89 (37.9%)	77 (32.8%)	235(100%)

FIGP1- Bed capacity in the hospital can be increased with the establishment of an amenity wing.

FIGP2- Increased bed capacity will translate to more income for the hospital

FIGP3- There is loss of hospital income at key points of service delivery in the hospital

FIGP4- Paperless transactions can reduce loss of hospital income at key points of service delivery.

FIGP5- There are various innovations in place to reduce the hospital's operating expenses

Chi-square(χ^2)= 12.26

Degree of freedom= 12

P-Value = 11.15

Confidence level = .05

4.7: The Influence of Health Sector Stakeholders' Participation in the Health

Development Projects of Amenity Wings in Public Level IV Hospitals in Kisii

County.

Health stakeholder participation has been described in literature as important for aiding the development of infrastructure development projects particularly in developing nations. This objective was studied with particular focus on whether the hospital holds regular meetings with the health stakeholders to discuss infrastructure development in the facility and whether the facility has benefitted from constituency development funds with regard to infrastructure development. The findings were illustrated in the Tables 4.13 and 4.14 below.

4.7.1: Influence of Constituency Development Fund

Constituency development funds have been used to develop constituencies countywide, according to literature. However in the health sector the funding is concentrated in development of mostly, health centres and dispensaries. The study sought to establish how many public level IV hospitals in Kisii County have benefitted from their respective CDF kitties. According to table 4.13 below the findings were as follows: 25.5% strongly disagreed, 34.0% disagreed, 8.5% were not sure, 19.1% agreed and 12.8% strongly agreed. The findings suggested that the CDF kitty is not used to develop infrastructure in public level IV hospitals in the county according to the majority of the respondents. 31.9% seemed to agree that substantial infrastructure development projects in the facilities have been occasioned by the CDF kitty. The implication of this is that as a potential stakeholder, the involvement of CDF in facility infrastructure development may go a long way in bridging infrastructure financing gaps in the respective facilities.

Table 4.13: Influence of Constituency Development Fund

Respondent's Position	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	4 (30.8%)	2 (15.4%)	2(15.4%)	2(15.4%)	3(23.1%)	13(100%)
HAO	2 (16.7%)	6 (50.0%)	0 (0.0%)	1(8.3%)	3(25.0%)	12(100%)
HRIO	2 (16.7%)	4 (33.3%)	2(16.7%)	4(33.3%)	0(0.0%)	12(100%)
PHO	4 (40.0%)	4 (40.0%)	0(0.0%)	2(20.0%)	0(0.0%)	10(100%)
TOTAL	12 (25.5%)	16 (34.0%)	4 (8.5%)	9(19.1%)	6(12.8%)	47(100%)

4.7.2: Holding Meetings with Health Stakeholders at the Facility Level

Meeting with health stakeholders to discuss potential development projects are crucial. The study sought to identify if indeed such meetings take place in public level IV hospitals in Kisii County and the findings were established as follows, according to Table 4.14: 6.4% strongly disagreed, 17.0% disagreed, 8.5% were not sure, 57.4% agreed, and 10.6% strongly agreed. The findings indicated that most facilities enjoyed stakeholder participation in their development meetings. This might be pivotal in infrastructure development projects, as the meetings could yield good financial support for funding infrastructure development projects in public level IV hospitals in Kisii County.

Table 4.14: Holding Meetings with Health Stakeholders at the Facility Level

Respondent's Position	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
M/SUPT	2(15.4%)	1(7.7%)	0(0.0%)	10(76.9%)	0(0.0%)	13(100%)
HAO	1(8.3%)	3 (25.0%)	0 (0.0%)	8(66.7%)	0(0.0%)	12(100%)
HRIO	0 (0.0%)	2(16.7%)	3(25.0%)	4(33.3%)	3(25.0%)	12(100%)
PHO	0 (0.0%)	2 (20.0%)	1(10.0%)	5(50.0%)	2(20.0%)	10(100%)
TOTAL	3(6.4%)	8 (17.0%)	4 (8.5%)	27(57.4%)	5(10.6%)	47(100%)

4.7.3: Findings on the Fourth Study Hypothesis

The fourth objective was to establish the relationship between influence of CDF and holding meetings with health stakeholders at the facility level on amenity wing development in public level IV hospitals in Kisii County. On the basis of existing literature on health stakeholder participation, the researcher was interested in confirming or rejecting the notion that there was no relationship between health stakeholder participation and the development of amenity wings in public level hospitals in Kisii County. To establish the relationship between the variables, a Chi-square (χ^2) was used to test the following hypothesis:

Ho₄ : There is no significant relationship between health stakeholder participation and the development of amenity wings in public level IV hospitals in Kisii County.

This hypothesis was tested by changes in various health stakeholder participation attributes and the attitude of the respondents towards these variables. The relationship between the variables was examined with reference to health stakeholder participation as shown below:

Table 4.15: Influence of Health Stakeholder Participation and the Development of Amenity Wings in Public Level IV Hospitals in Kisii County.

Level of Funding	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	TOTAL
HSP1	1 (2.1%)	0 (0.0%)	1 (2.1%)	43 (91.5%)	2(4.3%)	47(100%)
HSP2	12(2.1%)	16(34.0%)	4(8.5%)	9(19.1%)	6(12.8%)	47(100%)
HSP3	3(6.4%)	8(17.0%)	4(8.5%)	27 (57.4%)	5(10.6%)	47(100%)
HSP4	14(29.8%)	27(57.4%)	1(2.1%)	3(6.4%)	2(4.3%)	47(100%)
TOTAL	30 (16.0%)	51(27.1%)	10(5.3%)	82(43.6%)	15 (8.0%)	188(100%)

HSP1- The hospital is supported by several development partners

HSP2- The hospital has benefited from the constituency development fund

HSP3- The hospital holds regular meetings with the stakeholders to discuss infrastructure development in the hospital

HSP4- The stakeholders have erected physical infrastructure in the facility that led to improved hospital revenue collection

Chi-square (χ^2) = 13.96

Degree of freedom= 12

P-Value = 12.86

Confidence level = .05

The computed chi-square (χ^2) for the influence of health stakeholder participation on development of amenity wings in public level IV hospitals in Kisii County was 13.96, with a degree of freedom (df) of 12, and a P-value of 12.86 at .05 significance level. The implication on the objective was that there was a significant relationship between health stakeholder participation and development of amenity wings in public level IV hospitals in Kisii County. The null hypothesis was thus rejected, thus validating the notion that health stakeholder participation influences development of amenity wings in public level IV hospitals in Kisii County.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1: Introduction

The main concern of this study was to establish the influence of FIF on the development of amenity wings in public level IV hospitals in Kisii County. To unravel this, an investigation was carried out on the independent variables: level of funding, time of funds disbursement, facility income generating potential and health stakeholder participation on the development of amenity wings in public level IV hospitals in Kisii County. The indicators of development of amenity wings were: planning and executing new construction and renovation projects. Finally this chapter gave a summary of findings in chapter four, drew conclusions and made recommendations based on the study findings.

5.2: Summary of Findings

The study was guided by four main objectives; the first objective was to establish the influence of level of funding on the development of amenity wings in public level IV hospitals in Kisii County. Second was to establish the extent to which time of Facility Improvement Fund disbursement influences development of amenity wings in public level IV hospitals in Kisii County. Thirdly, to explore the influence of facility income generating potential on development of amenity wings in public level IV hospitals in Kisii county. And finally, to examine the influence of health sector stakeholders' participation on development of amenity wings in public level IV hospitals in Kisii county. Four hypotheses corresponding to this objectives were also formulated and Chi-square (χ^2), used to test the relationship between variables at alpha .05 level of significance. The study findings were as follows:

On the level of funding, the study revealed that this had significantly influenced development of amenity wings in public level IV hospitals in Kisii County. The study findings also validated other studies carried out on level of funding. The study also established that budgeting at the facility level is done in good time and that most hospitals have a good resource allocation criteria to aid in rational budgetary allocations for each department within the hospital. The study also noted that most public level IV hospitals in Kisii County do not allocate enough money for maintenance of hospital infrastructure; this has a negative effect on infrastructure development in the hospitals. In addition to FIF generated by the facility, majority rely on financial supplementation by the central government, this panned out as a huge impedance on development of amenity wings in the current financial year (2012-2013).

The second objective was on influence of time of disbursement of funds on the development of amenity wings in public level IV hospitals in Kisii County. According to data gathered, most hospitals compile their departmental budgets in good time and this enables the hospital board to approve the same in good time as evidenced by findings. Consequently, this leads to timely receipt of approved AIEs from the Provincial Director of Medical Services' (PDMS) office in Kisumu. This has the implication of ensuring no delays in development of infrastructure projects if all the budgets are submitted for approval in good time.

The third objective was influence of facility income generating potential on the development of amenity wings in public level IV hospitals in Kisii County. The study discovered that most respondents believed that bed capacity can be increased with establishment of an amenity wing. This has the obvious effect of increasing FIF collections and therefore having more income that can be budgeted for to develop infrastructure projects such as amenity wings in the public level IV hospitals in Kisii County. Also the study established that there is loss of potential income in key areas of service delivery, this can be

reduced by establishing paperless transactions in the key service delivery points. This would reduce the paying points for services and in effect income that would otherwise have been lost through possible corruption is collected. This would then further imply that more disposable income for the development of infrastructure projects is available.

The last objective was to determine the influence of health stakeholder participation in the development of amenity wings in public level IV hospitals in Kisii County. The study established that FIF alone cannot suffice in the establishment of amenity wings in public level IV hospitals in Kisii County. Health stakeholder participation was noted to be a good adjunct to FIF in infrastructure development projects in Kisii County. The study noted that majority of the public level IV hospitals are supported by several development partners. However, little support is gotten from the respective CDFs in terms of infrastructure development and thus creating a need to harness these resources possibly through lobbying the respective members of parliament directly. The study also established that holding regular meetings with health stakeholders is crucial in the hospital's bid to solicit funds for amenity wing development from the stakeholders.

5.3: Discussions

From the findings in this research project it can be inferred that health financing approaches are central to universal coverage. The way funds are collected, pooled and used to purchase or provide services should be carefully considered to ensure that population needs are addressed under a universal health system (Chuma & Okungu, 2011). Indeed the findings have demonstrated these facts consistently. Hospital funds generated in one quarter are all budgeted for and used in the next quarter as demonstrated by 40.4% who agreed and 59.6% who strongly agreed. The research also established that the hospitals heavily rely on funds from treasury's recurrent expenditures shown by 42.6% who agreed and 12.8% who strongly agreed. 14.9% strongly disagreed and 23.4% disagreed this mirrored findings from (Chuma and Okungu, 2011) that established that the Kenyan health sector relies heavily

on out of pocket payments, 44.8% and 29.1% in 2001/2002 and 2005/2006 as a percentage of total health expenditure.

(Ogbu and Gallagher, 1992) established that unfavourable economic conclusions in sub-Saharan African have meant public austerity and a deceleration in government health spending. This was strongly supported by the findings on dependence on treasury. The study findings established that an increased bed capacity will translate to more income for the hospitals, evidenced by 40.4% of the respondent who agreed and 55.3% who strongly agreed with the statement. This is consistent with the literature findings that established that that the level of funding to NHIF accredited hospitals are designed such that hospitals with large bed capacity get higher re-imburement rates than smaller hospitals.

Most hospital as findings suggest have an established resource allocation criteria, evidenced by 44.7% who agreed and 34.0% who strongly agreed this is consistence with the literature findings as documented by (Briscombe, Sherman& Saunders,2010).The study established that in Kisii County the bottlenecks associated with literature findings with regard to timelines between budgeting and receiving of AIE's are not as severe as is the case in the rest of the country. The study found that 36.2% agreed, 23.4% strongly agreed. However 34.0% disagreed, this being consistent with documented literature in the (NHSSP II, 2005).

(Heller, 1986) established that the wider the bouquet of 'necessary' care provided by a facility the higher the potential for generation of more income for the health facility. This is consistent with the study findings that established that 40.4% agreed with this fact and 55.3% strongly agreed. This leaves an obvious implication of improvement of services will definitely translate to more income for the facility that can be used for infrastructure development in the facilities.

(Dyna, 2011) stated that patients make decisions on where to be treated based on the infrastructure and services offered. Consistent with findings of this study is the fact that improvement of infrastructure will attract more patients to health facilities.

(Gottrett & Scheiber, 2006) pointed out that there are many development partners and NGO's present in health programs in Kenya. Study findings are consistent with this assertion, 91.5% of the respondents agreed to the presence of support from several development partners at the facility level. These funds can thus be tapped and augment FIF in development of amenity wings in public level IV hospital in Kisii County.

The study hypotheses sought by the study were validated by the findings. The null hypotheses were thus rejected. This meant that the independent variables invariably determine whether amenity wings can be established in public level IV hospitals in Kisii County. The findings were also consistent with the literature findings that stated, infrastructure gaps can be bridged by additional allocations from the treasury and /or donor contributions (NHSSP II, 2005). This will augment FIF in making the development of amenity wings in public level IV hospital in Kisii County a plausible reality in the short term.

Using both descriptive and inferential statistics, this chapter analysed and presented findings on influence of FIF in the development of amenity wings in public level IV hospitals in Kisii County. The objective was to ascertain the influence of FIF with regard to: level of funding, time of funds disbursement, facility income generating potential and health stakeholder participation. Testing of hypotheses on significance of FIF influence on the development of amenity wings in public level hospitals in Kisii County validated the objectives of the research; FIF had significant influence on infrastructure development in public level IV hospitals in Kisii County. From the data analysed, it was also evident that infrastructure development projects are not feasible in the current financial year. However, it is also true that facility income generating potential can be improved if loss of income in key points of service delivery is prevented

5.4: Conclusions

The study established that there is indeed a relationship between facility improvement funds and the development of amenity wings in public level IV hospitals in Kisii County, this was ascertained by findings of the study hypotheses. The null hypotheses were all rejected and thus validating the objectives of the study, this is consistent with the existing literature on the same.

The study also concluded that a larger pool of funds can be generated from FIF by reducing loss of income in key areas of service delivery in the hospitals, through paperless transactions as well as through having creative cost cutting innovations.

Facility improvement funds can be augmented by funds from health stakeholders such as donors, development partners and the CDF kitty. This will reduce over reliance on treasury for budgetary supplementation at the facility level.

The study also concluded that the red tape associated with delays in funds disbursement do not really affect the hospitals in Kisii County as in other parts of the country because of the timely reporting by the facilities with regard to AIEs.

The study also concludes that good infrastructure in hospitals attracts patients to seek services in the hospitals. Therefore infrastructure facelifts are imperative in public hospitals in Kisii County as this will positively affect the health services seeking behaviours of NHIF clients to these hospitals. Finally the study established that public hospital infrastructure development in the short term is a challenge as a result of too many competing financial priorities.

5.5: Recommendations

The recommendations made are confined to the influence of FIF on development of amenity wings in public level IV hospitals in Kisii County. The public level IV hospitals should reduce heavy reliance on treasury by coming up with cost cutting innovations as well as reducing the loss of income in key service delivery points. This will go a long way in tapping all the resources that a facility has the potential of generating.

Public level IV hospital managers in Kisii County should improve their interactions with their local members of parliament. Having one on one conversations and explaining the need for support from CDF for infrastructure development can go a long way in augmenting FIF in the development of infrastructure projects in the public level IV hospitals of Kisii County.

Hospitals should also be encouraged to establish a saving plan for future infrastructure development projects. Moreover, they should also develop infrastructure development proposals and share them with the stakeholders; this may lead to financial support in development of amenity wings in the public level IV hospitals of Kisii County. The above recommendations may not come to fruition if the healthcare workers and particularly the managers of facilities, have no self drive and ambition to develop amenity wings in their hospitals.

5.6: Suggestions for Further Research

To be able to develop accurate conclusions from the study findings on influence of FIF on the development of amenity wings in public level IV hospitals in Kisii County, it is imperative for further research to be conducted on attitudes of healthcare workers towards the patients they serve in their facilities. A comparative study may also be conducted to

investigate whether actual FIF income generated has been used for other infrastructure development projects in public level IV hospitals in Kisii County for the last five years. The focus should be on renovations as well as new projects constructed from scratch. A study may also be done to establish the influence of corruption on facility income generating potential in public level IV hospitals in Kisii County. The focus should be on prevention of loss of hospital income.

REFERENCES

- Briscombe, B, Sharma, S. And Saunders, M.(2010) *Improving Resource Allocation in Kenya's Public Health Sector*. Washington, DC: Futures Group, Health Policy Initiative,Task Order 1.
- Carrin, G. et al, (2007) *Health financing reform in Kenya – assessing the social health insurance proposal* . South African Medical Journal 2007; 97: 130-135
- Chuma, J. & Okungu, V. (2011) *Viewing the Kenyan health system through an equity lens: implications for universal coverage*. Int J Equity Health ; 10: 22
- Contarino,F ; Grosso, G. & Mistretta A.(2009) *Project financing in public hospital trusts*: Catania, Epubmed.
- Delcheva, E. ; Balabinova, D. (1997) *The cost of free healthcare: under-the-counter payments in Bulgaria*,Bulgaria. : id21 Development Research Reporting Service
- Drechsler D, Jutting J. (2005). *Is there a role for private health insurance in developing countries?* Berlin: German Institute for Economic Research.
- Dyna, A.T.(2001) *Mobilizing Resources for Health: The Case for User Fees Revisited*: Cambridge, Center for International Development at Harvard University
- Ensor, T. San, P.B. (1996) *Access and payment for health care: the poor of Northern Vietnam* Heslington: Centre for Health Economics, University of York.
- Gottret, P. & Schieber, G.(2006) *Health financing revisited: a practitioner's guide overview*. Washington DC: World Bank.

- Govender, V. ; McIntyre, D. & Loewenson R. (2008) *EQUINET Discussion Paper Series 57*
;Progress towards the Abuja target for government spending on health care in
East and Southern Africa. Harare: EQUINET
- Hair, J.F et al (1992) *Multivariate data Analysis with Readings*. New York: Macmillan
Publishing Company
- Heller, P.S.(1986): *A Model of the Demand for Medical and Health Services in Peninsula Malaysia*,
Social Science and Medicine.
- Herrera, S., and G. Pan. 2005. "Efficiency of Public Spending in Developing Countries: An
Efficiency Frontier Approach."World Bank, Washington, D.C.
- Hutton, G. (2004) *Is the jury still out on the impact of user fees in Africa? A review of the
evidence from selected countries on user fees and determinants of health service
utilisation*. East Afr Med J. 2004;81:45–60.
- Jacobs, B. & Price, N.(2004) *The impact of the introduction of user fees at a district hospital
in Cambodia* .Phnom Penh: Enfants and Developpement
- Kisii Level V hospital records (2012) *Hospital Accounting Records 1998-2012*: Kisii
- Krejcie, R.V. & Morgan, D.W. (1970) *Determining sample size for research activities*.
Educational and Psychological Measurements, 30, 607-610.
- Lagarde, M. & Palmer, N. (2007) *The impact of user fees on health service utilization in low-
and middle-income countries: how strong is the evidence?* Bulletin of the World
Health Organisation 2008; 86(11): 839–848.
- Lagarde M, Palmer N.(2010) *The impact of health financing strategies on access to health
services in low and middle income countries*. London: John Wiley and Sons Ltd
- Latané, H. A. and Tuttle, D. L. (1966), *Decision Theory and Financial Management*. The

- Leipziger, D., M. Fay, Q. Wodon, and T. Yepes. (2003) *“Achieving the Millennium Development Goals: The Role of Infrastructure.”* World Bank, Washington, D.C.
- Loevinsohn B, Harding A(2005). *Buying results? Contracting for health service delivery in developing countries.* The Lancet 2005; 366:676–81.
- Marchal, B. Dedzo, M & Kegels, G (2010) *Turning around an ailing district hospital: a realist evaluation of strategic changes at Ho Municipal Hospital (Ghana):* BMC Public Health; 10: 787.
- McIntyre D, Garshong B, Mtei G, Meheus F, Thiede M, Akazili J, Ally M, Aikins M, Mulligan JA, Goudge J.(2008) *Beyond fragmentation and towards universal coverage: insights from Ghana, South Africa and the United Republic of Tanzania.* Bulletin of the World Health Organization. 2008;86(11):871–876. doi: 10.2471/BLT.08.053413.
- Michaud, C. M. (2003) *“Development Assistance for Health (DAH): Recent Trends and Resource Allocation.”* Paper prepared for the Second Consultation of the Commission on Macroeconomics and Health, World Health Organization, Geneva, October 29–30.
- Miles, M.B. & Huberman, A.M. (1994). *Qualitative data analysis.* Thousand Oaks: Sage Publications.
- Mugenda, O & Mugenda, G. A., (2003). *Research methods, Quantitative & Qualitative*

Approaches. Nairobi: Africa Centre for Technology Studies.

Neumann, J.v (1928). "Zur Theorie der Gesellschaftsspiele. " *Mathematische Annalen*, 100(1), p p. 295-320. English translation: "On the Theory of Games of Strategy," in A. W. Tucker and R. D. Luce,ed. (1959),*Contributions to the Theory of Games*, v. 4, p p. 13-42.

Nolan, B., and V. Turbat.(1995). *Cost Recovery in Public Health Services in Sub-Saharan Africa*. Washington, D.C.: World Bank

NHSSP II(2005) *Reversing the Trends: The Second National Health Sector Strategic Plan of Kenya –NHSSP II 2005–2010*,Nairobi:Ministry of Health;Health Sector Reform Secretariat

Ogbu, O. & Gallagher, M.(1992) *Public expenditures and health care in Africa*: Nairobi, International Development Research Center, Nairobi, Kenya.

Paternostro, S., A. Rajaram, and E. Tiongson. (2004) "How Does the Composition of Public Spending Matter?"World Bank, Washington, D.C.

Preker AS, Carrin G.(2004) *Health Financing for Poor People: Resource Mobilization and Risk Sharing*. World Bank Publications, 2004.

Romanian national hospital master plan (2004): a new strategy for hospital infrastructure development: Bucharest

Russell, S., and L. Gilson. (1995) "User Fees in Government Health Services: Is Equity Being Considered? An International Survey." PHP Publication no. 15.

London: London School of Hygiene and Tropical Medicine.

Saunders, M. N. et al (2000). *Research Methods for Business Students*. London: Prentice-Hall.

Schieber G, Maeda A.(1997) *A curmudgeon's guide to health care financing in developing countries*. In Schieber (ed) *Innovations in Health Care Financing*, proceedings of a World Bank Conference, March 10-11 1997.

Sekaran, U. (2003) *Research Methods for business-A skill-Building approach*. New York: John Wiley & Sons Inc.

Sergent, F. & Charo, R. (2008) *Project completion report rural health project ii republic of Kenya (loan no 2100150000472)*, Nairobi: Human development department

The Bamako Initiative, (1987) : UNICEF/WHO

Trochim, W. (2000). *The Research Methods Knowledge Base, 2nd Edition*. Cincinnati : Atomic Dog Publishing

Tuckman, B.W. (1972) *Conducting Educational Research*. New York: Harcourt Brace Jovanovich, Inc.

WHO,(2000). *World Health Report 2000: health systems – measuring performance*

Geneva:World Health Organization.

WHO Report (2001) *World Health Organisation. Macroeconomics and Health: Investing in*

health for economic development. Report of the commission on the

macroeconomics and health.

World Bank.(1987) *Financing the health sector: an agenda for reform*. Washington, DC:

The World Bank, 1987.

World Bank,(1993) *World Bank Development Report* : Washington D.C, World Bank

Wilkinson, D & Birmingham, P (2003) *Using Research Instruments: A Guide for Researchers* London: RoutledgeFalmer

CONTENTS

CHAPTER 1 INTRODUCTION

CHAPTER 2 RESEARCH DESIGN

CHAPTER 3 RESEARCH INSTRUMENTS

CHAPTER 4 DATA COLLECTION

CHAPTER 5 DATA ANALYSIS

CHAPTER 6 REPORTING

THE RESEARCH DESIGN

The research design is a plan or blueprint for the study. It is a set of decisions and choices that guide the researcher in the selection of the research problem, the research questions, the research methods, the data collection, and the data analysis. The research design is a critical component of the research process and it is essential for the researcher to have a clear and well-defined research design before beginning the study.

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APPENDICES

APPENDIX 1

LETTER OF TRANSMITTAL

UNIVERSITY OF NAIROBI,
SCHOOL OF CONTINUING
AND DISTANCE LEARNING,
KISII EXTRAMURAL,
P.O. BOX 2461-40200
KISII.

26TH JULY 2012

Dear Sir/Madam,

LETTER OF TRANSMITTAL

I kindly wish to bring to your attention that as a requirement for my Master of Arts in Project Planning and Management Programme. I intend to conduct a research study on Health development projects. Influence of facility improvement funds on hospital infrastructure development and particularly development of amenity wings in public level IV facilities in Kisii County.

Data for this study will be collected through questionnaires for key hospital staff who are involved in management and record keeping. All data will be held in strictest confidence. Your co-operation will be highly appreciated, as the success of this study depends on it.

Yours faithfully,

STANLEY RATEMO

APPENDIX 2

QUESTIONNAIRE FOR KEY HOSPITAL STAFF

This questionnaire is intended to collect information about the influence of Facility Improvement Funds on the development of amenity wings in public level IV hospitals in Kisii County. Please fill the blank spaces provided or tick (✓) where necessary. All the information volunteered will be treated with utmost confidentiality.

A) DEMOGRAPHIC INFORMATION

1) What is your gender?

a) Male

b) Female

2) What is your age?

3) What is your level of education?

a). Primary

b.) Secondary

c). College

d). other, specify

4) What is your position in the Organization? _____ . How long have you served in it? _____

B) GENERAL INFORMATION

5) What is the size of the hospital?

a) < 1 Hectare

b) Between 1-5 hectares

c) Between 5-10 hectares

d) > 10 hectares

e) Other, specify

- 6) What is the current catchment population served by the hospital? _____
- 7) What is the hospital's current average quarterly workload? _____
- 8) What is the hospital's current bed capacity? _____

C) INFLUENCE OF FIF IN HEALTH DEVELOPMENT PROJECTS

Please indicate the extent to which you agree with the following statements on health development projects. On a five point Likert scale of 1-5 where;

1. Strongly Disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly Agree

	Level of funding	1	2	3	4	5
9	The hospital funds generated in one quarter are all budgeted for and used in the next quarter.					
10	The hospital has proper resource allocation criteria to aid in departmental budgetary allocations.					
11	The hospital budget allocates enough money to maintenance of hospital infrastructure					
12	The hospital relies heavily on funds from treasury's recurrent expenditure					
13	The hospital has a savings plan in place to keep money for future development projects					
14	The hospital has made provisions for amenity wings development in the current annual operation plan (for the year 2012-2013)					
	Time of disbursement					
15	There is timely compilation of FIF departmental budgets.					
16	The hospital board approves the departmental budgets in good time					
17	There are no delays in receiving AIE from the provincial office of the ministry of					

	health.							
18	The time frame between budgeting and receiving of AIE is too long.							
19	The time frame between budgeting and receiving of AIE is adequate.							
	Facility income generating potential							
20	Bed capacity in the hospital can be increased with the establishment of an amenity wing.							
21	Increased bed capacity will translate to more income for the hospital.							
22	There is loss of hospital income at key points of service delivery in the hospital.							
23	Paperless transactions can reduce loss of hospital income at key points of service delivery.							
24	There are various innovations in place to reduce the hospital's operating expenses.							
	Health stakeholder participation							
25	The hospital is supported by several development partners							
26	The hospital has benefited from the constituency development fund.							
27	The hospital holds regular meetings with the stakeholders to discuss infrastructure development in the hospital							
28	The stakeholders have erected physical infrastructure in the facility that led to improved hospital revenue collection.							
	D) INFRASTRUCTURE DEVELOPMENT CAPACITY							
29	The hospital has enough space for construction of new buildings							
30	The hospital has unused buildings that can be renovated and converted to amenity wings							
	E) FEASIBILITY AND SUSTAINABILITY OF THE INFRASTRUCTURE PROJECTS							
31	The construction of new wings will significantly improve the facility income generation							

32	The renovation of old buildings will significantly improve the facility income generation						
33	The current staffing levels will adequately suffice the smooth running of the amenity wings, without service disruption in the rest of the hospital.						
34	Current resource endowment can support establishment of an amenity wing						
35	Infrastructure financing gaps can be filled using measures aimed at reducing allocations to other departments.						

36) In your view, what are the challenges in development of infrastructure projects in public hospitals?

37) What solutions would you suggest for these challenges?

Thank You

APPENDIX 3

LIST OF PUBLIC LEVEL IV HOSPITALS IN KISII COUNTY

1. Keroka District Hospital
2. Marani District Hospital
3. Gucha District Hospital
4. Nyamache Sub- District Hospital
5. Nduru District Hospital
6. Kenya District Hospital
7. Etago Sub- District Hospital
8. Iyabe Sub- District Hospital
9. Masimba Sub- District Hospital
10. Keumbu Sub- District Hospital
11. Gesusu Sub- District Hospital
12. Ibeno Sub- District Hospital
13. Ibacho Sub- District Hospital

UNIVERSITY OF NAIROBI
VINTAGE LIBRARY

THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss/Institution

Stanley Nyabuti Ratemo

(Address) University of Nairobi

PO BOX 2461

(ISII

has been permitted to conduct research in

Location

District

Province

Vyanza

On the topic: Influence of facility improvement

on funds on development of amenity in public

level IV hospitals in Kisii County.

for a period ending: 30th November 2012

Research Permit No. NCST/RCD/14/012/1515

Date of issue

30th October 2012

Fee received

KSH.1000



**Applicant's
Signature**

Secretary

**National Council for
Science and Technology**

CONDITIONS

- 1. You must report to the District Commissioner and the District 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 with-out 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)/four(4) bound copies of your final report for Kenyans and non-Kenyans respectively.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice**



REPUBLIC OF KENYA

**RESEARCH CLEARANCE
PERMIT**