THE EFFECT OF SOCIO-ECONOMIC FACTORS ON PUBLIC HEALTH SERVICE DELIVERY IN KENYA- (ACASE OF MURANG'A COUNTY HOSPITALS)

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS AND ECONOMICS IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PUBLIC ADMINISTRATION DEGREE OF MURANG'A UNIVERSITY OF TECHNOLOGY.

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DECLARATION

This Research Project is my original work and has not been presented to any other University for any award or anywhere else for any academic purposes.

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DEDICATION

This Project is dedicated to my family. Through them I learnt that hard work, perseverance and determination are instrumental packages for success in any life endeavor.

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ABSTRACT

Good health care is a fundamental need in the life of a person because it helps develop a positive self-image and also opens up the opportunities for the individual to do their daily duties as required of them. The purpose of the study was to explore the relationship between socio-economic factors and public health service delivery in Kenya. From earlier studies available, it can be noted that a number of studies regarding public health service delivery have been done. However, hardly does one come across a study addressing the relationship between Socio-economic factors and public health service delivery in Kenya. Therefore, this formed the basis of the current study. The specific objectives of the study was to: determine whether financial resources affected public health service delivery in Kenya; determine whether education level affected public health service delivery in Kenya and to establish whether health facilities affect public health service delivery in Murang'a County.The study was both quantitative and qualitative.Descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage). Inferential analysis was done to find out if there is any relationship between dependent and the independent variables of the study .The target population included a list of staff and patients. A sample of 475 respondents was drawn across the various categories of population that is staff and patients. Stratified sampling; simple random sampling and purposive sampling were used to draw data. Primary data was collected through questionnaires while Secondary data was collected through journals and reports. Content validity of the instruments was used to establish the accuracy of the research instruments whereby the questionnaire was aligned with the conceptual framework. In order to ensure reliability, rehearsals were done with the research assistant(s) to ensure that they fully understood the research instruments. After data collection, the filled-in and returned questionnaires were edited for completeness, coded and entries made into Statistical package for social sciences (SPSS version 18). Data was organized into frequency tables from which the means, percentage were calculated. Spearman rank correlation analysis was used to examine the relationships among the different aspects of quality of healthcare. One–way ANOVA technique was used to show if there is any statistical difference in public health service delivery. The reaction to the study was positive as a response of 75% was achieved. Based on one-way ANOVA, the F value was 302.410 with a p-value $0.000 < 0.05$ significance level means that the calculated F Value is statistically significant. The R value of the study was 0.863 and R^2 value of 0.745. This established a significance of 0.192 for lack of enough financial resources, a significance of 0.709 for facilities in the hospitals and a significance of 0.709 for education level respectively. The study recommended that there should be enough and equitable financial allocation to all the hospitals in Kenya so that they can adequately run their daily activities. In addition, there should also be proper education awareness about health facilities to patients from the experts. Lastly, availability of facilities such as beds, laboratories should be provided to ease the work being done in the hospitals. Findings from this study will be used by the policy makers as a guide to decision making on improvement of health services which will in turn improve health service delivery.

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List of Abbreviations and Acronyms

CBO	Community Based Organizations
CHW	Community Health Workers
DH	District Hospitals
DHMB	District Health Management Boards
FBO	Faith Based Organizations
GOK	Government of Kenya
HIV/AIDS	Human Immunodeficiency Virus/ Acquired immune Deficiency Syndrome
MOH	Ministry of Health
NGO	Non-Governmental Organizations
NHIF	National Health Insurance Fund
NHSSP	National Health Sector Strategic Plan
WHO	World Health Organization
MDGs	Millennium Development Goals
CHMT	County Health Management Team
PHC	public health community
CHMB	County Health Management Board

Definitions of Operational Terms

Hospital: Health facility that provide inpatient, outpatient, and maternity services. The services are provided by doctors and specialists, supported by nurses among other health personnel. (AHA) 2009

Public health: Is defined as the science and art of preventing diseases, prolonging life, promoting health and efficiencies through organized community effort. (WHO, 2011)

Public health services: These include all programs, interventions, policies and activities that improve and protect the health of individuals and the community. Public health services intervene at the population or group level as distinct from individual personal health services. (CDC, 2012)

Economic factors: Economic factors are the nature of the competition faced by the organization or its services and financial resources available within the economy. (WHO, 2016)

Social factors greater support from families, friends and communities is linked to better health. Culture - customs and traditions, and the beliefs of the family and community all affect health (WHO, 2016)

Organizations: "Social entities that are goal directed, deliberately structured activity systems with a permeable boundary" (AAC, 2012)

CHAPTER ONE

INTRODUCTION

1.0 Overview

In this chapter, the researcher sought to present the background of the study, statement of the problem, objectives of the study, research questions, significance of the study, scope and limitations of the study and conceptual framework.

1.1 Background of the study

Public health services are the combination of all the programs, policies, and activities designed to promote a population's health and prevent disease and injury. Public health service focus on those delivery systems responsible for directly implementing public health services in most communities (Gilson, *et al* .2012)

How well a public health system is integrated depends on the density of organizations in the community and their ability and willingness to contribute to public health activities **(**Ali, 2014). Analysts often have speculated that an important source of the variation in public health practice observed across states and communities derives from how public health services are organized and delivered (Mpinga, 2013; Njau, 1999). The statutorily defined powers and duties of the government's public health agencies differ, as does the extent to which these powers are exercised at the state level or delegated to the local level (Oviasuyi, 2014; Wanjau, 2012).

This intricate inter-organizational and intergovernmental structure has complicated efforts to conduct comparative studies identifying the strengths and limitations of alternative delivery system configurations (Weyer, 2010).

Like other public goods, however, public health activities often do not have enough incentives to ensure that they will be fully provided through private, voluntary action (Montero, 2011; Wamala,

2010; Ensor *et al*., 2009). A traditional role for governmental public health agencies is to provide beneficial activities not sufficiently covered by private contributors while also stimulating and coordinating the contributions made by other organizations so as to minimize duplication and free-rider problems (Nzinga, 2013). An agency's success here will necessarily influence the integration of the delivery system. (Bodadilla, 2008; USAID, 2011)

Financial management, in service organizations, has been a constraint and an obstacle to other functions that contribute to service delivery (Davis, 2014; Nordberg, 2008). They suggest an enlightened approach to finance in service organizations. This consists of more participative and positive approach where far from being an obstacle, it contributes to strategic planning, costing systems, personnel motivation, quality control, continued solvency, and keeping outsider's confidence in management (Barasa *et al*., 2012;Arhin-Tenkorang, 2000). There is a need to distinguish good costs that improves organizational capabilities and quality service delivery from "bad costs" that increase bureaucracy hence becoming obstacles to service delivery (Onyango, 2015). Allocated resources for health flow through various layers of national and local government's institutions on their way to the health facilities (Wanjau, 2012). Financial accountability using monitoring, auditing and accounting mechanisms defined by the country legal and institutional framework is a prerequisite to ensure that allocated funds are used for the intended purposes (Davis, 2014), which is not true as seen in Kenya.

Many countries in sub-Saharan Africa are unable to provide well equipped ward and provision of adequate quality and coverage of health services because of economic factors and scarce resources. This has prompted many countries to advocate for decentralization as a key factor to drive health sector reforms with a view to maximizing the use of available resources in improving access and quality of health care services provided Onyango, (2015). Providing quality service

has significant impact on customer satisfaction (Bobadilla, 2008; Nyongesa, 2014), customer retention and growth of organization (USAID, 2011; Onyango, 2013). However, the poor state of customer service in some public health facilities in Kenya has resulted in high turnover and weak morale among staff, making it difficult to guarantee 24-hour coverage resulting in, problems with patient care, increased cost of operations due to inefficiencies (Owino and Korir, 1997) leading to some of the patients to look for alternative providers and to spread negative image by word of mouth which affects potential clients hence impacting negatively on the growth of public hospital (Tam, 2005).

Along with Financial Management, education is critical in determining people's social and economic position and thus their health status (Palmer, 2011; Ndedda et al, 2011). There is good evidence that a low level of education is associated with poor health status. Educational attainment is strongly related to subsequent occupation and income level, whereas poor social circumstances in early life are associated with significant chances of low educational achievement (Cutler, 2011). Educational achievement is not just a function of an individual's abilities and aspirations, but is influenced strongly by socio-economic circumstances (Muasya, 2016). Education level is more easily improved by society than income, occupation and other indices of socio-economic status (Ojakaa, 2012; Gilson and travis, 1997). In addition, unlike other socioeconomic determinants, educational achievement cannot be 'lost' once attained.

The potential benefits of integration, such as sharing resources and information, may be offset by the coordination problems, transaction costs, and loss of control associated with multi-organizational activities (Obwaka, 2013; Davis, 2014; Dustin, 2010). Health care institutions like hospitals, physicians' practices, and health insurers also are apt to join public health partnerships, particularly those addressing issues requiring both medical and public health interventions such as

communicable disease control, chronic disease prevention, and vulnerable populations' access to care (Defo, 2014).

The Kenya health policy initiatives aims at responding to the following constraints: decline in health sector expenditure, increased cost of operations due to inefficiencies (Otieno, 2014), inefficient utilization of resources (Ombaka, 2015) centralized decision making, inequitable management information systems(Araba ,2009), outdated health laws, inadequate management skills at the county level (Mahapatro, 2010), worsening poverty levels, increasing burden of disease, and rapid population growth . The challenge facing the government is to reverse these constraints. As a result of health sector reforms that have decentralized health services, services are integrated as one goes down the hierarchy of health structure from the national level to county levels. Under decentralization, the county handles supervisory responsibilities.

While there are efforts by the government and other stakeholders to improve provision of health services in Kenya, there are major gaps in relation to utilization of healthcare services especially at community level since policy makers and administrators have limited information on which to base decisions about the organization of responsibilities and the allocation of resources in public health (Davis, 2014; Leeuw, 2014). Various studies have been conducted to assess factors that influence utilization of health services internationally and even in Kenya and some of the factors include; cost of health services and quality of services.

The current literature acknowledges that there are multiple determinants of health, which recognize the role of, behaviour, economics and social factors (Ombaka, 2015), and the interconnectedness of these (Kitui, 2009; Wanjau, 2012). Patient satisfaction is a major determinant of quality health care delivery. Many studies have reported that there is a positive relation between patients' satisfaction and outcome (Mahapatro, 2010). Therefore, knowledge of

the patterns that influence the use of public health and medical services in developing countries are needed to address this. Thus this study tried to build on the gaps left by earlier studies by investigating the relationship between Socio-economic factors and public health service delivery in Kenya.

1.2 Statement of the Research Problem

As noted from the background of the study, policy makers and administrators have very little information on which to base the decisions about the organization of responsibilities and the allocation of resources in public health (Leeuw, 2014). Obtaining a better understanding of delivery system configurations is critical to comparative effectiveness research in public health on strategies to improve the availability and quality of public health services. Few studies conducted in Kenya revealed the following factors as influencing utilization of health services; cost/financing (Wanjau, 2012;Davis,2014), inadequate resources (Wamala,2010; Ndavi;(2009), unemployment, awareness of health services, quality of health services, equity in healthcare provision and patient satisfaction and retention (Mahapatro, 2010). While the foregoing studies have been done covering utilization of public health service delivery in some regions in Kenya, for instance, Njuguna, (2014) in Kenyatta hospital, Otieno, (2014) ,Homabay County, and Kiruthu (2010) Nyeri referral hospital, no specific study has been conducted to ascertain the relationship between Socio-economic factors and public health service delivery apart from Muthoni (2015) which studies an assessment of the determinants of quality of health service delivery in Kenya, which as a component, is affecting decision making by both policy makers and administrators.

1.3 Objectives of the Study

1.3.1. General Objective

The general objective of the current study is to establish the effect of Socio-economic factors in public health service delivery in Murang'a County hospitals.

1.3.2. Specific Objectives

The study was guided by the following specific objectives: -

1. To establish the relationship between financial resources and public health service delivery in Murang'a County hospitals.
2. To investigate the relationship between health facilities and public health service delivery in Murang'a County hospitals.
3. To determine the relationship between level of education of the patients and public health service delivery in Murang'a County hospitals.

1.4. Hypotheses

The study was guided by the following null hypotheses:

Ho_1: There is no significant relationship between financial resources and public health service delivery in Murang'a County hospitals

Ho_2: There is no significant relationship between health facilities and public health service delivery in Murang'a County hospitals.

Ho_3: There is significant relationship between level of education of patients and public health service delivery in Murang'a County hospitals.

1.5. Scope and Limitations of the Study

1.5.1. Scope

This study was confined to Murang'a County Hospitals and it focused on socio-economic factors affecting public health service delivery.

1.5.2. Limitations of the Study

These included the following: the respondents were unwilling to give information for fear of victimization by the management, but this was overcome by clarifying to them that the information given will be treated confidential. The other problem was employees did not allow much time to be interrogated as their employer gave them minimal chance to attend to the questions raised.

1.6. Significance of the Study

The most pressing issue facing the public health sector in Kenya is how to improve public health service delivery to satisfy, attract, retain and maintain potential employees and customers. The findings of this study provide practical and theoretical insights to stake holders in the public health sector on the factors affecting public health service delivery in Kenya and Murang'a specifically. The findings also provide to the researchers and the academic fraternity an increase in knowledge on the factors affecting public health service delivery. The study forms part reference material that triggers research in suggested areas for research which is of interest to future scholars. Foremost, these study provides the government and all other stakeholders in public health sector a platform to review their public health sector policies with an aim to improve public health service delivery in public health community, particularly The County Government of Murang'a is enabled to identify the key gaps in the county public health service delivery and improve the health sector.

1.7. Conceptual Framework

The current study was guided by the following conceptual framework, which explains the interrelationship between the variables. A conceptual framework is a scheme of variables a researcher operationalizes in order to achieve the set objectives (Oso & Onen 2005).

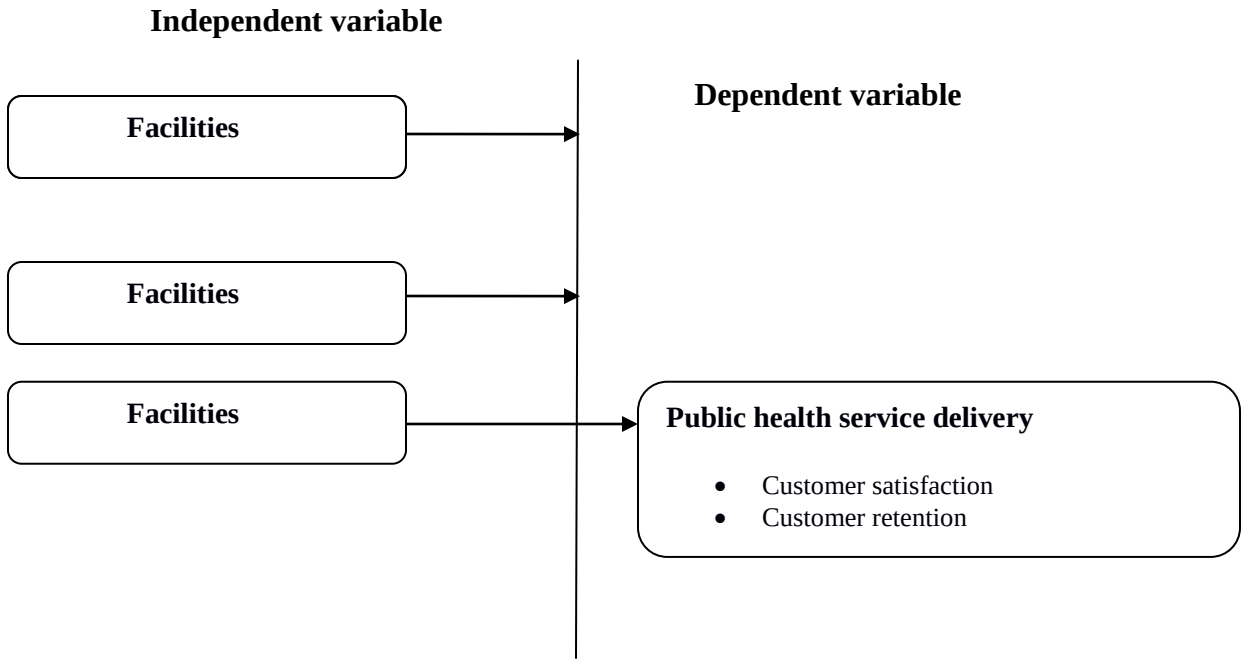

Figure1.1: Conceptual Framework

Source: Researcher, 2016

Figure 1 is a diagrammatic representation of the conceptual framework. It indicates the relationship between the independent and the dependent variables. Mugenda and Mugenda (2003) define a variable as a measurable characteristic that assumes different values among subjects. Independent variable is that which a researcher manipulates in order to determine its effects or influence on another variable. Dependent variable attempts to indicate the total influence arising from effects of the independent variables.Under this study, the Socio-economic factors influencing satisfaction of health service delivery to citizens by the health facilities are: availability of facilities, financial resources, and Level of education which are the independent variable while dependent variable is outcomes of health service delivery to citizens. These factors include; Customer satisfaction and Customer Retention.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter the researcher presented two main parts namely theoretical framework and empirical literature review. The theoretical framework explains different theories that relate to the study; while empirical review considers the knowledge researchers conducted on a similar subject and afterwards identifies the gap to be investigated.

2.1 Theoretical Review

2.1.1. The Fulfilment and Discrepancy theories

Broadly, there are two approaches of examining satisfaction. One theory suggests that people have the ability to understand their service experience and thus judge its quality (Parasuraman *et al.*, 1985). The second theory holds that people's satisfaction as an attitude is the summation of the very subjective assessments of the dimensions of the service experience (Tucker III, 2002; Linder-Pelz, 1982). This theory views satisfaction as a patterned way of thinking and behaviour.

The first approach examines satisfaction as perceptual. Theories that suggest that people understand the quality of their service delivery can be organized into two groups: those that focus on individuals' expectations and actual experiences and those whose focus is the comparative process between individuals (Cole, 2008). The underlying themes in theories that focus on individuals' expectations and actual experiences are the desires and the actual occurrences of the encounter. These theories further assume that differences in either variable affect the resulting level of satisfaction. Two of the widely discussed models in this approach are the fulfilment and discrepancy theories (Jaipaul and Rosenthal, 2003).

The fulfilment theory suggests that an individual's perception concerning the discrepancy between what is wanted and what is eventually obtained is responsible for the level of satisfaction that is ultimately achieved. Discrepancy theory differs from fulfilment theory in that, while considering the desires and what is obtained, the comparison takes into consideration the quantity of the goods or services that are desired by the individual. In each situation, key determining factors relate to an individual's perceptions of his or her unique situation. (Jaipaul and Rosenthal, 2003). These theories address many of the social psychological determinants of patient satisfaction, but do not necessarily address other aspects, such as the socio-demographic variables that permeate past and present research.

2.1.2. Organizational theory

Organizational theory predicts that public health agencies will pursue differentiation, integration, and concentration within their delivery systems. This is to improve the community's health, based on their specific resources, priorities, and incentives (Gillies *et al*. 1993). Consequently, substantial differences across communities in the structural characteristics of local public health delivery systems are expected. This is consistent with the diversity of local communities. These systems are expected to evolve over time as organizations improve their performance in the face of changing health risks, market incentives, and policy priorities. The potential benefits of integration, such as sharing resources and information, may be offset by the coordination problems, transaction costs, and loss of control associated with multi-organizational activities (Lorange and Roos 1993). Studies of integration in public health suggest that partnerships and coalitions have the advantage of expanding the reach of governmental public health agencies (Roussos and Fawcett 2000; Zahner 2005).They note that empirical evidence regarding public health intergovernmental relationships is limited but indicates possible advantages in

decentralization (Mays *et al*., 2004; Wholey, Gregg, and Moscovice 2009) thus their findings confirm the theory.

2.1.3. Classical Public Administration Theory

Classical public administration theory focuses on the idea that the role of politics and administration in a democratic society determines and enacts the will of the state and sets a policy by which majority rules. However, public policies are rarely unanimous, whether voted by the legislature or the people. The role of government is to serve as the "balance wheel" of the new systems of collaborative problem-solving. Its function is to activate the needed partnerships and to make sure that public values, broadly conceived, are effectively represented in the collaborative systems that are formulated for example public health service delivery. The government of the day since independence has tried to make the public values a reality through introduction of resources for the public service. The study suggests a paradigm shift from a democratic state to a democratic society in which "government is a crucial instrument of the public service, providing leadership, resources, tools, and rules" (Hersey, 2010).

2.1.4. Theoretical Literature Review

2.1.4.1 Socio-economic Factors

Socio-economic factors are the nature of the competition faced by the organization or its services and financial resources available within the economy, .i.e. availability of facilities, staffing and financial resources and education level.

2.1.4.1.1. Financial Resources

Financial management, in service organizations, has been a constraint and an obstacle to other functions that contribute to service delivery. They suggest an enlightened approach to finance in service organizations. (Kimanzi, 2014; Davis, 2014) however according to Otieno 2014; Wanjau,

2012) the Ministry of Health has developed structures through inter-sectoral collaboration at various levels but health financing, service delivery, quality; accessibility and equity influence utilization of health services remain unresolved issue. In contradiction RoK, 2001; Nordberg, 2008 states that Public hospitals in Kenya are in dire need of funding to rehabilitate, redesign and equip them to ensure effective and efficient healthcare service delivery to Kenyans. The two biggest factors currently preventing healthcare from reaching a larger proportion of the population are the high cost of services, and poor access to health facilities Dustin (2010) but Arhin-Tenkorang (2000) argues that the situation consists of more participative and positive approach where far from being an obstacle, it contributes to strategic planning, costing systems, personnel motivation, quality control, continued solvency, and keeping outsider's confidence in management. According to Onyango (2015); Davis (2014), there is a need to distinguish good costs that improves organizational capabilities and quality service delivery from "bad costs" that increase bureaucracy hence becoming obstacles to service delivery. Financial accountability using monitoring, auditing and accounting mechanisms defined by the country legal and institutional framework is a prerequisite to ensure that allocated funds are used for the intended purposes (Davis, 2014).

In many developing countries, governments do not have the financial and technical capacity to effectively exercise such oversight and control functions, track and report on allocation, disbursement and use of financial resources. Political and bureaucratic leakage, fraud, abuse and corrupt practices are likely to occur at every stage of the process as a result of poorly managed expenditure systems, lack of effective auditing and supervision, organizational deficiencies and lax fiscal controls over the flow of public funds (Davis , 2014 Nordberg , 2008). Falsification of financial statements is more of a problem in proprietary (private) hospitals. Executives will

sometimes exaggerate revenue and misstate expenses in order to meet expectations of industry analysts and shareholders (Maureen, 2005). Low funding for Community Health Workers program in the country has adversely affected the delivery of healthcare services especially at the grass-roots. Most of the public hospitals in Kenya especially rural areas are in a bad state that has incapacitated them from offering efficient services to patients and to alleviate the deplorable condition proper measures must be taken into consideration (Maureen, 2005).

The GOK funds the health sector through budgetary allocations to the MOH and related government departments. However, tax revenues are unreliable sources of health finance, because of macro-economic conditions such as poor growth, national debt, and inflation, which often affect health allocations. A manifestation of the health budget shortfalls is the widespread lack of adequate drugs and pharmaceuticals, staff shortages, and poor maintenance of equipment, transport, and facilities. Over the past two decades, the GOK has pursued a policy of cost sharing to bridge the gap between actual budgets and the level of resources needed to fund public health sector activities. The revenue from the cost-sharing programme has continued to grow in absolute terms and as a percentage of the recurrent government budget. In 2002-03, cost sharing contributed over 8% of the recurrent expenditure and about 21 percent of the non-wage recurrent budget of the MOH.

The World Bank and IMF (2005) states that the number of people involved in decision making and service delivery and the dependency on the discretionary behaviour of the individuals provide opportunities for the leakage of funds. Furthermore, the difficult working condition and uncompetitive salaries can reduce the accountability of service provision, fostering absenteeism and low quality. To enhance active monitoring of service delivery by policymakers and citizens, as well as to increase accountability and good governance there should be practice of cost

effectiveness. Although Kenya has had a long history of health care financing through the government, by in 1994, approving the Kenya Health Policy Framework (KHPF) as a blueprint for developing and managing health services, the perspective adopted is that of citizens accessing services and facing shortcomings to achieve this purpose in a cost-effective manner, Ndetei (2010).

2.1.4.1.2. Availability of enough facilities

Many countries in sub-Saharan Africa are unable to provide well equipped wards and provision of adequate quality and coverage of health services because of economic factors and scarce resources. This has prompted many countries to advocate for decentralization as a key factor to drive health sector reforms with a view to maximizing the use of available resources in improving access and quality of health care services. Providing quality service has significant impact on customer satisfaction Nyongesa (2014), customer retention and growth of organization (Onyango, 2013). However, the poor state of customer service in public health facilities in Kenya has resulted in high turnover and weak morale among staff, making it difficult to guarantee 24-hour coverage resulting in, problems with patient care, increased cost of operations due to inefficiencies (Owino and Korir, 1997) leading to some of the patients seeking for alternative health service providers. The affected patients spread negative word by mouth which affects potential clients hence growth of the hospital (Tam, 2005).

Inequitable distribution of resources has led to poor management, underfunding and deteriorating infrastructure leading to fall in the quality of healthcare. Health care is labour-intensive, making human resources one of the most important inputs in health care service delivery (WHO 2010). Health care in Africa faces difficult challenges such as shortage of health workers, increased caseloads for health workers due to migration of skilled health personnel, and the double burden

of disease and the HIV/AIDS scourge that affect both the general population and health personnel.

Currently, the funding for most healthcare facilities does not provide sufficient monies for capital improvements and certainly not for acquisitions of or development of new facilities. Rural healthcare facilities have struggled over the past several years with many of these facilities closing and leaving rural communities underserved. For example, in Illinois, the State has increased the timeliness of funding for rural facilities to improve healthcare service (Peterman, 2009).

2.1.4.1.4. Education

The relationship between level of education and patient satisfaction is ambiguous. For instance, some studies report that the level of education is positively associated with patient satisfaction (Mattson *et al*., 2005; Tucker III, 2002). Educational attainment is strongly related to subsequent occupation and income level, whereas poor social circumstances in early life are associated with significant chances of low educational achievement (Currie, 2007; Cutler, 2011). Educational achievement is not just a function of an individual's abilities and aspirations, but is influenced strongly by socio-economic circumstances (Muasya, 2016). In contrast, other research indicates that individuals with lower educational levels are likely to have increased levels of patient satisfaction (Barr, 2004, Barr *et al.,* 2000). Some literature has also demonstrated that there is no relationship between educational attainment and patient satisfaction (Rubin *et al*., 1993). Its influence is multifactorial largely due to the various influences that are manifest in other aspects of the patient satisfaction process.

2.1.4.2. Patients Satisfaction

Patients' satisfaction is a concept that is closely related to quality. The term has been defined from at least two perspectives. One, patients' satisfaction is seen as a measure of how health care products and services supplied by health systems meet or surpass the expectations of patients (Parasuraman *et al*., 1985). Second, the patient satisfaction theory (Tucker III and Adams, 2001) suggests that patient satisfaction with health care, as an attitude, is based on the summation of the very subjective assessments of the dimensions of the care experience. These dimensions can include interactions with providers, the ease of access, the burden of costs, and environmental issues such as cleanliness of the health care facility (Taylor, 1999). Regardless of the definition, patients' satisfaction is seen as a key indicator of quality within health systems. Vinagre and Venes (2008) offer a distinction between the terms quality and satisfaction. They suggest that quality is a judgment or evaluation that concerns performance pattern, which involves several service dimensions specific to the service delivered. Quality is believed to be determined more by external cues such as price and reputation. Satisfaction, however, is a global consumer response in which consumers reflect on their pleasure level. Satisfaction is based on service delivery predictions or norms that depend on past experiences, driven by conceptual cues such as equity or regret. Satisfaction is understood as being transitory and reflects a specific service experience.

2.2. Empirical Literature

Studies on socio- economic factors affecting public health service delivery have been done by different researchers across the world as discussed in this section.

A study by Ojakaa, (2014), sought to investigate factors influencing motivation and retention of health care workers HCWs at primary health care facilities in three different settings in Kenya - the remote area of Turkana, the relatively accessible region of Machakos, and the disadvantaged

informal urban settlement of Kibera in Nairobi. A cross-sectional cluster sample design was used to select 59 health facilities. Interviews with 404 health care workers were carried out that was grouped into 10 different types of service providers using structured questionnaire and a focus group discussion. Findings were analyzed using bivariate and multivariate methods of the associations and determinants of health worker motivation and retention. The levels of education and gender factors were lowest in Turkana with female HCWs representing only 30% of the workers against a national average of 53%. A smaller proportion of HCWs in Turkana feel that they have adequate training for their jobs. Overall, 13% of the HCWs indicated that they had changed their job in the last 12 months and 20% indicated that they could leave their current job within the next two years. In terms of work environment, inadequate access to electricity, equipment, transport, housing, and the physical state of the health facility were cited as most critical, particularly in Turkana. The working environment is rated as better in private facilities. Adequate training, job security, salary, supervisor support, and manageable workload were identified as critical satisfaction factors. Family health care, salary, and terminal benefits were rated as important compensatory factors. The study concluded that there are distinct motivational and retention factors that affect HCWs in the three regions. Findings and policy implications from this study pointed to a set of recommendations to be implemented at national and county levels. These included gender mainstreaming, development of appropriate retention schemes, competitive compensation packages, strategies for career growth, establishment of a model HRH community, and the conduct of a discrete choice experiment. However, the study did not point out the socio-economic impacts in the settings, which the current study tried to establish in Kenya.

A study by Mutua, (2013), sought to establish the factors that affected consistency in supply of pharmaceutical products in government hospitals in Kenya. The study was carried out in Maragua

district hospital with a sample size of 100 individuals comprising of management, procurement department, nursing department and the pharmacy department personnel. The researcher used stratified random sampling. Structured questionnaires and interviews were used to collect primary data. Financing was identified as a major problem. Legal requirements were bureaucratic and lengthened the procurement process leading to inconsistency in obtaining supplies. The hospital had no core tool for enhancing procurement performance. The legal framework needed review to reduce bureaucracy and shorten the process and training on procurement issues to all hospital procurement players was required to boost their knowledge. The hospital faced several challenges, which included shortage of staff in the procurement department and financial constraints. This study was carried out in Maragua and focused on supply of pharmaceutical products and procurement of staff but not entirely on socio-economic factors in the hospital which is the focus of the current study.

A study by Akacho (2014), sought to examine the factors that influence the provision of healthcare service delivery in Kenya a case of Uasin Gishu District Hospital in Eldoret. Provision of healthcare in public hospitals is achieved through the availability of enough staff, resources, facilities for the hospitals and good communication process that enables the hospital to run effectively. This research aimed at finding out the various factors influencing provision of health care service delivery in Kenya and majorly focused on the public health sectors in Kenya a case of Uasin Gishu District Hospital. This study was carried out in Eldoret Municipality in Rift Valley Province. The study used census method to carry out the survey as it targeted all staffs working in Uasin Gishu District hospital only. The study found out that poor communication on the part the management influenced the quality of performance among the staff. This is because as they fail to know their allocated and expectation at the work place. Poor communication between the staffs and the patients also was found to be a major contributor to the inefficient delivery of healthcare services in the hospitals as there was no enough

time spent between the staffs and the patient, lack of enough staffing was also a major issue experienced in the hospital as there were fewer staffs compared to the number of patient leading to work overload of the staffs as they could not be in a position to handle all the patients present, lack of enough financial resources to help in the daily running of the hospital was a major challenge as there was no enough finances to equip the laboratories and buy enough medicines for the patients, finally the study found out that lack of enough facilities in the hospital such as poorly maintained wards and under stocked laboratories and lack of enough in the hospitals contribute to inadequate supply delivery. The study came up with conclusions that will help the Ministry of Health in Kenya to deal with the delivery of healthcare service in Kenya and recommended that there should be enough qualified staff so that each patient can be adequately attended to and that to happen the Ministry of Health needed to put much consideration to the people being employed and avoid corruption at place of work as this may lead to employment of under qualified staff, another recommendation was that there should be enough and equitable financial allocation to all the hospitals in Kenya so that they can adequately run their daily activities there should also be proper communication improvement among the staff member and this will ensure that there is enough and adequate service delivery lastly availability of facilities such as beds, laboratories should be provided to ease the work being done in the hospitals and ease the work of the staff and motivate them. This study narrowed onto staffing which is a sub-indicator of socio-economic factors which does not include all socio-economic factors researched on by the current study.

Another study was done by Ogolla (2013) on factors associated with home delivery in West Pokot County. The study sought to estimate the percentage of women who deliver at home in West Pokot County and establish the factors associated with home delivery in the area. The cross-sectional survey design was used. The study targeted 18,174 households between the months of April and July 2013. Six hundred mothers participated in the study. It was established that

association between predictors and the place where the delivery took place was analysed by chi-square test () at 95% confidence interval. Factors with < 0.05 were considered statistically significant. These factors were entered into multivariate logistic regression model after controlling for confounding to ascertain how each one influenced home delivery. Odds ratio was used to determine the extent of association. Based on the mother's most recent births, 200 (33.3%) women delivered in a health facility while 400 (66.7%) delivered at home. Factors associated with home delivering were housewives (OR: 4.5, 95% CI: 2.1–9.5 ;) and low socio-economic status of 10 km (OR: 0.5, 9.5% CI: 0.3–0.7 ;). The findings of this study provide novel information for stakeholders responsible for maternal and child health in West Pokot County. This study was based in West Pokot while the current one is to be carried out in Murang'a County Hospital. Further, the study only looked at the influence of mothers and factors associated with home delivery in the area and not socio-economic impacts.

Study by Otieno, (2014), investigated factors that influence utilization of health services in Homa Bay County, Kenya. The study employed survey design and focused on health beneficiaries, District Health Management Team and other key health stakeholders, and used both quantitative and qualitative data. Quantitative data was collected through household interviews of 384 respondents and qualitative data was generated through Key Informant Interviews of 16 respondents. The study revealed that health financing, service delivery, quality, accessibility and equity influence utilization of health services in Homa Bay County. The study recommended that the government should allocate adequate budget towards health services, avail adequate trained health workers, and improve infrastructure in health facilities as well as drugs and other supplies. There is also need for further research on cultural factors influencing utilization of health services.

However, the study focused on Homa Bay County which has different characteristics from Murang'a County therefore it was worthwhile carrying on another study in Murang'a hospitals.

According to study study by Wanjau, (2012), which sought to explore the factors affecting provision of service quality in the public health sector in Kenya, focusing on employee capability, technology, communication and financial resources. A total of one hundred and three respondents, comprising; sixteen doctors, thirty-two nurses, twenty-nine clinical officers, fourteen laboratory technologists and twelve pharmacists. Data was collected using closed and open ended questionnaires. The study found out that, low employee's capacity led to a decrease in provision of service quality public health sector by factor of 0.981 with while Inadequate Technology adoption in provision of health service led to a decrease in provision of service quality by a factor of 0.917. The ineffective communication channels affected delivery service quality in public health sector by a factor of 0.768 while insufficient financial resources resulted to decrease in provision of health service quality by factor of 0.671. This implied that low employee's capacity, low technology adoption, ineffective communication channels and insufficient fund affect delivery of quality service to patients in public health sector. This affects the quality of health service, perceptions, patient satisfaction and loyalty. In the paper the implications for policy included: comprehensive healthcare policy, addressing the plight of the worker, the working environment, the resources to enable the healthcare personnel perform effectively, and emotional intelligence management of the workforce. However, the paper concentrated on staffing and communication factors but not the entire socio-economic factors which the current study is analysed to fill the gap.

A study by Muthoni, (2015) states that, good health services are those which deliver effective, safe, quality personal and non-personal interventions to those who need then and where needed,

with minimum waste of resources. The study investigated the factors affecting quality service delivery in the public health sector in Kenya and in specific the Murang'a County Hospital. The target population included doctors, nurses and lab technologists. The researcher used stratified random sampling to select a sample population. Data was collected by use of self-administered questionnaires, key informant interview guides and an observation checklist that were designed and developed by the researcher. The researcher used drop off method and interview schedules for collection of data. The reaction to the study was positive as a response of 80% was achieved. Descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage). Inferential analysis was done to find out if there is any relationship between dependent and the independent variables of the study. The results of the study pointed to remuneration and training to be of great concern amongst health workers and affecting the level of quality. Health Institutions therefore need to pay attention to the two so as to ensure their employees are enthusiastic on delivering quality services. The study recommended regular reviews of job satisfaction in the health sector to find out areas that need to be addressed so as to improve the quality and input of employees for institutions in the sector. Although the study was done in Murang'a county hospital, it pointed to remuneration and training to be of great concern amongst health workers and affecting the level of quality, it did not point out other socio-economic factors as seen in the current study.

Study by Ochieng, (2016) sought to examine Essential Health Packages delivery in service delivery in in public hospitals in Homabay County. The study used cross-sectional research design. Two hospitals were conveniently selected due to their municipality location. The study targeted 213 Health workers and 350 patients. Stratified sampling and proportionate sampling was used among different health workers. Sample size was determined by Yamane Formula. The

study sampled 138 health workers and 186 patients. Questionnaire and key interview guide were used to collect data. The study established that there are inadequate health workers based on 138 (100%) health workers. Insufficient drugs were reported by 138 (100%) health workers, and 120 (64.5%) patients. 115 (83.3%) health workers say ambulances are not operational. 26 (18.8%) health workers noted lack medical equipment, 138 (100%) are aware of patients referred elsewhere due to lack of medical equipment. 153 (82.3%) and 135 (72.6%) patients' health access is hindered by cost and distance respectively. 159 (85.5%) patients don't always find services needed. 159 (85.5%) patients affected by long waiting time. It was concluded that low service provision/utilization rate in Homabay County results from lack of health workers, inadequate drugs, poor health infrastructure, and lack of access in terms of affordability, availability and distance. However the study used cross-sectional research and was based in Homabay County.

2.3. Research Gap

From the earlier studies available, it was noted that a number of studies regarding public health service delivery have been done, for instance availability of financial resources as indicated by Wanjau, (2012); Akacho, (2014), Availability of resources as pointed out by Otieno, (2014), Staffing by Muthoni, (2015);Akacho,(2014),educational attainment by Ogolla,(2013), Supply and procurement of pharmaceutical products by Mutua,2013;Palmer,2011) and Retention and motivation of health workers and staff by Ojakaa, 2014;Bodadilla,2008). However, hardly does one come across a study specifically addressing the relationship between Socio-economic factors and public health service delivery in Kenya with specific reference to Murang'a county hospitals. The scholars used different methodology, studied different geographical areas at different time periods and only looked at sub-indicators of the socio-economic factors. Therefore, this formed

the basis of the current study by highlighting ways and means of enhancing county's overall health socio- economic factors as a strategy for a better Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter discussed the research methodology and a general framework that was used in this study. The chapter presented specifically, the Research Design, Area of study, Population of the study, Sample size, Sampling procedures, Data Sources, Data collection instruments, Validity and Reliability of the instruments, Data analysis and presentation and Ethical considerations.

3.2. Research design

A research design according to Kothari (2004) is a conceptual structure within which research is conducted aimed at providing for the collection of relevant evidence with minimal expenditure of effort, time and money. Creswell (2009) defines research designs as plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. The study was both the qualitative and quantitative in nature.

The study adopted descriptive research design in examining selected staff and patients. The study was both the qualitative and quantitative in nature. According to Mugenda and Mugenda (2003), a descriptive research design determines and reports the way things are. According to Cooper & Schindler (2003) a descriptive study tries to discover answers to the question who, what, when, which and sometimes how. Also Creswell (2003) observed that a descriptive research design is used when data is collected to describe persons, organizations, settings or phenomena. Descriptive design was ideal in this study as the study was carried out within a limited geographical scope and hence it is logistically easier and simpler to conduct. In agreement with Kothari (2008), the design also provides enough protection against biasness and helps maximize reliability.

3.3. Population of the study

According to Mugenda & Mugenda (2003) a population is an entire group of individuals, events or objects with some common observable characteristics. The target population for this study was 1938 people.

3.4. Sampling Frame

Sampling is a procedure, process or technique of choosing a sub-group from a population to participate in the study (Ogula, 2005). It is the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected. Stratified sampling, purposive sampling and simple random sampling methods were used (Mugenda and Mugenda, 2003). The procedure was started with stratification of items, and then followed by sampling that is stratified random sampling (Kombo and Tramp, 2006). According to Mugenda and Mugenda (2003), stratified random sampling involves selecting subjects in such a way that the existing subgroups in the population are more or less reproduced in the sample.

3.4.1 Sampling techniques

According to Mugenda and Mugenda (2003), at least 25% of the cases per group are required for research. The study adopted a sample size consisting of 440 patients and 45 staff with a proportionate distribution of staff and patients from every hospital totalling to 485. In every ward (that is five wards from the five selected hospitals) the researcher used a sample of 9 staff giving a total of 45 staff. In the same vein a sample of 29 in- patients and 59 out-patients in every hospital was used that is the five hospitals selected from daily registration record giving a total of 440 patients. Stratified samplings, Purposive sampling and Simple random sampling were used to come up with sample size.

According to Mugenda and Mugenda (2003) stratified sampling involves classifying respondents in such a way that the existing subgroups in the population are more or less reproduced in the sample. This method is appropriate because it is able to represent not only the overall population but also the key sub groups of the population. The method was preferred because it helped minimize biasness. The subgroups are clinical officers, pharmacists, nurses, doctors, patients and health workers in the hospital. Stratified sampling was used to place the staff into categories based on the following characteristics; Head of department or staff on duty. Once the categories were established, the researcher developed a source list from which the staffs were randomly picked. Within the selected staff respondents, purposive sampling was used since it represented the characteristics confined in this study. Purposive sampling, groups participants according to selected criteria relevant to a particular research question (for example, out and in-patients in the county hospitals). Bryman and Bell (2011) affirm that purposive sampling is appropriate characteristics for the research topic. The study purposely selected Heads of department and the staff on duty.

Finally, simple random sampling was used in picking fifty-nine (59) out-patients from the daily registration record (that is the first fifty-nine that were accessed in every ward) which added to 295 out-patients in five selected hospitals. In the same vein 29 in-patients on the first twenty- nine beds in every ward in the five hospitals were used thus a total of 145 in-patients. The patients selected were those not critically ill. According to Fraenkel and Wallen (2000), a simple random sample is one in which each member of the population has an equal and independent chance of being selected, while a proportional sample is where the sample size is a fraction of the whole sample size. According to Mugenda and Mugenda (2003); simple random sampling minimizes biasness since it gives each sample an equal chance of being identified.

3.4.2 Sample size

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda and Mugenda, 1999). This subgroup is carefully selected so as to be representative of the whole population with the relevant characteristics. Each member or case in the sample is referred to as subject, respondent or interviewees. According to Mugenda and Mugenda (2003) a sample size of between 10 percent and 40 percent is a good representation of the target population. She proposes that if the population is a few hundred items 40% can be used while if the population is same few thousands, then 25% can be used but if more than 10,000 then 5% can be used. Since the population is 1938 which are a few thousands then 25% was used to determine the sample size. Based on the above, the study adopted a sample size of 25 percent (485) people which constituted 145 in-patients and 295 out- patients and 45 staff totalling to 485 in selected hospitals of Murang'a County. The in -patients were based on bed capacity while out- patients were based on daily registration records in department

Table 3.1: Sample Size

Strata	Population Staff and patients	Staff	in-Patients	Out-patients	Ratio	Sample Size
Murang'a general hospital	615	75	270	270	25%	154
Kangema hospital	180	20	10	150	25%	45
Muriranjas	280	20	200	60	25%	70
Gaichanjiru	210	10	0	200	25%	53
Kirwara	241	25	16	200	25%	60
Maragua	412	30	82	300	25%	103
Total	1938	180	578	1180	25%	485

3.4.3 Data collection procedure

The study utilized both primary and secondary data. Primary data collection was collected through questionnaires while Secondary data was collected from Journals and Reports. The above sources were chosen due to the nature of the study as the respondents were required to give critical data that can be best collected using questionnaire whereas the general data was collected using information from the documentary records.

3.4.4 Data Collection Instruments

Data was collected by use of semi-structured questionnaire comprising of close-ended questions. The questionnaires were administered using the drop and pick later method. The questions were five likert scale type from 1 to 5 such as strongly agree, disagree, neutral, agree and strongly disagree. The reason for choosing the questionnaire is because, as Kiess and Bloomquist (1985) observe, it offers considerable advantage in the administration: it presents an even stimulus potential to large numbers of people simultaneously and provides the investigations with an easy accumulation of data. Gay (1992) maintains that questionnaires give respondents freedom to express their view or opinion and also to make suggestions. In addition, it is cheap and easy to administer, data that is obtained by use of questionnaires is easy to arrange and analyze and, the researcher does not need to be physically present when the respondents are filling the questionnaires hence providing the respondents with a free conducive atmosphere to fill the questionnaires. Lastly, questionnaires can elicit information from respondents. Secondary data for this study was collected from journals, reports and official documents.

3.5 pilot study

A pilot study is a mini-version of a full scale or a trial run done in preparation of the complete study, it is mostly done to pre-test the research instruments this is according to (Compare Polit, *et al.* & Baker in Nursing Standard, 2002:33-44; Van Teijlingen & Hundley, 2001) Pilot study also

helps in foreseeing the future attributes of the study to be done and avoid future failures hence avoid loss off money and time this is according to (Van Teijlingen & Hundley, 2001).

3.5.1. Validity

Validity refers to the degree to which evidence and theory support the interpretation of test scores entailed by use of tests. The validity of instrument is the extent to which it does measure what it is supposed to measure. According to Mugenda and Mugenda (1999), Validity is the accuracy and meaningfulness of inferences, which are based on the research results. It is the degree to which results obtained from the analysis of the data actually represent the variables of the study. The research instrument was validated in terms of content and face validity. The content related technique measures the degree to which the questions items reflected the specific areas covered while face validity the study sought input from the expert in the area of speciality who assisted in framing questions that sourced relevant answers to the topic under investigation.

3.5.2. Reliability

Reliability is the ability of a research instrument to consistently measure characteristics of interest over time i.e.by including the Socio- economic factors in the study. It is the degree to which a research instrument yields consistent results or data after repeated trials. If a researcher administers a test to a subject twice and gets the same score on the second administration as the first test, and then there is reliability of the instrument (Mugenda and Mugenda, 1999). Reliability is concerned with consistency, dependability or stability of a test (Nachmias and Nachmias, 2008). The researcher measured the reliability of the questionnaire to determine its consistency in testing what they are intended to measure. The test re-test technique was used to estimate the reliability of the instruments. This involved administering the same test twice to the same group of respondents who were identified for this purpose.

3.6. Data Analysis and presentation

Data was analyzed through descriptive and inferential statistics. Descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage). Inferential analysis was done to find out if there is any relationship between dependent and the independent variables of the study. The data was subjected to standardized statistical analysis techniques using statistical package for social sciences (SPSS version 18). Data was organized into frequency tables from which the means, percentages were calculated. Spearman rank correlation analysis was used to examine the relationships among the different aspects of quality of health care. One-way ANOVA technique was used to show if there is any statistical difference in public health service delivery. The qualitative data was generated from semi-structured questionnaire comprising of open ended questions which was categorized in themes in accordance with research objectives and reported in narrative form along with quantitative presentation. The qualitative data was used to reinforce the quantitative data.

3.7. Ethical considerations

Prior to the commencement of data collection, the researcher obtained all the necessary documents, including an introduction letter from Murang'a University College. Audience with the sampled local authorities in the region was also sought to clarify the purpose of the study. Upon getting clearance, the researcher in person distributed the questionnaires to the sampled individuals. Assistance from the local authorities was sought.

The researcher explained to the respondents about the research and that the study was for academic purposes only. It was made clear that the participation was voluntary and that the respondents were free to decline or withdraw any time during the research period. Respondents were not coerced into participating in the study. The participation was with informed consent to

make the choice to participate or not. They were guaranteed that their privacy will be protected by strict standard of anonymity. The study explored ways on how to mitigate the socio-economic factors that affect Public Health services in Kenya. All data used was acknowledged appropriately.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.1. Introduction

This chapter presents the findings of the study as guided by the research objectives. The general objective of the study was to establish the relationship between Socio-economic factors and public health service delivery in Kenya, while the specific objectives were; to establish the relationship between financial resources and public health service delivery in Kenya; to establish the relationship between health facilities and public health service delivery in Kenya and to establish the relationship between staffing and public health service delivery in Kenya. The study used descriptive analysis to analyse the data collected and presented it in form of tables. Two categories of respondents were patients and staff. A semi-structured questionnaire was distributed to patients, nurses, doctors and health in charge to file.

4.2. Response Rate

Description	F	%
Questionnaires returned	**420**	**86%**
Questionnaires not returned	**65**	**14%**
Total	**485**	**100%**

485 questionnaires were distributed to one category of health facility; that is those owned by the government. Out of the 485 questionnaires, 420 were returned to the researcher. This represented a response rate of 86% which was considered a sufficient representation of the population for this study. The 24% of the respondents who never returned the questionnaires cited busy schedules. This response rate was above the 10% recommended by (Mugenda and Mugenda, 2003).

4.3 Demographic characteristics of the respondents

Background data was sought on the respondent's age and marital status and gender.

Table: 4.1 Age of respondents

Age	F	Percent
21 – 25yrs	120	28.7%
26 -30	110	26%
31-35yrs	150	36 %
More than 36yrs	40	9%
Total	420	100

Source: Field data (2016)

The results in table 4.1 show that 36% of the respondents are aged between 31- 35 years, followed by 26% who are between 26-30 years. 28.7% are between 21-25 years while 9% are more than 36 years and above. It can be concluded that 62% of staff and patients in the health facilities were between the ages of 26-35 years .This implied that age has an influence in the acceptance and utilization of a system. This is in line with Heeks (2006) who concludes that age has an influence in the acceptance and utilization of a system. Younger people tend to embrace new technology and systems more openly as compared to older people therefore when the younger are sick they easily seek medical services than older ones.

Table: 4.2 Marital Status of respondents

Status	F	%
Single	80	19%
Married	215	51%
Divorced	40	9.5%
Separated	50	11.9%
Widowed	35	8.3%
Total	420	100

Source: Field data (2016)

The results in table 4.2 shows that 51% of the respondents are married, 19% are single, 9.5% are divorced, 11.9% are separated and 8.3% of the are windowed. This implied that most of the

respondents were married. It can be concluded that married people followed by those separated are the major consumers or providers of health services in public institutions. Marital status was significantly associated with performance of staff. The odds of performance were higher for those who were married compared to those who were single. This could be attributed to the married staff having support from their families and provision of assistance in the financial contribution in the homes compared to the single who had the extra burden of providing for their families coupled with the inadequate payment for the work done and feeling that the extra time taken to perform their roles could have been used for Income Generating Activities. This differs from findings of a study by Ndedda et.al, (2011) where they did not find any relation of marital status with performance of staff.

Table: 4.3 Gender of respondents

Gender	F	%
Male	252	60%
Female	168	40%
Total	420	100

Source: Field data (2016)

The results in table 4.3 show that 60% of the respondents are male while 40% are female. This is indicative of the fact that women are majority in seeking medical services and also form the majority in service provision. This is contradicting with Kitui (2009) who confirms that physical access to health facilities through distance and/or lack of transport, and economic considerations are important barriers for women to attending in a health facility in Kenya.

Table: 4.4 Level of Education of respondents

Level of education	F	%
Primary	150	35%
Secondary	100	24%
Tertiary	50	12%
University	80	19%
Other	40	10%
Total	420	100

Source: Field data (2016)

The results in table 4.4 shows that, 35% of the respondents are primary school levers, 24% of the respondents are secondary levers, 12% tertiary institutions holders, 19% are university graduates and 10% in other levels of either pre-primary or post graduate level of education. This reflects that consumers of health services in public hospitals are either of primary education level or below. The education level of the most existing health care workers, are up to Tertiary level, besides, a huge number of health workers are not satisfied with their income and job respectively. This shows that patient satisfaction with the services is directly influenced by the human resources for health. A positive change in any of the human resources for health variables (number of human resource, level of education, job satisfaction) will lead to a positive change in the patient satisfaction with services. The findings concur with Palmer, (2011) who notes a positive change in the level of education of health workers will result to an increase in patient satisfaction with services provided all factors are held constant. He notes that lack of highly qualified health workers is a direct impediment to the delivery of health services. Many health care seekers are forced to reschedule medical visits or seek medication elsewhere due to lack of qualified professionals Palmer, (2011). Therefore, the lack of enough highly qualified personnel infers dissatisfaction with the service provision in terms of availability of service among the

patients as many are asked to seek services elsewhere, or reschedule a visit. This result concurs with a study in Nigeria (Ande, 2004) which observed that staff with higher education level could learn and enhance skills and therefore deliver services better. This also concurs with findings in a study by Ndedda et.al, (2011) where a higher education level was related to better performance of staff in all parameters of performance except client enablement. This contradicts with Rubin *et al.,* 1993, who concludes that there is no relationship between educational attainment and patient attendance in health facilities.

Table: 4.5 Current employment status of respondents

employment status	F	%
Permanent	200	36%
Temporary	150	48%
Part time	30	7%
Other	40	10%
Total	420	100

Source: Field data (2016)

The results in table 4.5 shows that, 36% of the respondents are permanent, 48% temporary, and 7% on part time and other are 10%. This is indicative of an overall shortage of workers and mal-distribution that most of the respondents are employed on contract terms. This is in line with Akacho (2014) who confirmed in her study that an overall shortage of nurses and doctors in the public sector countrywide is complicated by mal-distribution and varying workforce characteristics across counties. Further WHO (2010) adds that Health care in Africa faces difficult challenges such as shortage of health workers, increased caseloads for health workers due to migration of skilled health personnel, and the double burden of disease and the HIV/AIDS scourge that affect both the general population and health personnel.

4.4 Social-economic factors affecting service delivery in Kenya

The following is the key for the tables for socio-economic factors in Kenya.

KEY: SA – Strongly Agree, D – Disagree, N – Neutral, a – Agree, SA – Strongly disagree, % - Percentage

Table: 4.6: Work environment is safe and free from hazards

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Work environment is safe and free from hazards	**0**	**0**	**68**	**44.3**	**186**	**16.2**	**10**	**2.4**	**156**	**37**	**420**	**100**

Source: Field data (2016)

The results in table 4.6 show that 44.3% of the respondents agree that work environment is safe and free from hazards, 18.6% of the respondents disagree that it is safe and free from hazards while 37% are neutral. This is an indication that the environment is not favourable. This concurs with ILO, (2010) which notes that a safe and healthy work environment promotes work productivity and is a key element of worker human dignity. In addition, the MoH has sought assistance of other partners like donor agencies in ensuring quality service delivery which include provision of safe and healthy work environment (Kenya Quality Model for Health (2010).

Table: 4.7: Good workplace layout

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Good workplace layout	**10**	**2.4**	**39**	**9.3**	**244**	**58**	**10**	**2.4**	**117**	**27.9**	**420**	**100**

Source: Field data (2016)

The results in table 4.7 shows that 11.7% of the respondents agree that there is good workplace layout, 60.4% of the respondents disagree, while 27.9% are neutral. From this finding it can be concluded that the work place layout is not good and therefore affecting service delivery. This contradicts with WHO (2010a) which advocates for the protection of workers against occupational diseases and injury. This position implies that disease and injury should neither be a

norm at the work place nor lack of resources should be used to justify non provision of safe and healthy work environment by the employer. A safe and healthy work environment promotes work productivity and is a key element of worker human dignity (ILO, 2010). Health care workers are known to be at a higher risk of infection from blood-borne pathogens than the general population.

Table: 4.8: Consultation Rooms for patients are enough

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Consultation rooms for patients are enough	**0**	**0**	**29**	**6.9**	**137**	**32.6**	**20**	**4.8**	**234**	**55.7**	**420**	**100**

Source: Field data (2016)

The results in table 4.8 shows that 6.9% of the respondents agree that there are enough rooms for patients, 37.4% disagree while 55.7% are neutral. From this finding it can be concluded that there are no enough consultation rooms for patients. This is consistent with Garrison (2011) who notes that a positive change in the number of Consultation Rooms will result to an increase in patient satisfaction with services provided all factors are held constant. When there are many consultation rooms offering the same services, then many patients are likely to be served. The stages through which patients undergo to access health services need to be reduced in such a way that patients can access health services at one point, and go back home. The more complicated the procedure for receiving service is, the less the satisfaction of patients with the service. Therefore, consultation process is a major determinant of whether or not the patients will seek the services. Organizational practices directly influence the patient satisfaction with the services. A positive change in any of the organizational practices variables (Consultation rooms, patient waiting time) will lead to a positive change in the patient satisfaction with services.

Table: 4.9: instruments for staff are enough

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
instruments for staff are enough	**29**	**6.9**	**19**	**4.5**	**59**	**14**	**30**	**7.1**	**283**	**67.4**	**420**	**100**

Source: Field data (2016)

The results in table 4.9 shows that 11.4% of the respondents agree that there are enough necessary instruments for staff, 21.1% of the respondents disagree while 67.4% are neutral. It can be concluded that the staff did not have enough instruments to carry out their work efficiently. The findings concur with Palmer,(2011) which states inadequate distribution of equipments has led to poor management leading to fall in the quality of healthcare. It is important for hospitals to have all their machines running in order to provide the services that require them to the people. Therefore, availability of medical equipment directly influences availability of service, hence, patient satisfaction. It is, hence evident that the facilities lack maintenance systems for the existing medical infrastructure leading to lack of the basic services that require medical equipment. When a patient is referred elsewhere for treatment due to lack of the required equipment, or when health workers are not able to respond to emergency cases due to lack of operational ambulances, the public is denied services which explains the role of health infrastructure in the delivery of services.

Table 4.10: Instruments for patients are enough

STATEMENT	**SA**	**%**	**A**	**%**	**D**	**%**	**SD**	**%**	**N**	**%**	**TOTAL**	**%**
instruments for patients are enough	**0**	**0**	**166**	**39.5**	**107**	**25.5**	**39**	**9.3**	**107**	**25.5**	**420**	**100**

Source: Field data (2016)

The results in table 4.10 shows that 39.5% of the respondents agree that there are enough necessary instruments for patients, 34.8% of the respondents disagree while 25.5% are neutral. The findings revealed that patients were not satisfied with the level of instruments availed to

them. The findings are consistent with those of Palmer, 2011, who deduced that facilities require an effective maintenance system to keep running. A lot of funds are channelled in buying new equipment while others that could be fixed are thrown away Palmer 2011. It is important for hospitals to have all their machines running in order to provide the services that require them to the people.

Table: 4.11: Instruments and tools are in working condition

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Instruments and tools are in working condition	**0**	**0**	**186**	**44.3**	**10**	**2.4**	**127**	**30.2**	**98**	**23.3**	**420**	**100**

Source: Field data (2016)

The results in table 4.11 shows that 44.3% of the respondents agree that the Instruments and tools are in working condition, 32.6% of the respondents disagree while 23.3% are neutral. The findings revealed that the Instruments and tools were not in working condition**.** The findings are consistent with those of Palmer (2011), who deduced that facilities require an effective maintenance system to keep running. A lot of funds are channelled in buying new equipment while others that could be fixed are thrown away. It is important for hospitals to have all their machines running in order to provide the services that require them to the people. In addition, Njau (1999) noted that recent public debates have focused on the deteriorating conditions of the country's health facilities, poorly maintained equipment and lack of such vital medical inputs such as drugs and laboratory reagents.

Table: 4.12: Drugs and supplies are sufficient

Source: Field data (2016)

The results in table 4.12 shows that 69.8% of the respondents agree Materials and supplies are

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Drugs and supplies are sufficient.	**0**	**0**	**293**	**69.8**	**0**	**0**	**49**	**11.7**	**78**	**18.6**	**420**	**100**

sufficient, 11.7% of the respondents disagree while 18.6% are neutral. The findings revealed that drugs and supplies were available in sufficient quantities for service delivery. This concur with Wanjau (2012) who states that allocated resources for health flow through various layers of national and local government's institutions on their way to the health facilities.This finding contradicts Ensor *et al* . (2009) in Uganda, who indicated that 60% of the people who required medical attention were turned away from the pharmacy due to lack of drugs prescribed by the clinicians. In addition, unreliability of obtaining drugs and medical supplies compromises the timely provision of quality services. This infers that patients are not satisfied with the service provision as majority are asked to buy drugs elsewhere. These results are consistent with assertion in Wamala (2010) who states that it is necessary that hospital managers have an effective procurement system with a pre-set re-order level that is consistent with the needs of the people, and delivers drugs as ordered in time. In addition, Wamala (2010) concluded that untimely deliver of drugs and supplies continue to be one of the causes of drug unavailability in the hospitals leading to prevalence of diseases which would have otherwise been treated.

Table: 4.13: Beds are enough for patients

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Beds are enough for patients	**0**	**0**	**244**	**58**	**10**	**2.4**	**20**	**4.6**	**147**	**35**	**420**	**100**

Source: Field data (2016)

The results in table 4.13 show that 58% of the respondents agree that the beds were enough for patient, 7% of the respondents disagree while 35% are neutral. The findings revealed that beds were available in sufficient quantities for patients. The findings contradicts with Akacho (2015), who points out that there no enough financial resources to help in the daily running of the hospitals for

purchase of materials and supplies as there was no enough equipment's in the laboratories, medicines for the patients and poorly maintained beds in wards.

Table: 4.14: Antiseptic hand solution for protection of staff available

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Antiseptic hand solution for protection of staff available	**0**	**0**	**244**	**58**	**10**	**2.4**	**20**	**4.8**	**147**	**35**	**420**	**100**

Source: Field data (2016)

The results in table 4.14 show that 58% of the respondents agree that antiseptic hand solution for protection of staff is available and, 7% of the respondents disagree while 35% are neutral. The findings revealed that antiseptic hand solution for protection of staff was available. The results contradicts with Mutua (2013) who noted that the hospitals had no core tool for enhancing procurement performance of hospital facilities, legal requirements are bureaucratic and lengthen the procurement process leading to inconsistency in obtaining supplies.

Table: 4.15: Antiseptic hand solution for protection of patients available

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Antiseptic hand solution for protection of patients available	**0**	**0**	**166**	**39.5**	**108**	**25.7**	**39**	**9.3**	**108**	**25.5**	**420**	**100**

Source: Field data (2016)

The results in table 4.15 show that 39.5% of the respondents agree that Antiseptic hand solution for protection of patients is available, 35% of the respondents disagree while 25.5% are neutral. The findings revealed that materials and supplies were insufficient for service delivery. This contradicts with Wanjau, (2012) who noted that resources are uniformly allocated for health facilities. The findings concur with Mutua, (2013) noted that the hospitals had no core tool for enhancing procurement performance of hospital facilities; legal requirements were bureaucratic

and lengthened the procurement process leading to inconsistency in obtaining supplies for instance antiseptics for patients.

Table: 4.16: Infection control strategy guidelines available for staff and patients

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Infection control strategy guidelines available for staff and patients	**0**	**0**	**293**	**69.7**	**0**	**0**	**49**	**11.7**	**78**	**18.6**	**420**	**100**

Source: Field data (2016)

The results in table 4.16 shows that 69.7% of the respondents agree that infection control strategy guidelines are available for staff and patients, 11.7% of the respondents disagree while 18.6% are neutral. This contradicts Owino *et al* ., (2009) who noted that most of the board members were facing difficulties in monitoring strategy guidelines mainly because they lacked financial and management skills. This coupled with the limited autonomy of the boards to perform control functions further contributed to the poor performance.

Table: 4.17: Customer satisfaction is to standards

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Customer satisfaction is to standards	**29**	**6.9**	**39**	**9.3**	**59**	**14**	**10**	**2.4**	**283**	**67.4**	**420**	**100**

Source: Field data (2016)

The results in table 4.17 shows that 16.2% of the respondents agree that Customer satisfaction is to standards, 18.6% of the respondents disagree while 37% are neutral. The findings revealed that customer satisfaction is not to standards. The study found out that about 55.6% of people who are ill do not seek health care because of lack of services in the facilities. This is consistent with (Bobadilla, 2008), who noted that availability of services is an important determinant of whether or not patients will seek services. Patients are extremely dissatisfied with the services when they make all the attempts to get the services but are asked to seek them elsewhere.

Table: 4.18: Customer reception is satisfactory

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Customer reception is satisfactory	**0**	**0**	**39**	**9.3**	**137**	**32**	**10**	**2.4**	**234**	**53.7**	**420**	**100**

Source: Field data (2016)

The results in table 4.18 show that 9.3% of the respondents agree that customer reception is satisfactory, 32% of the respondents disagree while 58.7% are neutral. The findings reveal that customer reception is not satisfactory. These findings are in agreement with those of USAID (2011), which documented that long waiting time reduces patient satisfaction, and discourages patients from seeking care. Therefore, health managers should make efforts to reduce the waiting time. As seen in the study, while services may be available, waiting time can be a deterrent to delivering and utilizing the services.In addition Tam, 2005 notes that the poor state of customer service in some public health facilities in Kenya has resulted in high turnover and weak morale among staff, making it difficult to guarantee 24-hour coverage resulting in, problems with patient care, increased cost of operations due to inefficiencies leading to some of the patients to look for alternative providers and to spread negative image by word of mouth which affects potential clients hence impacting negatively on the growth of public hospital.

Table: 4.19 Advice and diagnosis are sufficient

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Advice and diagnosis are sufficient	**10**	**2.4**	**39**	**9.3**	**244**	**58**	**10**	**2.4**	**117**	**27.9**	**420**	**100**

Source: Field data (2016)

According to table 4.19, 11.7% of the respondents agree that advice and diagnosis are sufficient, 60.4% of the respondents disagree while 27.9% are neutral. The findings reveal that advice and diagnosis are not sufficient. This concurs with Gilson and Travis (1997) who noted that although

many personnel in the health system in Kenya have undergone health management training courses, the health facilities are still geared towards providing health services according to centralized instructions and the opportunity to make local decisions is limited limiting advice and diagnosis services

Table: 4.20: There is confidentiality of doctor's information to patients

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There is confidentiality of doctor's information to patients	**88**	**20.9**	**156**	**37.1**	**10**	**2.4**	**117**	**27.9**	**49**	**11.7**	**420**	**100**

Source: Field data (2016)

The results in table 4.20 shows that 58% of the respondents agree that there is confidentiality of doctors' information, 30% of the respondents disagree while 11.7% are neutral. This concur with WHO, (2010a) which notes that the implementation of occupational health services put in place will largely depend on training in occupational health and on-going information provision for staff. It is in this regard that this policy guideline on Occupational Safety and Health for health workers outlines evidence-based measures for adoption by health service managers and staff of institutions in the health sector both within the public and private sub-sectors.

Table: 4.21: Patients feel free to share their information with the doctor

Source: Field data (2016)

The results in table 4.21 show that 35% of the respondents agree that Patients feel free to share

STATE MENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Patients feel free to share their information with the doctor	**0**	**0**	**147**	**35**	**127**	**30.2**	**59**	**14**	**88**	**20.8**	**420**	**100**

their information with the doctor, 44.2% of the respondents disagree while 20.8% are neutral. The findings reveal that patients do not feel free to share their information due to ineffective communication channels. This is consistent with Rubin *et al.*, 1993, who states that ineffective communication channels affect delivery of quality service to patients in public health sector. This affects the quality of health service; perceptions, patient satisfaction and loyalty thus need for comprehensive healthcare policy, addressing the plight of the worker, the working environment, the resources to enable the healthcare personnel perform effectively, and emotional intelligence management of the workforce.

Table: 4.22: There is paediatric decision making

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There is paediatric decision making	**0**	**0**	**244**	**58.1**	**98**	**23.3**	**29**	**6.9**	**49**	**11.7**	**420**	**100**

Source: Field data (2016)

The results in table 4.22 shows that 58.1% of the respondents agree that there is good paediatric decision making, 30.2% of the respondents disagree, while 11.7% are neutral. The findings reveal that there is paediatric decision making. This contradicts with Gilson and Travis (1997) who noted that although many personnel in the health system in Kenya have undergone health management training courses, the health facilities are still geared towards providing health services according to centralized instructions and the opportunity to make local decisions is limited limiting advice and diagnosis services**.**

Table: 4.23: There is patient responsibility i.e. keeping time to hospital

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There is patient responsibility i.e. keeping time to hospital	**98**	**23.3**	**195**	**46.4**	**0**	**0**	**10**	**2.4**	**117**	**27.9**	**420**	**100**

Source: Field data (2016)

The results in table 4.23 show that, 69.7% of the respondents agree that patients keep time, 2.4% of the respondents disagree while 27.9% are neutral. The findings reveal that patients kept appointed time. This is consistent with Ojakaa (2012) who noted that information flow from doctors to patients positively influences service accessibility to patients.

Table: 4.24: There is no discrimination of services to patients

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There is no discrimination of services to patients	**0**	**0**	**147**	**35**	**127**	**30.2**	**59**	**14**	**88**	**20.8**	**420**	**100**

Source: Field data (2016)

The results in table 4.24 shows that 35% of the respondents agreeing that there is no discrimination of services to patients, 42.2% of the respondents disagree while 20.8% are neutral The findings reveal that there is discrimination of services to patients. This concur with Njau (1999) who noted that there is a feeling of ownership of health facilities by communities with some members accusing health personnel of serving their own interests rather than the communities they purport to represent.

Table: 4.25: There are gifts from patients to doctors

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There are gifts from patients to doctors	**0**	**0**	**244**	**58.1**	**98**	**23.3**	**29**	**6.9**	**49**	**11.7**	**420**	**100**

Source: Field data (2016)

The results in table 4.25 shows that 58.1% of the doctors receive gifts from patients, 30.2% of the respondents disagree while 11.7% are neutral. This in itself revealed the existence of corruption and showed that apart from the hospital fee, treatment is to those who pay gifts. This is consistent with Mattson *et al* ., 2005; Tucker III, 2002, who notes that the level of education is positively associated with patient satisfaction. Educational attainment is strongly related to subsequent occupation and income level, and poor social circumstances in early life are associated with significant chances of low educational achievement (Currie, 2007; Cutler, 2011). Educational achievement is not just a function of an individual's abilities and aspirations, but is influenced strongly by socio-economic circumstances (Muasya, 2016). In contrast, (Barr, 2004, Barr *et al.*, 2000) indicates that individuals with lower educational levels are likely to have increased levels of patient satisfaction.

Table: 4.26: funds allocated for purchases of health facilities

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Funds allocated for purchase of health facilities	**0**	**0**	**156**	**37.1**	**68**	**16.1**	**40**	**9.5**	**156**	**37.3**	**420**	**100**

Source: Field data (2016)

The results in table 4.26 shows that 37.1% of the respondents agree that there are adequate funds in the hospital allocated for purchases of health facilities, 25.6% of the respondents disagree while 37.3% are neutral. The findings reveal that there are inadequate funds allocated in hospitals for purchases of health facilities. The findings concur with Davis , 2014; Nordberg , 2008, who states that in many developing countries, governments do not have the financial and technical capacity to effectively exercise such oversight and control functions, track and report on allocation, disbursement and use of financial resources. Political and bureaucratic leakage, fraud, abuse and corrupt practices occur at every stage of the process as a result of poorly managed

expenditure systems, lack of effective auditing and supervision, organizational deficiencies and lax fiscal controls over the flow of public funds.

Table: 4.27: There are enough cost saving facilities

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There are enough cost saving facilities	**10**	**2.4**	**29**	**6.9**	**244**	**58.1**	**20**	**4.8**	**117**	**27.8**	**420**	**100**

Source: Field data (2016)

The results in table 4.27 shows that 9.3% of the respondents agree that there are enough cost saving facilities in the hospital, 62.9% of the respondents disagree while 27.8% are neutral. The findings reveal that there is no enough cost saving facilities in the hospitals. This is consistent with Onyango, 2015; Davis, 2014, who states that there is a need to distinguish between good costs that, improves organizational capabilities and quality service delivery from "bad costs" that increase bureaucracy hence becoming obstacles to service delivery.

Table: 4.28: There is payment of consultation fees

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There is payment of consultation fees	**0**	**0**	**39**	**9.3**	**137**	**32.6**	**40**	**9.5**	**204**	**48.6**	**420**	**100**

Source: Field data (2016)

The results in table 4.28 shows that 9.3% of the respondents agree that there is payment of consultation fee, 42.1% of the respondents disagree while 48.6% are neutral. The findings reveal that there is no payment of consultation fees in public hospitals. This contradicts with UNICEF, (2014) which notes that patients do not find services affordable thus they have failed to seek health care because of cost. Kenyans who are ill cannot consistently seek health care without risking financial catastrophe

Table: 4.29: There is waiver of charges

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There is waiver of charges	**29**	**6.9**	**39**	**9.3**	**59**	**14**	**10**	**2.4**	**283**	**67.4**	**420**	**100**

Source: Field data (2016)

According to table 4.29, 16.2% of the respondents agree that there is waiver of charges, 16.4% of the respondents disagree while 67.4% are neutral. The findings reveal that patients are not aware of waiver charges. This concurred with Dustin, (2010) who observed that two major factors that prevent healthcare services from reaching a larger population are the high cost and poor access to health facilities. Further, Ojakaa,(2012) confirmed the importance of information flow to the patients which influences service accessibility thus the need to sensitise the public on availability of the waiver system.

Table: 4.30: Admission fees charged is ethical

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Admission fees charged is ethical	**0**	**0**	**166**	**39.5**	**108**	**25.7**	**39**	**9.3**	**108**	**25.5**	**420**	**100**

Source: Field data (2016)

According to table 4.30, 39.5% of the respondents agree that the admission fees charged is ethical, 35% of the respondents disagree while 25.5% are neutral. The findings reveal that the admission fees charged is not ethical. This is concur with Barasa *et al* (2012) notes that, despite a policy of user fee exemption for children less than 5 years of age in Kenya, high unofficial user fees are still charged in district hospitals. In the higher socio-economic group, as expected, out-of-pocket expenditures in these households appear to be regressive with a greater burden being experienced by households in lower socio-economic groups given that their capacity to pay is diminished compared to households in higher socioeconomic groups. In addition, Liambila (2005)

in his study on demand effects of user charges in a district health care system and briefly at the impact of fees on revenue and service quality in government facilities. During the period of cost-sharing in public clinics, attendance dropped which prompted the government to suspend the fees for approximately 20 months. Over the 7 months after suspension of fees, attendance at government health centres increased. The suspension further caused a notable movement of patients from the private sector to government health facilities.

Table: 4.31: There is billing of houses for staff

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
There is billing of houses for staff	**0**	**0**	**186**	**44.3**	**10**	**2.4**	**127**	**30.2**	**98**	**23.1**	**420**	**100**

Source: Field data (2016)

The results in table 4.31 shows that 44.3% of the respondents agree that there is billing of houses for staff, 32.6% of the respondents disagree and while 23.1% are neutral. The findings reveal that there is no billing of staff houses. The finding contradicts with the MOH 2002-03 budgets, which showed that for over the past two decades, the GOK has pursued a policy of cost sharing to bridge the gap between actual budgets and the level of resources needed to fund public health sector activities. The revenue from the cost-sharing programme has continued to grow in absolute terms and as a percentage of the recurrent government budget. In 2002-03, cost sharing contributed over 8 percent of the recurrent expenditure and about 21 percent of the non-wage recurrent budget of the MOH. Cost sharing funds have come from fees charged for services, rent on houses. Cost of hiring out vehicles and any other income generating activities

Table: 4.32: Funds are adequately utilized by management

STATEMENT	SA	%	A	%	D	%	SD	%	N	%	TOTAL	%
Funds are adequately utilized by management	**0**	**0**	**293**	**69.7**	**0**	**0**	**49**	**11.7**	**78**	**18.6**	**420**	**100**

Source: Field data (2016)

The results in table 4.33 shows that 69.7% of the respondents agree that funds are adequately utilized by management in Kenya, 11.7 disagree while 18.6% are neutral. The findings reveal that funds are adequately utilized. This contradicts with Davis 2014 and Nordberg, 2008 whose findings showed that poor financial management permeates in public institutions as a result of poorly managed financial expenditure systems, corrupt practices, fraud and financial linkages.

Table 4.34: Correlation between social economic factors and service delivery

		FACILITIES	LEVEL OF EDUCATION	FINANCIAL RESOURCES
FACILITIES	Pearson Correlation	1	.047	.192**
	Sig. (2-tailed)		.339	.000
	N	420	420	420
LEVEL OF EDUCATION	Pearson Correlation	.047	1	.709**
	Sig. (2-tailed)	.339		.000
	N	420	420	420
FINANCIAL RESOURCES	Pearson Correlation	.192**	.709**	1
	Sig. (2-tailed)	.000	.000	
	N	420	420	420

4.5: Regression on independent variables and dependent variable

In statistics, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modelling and analysing several variables, when the focus is on the relationship between a dependent and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable (or criterion) changes when one of the independent variables is varied, while the other independent variables are held fixed. Multiple regression attempts to determine whether a group of variables together predict a given dependent variable (Mugenda and Mugenda, 2010). In the study, multiple regressions were done since the study had more than one independent variable. The study was keen in finding out whether education, financial resource and organizational facilities influence service delivery. The general purpose of multiple linear regressions (the term was first used by Person, 1908) is to learn more about the relationship between several independent or predictor of variables and a dependent or criterion variable (Borg *et al* , 2010). A multiple regression model was fitted as discussed in chapter three. The multiple regression was done to test the model; $Y=\beta_0+\beta_{1X1}+\beta_{2X2}+\beta_{3X3}+e$

Where Y= service delivery

β_0=constant

$_{X1}$=education

$_{X2}$=health facilities

$_{X3}$=financial resources

e=error term

$\beta_{1,}$; i=1,….,3 are the model parameters

The multiple regression analysis in table 4.50 R value measures the goodness of prediction of the variances. In this case R value of 0.863 is a good predictor of the service delivery by the independent variables: Level of Education, availability of Facilities and Financial Resources. On the other hand, the R^2 is the coefficient of determination which is the dependent variable that can be explained by the independent variables. In this case the R^2 value of 0.745 means that 74.5% of the corresponding variation in Service Delivery can be explained by the independent variables Level of Education, health Facilities and Financial Resources. However, there are other variables not covered by the study which account for 25.5% of Service Delivery. This outcome shows that more of the Service Delivery in hospitals are controlled by the predictors; Education, Financial Resources and health Facilities.The more the value of the predictors, the more the chances of Service Delivery in hospitals. This finding is in line with that of Wanjau (2010) in his study in government hospitals which established that service delivery is influences by the level of Education, health Facilities and Financial Resources.

Table 4.35 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.863[a]	.745	.742	.335

a. Predictors: (Constant), Facilities, Level of Education, Financial Resources
b. Dependent Variable: Service Delivery

4.6 Effect of socio-economic factors on service delivery in Kenya

Based on ANOVA Table 51, the F value is 302.410 with a p-value 0.000 < 0.05 significance level means that the calculated F Value is statistically significant. Thus, the overall regression model for the Social Economic predictor has statistically significantly explained the variation in Service Delivery and that it did not happen by chance but because of the Level of Education, financial resources and Availability of facilities. The outcome of the ANOVA table further supports the classical public administration theory which focuses on the idea that the role of politics and

administration in a democratic society determines and enacts the will of the state and sets a policy by which majority rules.

Table 4.36 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	136.141	4	34.035	302.410	.000[a]
	Residual	46.707	415	.113		
	Total	182.848	419			

a. Predictors: (Constant), Facilities, Level of Education, Financial Resources

b. Dependent Variable: Service Delivery

4.7 Hypotheses Testing

The results of hypotheses testing showed that all the three hypothesized relationships were significant. Education does not affect service delivery in hospitals at significance level of 0.05; the outcome shows a significance level of 0.000 which is less than 0.05 meaning we reject the null hypothesis and conclude that Education has effect on determining service delivery in hospitals.

Availability of facilities does not affect service delivery at significance level of 0.05, the outcome shows a significance level of 0.000 which is less than 0.05 meaning we reject the null hypothesis and conclude that availability of facilities has an effect on determining service delivery in hospitals. Financial resources do not affect service delivery at significance level of 0.05, the outcome shows a significance level of 0.000 which is more than 0.05 meaning we reject the null hypothesis and conclude that financial resources has effect on determining service delivery.

CHAPTER FIVE

SUMMARY, CONCLUSSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the researcher provided a summary of major findings as deduced by the study, including Conclusions, Recommendations and areas of further research.

5.2 Summary of Findings

The study sought to investigate relationship between socio-economic factors and Public Health Service delivery in Kenya and the following were the study findings.

5.2.1 Availability of facilities and healthcare service delivery

The research concerning availability of facilities showed a significance level of 0.000 which is less than 0.05; the respondents believed that poor facilities influence the delivery of quality healthcare services in Kenya. Through these findings more facilities should be provided to the hospitals such as enough beds to stem congestion in wards, enough offices for the staff for improved and efficient delivery of services. These findings conquer with the findings from a previous study done by Wanjau (2012); Otieno (2014).

5.2.2 Financial resources and provision of healthcare service delivery

Financial resources and its influence on provision of public Health service delivery in Kenya revealed a significance level of 0.000 which is more than 0.05. Finances have always been an important factor in any service delivery process and based on the findings of this study it is recommended that adequate finances should be allocated to all the healthcare services facilities. Proper management of the allocated finances should be emphasized to ensure equity in distribution of the finances to departments in the hospital. Financial accountability using monitoring, auditing and accounting mechanisms defined by the county legal and institutional

framework is a prerequisite to ensure that allocated funds are used for the intended purposes and leakage is minimised.

5.2.3 Level of education and public health service delivery

The level of Education and its influence on provision of public Health service delivery in Kenya showed a significance level of 0.000 which is less than 0.05, this revealed that the level of education is positively associated with patient satisfaction, the study confirmed that confidentiality of doctor's information to patients was an important factor in the service delivery process to patients. As a result, it is recommended that confidentiality of information in healthcare services provision and good working relationship between patients and service providers be emphasized

5.3 Conclusions

Provision of healthcare services, is greatly affected by availability of resources in their physical/material form. The quality of the healthcare service provided is compromised when these are not availed. Lack or inadequate financial resources also affect the provision of quality healthcare services. Respondents indicated that lack of financial resources greatly affected the provision of quality healthcare services to the public as it impacted negatively on availability of facilities to help deliver the services. Education level of both the patient and the provider of healthcare services is the key to the quality of service provided. Respondents indicated that these affected sharing of information between patients and doctors compromising greatly the provision of quality healthcare services to the patients as the interaction and understanding level was low.

5.4 Recommendations

From the findings the study recommends adequate and quality health service provision in public health sectors all over the country the Government should pay attention to the management,

resource allocation and construction of quality infrastructure to allow easy provision of quality health services. Adoption and the use of new technology through improved education system to make it easier to access the patient's records and early detection of diseases hence it will be easy to provide services to the patients. Cost of health services should be customer friendly, geographical distance to the nearest facility to be reduced and patient waiting time to increase utilization of health services in Murang'a County and Enough drugs and supplies and improved health infrastructure will reduce high mortality rates in Murang'a County

5.5 Contribution to the body of knowledge

This study found out that lack of facilities greatly affected the provision of quality healthcare services as there was lack of enough facilities to help deliver the services. This affects hospital attendance and provision of quality healthcare service delivery. It is therefore advisable that the hospital stakeholders should equip the hospital with relevant facilities such as beddings, office space, Laboratories, and medicine.

5.6 Areas for further research

Drawing from the findings of the study and based on the existing research it is suggested that more research should be done to assess how the strategies of top management in public hospitals affect quality of healthcare services to the sick. Another area that research should be carried out is the area of relationship of patient and doctor and quality of service being provided in public healthcare centres because this is a sensitive and very important area when it comes to service.

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APPENDICES

Appendix 1: Information Consent Form

MURANG'A UNIVERSITY SCHOOL OF BUSINESS AND ECONOMICS

Information Consent for project titled relationship between socio- economic factors and public health service delivery in Kenya

Investigator: Lydiah Keya Abuko

School of Business and Economics

INFORMATION SHEET

Introduction

I am Lydiah Keya Abuko from Murang'a University College. I am undertaking a research on relationship between socio- economic factors and public health service delivery in Kenya. There are various factors that mainly hinder the attainment of quality healthcare service in Kenya and they will be discussed in this research. I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in this research. Before you decide, you can talk to anyone you feel comfortable with about the research. This consent may contain words you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them.

Purpose of the Study

This study seeks to investigate the socio-economic factors that influence the provision of healthcare service delivery in Kenya a case of Murang'a County hospitals.

Participant selection

You are among the participants who have been selected to participate in this study because I feel that because you work in this hospital set up or you are treated here you will be in a position to give an

appropriate feedback on the possible factors which have to be attained to reduce or hinder the factors that affect provision of healthcare service. Hence improve the health of patients and the quality of the health services being provided to the patients.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate, the nature of your activities in this division will not be affected in any way.

Procedures

I am asking you to help in understanding your take on factors affecting delivery of quality health services the challenges that you face in your daily work as you strive to provide quality health services to the patients. If you choose to participate in the study, I will be requesting you to fill in the questionnaires for me, where similar questions will be asked to all participants. Only the two of us and no one else will access the information that you will give me. This will give you an opportunity to share with us your experiences in more details.

Duration

The study will take two to three months. During that time, I will visit you the first time to hand you the questionnaire, followed by me coming back to collect the already filled in questionnaire.

Benefits

There will be no direct benefit to you for participating in this research. However, the kind of information you give will help to understand and come up with possible ways of improving the services being provided in the hospitals and this will also help you alleviate the problems you face as an individual.

Sharing of Information

I am not going to share any information that you give today with anybody outside the research team. If I choose to use the information you give me today in our reports, I will not mention your name or

reveal you identity in any way. Knowledge that I get from this research will be shared with you and your colleagues before it is made widely available to the public. I will organize a meeting with all those who will have participated in the research where I will inform you of the kind of knowledge that I got through your participation. Following the meetings, I will publish the results so that other interested people may learn from the study.

Right to Refuse or Withdraw

Even though you have been identified as a participant in this study, your participation is entirely voluntary. You reserve the right to decline to participate or withdraw at any stage and this study and this will not, in any way, have any negative consequences on you.

Confidentiality

The researcher will protect information about you and will not discuss any information that I learn about you with anyone outside the team. All study information will be identified only by individual participant code numbers and will be kept confidential in a locked file drawer at Murang'a University College. This information will only be available to study staff.

If You Have Questions

If you have any questions or concerns about the research, you may contact me

Thank you in advance.

Yours Sincerely,

LYDIAH KEYA ABUKO

Researcher, 2016

Appendix 2: Letter of Introduction

Lydiah Keya Abuko
P.O. Box, 75 Murang'a.
lydiahkeya@gmail.com
0715065969
5th May 2016

Murang'a University College
P.O. Box, 75
Murang'a

Dear Respondent,

RE: THE EFFECTS OF SOCIO - ECONOMIC FACTORS ON PUBLIC HEALTH SERVICE DELIVERY IN KENYA- A CASE OF MURANG'A COUNTY HOSPITALS

I am a post graduate student in the school of Business and Economics in Murang'a University College, undertaking Masters Degree in Public Administration. As part of the fulfillment of the award of my degree I am required to carry out a research. I intend to carry out a research on, **"Relationship between Economic factors and public health service delivery in Kenya**."

I am intending to select participants working in the County hospitals setup and patients. I therefore humbly request you to voluntarily participate in the filling of the questionnaires. All the information provided will be kept confidential and will only be used for academic purposes. This study will be important for providing some of the major issues challenging the attainment of quality healthcare service delivery in the Kenya.
Thank you.

Yours Sincerely,

Lydiah Keya Abuko
BE331/1749/2015
Master of Public Administration
Murang'a University College

Appendix 3: Questionnaire

RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS AND PUBLIC HEALTH SERVICE DELIVERY IN KENYA

I am currently a student at Murang'a university College of science and technology department of Economics and commerce, carrying out a research on the relationship between Socio-economic factors and public health service delivery in Kenya. This is a partial fulfilment of my Masters in Public administration. The questionnaire contains two parts Demographic factors and socio-economic factors affecting public health service delivery. Kindly respond to the questions as accurately as possible, to make this research a success. This data will strictly be used for academic purposes. Your cooperation will be highly appreciated.

Please note:

1. Please tick where appropriate.
2. Do not write your name on the questionnaire.
3. All the responses will be treated strictly in confidence.

PART A

1. Age of the respondent: Less than 20 yrs :21 – 25 yrs: 26 – 30 yrs :31 – 35 yrs :More than 36 yrs
2. Marital status a) Single [ ] b) Married [ ] c) Divorced [ ] d) Separated [ ] e) Widowed
3. Gender a) Female [ ] b) Male [ ]
4. Level of education) Primary [ ] b) Secondary [ ] c) Tertiary [ ] c) University d) other [ ]
5. What is your current employment status? Permanent [ ] Temporary [ ] Part time [ ] other [ ]

PART B

6. Please indicate your response to each of the following objectives regarding health facilities, level of education and financial resources. Indicate with an X in the appropriate answer box, using the scale provided:

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Figure	**1**	**2**	**3**	**4**	**5**
There are adequate funds in the hospital allocated for purchase of Health facilities.					

There are enough cost saving facilities in the hospital					
There is payment of consultation fees					
There is waiver of charges					
Admission fees charged is ethical					
There is billing of houses for staff					
Funds are adequately utilized by management					
Facilities					
The work environment is safe and free from hazards					
There is good workplace layout.					
There are enough rooms for patients					
There are enough necessary instruments for staff					
There are enough necessary instruments for patients					
Instruments and tools are in working conditions					
Materials and supplies are sufficient					
Antiseptic hand solution for protection of staff available					
Antiseptic hand solution for protection of patients are available					
Infection control strategy guidelines available for staff and patients.					
Beds are enough for patients					
Customer satisfaction is to standards					
Customer Reception is satisfactory					
Advice and diagnosis are sufficient					
Customer treatment services available					
Level of education					
There is confidentiality of doctor's information to patients.					
Patients feel free to share their information with the doctor					
There is paediatric decision making					
There is patient responsibility i.e. keeping time to hospital and adhering to doctors instructions					
There is no discrimination of services to patients					
There are gifts from patients to doctors					

Thank you

Appendix 4: Checklist for the questionnaire

Checklist

1. Are the instructions given in the questionnaire clear? Yes ( ) No ( )
2. Are there any grammatical mistakes you have encountered? Yes ( ) No. ( )
3. If yes please indicate the questions affected……..
4. Are the questions in the questionnaire easy to understand/ clear? Yes ( ) No ( )
5. If No to question above, which questions are not clear? Please indicate----------
6. Is the sequence of questions logical? Yes ( ) No. ( )
7. If No to question 6 above why? ----------
8. Is the questionnaire too long? Yes ( ) No ( )
9. Is there any technical term which you are not able to understand? Yes ( ) No. ( )
10. If yes to question 9 please indicate which ones ……
11. Is the language used in this questionnaire acceptable to you? Yes ( ) No ( )
12. If No to question 7 above, what do think can be done to improve the language?

_____

13. Can you give any suggestions to help improve the questionnaire?

…… .....

Appendix 4: Budget

Number	**Item**	**Number of items**	**Unit price(ksh)**	**Total price(ksh)**
1.	Travel to Villages by Assistants	4 Assistants	30,000.00	120,000.00
2.	Questionnaire Papers	420	10 per questionnaire	42000
3.	Labour		10000	50000
TOTAL				**172,000**

Appendix 5: Work Plan

ACTIVITY NO	ACTIVITY	J	J	A	S	O	N	D	J	F	A	M	J
1	RESEARCH TOPIC												
2	RESEARCH TOPIC PRESENTATION AND ACCEPTANCE												
3	BACKGROUND STUDY												
4	PROBLEM STATEMENT												
5	MAIN OBJECTIVE AND SPECIFIC OBJECTIVES												
6	SIGNIFICANCE												
7	SCOPE AND LIMITATION												
8	CONCEPTUAL AND THEORITICAL FRAMEWORK												
9	LITERATURE REVIEW												
10	RESEARCH METHODOLOGY												
11	DATA COLLECTION,ANALYSIS AND PRESENTATION												
12	CONCLUSION RECOMMENTATION AND PRESENTATION OF FINAL PROJECT												