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DEPARTMENT OF PUBLIC POLICY AND ADMINISTRATION

DETERMINANTS OF HEALTHCARE SERVICE DELIVERY IN KENYA: A CASE STUDY OF HEALTH CENTRES IN NYAMIRA COUNTY

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF HUMANITIES AND SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PUBLIC POLICY AND ADMINISTRATION OF KENYATTA UNIVERSITY

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DECLARATION

Declaration by the Candidate

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

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

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ABSTRACT

In Kenya, healthcare industry service delivery has become a real factor in realizing. The sector of public health has the mandate of ensuring patients are receiving the most efficient health services. However, it is worth noting that realization of this has so far remained a challenge. By the start of the millennium, due to misappropriation of resources, lack of health care personnel and not embracing modern technology, quality of these health services in Kenya has been deteriorating. Therefore, this research study aimed at investigating the various factors affecting delivery of these health care services particularly in reference to Health Centers in Nyamira County. A Conceptual framework illustrating the relationship between (the independent variables-factors) status of employee capacity, technology advancement and availability of financial resources, and how they influence service delivery in the Public health sector in Kenya (dependent variable- outcome) was developed. The study adopted a descriptive survey approach in data collection process. The population of the study comprised of patients, healthcare givers (doctors, nurses, clinical officers, lab technologies and pharmacists), county health administrators and elected leaders estimated at 1680. A proposed sample size of 323 was used and spread across the various strata as identified. This sample size was considered comprehensive in the coverage of the study objectives. A semi-structured questionnaire and interview schedule was used to collect data from respondents. The Statistical Package for Social Sciences (SPSS) Version 23 was used to analyze data. Descriptive statistics was used to analyze quantitative data while thematic analysis was be used for qualitative data. The study concluded that quality of healthcare provision by the public hospitals in the county had improved, health facilities have been networked to enable information sharing and reduce paper work. However. Nyamira County have not managed the resources prudently and that there was lack of transparency in most areas of the health facilities.

ABBREVIATIONS AND ACRONYMS

CBOs	-	Community Based Organization
CPOE	-	Computerized Physician Order Entry
GoK	-	Government of Kenya
RoK	-	Republic of Kenya
SPSS	-	Statistic Package for Social Statics

DEFINITION OF TERMS

Customer Service: activities outlined to intensify the measure of customer satisfaction; that is a perception that a product or a service has met the client's expectation (Sureshchandar, Rajendran and Kamalanabhan, 2001).

Functional quality: refers to the way in which the health care service is delivered to the invalids (Petrick, 2009)

Health services: a vast batch of services that affect health, including those for mental and physical illnesses (Ogutu and Wamae, 2004).

Quality of service: intensity to which health services for people and populations incline the likelihood of desired health outcomes (Gyani, 2010).

Service quality: frequency of how well a delivered utility matches the client's needs (Demirel, Yoldas and Divanoglu, 2009).

Technical quality: basic accuracy of the medical diagnoses and the conformance to professional specifications, (Choi, *et al* 2008).

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Healthcare corporation utility delivery has become crucial (Ennis & Harrington, 2001; Jabnoun and Chacker, 2003) in providing patient satisfaction because delivering quality service directly affects the client's needs (Kara, Lonial, Tarimand Zaim, 2005), loyalty and financial gain of utility businesses. Kotler (2000) defines satisfaction as a person's feelings of pleasure resulting from comparing a perceived performance in relation to his/her expectations. Thus, satisfaction gained from the services can be considered as a function of service quality.

Service delivery is a related notion and if the implicit characteristic of a utility meets the specifications of the client, it can be rated as high quality (Sachdev and Verma, 2004). This means that there are specific subjective and objective laws, which define service delivery (Jain and Gupta, 2004). In a utility industry, like health care, experience of the patient plays a critical part in assessing service delivery. Service delivery in healthcare constitutes of modern technology, proper medication, and enough healthcare givers to patient ratios, cheap, efficient and effective system of service delivery (Gyani, 2010).

The well-being division consists of main partners like the private sector, which has Private institutions for-profit, Faith Based Organizations, Non-Governmental

Organizations and Ministry of Health facilities (RoK, 2010). Health utilities are offered by over 4,700 health institutions in the country, with the public division structure accounting for about 51 percent of these healthcare facilities. The public health sector consists of the following levels of health facilities: National Referral Hospitals, County General Hospitals, Sub-County hospitals, Health Centers, and Dispensaries. Health services are unified as one descends the National to the County and Sub-County levels (RoK, 2010).

Healthcare providers focus is providing the appropriate treatment to their patients. They normally believe that this is also the focus of the patients as well (Mostafa, 2005). However, as Sohail (2003) observed that, physicians may misperceive their patients' evaluations because the patients' perceptions are different from those of the physician. This leads to patient dissatisfaction prompting the patient to look for other providers and spread negative information which would affect potential clients (Wisniewski and Wisniewski, 2005). Coulthard (2004) notes that this requires the companies strong emphasis on human resources selection and in providing extensive internal and external training to staff ensuring that the latest skills and knowledge are utilized in the delivery of the highest level of quality service while at the same time designing and implementing highly effective systems to address the clients' needs fully and with a strong attention to detail.

The public health sector in Kenya consists of National, County, Sub-county hospitals, health centres and dispensaries. National referral institutions are at the summit of the health care system, providing complex and advanced, therapeutic, rehabilitative and diagnostic services. We have two National referral facilities namely Kenyatta and Moi in Nairobi and Eldoret respectively. County level hospitals act as intermediaries between National Central Level and Sub counties. They also provide very specialized care. They oversee the implementation of health policy at the county level, maintain quality standards, coordinate and control all sub-county health activities (RoK, 2015).

Sub-County hospitals facilities mainly delivery of health care utilities and make their own expenditure budget and plans needs and requirements as per the guidelines from the headquarters through the Counties. Most of the health centers during emergence provide ambulatory services. Health centres in most cases provide curative and preventive services, as per the local needs. Dispensaries are supposed to to be first line of contact with patients, but in reality, health centres and even hospitals are the first points of contact. Dispensaries offer wide coverage for preventive healthcare measures, which is the main objective of the health policy in Kenya. The Kenyan government health facilties are supplemented by privately and faith based owned and operated hospitals and clinics, which together provide between 30 and 40 percent of the hospital beds in Kenya (RoK, 2010).

Now that many health-oriented Non-Governmental Organizations are present and operate all over the country, the number of people attended by these Non-Governmental Organizations health services cannot be easily calculated and determined. Looking at their comparative advantage, Non-Governmental Organizations, Faith Based Organizations and community-based organizations (CBOs) offer specific healthcare services (RoK, 2010). The Health Ministry gives support to mission health facilities by training their staff as well as seconding staff to these health facilties and offering drugs and vaccines. Currently, the private sector (both for-profit and not-for-profit) contributes over 50 percent of health services in the country, providing mainly curative health services and very few preventive services (RoK, 2001).

The research focused on five Health Centers in Nyamira County, namely Gesima, Mochenwa, Esani, Riamoni and Rigoma. There are many projects which are initiated in the health centers but got stuck, for example in Gesima Health Centre the construction of laboratory and other facilities got stuck five years ago because of poor management, lack of resources and political goodwill. The health centres lacks basic machines which are important in service delivery. The Health Centres have been experiencing issues with service delivery arising from overcrowding, shortages of equipment, supplies, and trained staff, management weaknesses, both in structure and staffing and to the absence of good controls and systems. This has drastically affected the quality of service delivery in the health Centre (RoK, 2014).

Therefore, this study sought to deduce the factors affecting service delivery in public health centers with special reference to five Health Centers in Nyamira County.

1.2 Statement of the Problem

Kenya's health care service delivery division recorded tremendous growth especially in the 1970's and early 80's. This growth was attributed to the high priority accorded to the improvement of the quality of service. The 2003 Kenya Demographic and Health Survey (KDHS 2003) states that, at the start of the millennium, the quality of service in public hospitals in Kenya worsened. Infant mortality rate increased from 74 in 1998 to 76 in 2014 while the under five-mortality rate rose from 112 in 1998 to 117 in 2014. Life expectancy at birth for females declined to 60.07 years and 59.48 for males (RoK, 2014). This demonstrates that there has been low quality service in public health sector. Whereas there has been an attempt to improve health service delivery (RoK, 2014), it seems not much has been achieved in raising the quality of service in public health institutions. This is made worse by limited information on the factors that affect the delivery of quality services in the public health sector in Kenya. Therefore, this research study sought to assess factors affecting service delivery in public health centers focusing on five health centers in Nyamira County.

1.3 Objectives of the Study

The main and important objective of this study was to assess determinants of service delivery in public health centers in Kenya, with specific focus on five health centers in Nyamira County.

The following specific objectives guided the study:

i) To determine employees' capacity status on service delivery in health Centers in Nyamira County.

ii) To determine the effect of technology advancement on service delivery in health Centers in Nyamira County.

iii) To determine the influence of financial resource allocation on service delivery in health centers in Nyamira County.

1.4 Research Questions

The study main aim was to answer the following questions:

i) What is the influence of employees' capacity status on service delivery in health Centers in Nyamira County?

ii) What are the effects of technology advancement on service delivery in health Centers in Nyamira County?

iii) What is the influence of the size of financial resource allocation on service delivery in health centers in Nyamira County?

1.5 Justification and Significance of the Study

The importance of the health sector is articulated in the Millennium Development Goals (MDG) (RoK, 2001). Three out of the eight goals directly pertain to health improvement. As per the Abuja Declaration of 2001, countries committed to earmark 15% of their national budgets for the health sector but Kenya is yet to meet this target as demonstrated in the Kenya Health Policy 2013-2030 Report. The Health service delivery function was formally transferred to counties on 9th August 2013, and one third of the total devolved budget of Ksh 210 Billion was earmarked for health in the 2013/2014 budget following the transfer.

The Budget for 2015/2016 come up tough conditions and restrictions as follows. Funding for Kenyatta National Hospital was reduced from 9.3 to 8.8 Ksh billion. Ksh 43 billion was allocated to the maternity budget, same as the past financial year. National AIDS Control Council was cut to Ksh 600 million from Ksh 900 million, the slum health programme to Ksh 700 million from 1billion and finally The Kenya Medical Research Institute budget allocation was reduced from Kshs 1.9 billion to Ksh 1.7 billion. This comparatively and relatively meager allocation compromises access to quality health services. This combined with health problems, an acute shortage of health workers, unavailability of drugs and medical supplies in public health institutions, unaffordable out-of-pocket costs for health services, poorly paid health personnel or nonpayment of health workers compromise the quality of services even further (Kihiu, 2010).

The 2016/2017, three month Doctor's strike has complicated the matter even more. The choice of health Centers is informed by the fact that a considerable number of patients are seeking Health care in Nyamira County. HIV prevalence is currently projected to be 6.9%, a significant increase from 3.8% in 2009 (NASCOP 2013; NASCOP 2009).Among children under five years of age, 3.4% are underweight. The county has a death rate of 13 per 100 people with an infant mortality rate of 46 per 1000 births and child mortality rate of 58 per 1,000 births. The maternal mortality rate is 385 per 100,000 births.

According to the Nyamira County Health Strategic and Investment Plan 2013/14-2017/18 statistics, the leading causes of morbidity and mortality in Nyamira County are respiratory tract infections, HIV & AIDS, perinatal conditions, Tuberculosis, malaria, skin conditions, accidents and diarrheal diseases. There is increasing burden of Non-Communicable Diseases (NCDs) like diabetes, cancer and cardiovascular diseases, which are currently accounting for 11-13%of disease burden.

According to Mugenda (2008), significance of a study is the importance of research findings in advancing professional knowledge and practice in a particular discipline. It is hoped that the findings of the study will support key decision making at county planning level by providing insight into crucial areas in the delivery of effective healthcare utilities and make recommendation for improvement.

This analysis was also of importance of pointing out the various challenges devolved healthcare in Kenya faces. Findings of this study as well as recommendation can be applied by other counties since the health care structures are the same hence challenges faced in Nyamira County could be the same in other counties, therefore the findings can help in applying solutions as intended.

The research was also significant in that it will help the public hospital administration to understand and appreciate the factors that affect service delivery in the health public sector in Kenya. The study will be significant to the private health sector and professional health bodies as they will be able to appreciate the factors that influence service delivery in the public health sector. It will also help them draw lessons from the same with the view of improving the delivery of health services in the private sector, while the professional bodies will be able to advise the public sector managers on the viable solutions to the issue of enhancing health service delivery in the public sector.

The research field has limited studies on effective healthcare in Kenya, this paper will therefore help in additional literature in the area of effectiveness healthcare and at the same it will provide scholars with reference information for further analysis. After this research background information will be made available to research scholars and organizations who may want to carry out further research in this area. This study will be a reference material and a basis of identifying research gaps.

1.6 Scope and Limitations of the Study

The study focused on determining the factors that affects service delivery in five public health centers namely Gesima, Mochenwa, Esani, Riamoni and Rigoma in Nyamira County. Respondents will be recipients of health services, health care givers (doctors, nurses, clinical officers, lab technologists and pharmacists), County Government administration and political leaders. Health caregivers and county administration make decisions regarding establishment and equipping of healthcare facilities while political leaders enact legislation at county level on matters health.

The researcher encountered challenges while obtaining information from some of the respondents especially health personnel due to fear of victimization. The analyst however explained to them the data gathered will be utilized for academics. This study was also be limited to the investigation of the factors that affect service delivery in mass well-being centers in the country with particular accordance to five health centers in Nyamira County.

This analysis focused on the effect of the communication channels, number of workers, technology and economic resources on utility delivery in Kenya public health sector. In the well-being division a patient's perception of quality health outcome has come to encompasses the economic degree and well-being in regards to the quality of life, however, this study was not be able to examine all the factors that influence utility administration in the mass well-being division in the country but

only examined specific factors such as staff skills, technology, and management style and organization culture on the quality of utility delivery in the state. Hence results of the research were not be adequate to address all the factors that influence quality service thus they cannot be generalized to other hospital in the country.

CHAPTER TWO

LITERATURE REVIEW

2.1 Determinants of Service delivery in Public Health Sector

2.1.1 Employees Capacity

Skilled professionals are important in providing quality outcomes thus bringing growth in hospitals (Argote, 2000). All healthcare givers are required work as a team and participate in multi-disciplinary teams for hospital operations and growth (Argote and Ingram, 2000). The hospitals need to place great emphasis on recruiting and retaining top-level physicians and nurses, accompanied by an effort to encourage these professionals to form working teams, including case managers, pharmacists, social workers, and others, to promote quality (Brown and Duguid, 2003).

To facilitate service quality and growth, hospitals must implement human resource strategies involving selective, hiring, and retention of physicians and nurses (Cohen and Levinthal, 2001); monitoring of doctors on staff (or with privileges) and ensuring that they must continue to meet certain performance and practice standards to retain credentials (Crewson, 2004). Ability to attract and employ an adequate number of competent health staff such as: generous staffing levels that ensure a reasonable caseload; this includes setting minimum staffing ratios and abiding by them offering Competitive salaries; respect for and empowering of the medical staff (Friedman and Kelman, 2006).

To improve efficiency in service delivery, public sector hospitals must build the capacity to attract and employ an adequate number of high-quality nurses (Argote and Ingram, 2000) suggests that the key to service delivery is to adapt to circumstances that are constantly changing and that the long-term winners are the best adapters, but are not necessarily the winners of today's race for market share.

Hospitals quality of service often fails because of the sum total of seemingly inconsequential events arising from employees lack of capacity as in itself service delivery requires specific skill levels and experience which must be continuously learned (Cohen and Levinthal, 2001). Only an organization that does not presume to know will be able to detect and use fresh new information from its environment (Gremler and Gwinner, 2000). Managing service delivery involves being on the ground, learning from experience, meeting customers and staff, understanding their problems and concerns and doing something about them (Argote and Ingram, 2000).Rose, Uli, Abdul, and Ng, (2004) argue that successful chief executive officers of public hospitals recognize the need to give their managers the freedom to acquire and utilize their skills in making decisions hence empowering the management team and makes it easier for the chief executive officer to manage service delivery.

A central part of igniting people's passions and entrepreneurial drive is giving them the opportunity to make decisions and take risks (Crewson, 2004). Requiring departments to prepare "delivery plans" explaining how they intend to reach a target

and laying out “trajectories” for continuous service improvement; assuring frequent, current performance data exists (including data on subunit performance where delivery occurs that way) (Cohen and Levinthal, 2001);monitoring performance data, for discussion both with the department; seeking to understand the delivery production process and develop (via department-level units) “best practices” for performance improvement (Friedman and Kelman, 2006).

2.1.2 Technology and Provision of Quality Health Service

Technology for harnessing of Information and data play a critical role in the quality service delivery in hospitals (Allen, 2001). Investments in Technology that facilitate service assessment and improvement process is essential (Dutton and Starbuck, 2002). The health facilities must have four strong and main commitments: a willingness to invest in Information Technology; Quality Insurance departments and investments Information Technology and with qualified staff that abstract medical records, analyze data, and facilitate the Quality Insurance process (Cibulskis and Hiawalyer, 2002).

According to the Government of Kenya (2001) report ,successful Technology strategy that needs to be employed by hospitals and this must involve four main commitments: nurturing and encouraging buy-in so new systems will be utilized and their benefits will be realized and devising information technology systems that provide real-time feedback to providers as they are caring for patients.

Willingness to invest in Information Technology, Working with physicians and others to customize an information system to meet specific needs and culture of the institution (GOK, 2001).

Oliveira-Cruz, Hanson, and Mills (2001) note that most emerging firms get into trouble because the management team either does not have the information it needs to make the right decisions or chooses to ignore the information that is available. The main ingredients of a real-time system involve its timeliness.

Hospitals want to develop a system that allows all caregivers to have access to relevant information as soon as it is available (Karimi, Somers, Gupta, 2001). To that end, the hospitals have or are adopting applications that do the following: Reduce time lags in getting laboratory and imaging results. Whether an information system is completely home-grown or purchased off the shelf, Information Technology must be customized to incorporate and meet the particular needs and circumstances of the hospital (Sun and Shibo, 2005). This is not a one-time process, but one that must engage clinicians' and administrators to adapt and refine systems over time (Singh and Ranchod, 2004).

A proprietary information systems that shapes the culture, patient mix, and staffing of the hospital and engaging physicians and nurses in developing readapting Information Technology serves to ensure that the resulting system meets the needs of

clinicians (Blas, and Limbambala 2001). It also encourages buy-in, and helps create Information Technology champions among the staff, who then teach and encourage their colleagues to use the new system (Baldrige National Quality Program, 2003).The newer Information Technology systems reflect the hospitals' commitment and willingness to invest in the tools that promote quality (Davis, Hughes and Audet, 2002).Nerenz and Neil, (2001) recommends the kinds of quality elated Information Technology investments that the hospitals need to make include: Moving to a paperless system that provides information at the right time (electronic medical records, e-hospital notes with input at bedside);Moving toward bar-coded medications and automatic dispensing; Coordinating patient admissions with bed capacity, immediate tracking of filled beds and daily changes in nursing needs (MacAuley, 2001).

According to Cibulskis and Hiawalyer (2002), the use of electronic dashboards linked to patient records that alert staff to test results and unresolved issues, enables physicians to view imaging results and other test results on a personal computer in hospitals and in their offices. Smee, (2002) indicated that investing in Computerized Physician Order Entry (CPOE) and other types of decision support software to remind physicians about procedures or tests that were indicated and to reduce medication errors through alerts about potential dosage errors and drug interactions was critical in improving service quality in health sector .Cibulskis and Hiawalyer (2002) indicated that providing clinicians with computer access to up-to-date

scientific and medical literature summaries on specific diseases, procedures, developing management tools for monitoring and comparing performance of physicians, units and procedures.

Health facilities need to give their Healthcare givers and facilitators like Doctors, nurses, and other staff the tools and support they need to provide high-quality medicine on a daily basis, and to identify and investigate quality problems when they surface (Smee, 2002). It also includes access to guidelines and protocols, and offers support to physicians in developing a consensus around their own evidence-based best practices so that they have tools they are actually willing to use (Cibulskis, and Hiawalyer, 2002). Other tools involve peer networking, external training, and conferences that provide guidance and feedback. In order for doctors, nurses, case managers and other hospital personnel to make their policies and procedures work effectively, they need a modern information system producing real-time data on patient health status, test results, and other key factors (Oliveira-Cruz, Hanson and Mills, 2001).

The main ingredients of a real-time system involve its timeliness (MacAuley, 2001). Hospitals want to develop a system that allows all caregivers to have access to relevant information as soon as it is available (Oliveira-Cruz, Hanson and Mills, 2001). To that end, the hospitals have or are adopting applications that do the following: reduce time lags in getting laboratory and imaging results; deliver

information on test results, history, health status (Tam,2005) while providers are treating patients so that treatment decisions can be made based on the latest information; and making user-friendly guidelines and recommendations readily accessible to physicians, based on the latest medical research on specific conditions, procedures, medications,(Nerenz and Neil, 2001) hospitals places much emphasis on getting the right information to the right people at the right time, resulting in demonstrable quality improvements(Rust and Tuck, 2006).

Information communication technology challenges have serious effect on initial access to health services. The challenges noted are not limited to physicians and hospital care. Patients face significant barriers to health promotion and disease prevention programs there is also evidence that they face significant barriers to first contact with a variety of providers (Arhin, 2000). The research has shown that there is a noticeable lower uptake of many preventive and screening programs by those facing language barriers (Brown and Duguid, 2003). Higher use has been reported for some emergency department services, and for additional tests ordered to compensate for inadequate communication.

2.1.3 Financial Management

The fixed budget is widely used in hospitals, often based on historical spending levels, with a (frequently inadequate) provision for price changes (Peters, Elmendorf, Kandola and Chellaraj, 2000).

Such a system clearly can secure good expenditure control and is administratively undemanding (Smee, 2002). However, it can often perpetuate historical inequities and fail to respond to new demands and priorities(Peters, Elmendorf, Kandola and Chellaraj, 2000).Moreover, fixed budgets offer few incentives to maximize the effectiveness, quality, or quantity of care offered by hospitals (Smee, 2002). Indeed, many budget systems continue to finance hospitals through line-item budgets directly from the ministry of health. Such mechanisms allow central bureaucracies to exert the maximum level of control over peripheral spending with little or no capacity at peripheral levels for flexible use of funds in response to local needs (Arhin-Tenkorang, 2000). Thus, centralized budget systems can contribute to technical inefficiency by preventing local managers from optimizing the deployment of inputs thereby perpetuating poor quality of service (Peters, Elmendorf, Kandola and Chellaraj, 2000).

Financial allocation and management, in healthcare service organizations, has been a constraint and a barrier to other functions that contribute to service delivery (Adams and Colebourne, 1999). They suggest an 'enlightened' approach to finance in service organizations. This includes 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 outsiders' confidence in management (Arhin-Tenkorang, 2000).

To be specific 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 (Sun and Shibo, 2005).

Resources given for healthcare flow through various layers of national and local government’s institutions on their way to the health facilities (Blas and Limbambala, 2001).Financial allocated accountability using monitoring, auditing and accounting mechanisms as defined by the country legal and institutional framework is a prerequisite to ensure that allocated funds are used for the intended and proper purposes (Oliveira-Cruz, Hanson, and Mills. 2001). 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 (Smee, 2002). Abuse of office, corrupt practices Political, bureaucratic leakage and fraud, are likely to occur at every stage of the process as result of poorly managed expenditure systems, lack of effective auditing and supervision, organizational deficiencies and lax fiscal controls over the flow of public funds (Peters, Elmendorf, Kandola and Chellaraj, 2000).Falsification of financial statements is more of a problem in proprietary (private) hospitals. Hospital

Executives will sometimes exaggerate revenue and misstate expenses in order to meet expectations of industry analysts and shareholders (Maureen, 2005).Public hospitals in Kenya are in dire need of funding to rehabilitate, redesign, equip and

staff them to ensure service delivery to Kenyans (RoK, 2013). Low funding for Community Health Workers programme in the country has adversely affected the delivery of health services especially at the grass-roots (Maureen, 2005). "For the last 25 years there has been little investment in health sector and it is only after the government that assumed power in 2003, that the sector was put into consideration through the economic stimulus program (RoK, 2001). Most of the public hospitals in Kenya especially rural areas are in a sad 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).

2.2 Theoretical Framework

Researchers have investigated the relationship between perceived service quality and customer satisfaction and they concluded that perceived service quality affected customer satisfaction Lim and Tang (2000). Furthermore, at services context, perceived service quality has more influence to customer satisfaction compared to perceived price. Even though they have various definitions, generally they agreed that perceived service quality is related to overall customer service evaluation according to their service expectation and performance perception level (Lui, 2005).

Various areas and division have been investigated to measure the perceived service quality Mostafa, (2005). However, the most popular one is the dimensions that proposed by Parasuraman (1985) which are reliability, assurance, tangibles,

empathy, and responsiveness (Nerenz. and Neil (2001). The application of those perceived service quality dimensions on education sector has showed by numerous researchers such as reference (Norusis, 2007)Perceived health service quality has been studied extensively in the private healthcare sector; with Servqual having been used frequently in a modified form and predominantly in the "for profit" American health sector(O'Connor and Trinh, 2000).

More recently, Brady and Cronin (2001) advanced the multidimensional hierarchical conceptualization offered by Norusis (2007) by combining that model with the three factor model of Rust and Oliver (2006), and proposed a hierarchical multidimensional model of service quality. Based on this work, Dagger, Sweeney, and Johnson (2007), have proposed service quality as a multidimensional, higher order construct, with four overarching dimensions (interpersonal quality, technical quality, environment quality and administrative quality) and nine sub-dimensions that is they suggest that consumers assess service quality at a global level, a dimensional level and at a sub-dimensional (Oliveira-Cruz, Hanson and Mills 2001).

2.3 Conceptual Framework

Financial resources and how they influence service delivery in the Public health sector in Kenya (dependent variable- outcome) as shown in the schematic figure 2.1. Failure by hospital management to improve service quality by enhancing financial resources, improve technological investment, improving employees capacity and

adopting effective communication channels, service quality in the hospital will be of low standards affecting customer satisfactions and leading to negative customer perception on health service offered in the hospital (Sohail, 2003).Though there has been an attempt to improve the situation it seems not much has been achieved in raising the quality of service in public health institutions and this is compounded by limited information on the factors that ail the delivery of service quality in the public health sector in Kenya.

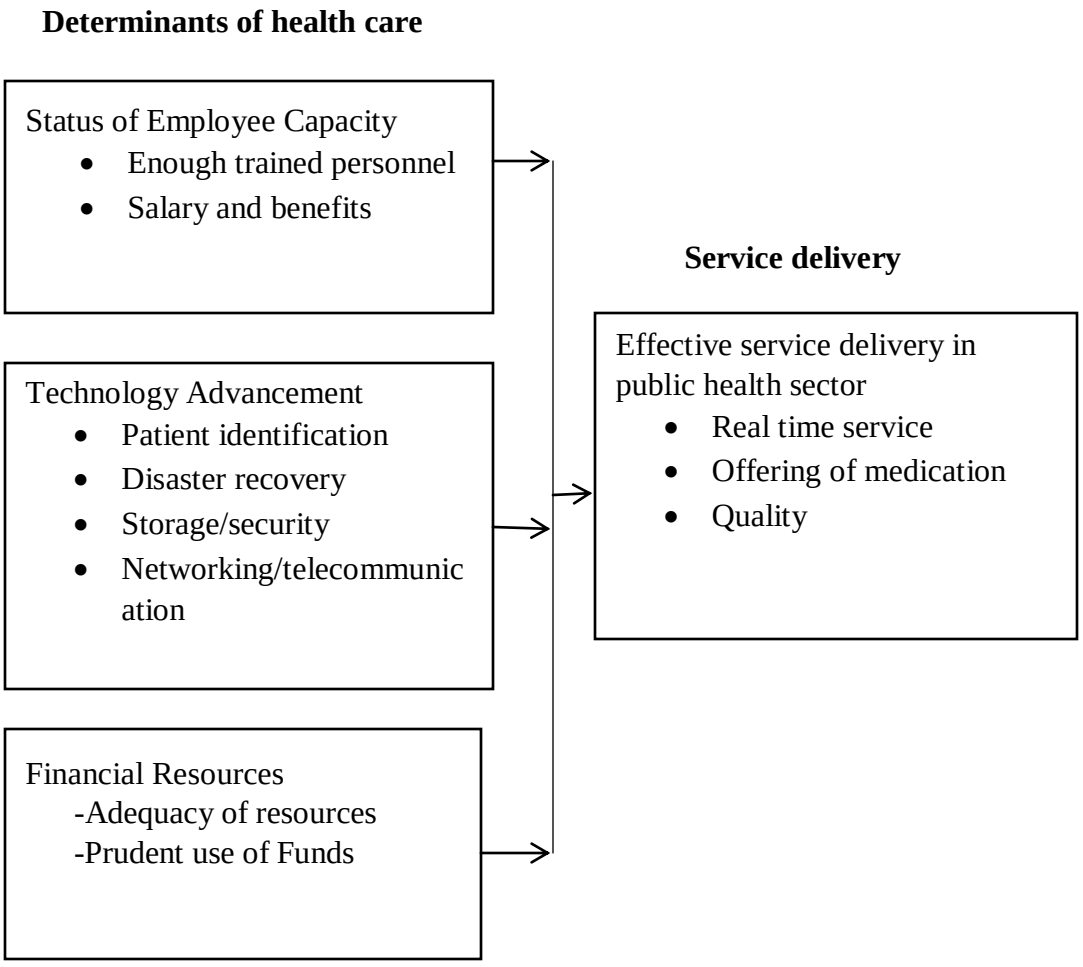


Figure 2.1: Conceptual Framework

2.4 Empirical review

The emergence of service quality and its assessment has attracted the attention of numerous researchers in the past two decades or so. In this sphere, there are two main lines of thoughts on measuring service quality (Kang and James, 2004): an American and a European perspective. Brady and Cronin (2001) suggest that the researchers generally adopt one of the two conceptualizations in their work. The focus on functional quality attributes is referred to as the American perspective of service quality while the European perspective suggests that service quality considers two more components.

The European perspective considers added aspects other than the process of service delivery. Gronroos (1984), for instance, noted that the quality of a service as perceived by customers consists of three dimensions: technical (the outcomes generated by the service to the customers), image (how the customers view the company) and functional (the process of service delivery to customers). Considering those dimensions, the quality of the service is dependent upon two variables: the expected service and the perceived service. More details of the previous argument are provided by Grönroos (1984).

Functional quality of a service is often assessed by measures of customers' attitudes as captured in customer satisfaction questionnaires. As described by Hayes (1997), the process of identifying customers' attitudes begins with determining customers'

requirements or quality dimensions. Parasuraman et al. (1985) identified in a first study 10 quality dimensions based on a series of focus group sessions. From this study, the authors concluded that customers use the same criteria to assess service quality independently of the type of service For Hayes (1997), however, some quality dimensions are generalized across many services, but some will apply only to specific types of services, and it is necessary to understand quality dimensions to be able to develop measures to assess them. The author explains then two ways of identifying important quality dimensions of services, quality dimension development approach and critical incident approach. The first one uses different sources of information, such as opinions of providers and literature.

The other one is a process to obtain information from customers. The ten determinants of service quality established by Parasuraman et al. (1985) provide a list that can guide investigation on the first approach. The authors subsequently developed Servqual (Parasuraman et al., 1988), a two-part instrument for measuring service quality that was refined later. Much of the research to date has focused on measuring service quality using this approach and its use has become quite widespread (Kang and James, 2004).

2.5 Summary and Gaps

Greater value is being placed on patient satisfaction Smith and Clark, (2008), however, despite the increasing focus on customer satisfaction; research into health

care patients 'perceptions of the dimensions of service quality is scarce. This can be problematic, as quality of care is an essential issue in health care services (Stover, 2005).The service quality dimensions in health care differ in number and dimensional structure from the widely adopted service quality dimensions first identified by Zeithaml (1988): reliability, responsiveness, assurance, empathy and tangibles. The service quality dimensions in health services include: reliability, tangibles, assurance, empathy, food, access, outcome, admission, discharge and responsiveness. In addition, health care patients perceive the service quality dimensions relating to the core product in health care delivery (for example, outcome and reliability) as more important than the service quality dimensions relating to the peripheral product in health care delivery for example food, access and tangibles (MacAuley, 2001).

According to Lee, Delene, Bunda and Kim (2000) patients with different geographic, demographic, and behaviouristic characteristics have different needs and wants during healthcare delivery and therefore perceive different service quality dimensions and factors that influence the delivery of health service differently based on their unique situations. Hence patients place emphasis on different quality dimensions and factors which they regard as important (Kara, Lonial, Tarim and Zaim, 2005).

Highly skilled physicians, nurses, administrators, and ancillary staff are critical to producing high-quality outcomes and effective service quality delivery. There is the challenge of selective hiring of qualified staff. Successful recruitment and retention of staff is tied to empowerment of staff that must be treated as full partners in the hospital operation and given opportunities for advancement. Technology for harnessing of Information and data play a critical role in service delivery in mission hospitals (Lee and Yoo, 2000).The study will be based on Parasuraman model (1985) provided a list of ten determinants of Customer service quality; access, communication, competence, courtesy, credibility, reliability, responsiveness, security, understanding and tangibles Investments in Technology that facilitate service assessment and improvement process is essential. The hospital must show four main commitments: willingness to invest in Information Technology; working with staff and others to customize an information system to meet specific needs and culture of the institution; nurturing and encouraging buy-in so that new systems will be utilized and their benefits realized; and devising Information Technology systems that provide real-time feedback to providers (Algılanan and Connor, 2003).

The service quality oriented public hospitals are marked by the depth and breadth of their management commitment. This is reflected in leadership that practiced as preached; willingness to invest in high-quality staff processes, and supportive tools; and institution-wide commitment to dig beneath surface measures to uncover causes of service delivery problems and to press relentlessly for solutions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This is a systematic model that enables the researcher to draw conclusions concerning casual relationships amongst the variables under investigation (Kothari, 2008). Further, Mugenda and Mugenda (2008), notes that a descriptive design can be used to collect information about people's attitudes, opinions or habits. They further note that descriptive design is used to allow researchers gather, present and interpret information for the purposes of clarification. This descriptive survey method was applied and used because it ensures complete description of the situation, making sure that there is minimum bias in the data collection (Kothari, 2008). A descriptive study will be concerned with finding out the what, where and how of a phenomenon. This design was considered good and suitable because it assists in collecting information from respondents on their attitudes, awareness and opinions in relation to the subject area.

3.2 Study Variables

The study sought to establish the determinants of healthcare services in Kenya with a keen focus to Nyamira County. Effective service delivery in public health sector is the dependent variable. It is indicated by real time service delivery, quality of medication and offering of medication. Employee capacity, technology adoption and financial allocation are the independent variables.

3.3 Site of the Study

According to Ellis (2008), research site is the specific place where the study is carried out and it influences the usefulness of the information produced. This study was conducted in the premises of the five health centers namely: Gesima, Mochenwa, Esani, Riamoni and Rigoma in Nyamira County.

3.4 Study Population

This is the whole batch of objects or people where the research wants to base their findings (Cooper and Schindler, 2008). Which is a vast list subjects, comprising the targeted mass, from an example taken (Mugenda and Mugenda, 2003). The mass based on the research comprises of 1406 patients , 260 healthcare givers (doctors, nurses, clinical officers, lab technologies and pharmacists), 7 county administrators and 7 elected leaders estimated at 1680 (Nyamira County medical registry, 2015).

3.5 Sampling Technique and Sample Size

Kombo and Tromp (2014) notes that, sampling procedure is the process of pinpointing objects or individuals from mass so that the selected group contains elements representative of characteristics found in the entire group. This research utilized stratified random sampling procedure, this procedure ensures the subgroups which are; health recipients, healthcare providers, county health administrators and elected leaders are well represented.

The study also used purposive sampling because the study targets specific persons like county executive member of health, head of nursing, chief operations officer and head of pharmacy who are key informants to the study. The researcher used the simplified formula put forward by Yamane (1967) to calculate sample size. The used formula will be presented below:

$$n = \frac{N}{1 + N (e)\ 2}$$

(Where n= sample size, N= population size and e=the level of precision (0.05). Therefore the desired sample size will be:

$$N = \frac{1680}{1 + 1680(0.05)2}$$

$$= 323$$

Table 3.1 Sample Size

Stratum	**Target**	**Sample**
Senior county officials	7	7
Elected county officials	7	7
Healthcare providers	260	38
Health recipients	1406	271
Total	**1,680**	**323**

Source; Researcher (2017)

Size is considered comprehensive, representative in the covering the research objectives, and economical in terms of money and time.

3.6 Research Instruments

This study depended on raw information gathered using questionnaires and a guided interview. Answers to the questionnaire were generated on a 5- point scale of measurement of strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. Questionnaires are helpful in gaining Intel unique to individuals, such as attitudes or knowledge also in maintaining participants' privacy because their responses can be anonymous. The questionnaires were personally administered with the help of 3 research assistants so as to meet the timelines. Key informant interviews were conducted for elected leaders, healthcare providers and senior county officials.

3.7 Pilot Study

In research, a pilot test, according to Kothari (2008), is the rehearsal and duplication of the major research and enlightens the ineffectiveness (if any) of the questionnaires and also the sampling techniques. The total number of respondents for the initial research should be between 9% -10% of the sample population (Gall & Borg, 2006). The researcher pilot tested 33 questionnaires to test their validly. The pilot test was done in the other hospitals not participating in the main study.

3.8 Validity

Validity is the measure to which experts and evidence supports the interpretations of the test scores. The researcher will use the validity of content. That is utilizing specific instruments to represent a particular domain. The instrument which was used this study was validated by having the questionnaire pre-tested, examined and approved by the researcher. Bryman and Bell (2013) suggested that the authenticity of the instrument is asking the appropriate questions framed from the less ambiguous way and based on research objectives.

3.9 Reliability

Reliability is defined and explained as the consistency of measurement, to which an instrument measures the same way each time it is used under the same condition with the same subject (Bryman, 2013). Cronbach alpha, a degree of internal consistency, is utilized to test internal reliability of the measurement instrument.

$$\propto = \frac{N.\bar{C}}{\bar{V}+(N-1).\bar{C}}$$

Where N is equivalent to the number of items, $\bar{C}$ is the average inter-item covariance among the items and $\bar{V}$ equals the average variance.

The better the outcome, the more sufficient the developed scale is. Bryman and Bell (2013) indicated that a Cronbach's apha of 0.7 is an acceptable reliability. According to the information gathered from the pilot test, the questionnaire was improved and a better one administered. In this study, a Cronbach's Apha of 0.7 was considered acceptable reliability.

3.10 Data Collection

The questionnaires were personally handed out by the analyst with the help of three research assistants. The researcher explained the intent of the study to the respondents before administering the questionnaires. After administration the respondents were given enough time to respond to the questionnaire and then the questionnaires was picked later. This approach was effective because it reduced potential non-response bias through increased response rate. Interviews were also conducted accordingly and fairly. The interview schedules were open ended questions which clearly addressed the research objectives. The respondents were first informed about the goals and purpose of the research. Permission to collect information was sought from Ministry of Health, Nyamira County Government and the National Commission for Science Technology and Innovation, Data was collected within one month.

3.11 Data Analysis

Information gathered by questionnaires was analyzed, organized and coded by a computer to reduce the number of Intel gathered into one form for analysis. The edited information was organized by the Statistical Package for Social Science Programme (SPSS) Version 24. Use of descriptive and inferential statistics was utilized to analyze data. Descriptive statistics, the study used frequencies, percentages, mean and standard deviation.

Analyzed information was then presented in tables and figures. Regression analysis was the major inferential statistics used. The relationship between the variables is modeled by use of the following equation:

$Y=\beta 0 + \beta 1X1+ \beta 2X2+ \beta 3X3 + \varepsilon$

Whereby; Y = Effective healthcare service delivery

B0 = Constant

$B_1$to β_3 = Regression coefficients

X_1 = Employee capacity

X_2 = Technology advancement

X_3 = Financial resource allocation

ε = Error term

Data research was utilized to analyze qualitative data whereby key issues raised by respondents on open ended questions were recorded. Qualitative study findings were presented in prose and in verbatim.

3.12 Data Management and Ethical Considerations

Moral values that are concerned with the measure in which procedures adhere to legal, social and professional obligations to the study subject (Polit & Hungler,2000). Analysts obtained consent from any respondent used and reassure the recipients that the data given will strictly be used for academic purposes. The researcher sought written consent from Kenyatta University, National Council of Science Technology and Innovation (NACOSTI) and Nyamira County Government.

The study respected and honored all guarantees of privacy, confidentiality and anonymity in carrying out analysis. Information gathered was carefully analyzed and deliberated so as to assure appropriate management of information. A written form of confidentiality, anonymity and guarantee of privacy was used, where respondents signed to affirm that he or she accepts to participate in the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSIONS

4.1 Response rate and reliability test

The research sampled 50 respondents from the targeted population of 1680 by the use of questionnaires and the response rate was 85% returned the questionnaires while 15% did not.

In testing reliability the data collecting instruments in this case the (questionnaires) the sample of 50 participated in the research. The data collected was tested for reliability by Cronbach's alpha, which is a measure of internal consistency if an item inside a scale is capable of measuring of measuring an idea. The critical value was set at 0.7 by (Gliem and Gliem, 2003).The value was used to benchmark the results. Each study objective was assigned a value measuring scale. From the conclusions the valuables were reliable and exceeded the prescribed threshold.

This chapter interprets the data collected, in line with the research topic. Guided by the objectives the collective responses of the participants were summarized and presented as frequencies and percentages in charts.

4.2 The distribution of the respondents

The figure below shows the distribution of the respondents for the study;

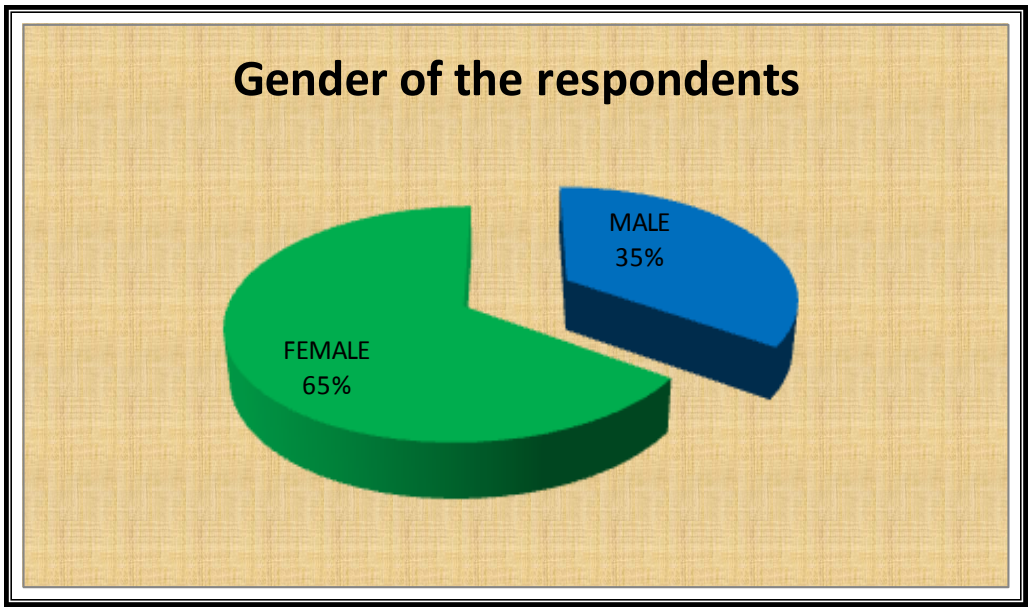


Figure 4.1: The gender distribution of respondents

Source: Research Findings

According to figure 1 above, majority (65%) of the respondents were female while 35% were male. In light of the above, the participants were asked to indicate their age estimate. Figure 2 below presents the estimated number of the respondents according to the respondents.

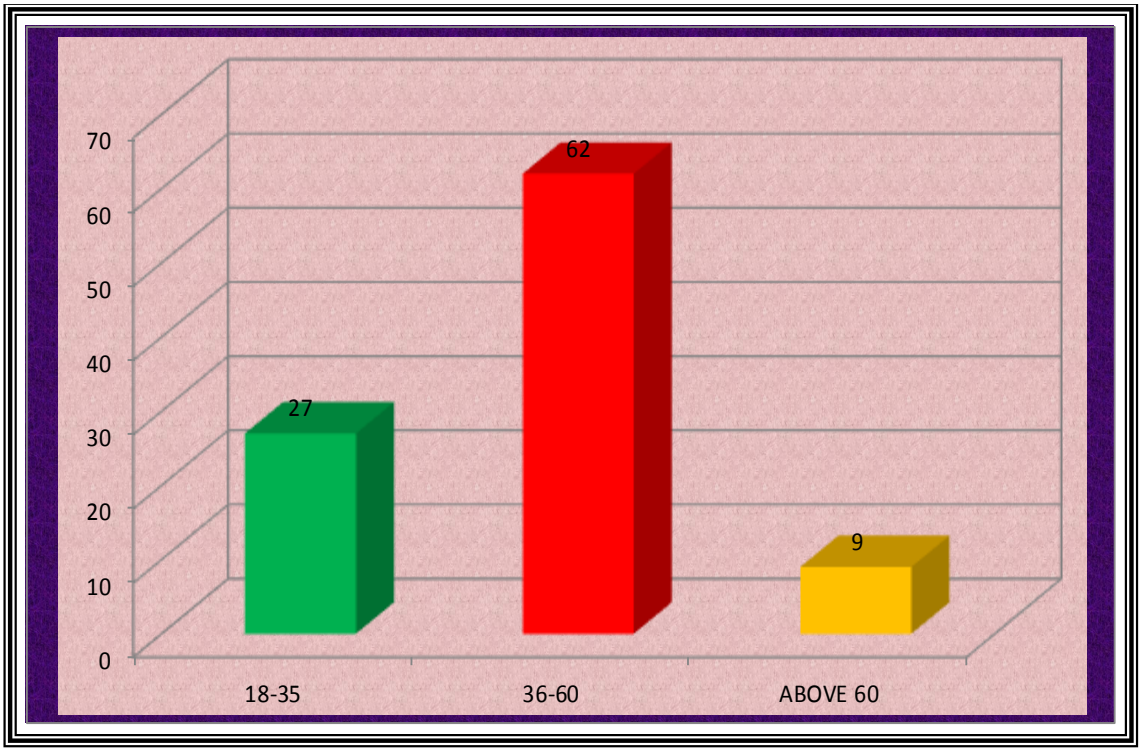


Figure 4.2: The Age distribution of the respondents

Source: Research Findings

As indicated in the Figure 2 above, more than 67% of the respondents were of between 36-60 years of age of which is indicative that majority of the respondents were beyond the youth bracket. While 27% were of 18-35 years of age, which is indicate that only few youths were employed in the health facilities. Additionally, 9% of the respondents were of 60 years and above. This is because the retirement age of both national and county government civil servants is at 60. Those who were beyond 60 years had been hired by the county government to assist in health provision, to fill the gap ratio of health providers per patient.

On further, probing the level of education of the respondents their responses varied as shown in figure 3 below.

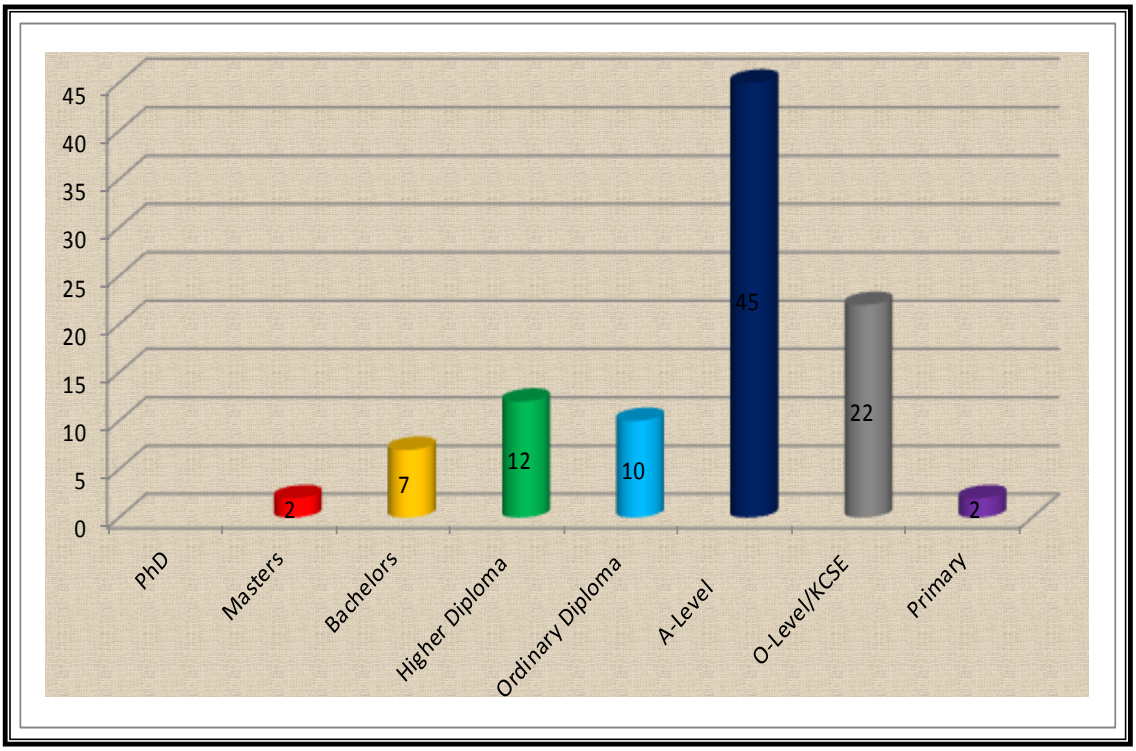


Figure 4.3: The education level of the respondents

Source: Research Findings

According to the figure above, majority (45%) of the respondents, their highest level of education was A-Level; 22% had attained O-Level/KCSE, 12% had attained higher diploma. Additionally, 7% had bachelor degree, with 2% having master's degree and primary level of education. The highest number of A-Level graduates has a direct correlation to the highest number of the respondents who were of between

36-60 years of age in figure 2. The A-Levels was a kind of education that required specialization in either arts or sciences.

This led to being admitted into the University Sciences or arts if one passed. This is interpreted to mean that most of the respondents did not make it to university so they had to pursue diploma or a higher diploma in medical courses. The respondents were further probed on the quality of healthcare provision by public health facilities in the county and their responses varied as shown in figure 4 below:

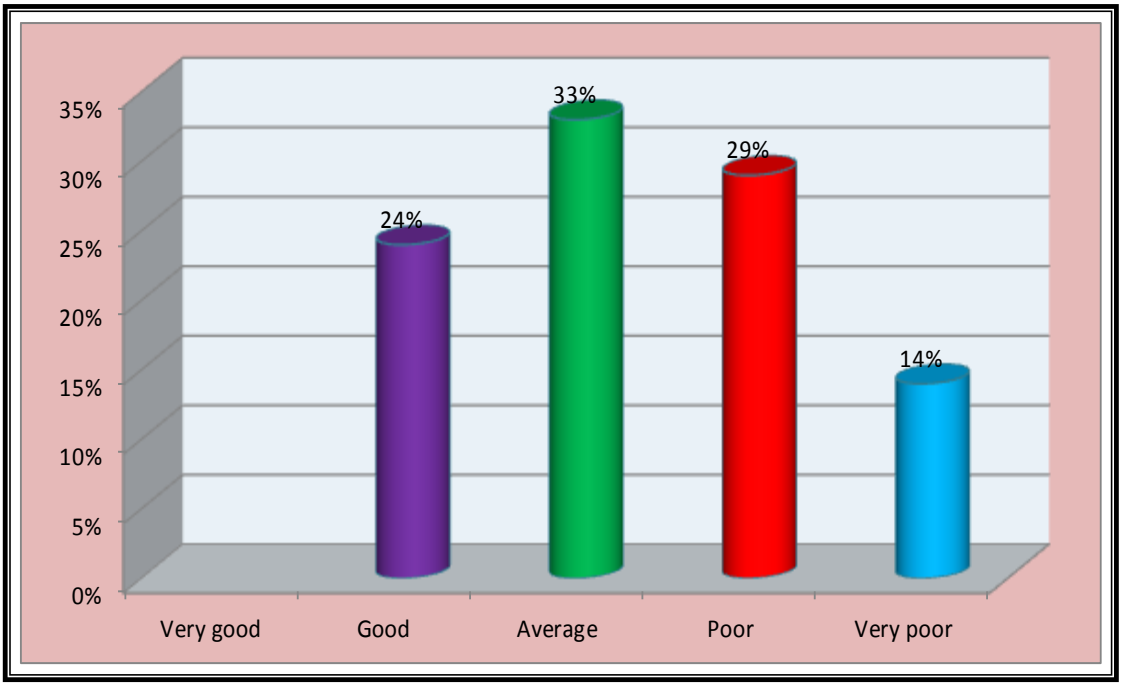


Figure 4.4: Respondents perception on the quality healthcare provision by public health facilities in the county.

Source: Research Findings

According to the figure 4, majority (33%) of the respondents were emphatic that the quality of healthcare provision by the public hospitals in the county had improved. *Respondent 3, pointed out that this was a result of the devolved system of governance of which has seen devolution of healthcare services*. This has resulted to improve healthcare as health provision has been brought closer to the citizens as was noted by 24% of the respondents.

Nonetheless, 29% of the respondents were of contrary opinion that there existed poor services. Some of the respondents attributed this to the fact devolution was still at a nascent stage and the county government was struggling to stabilise the healthcare. They added that this has also been as a result of intermittent strikes by healthcare providers in the public hospitals. Nonetheless, one of the respondents noted that this was a result of push and pull between the county governments and the national government. This has often led to delay of disbursement of funds by the national government to counties thus paralysing service provision by the county governments. The existence of such tussle between the national and county government greatly influenced the respondents view on the quality of healthcare provision. Therefore, 14% of the respondents were of the view that the qualities of healthcare in public health facilities are very poor. *Respondent 12, even noted that during the strikes patients often die in the waiting bay without being attendedto*.

Some of the respondents were even of the opinion that healthcare should not be devolved because since its devolution the referral hospitals and other public facilities have been facing different woes in terms of their operations.

4.3 Employee capacity and quality of healthcare services

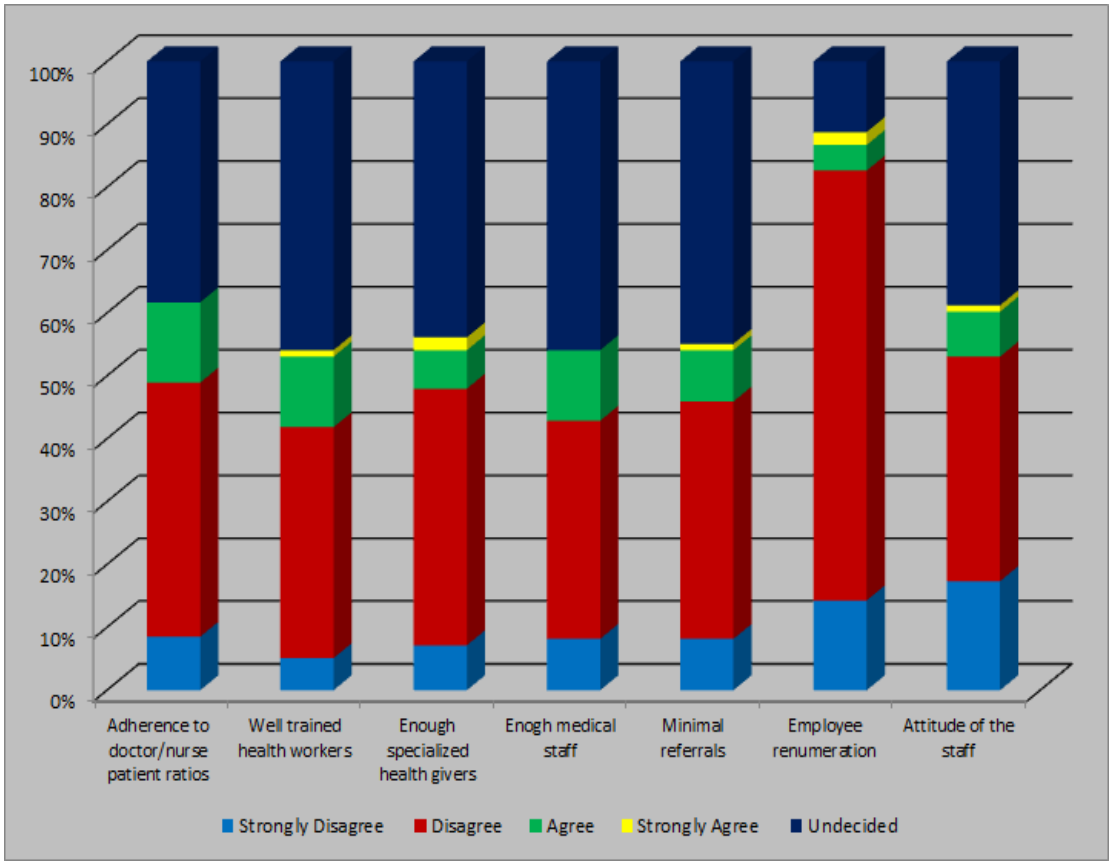


Figure 4.5: Perception of respondents on employee capacity and quality of healthcare services

Source: Research Findings

Of the respondents reached, 70% were disagreed with the perception that the employee capacity and quality of healthcare services in facilities run by Nyamira County Government were substandard. They were of the opinion that remuneration of the staff has no direct relations with the capacity and quality of health care services. A total of 50% were of the view that the Nyamira County Government health officials had negative attitudes of which would make them recommend the facilities to other people. According to a total 45% of the respondents noted that the County government facilities do not adhere to the recommended doctor/nurse patient ratios. However, 15% acknowledged there existence of adherence to doctor/ nurse patient ratios in the hospitals. While a total of 43% of the respondents cited that Nyamira County health centres did not have enough specialized healthcare givers to attend to specific health issues. Equally, a total of 40% of the respondents disagreed that Nyamira County health centres have enough medical staff to reduce the waiting duration to be attended and that there are minimal referrals from Nyamira County health facilities to the national health facilities due to adequate staff. On the contrary, 12% of the respondents acknowledged that there is enough medical staff to reduce the waiting duration to be attended.

Additionally, according to the figure 4 above, a great number of the respondents were undecided and did not answer some the questions either citing they were not privy to such information or were not interested. Nonetheless, the respondents were further probed on matters relating to technology advancement and quality of

healthcare services in facilities run by Nyamira County Government. The responses by the respondents varied as shown in figure 5 below;

4.4 Technology advancement and quality of healthcare services

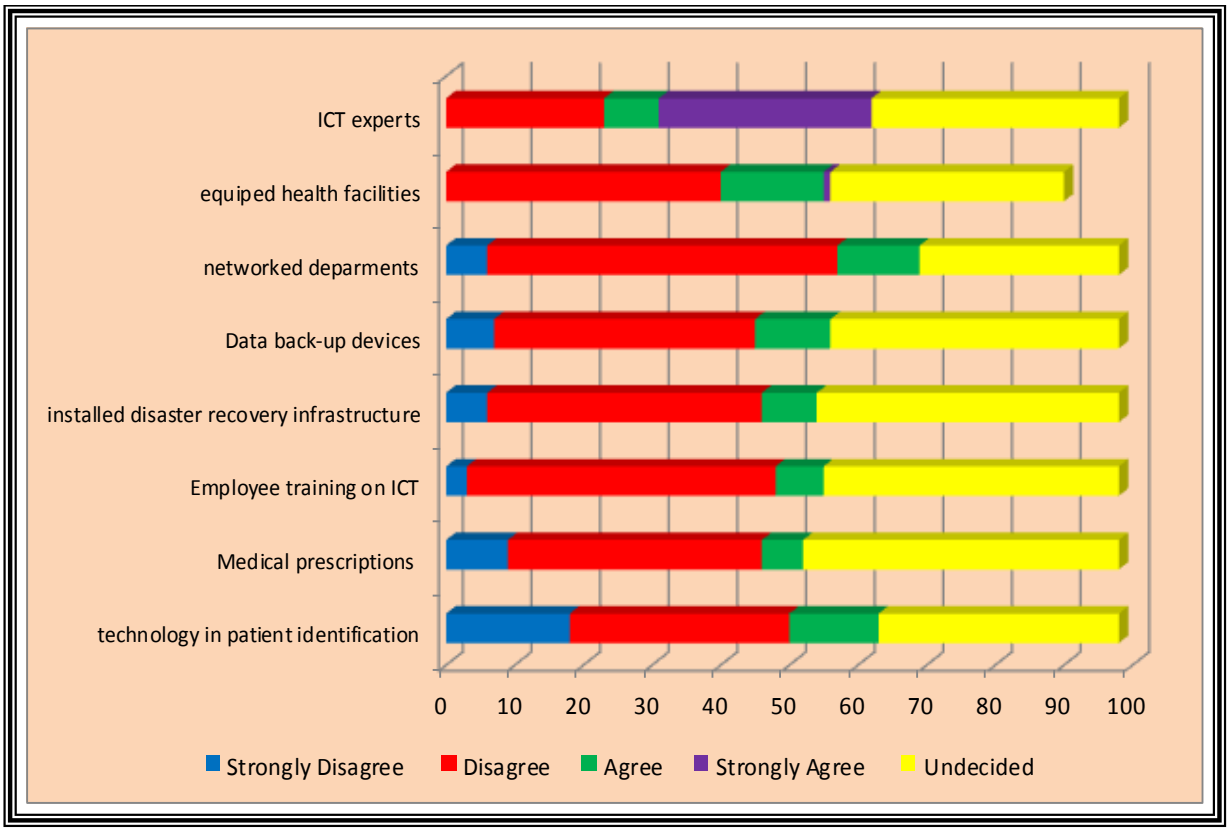


Figure 4.6: Technology advancement and quality of healthcare services in health facilities

Source: Research Findings

A total of 55% of the respondents disagreed with the view that Departments within health facilities have been networked to enable information sharing and reduce paper work. While a total of 50% of the respondents disagreed with the perception that

Health centres in the County have embraced technology in patient identification. One of the reasons for this as was cited by respondent N20, that most of the facilities lacked sources of power and most of the machines required sources of energy. Surprisingly, 12% pointed out that technology has been integrated in identification of the patients. Responding to the question as to whether the employees had been trained on ICT, a total of 45% of the respondents noted that the employees had not been trained. Further, a total of 43% of respondents noted that the health centres have installed disaster recovery infrastructure as a disaster/risk mitigation strategy in any case of eventuality. While a total of 42% of the respondents cited that data back-up devices have not been acquired by many health centres in the County. *Respondent 10, cited Riamoni Health centre by having machines but no personnel to manage them.*

According to the figure above, 40% of the respondents disagreed with the view that Health facilities in Nyamira County are well equipped in terms of laboratories, storage of drugs, computers, X-Ray machines, CT Scan machines, Ultra Sound etc. This could be an explanation to the earlier view why some of the respondents noting that they would not recommend county hospitals to others. Nonetheless, they were of the opinion that technology advancement though had not been fully implemented by the county government but there is progress to purchase more machines. Even though 21% of the respondents were of the opinion that the ICT departments are not operated by full time ICT experts, a total of 39% of the respondents were of the

contrary opinion and they noted that they were operated by ICT experts. The former as was noted by respondent N15, was attributed to lack of human capital. In light of the figure, it is also clear that a great number of the respondents were undecided either because they did no comprehend the benefits of ICT considering fact that majority of the respondents were of the age bracket 36-60 years.

4.5 Financial resources and quality of healthcare services in facilities

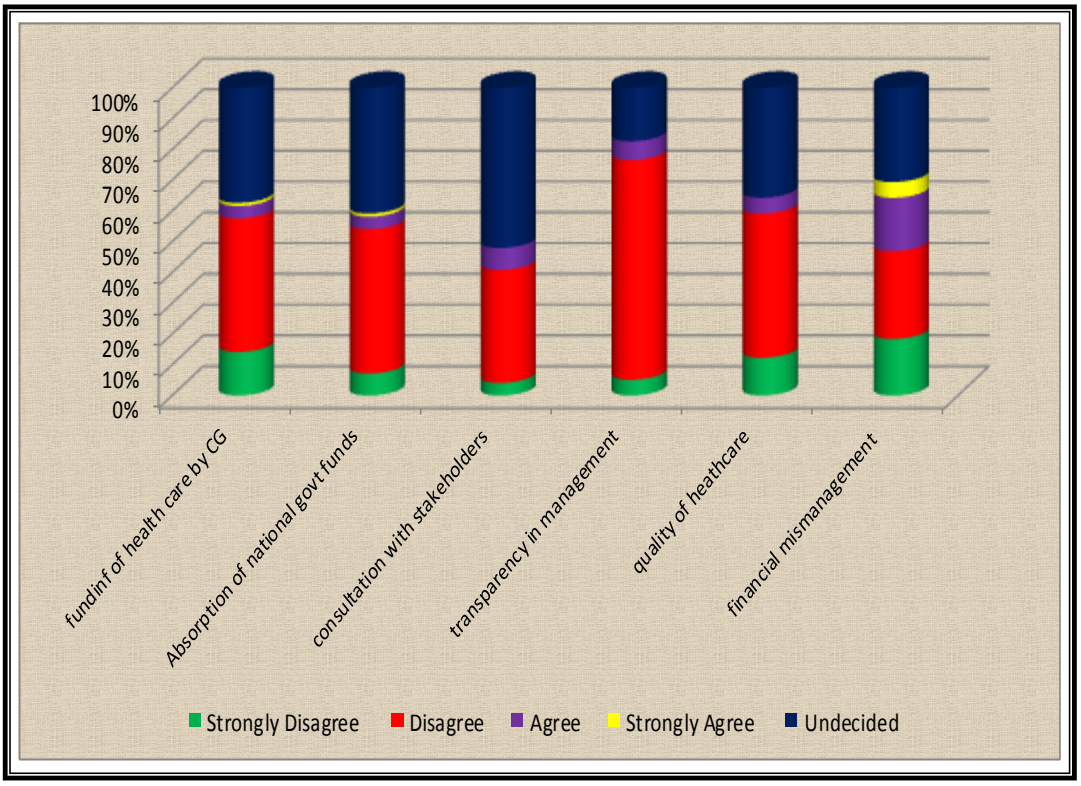


Figure 4.7: Percentage response on Adequacy of financial resources and quality of healthcare services in facilities

Source: Research Findings

According to the figure above, a total of 70% of the respondents were of the view that Managers of health centres in Nyamira County have not managed the resources prudently and that there was lack of transparency in most areas of the health facilities. Equally, a total of 60% of the respondents cited that the County Government of Nyamira have not allocated adequate financial resources in every financial year towards provision of healthcare. Therefore, 60% of the respondents noted that this had led to low quality of services despite being charged for the services.

Nonetheless, a total of 50% of the respondents were emphatic that funds that have been allocated by the national government to ensure effective running of health facilities in the County has not been effectively utilised and that in some scenarios there is always misappropriation of funds. Respondent N23, noting this cited that the intermittent strikes by healthcare providers in the public health facilities are a pointer that there is lack of funding by both national and county government. However, he was quick to point out that it could be a deliberate attempt by the national government to paralyse the devolved healthcare so that it remains under the national government. However, respondent 26, was of contrary opinion. He noted that issues of corruption are to be blamed for the prolific healthcare providers' strikes and not the tussle between the two forms of governments.

On the other hand, a total of 40% and 32% of the respondents disagreed with the opinion that Health facilities in Nyamira County have recorded many financial mismanagement and misappropriation cases and that consultations between the county government and other stakeholders have ensured adequate allocation of resources for healthcare at County level respectively. The former scenario is as a recent of the devolved heath care system of which at least improved provision of health care services. This at least has led to a little improvement of health facilities in terms of infrastructure and human capital. Further probing of the respondents indicated that there was varied responses regarding the effectiveness of Nyamira County in the provision of outpatient healthcare services as shown in figure 8 below.

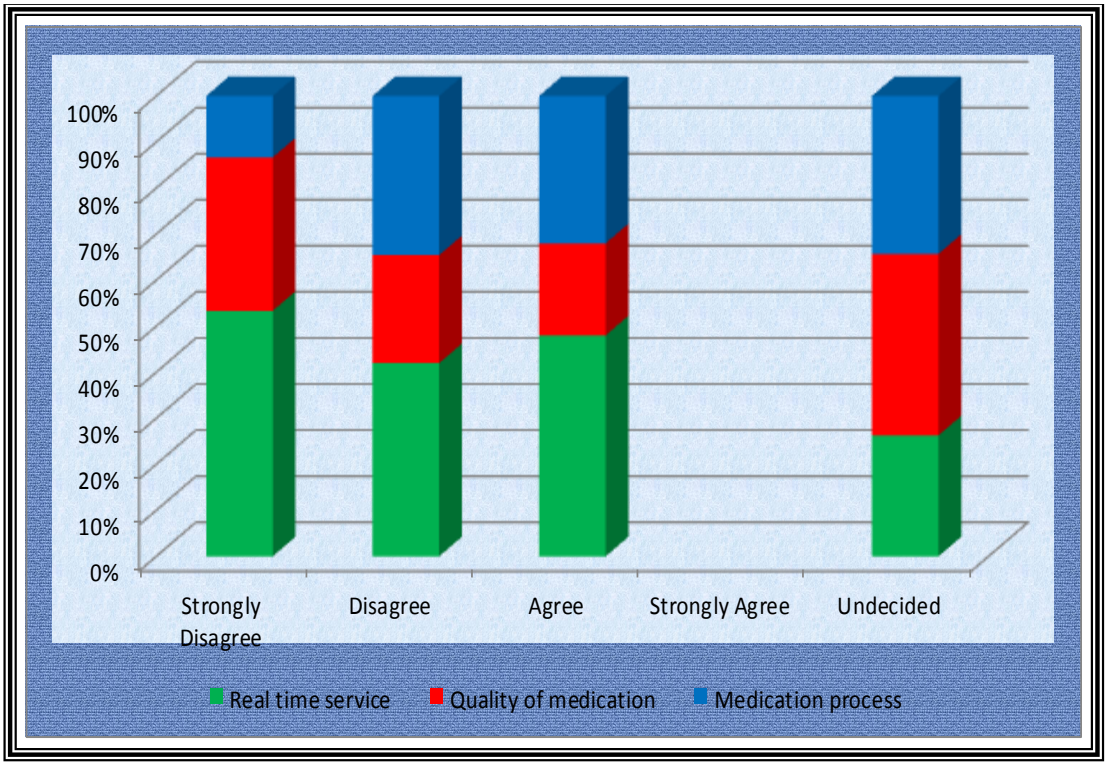


Figure 4.8: The percentage of response on the effectiveness of Nyamira County in the provision of outpatient healthcare services

Source: Research Findings

As seen from the figure provided 50% of the respondents, strongly disagreed that there was no real time service provided by the health facilities in the county. Respondent 30, *even notedthat at times patients wait for very long before they could be attended to*. At the same time, 32% of the respondents strongly disagreed with the view that there were quality medication in the health facilities in the county. As shown in the figure above, 39% of the respondents though were not emphatic on the existence of real time services but acknowledge there was some disorientation within the health facilities in terms of provision of real time services.

On the contrary, 42% of the respondents were in agreement that real time service were available in health facilities. Despite this, an average of 42% of the respondents noted there is poor medication with 42% of the respondents noting a contrary opinion that at least there existed medication process even though it is not well defined and comprehensive enough in most health facilities in the County.

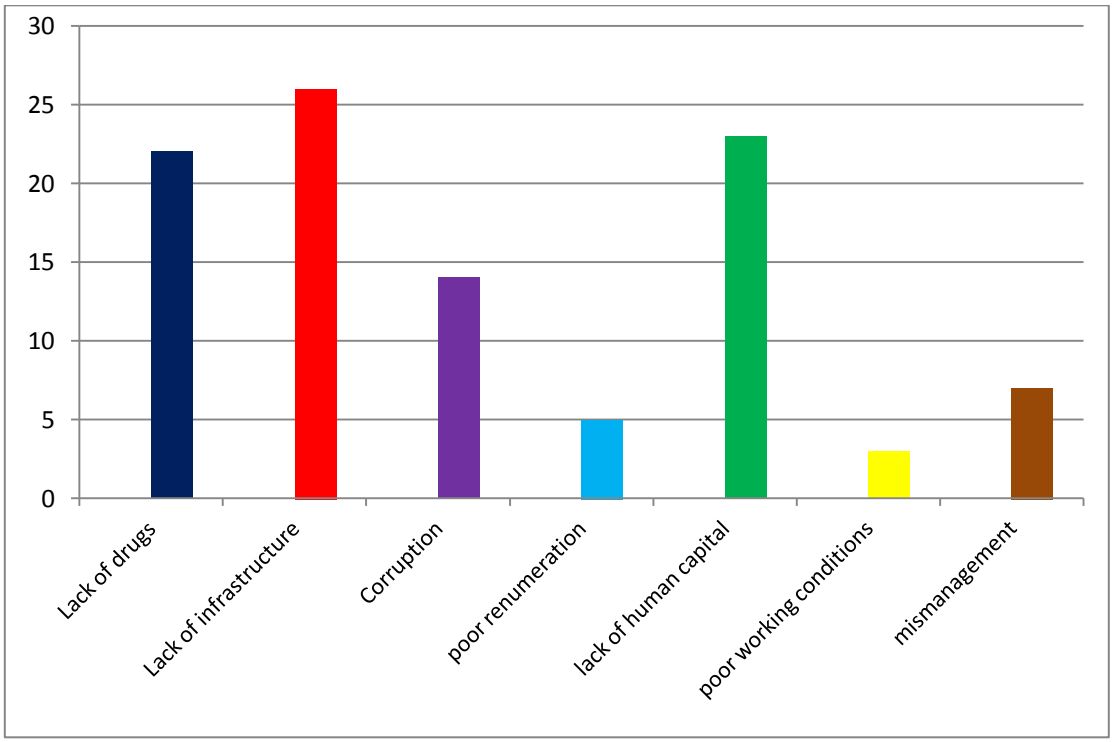


Figure 4.9: Challenges faced by health facilities in Nyamira County

Source: Research Findings

The figure above shows the challenges that are faced with public health facilities. According to 28% of the respondents was of the view that lack of infrastructure is the greatest challenge to health facilities in the county. While 23% of the respondents indicated that most of the hospitals lack drugs.

They were emphatic that this was as a result of corruption. Nonetheless, 24% of the respondents cited that most of the health facilities were understaffed and this often affected their effectiveness in terms of emergency responses.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of findings

5.1.1 Status of employee capacity

The study established that employee capacity in the health centres highly influenced service delivery since lack of trained staff led to poor service provision. Further the study established that motivation of health workers in the health centres through proper remuneration greatly improved health care service delivery.

Staff remuneration was also linked with capacity and quality capacity of health care services but attitude and hard work of health workers was found to be more appealing.

It was also established that most of the respondents would not recommend the health care services of Health Centres in Nyamira County to other people, mainly because of the negative attitude of health workers.

It was also established that Doctor-Nurse-patient ratio were not adhered, long queues in most of the health Centres were seen hence compromising timely service delivery. Health workers strikes in Nyamira county was also established as the cause of poor service delivery. The strikes are brought about by the delays in salary and allowances payment leading to low staff morale.

Unhygienic and unconducive environment was also cited as one of the many reasons why health workers in Nyamira County are highly demoralized. Most of the workers fear of contracting communicable diseases.

5.1.2 Technology advancement and provision quality of health care services

From the findings of this study it was established that although the health centres have been networked information sharing was still poor and paper work still common.

Lack of power was also cited as the reasons why most Health centres have not fully utilized the machines which have been bought leading to poor service provision in most health centres but 12 percent pointed out that technology has been integrated in identification of the patients.

It was also established that employees have not been trained on ICT as it was cited by 45 percent of the respondents.

Many Health centres were found not to have installed back-up devices hence compromising the security of data.

It was also found that although health centres have X-Ray and CT Scan machines ,they lacked the ICT experts to operate them hence respondents would not see the benefits of the machines.

5.1.3 Financial resources and provision quality of health care services in facilities

The findings established that most managers of health centres have not managed the resources properly and there was lack of transparency in most areas of health centres. Resource allocation by Nyamira county government was also found to be inadequate hence service delivery was been hampered despite residents being charged for the services**.**

50 % of the respondents were empathic that resources been allocated by the national government to the county to run the facilities are poorly managed and in some areas misappropriated.

It was established that intermitted strikes by health workers in public health centres in Nyamira County was a pointer that there was lack of proper funding from both National and County governments.

Health facilities in Nyamira County have recorded many financial mismanagement and misappropriation cases and that consultations between the county government and other stakeholders have ensured adequate allocation of resources for healthcare at County level respectively. The former scenario is as a recent of the devolved heath care system of which at least improved provision of health care services.

This at least has led to a little improvement of health facilities in terms of infrastructure and human capital.

5.2 Conclusions

5.2.1 Status of employee capacity

Based on objective one, which sought to determine the influence of employees' capacity status on service delivery in health Centers in Nyamira County. The study concluded that quality of healthcare provision by the public hospitals in the county had improved.

The study also concluded that the health workers especially nurses should be properly remunerated since they handle a lot of patients so that they can be motivated hence serve patients well. Better paid staff always over the best services.

The negative attitude of health workers was concluded to be the reason behind the respondents not recommending other people to attend most health centres in Nyamira County.

It was concluded that poor working conditions were the reasons why health workers in Nyamira County were offering poor services.

Conclusions were drawn that the low doctor/nurse/patient ratio was also not being addressed by the county governments thus hindering better health care services to residents.

5.2.2 Technology advancement and quality of health care services

Based on objective two on the effect of technology advancement on service delivery in health Centers in Nyamira County. The study concluded that departments within health facilities have been networked to enable information sharing and reduce paper work, especially in capturing patient's details and issuance of drugs,

The study also concluded that most health centres have power and machines and are now offering laboratory services.

The manner in which the county is managing ICT services it was concluded that their no data back-ups and ICT experts.

5.2.3 Financial resources and quality of health care services in facilities

The study concluded Managers of health centres in Nyamira County have not managed the resources prudently and that there was lack of transparency in most areas of the health facilities, mainly in the purchase of drugs and payment of guards, cleaners and others subordinates.

The study also concluded that the county government had failed to pay their health workers mainly because of misappropriation of funds and not putting the priorities right leading to several strikes by health workers.

Further conclusions were drawn that the county government of Nyamira have not set aside enough funds to promote health care services in the health centres.

5.3 Recommendations for policy implications

5.3.1 Status of employee capacity

Policy should be enacted to provide proper regulations of managing health staff. The county government should heavily invest on training staff so as to increase their capacity to perform.

The Nyamira county government should create good relationship with other counties so as to have an exchange program of health care workers.

The county government of should also set aside a kitty for salary payment of all health workers in future so as to prevent future occurrence of strikes.

5.3.2 Technology advancement and quality of health care services

The county government should enact laws which will make use technology mandatory in all areas of operations in all Health centres in Nyamira County.

The County government should buy new machines and equip all laboratories in all health centres so as to improve service delivery and prevent many communicable diseases.

All health care staff should be trained on how to operate the machines and safety precautions to avoid wastage of public funds through idle lying of health equipments**.**

5.3.3 Financial resources and quality of health care services in facilities

The health docket in Nyamira County should enact health finance law which will have clear guidelines on how to manage funds allocated for health.

Corrupt individuals should be arrested, prosecuted and their properties recovered so that it will act as future deterrence to others.

Resource allocation to the health sector should be increased so as service delivery can be improved in all Health centres in Nyamira County.

5.4 Recommendations for further research

The main focus of this study was to look at the determinants of health care services in health centres in Nyamira County. The variables were limited to three, employee capacity, Technology and financial management. Opinion was given that further research should be done basically on the importance of improving health care services by recruiting competent and qualified staff. Studies should be carried out to interrogate the extent of competency in networking of health centers. Research should be carried out on how to curb corruption in relation to health funding.

REFERENCES

Academy for Educational Development (2003). *The Health Sector Human Resource Crisis in Africa: An Issues Paper. Support for Research in Africa*, U.S. Agency for International Development, Washington, DC.

Africa Medical Research Foundation (1995). *Non-Governmental health care Provision' Data for decision making project*. Kenya.

Andersn, T.W. (2003). An Introduction to Multivariate Statistical Analysis. New York: John Wiley. Application in Market Analysis and Strategy Development, *Journal of Health Care*, 3 (7): 103-178.

Argote, L. (2000).*Organizational Learning: Creating, Retaining, and Transferring Knowledge* .New York, Springer.

Arhin-Tenkorang, D. (2000). *Mobilizing Resources for Health: The Case for User Fees Revisited. Commission on Macroeconomics and Health, World Health Organization*. Geneva.

Baldrige, C.(2003). *Health Care Criteria for Performance Excellence, National Institute of Standards and Technology*. United States: Department of Commerce.

Bebko, C. (2001). Service encounter problems: Which service providers are more likely to be blamed?" *Journal of Services Marketing*, 4, 58-96.

Boshoff, C. & Gray, B. (2004). *The Relationship between Service Quality, Customer Satisfaction and Buying Intentions in the Private Hospital Industry". South African, Journal of Business Management, Vol.35 (4), pp. 27-37*

Becher E. C. & Chassin M. R. (2001). *Improving the Quality of Health Care: Who Will Lead? Health Affairs, 164-179.*

Brown, J. S. & Duguid, P. (2003) .*Organizational learning and communities-of-practice:* Butterworth-Heinemann, Amsterdam.

Bryman,. & Bell, E.(2003).*Business Research Methods*. New York: Oxford.

COHEN, W. M. and LEVINTHAL, L.A. 1990. Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(1): 128 – 152.

Chiu, H-C.(2002). A study on the cognitive and affective components of service quality. *Total Quality Management*, 13(2):265-274.

Coulthard, L. (2004). "*Measuring Service Quality. A Review and Critique of Research Using Servqual International Journal of Market Research, Vol. 46(4), pp. 479-497*

Choi, K.S., Lee, H., Kim, C., & Lee, S. (2008). Service Quality Dimensions and Patient Satisfaction Relationships in South Korean: Comparisons across Gender, Age, and Types of Service, *Journal of Services Marketing*, 19 (3):140-149.

Cooper, D. R. & Schindler P. S. (2008). *International Edition: Business Research Methods*. 8Th (Ed). New Delhi; MacGraw-Hill.

Demirel, Y., Yoldas, M.A. & Divanoglu, S.U. (2009). *The determinants of service quality satisfiers and dissatisfies. International Journal of Service. Industrial .Manage. Vol 6(5), pp. 353-71*

Dagger, T.S, Sweeney, J.C. & Johnson, L.W. (2007). A hierarchical model of health encounters: the influence of the service provider". *International Journal of Service Industry Management.* 3,56-68.

Dutton, J. M., Starbuck, W. H. & Krippendorff, K. (2002). Diffusion of intellectual technology. *Communication andControl in Society*. *Gordon & Breach Science*, 45, 489-511.

Edvardsson, B. (2005). Guru's view. Service quality: beyond cognitive assessment. Intentions, *Journal of Travel Research*, 42, 397-40

Ennis, K. & Harrington, D., (2001). Quality Management in Iris Healthcare. *The Service Industries Journal,* 21(1), 149-168.

Esamai, A. Wasunna, F. Were, B. Ogutu, A. Wamae, (2004*). An Evaluation of Inpatient Paediatric Care in First Referral Level Hospitals in 13 Sub-Countys in Kenya. Lancet 363 (9425): 1948–53.*

Friedman, J. N. & Kelman, J. J. (2006). *Public Sector Incentives and Inertial Effort*, *Harvard University, Cambridge,MA: Working paper. from:http://www.who.int/workforcealliance/media/KeyMessages_3GF.pdf.*

Gyani, J. G. (2010), *Hospital accreditation in India Standardizing healthcare, retrievedfrom14)http://findarticles.com/p/articles/mi_m0843/is_n5_v15/ai_8134799/pg_2/?tag=content;col115)http://www.asianhhm.com/Knowledge_bank/articles/healthcare_accreditations_india.htm 16)JCI (nd), JCI success stories, retrieved from , http://www.jointcommissioninternational.org/JCI Success Stories/*

Glied, S.(2000). *Managed Care. In Handbook of Health Economics,* 1st*(Ed). .J.P.New house and A. J. Culyer. Amsterdam: Elsevier*

Gremler, D.D. & Gwinner, Kp.(2000), «*Customer-Employee Rapport In Service Relationships», Journal Of Service Research,Vol.3 No.1,P .32.*

Hayes, B.E, (1997).*Measuring customer satisfaction .survey design, use, and statistical analysis methods.* Milwaukee, *WI: ASQ Quality Press. http://www.who.int/topics/health_services/en/ improvement: priorities and policy options .IPAR WR No Institute for Public Policy Research and Analysis. 08/97. Nairobi: Kenya.*

Irving, P.& Dickson, D. (2004). Empathy: towards a conceptual framework for health professionals. *International Journal of Health Care Quality Assuranc*e,17(5):212-20.

Jain S. K., & Gupta, G. (2004).Measuring Service Quality: SERVQUAL vs. SERVPERF.

Jabnoun, N. , Chacker, M. (2003). 'Comparing the quality of private and public hospitals'. *Managing Service Quality*. *13,* 4, 290-299 *Google Scholar.*

Kandampully, J. & Butler, L. (2001). Service guarantees: A strategic mechanism to minimize customers' perceived risk in service organizations. *Managing Service Quality,* 11(1):112-121.

Kara, A., Lonial, S., Tarim, M. & Zaim, S. (2005). *A paradox of service quality in Turkey, The seemingly contradictory relative importance of tangible and intangible determinants of service quality. European Business Review.* 17,(1), 15 – 20.

Kang, G. D., James, J.& Alexandris K (2002), Measurement of internal service quality: Application of the Servqual battery to internal service quality. *Managing Service Quality,* 12 (5):278-91.

Kilbourne W, E, Duffy J. A & Duffy, M,,Giarchi, G. (2004). The applicability of Servqual in cross-national measurements of health-care quality. *Journal of Service Quality*. *Mark.* 18(7): 524-33.

Kimalu, P.K. (2002). *Healthcare in Kenya. World Institute for Development Economic Research:* Discussion Paper No 2002/65, United Nations: University.

Kimenyi M.S (2002).*Predicting household poverty: A methodological note with Kenya example*.KIPPRA *Discussion Paper No.12. Nairobi, Institute for Public Policy Research and Analysis.*

Kotler, P. & Armstrong, G. (2010). *Principles of marketing. Global and Southern African perspectives. Cape Town, Prentice Hall*.

Kombo, D. K. & Tromp, D. L. A., (2014). *Proposal and thesis writing: An introduction.* Nairobi: Paulines Publications Africa.

Kothari, C. (2008). *Research Methodology; Methods and Techniques*: New Delhi, New age International Publishers.

Lee H, Delene LM, Bunda MA& Kim C (2000). Methods of measuring health-care service quality. *Journal of Business Research*, 48:233-46.

Lee, H., Lee, Y.,& Yoo, D. (2000). The Determinants of Perceived Service Quality and its Relationship with Satisfaction, *Journal of Service Marketing*, 14(3):217- 231.

Lim PC, Tang NKH (2000). A study of patients' expectations and satisfaction in Singapore Hospitals. *International Journal of Health Care*.13 (7): 290-299.

Liu Y, et al. (2005). *Phylogenomic analyses support the monophyly of Taphrinomycotina, including Schizosaccharomyces fission yeasts.* Mol Biol Evol *26(1):27-34.*

MacAuley, R. (2001). A Modern Paradigm for Improving Healthcare Quality: Bethesda, management', J. Interactive Marketing: Carnegie Mellon University, Pittsburgh, *PA Managing Service Quality*, 15(2):127-131.

Marilyn, S. , & Goes,T.(2013).*Assumptions, Scope limitation an delimitation* .

Menard, S. (2002).*Applied logistic regression analysis--Quantitative Applications in the Social Sciences.* Thousand Oaks.

Mostafa, M. Mohamed, (2005), "*An empirical Study of Patients' Expectations and Satisfactions in EgyptianHospitals", International Journal of Health Care, Vol. 18, No. 7, pp. 516- 532.*

Mugenda, O. M. And Mugenda, A. G. (2008), *Research Method Quantitative & Qualitative Approaches*: Nairobi Kenya: acts Press.

Nerenz, D. and Neil, N. (2001).*Performance Measures for Health Care Systems, Commissioned paper for the Center for Health Management Research.*

Oliveira-cruiz, kurowski c,mills *A. Delivery of health interventions: searching for synenagies within vertical versus horizontal debate. Journal of international development 2003:67-86.*

Obonyo, B., & Owino, W.(1997). *Promoting access to healthcare through efficiency*

Owino, W. & Korir, J, (2000). *Public Health Sector Efficiency in Kenya: Estimation and Policy Implications,* Nairobi: Institute of Policy Analysis and Research.

Parasuraman, A. (2002), Managing Service Quality: integrating customer expectations: implications for further research, *Journal of Marketing*, 58 (2):6-9.

Petrick, J.F., (2009): *The Role of Quality, Value and Satisfaction in Predicting Cruise Passengers Behavioural Intentions. Journal of Travel Research, 42:397-340.*

Payne, A, (2006). *Handbook of CRM: Achieving excellence in customer management*, Butterworth-*Heinemann, Amsterdam*.

Peters, D., Elmendorf, A, Kandola, K. & Chellaraj, G.(2000*). Benchmarks for Health Expenditures, Service sand Outcomes in Africa during the 1990s. Bulletin of the World Health Organization78 (6):761–69.*

Polit, D. F., & Hungler, B. P. (2000). *Essentials of Research*. Michigan. Lippincott-Raven. Qualitative approaches. Nairobi: Acts Press.

Reinartz, W. J. (2004). The customer management process: Its measurement and impact on Performance'. *Journal of Marketing Research*, 41 (3), 293-305.

RoK (2011). *Kenya Demographics Profile*, Nairobi, Government Printer.

RoK (2014). *Delivery of Health Services: Report and Recommendations,* Nairobi Government Printer.

Rose, R., Uli, J., Abdul, M., & Ng, K. (2004).Hospital Service Quality: A Managerial Challenge. *International Journal of Health Care Quality Assurance*, 17(2/3), 146- 159.

Rust, R T.& Tuck S C (2006). Marketing models of service and relationships Marketing, *International Journal for Marketing.* 25(6) 560–580.

Sureshchandar, Chandrasekharan Rajendran, R.N. Anantharaman, (2002) *"The relationship between service quality and customer satisfaction – a factor specific approach", Journal of Services Marketing, Vol. 16 Issue: 4, pp.363-379, https://doi.org/10.1108/08876040210433248.*

Sandoval, G.A., Brown, A.D., Sullivan, T.& Green, E.(2006). Factors that influence cancer patients' overall perceptions of the quality of care. *International Journal for Quality in Health Care*, 18(4):266-74.

Sachdev, S. B., and Verma, H. V. 2004. *Relative importance of service quality. Journal of Services Research 4(1): 93-116.Davis, S. C. Schoenbaum, K. S. Collins, K. Tenney, D. L. Hughes, & A. J. Audet, (2002).Room for Improvement: Patients Report on the Quality of Their Health Care, The Commonwealth Fund.. 45,300-403.*

Schen,D. & and Annaraud, K.(2004). Service quality Evaluation and Multi altitude Measurement A case of chain steak in House Ki. *Journal in Hospitality and Leisure*, 4, 161-174.

Smee, C. (2002). Improving Value for Money in the United Kingdom National Health Service: Performance Measurement and Improvement in a Centralized System. In Measuring Up: Improving Health Systems Performance in OECD Countries.

.

Sohail. S. M., (2003). "*Service Quality in Hospitals more Favourable than You Might Think", Managing Service Quality*, Vol. 13, No. 3, pp. 197- 206.

Smith, A. (2000). The Impact of Scale Characteristics on the Dimensionality of the Service Quality Construct. *The Service Industries Journal*, 20(3), 167-190.

Swanson, S. R., & Davis J. C. (2003). The relationship of differential with perceived quality and Behavioural intentions. *Journal of Services Marketing*, 17(2):202-219.

Tam, J. L. M. (2005). Examining the dynamics of consumer expectations in a Chinese technologies'. *Journal of Marketing*, 66 (3), 98-111.

Wisniewski, Mik. and Wisniewski, Hazel., (2005), "*Measuring Service Quality in a Hospital Colposcopy Clinic",International Journal of Health Care Quality Assurance*, Vol. 18, No. 3, pp. 217- 228.

Zeithaml, V.A., Parasuraman, A., & Berry, L.L (1990).*Delivering quality service – balancing customer perceptions and expectations*. New York: The Free Press.

APPENDICES

Appendix I: Letter of introduction

JARED ONGAKI MWANCHA

KENYATTA UNIVERSITY

CITY CAMPUS

P O BOX 43844-00100

NAIROBI.

Dear Respondent,

RE: HEALTH CARE DETERMINANTS SERVICES IN KENYA: A CASE STUDY OF HELTH CENTRES IN NYAMIRA COUNTY.

I am a Master of Public Policy and Administration Student at Kenyatta University currently conducting a research titled **"Determinants of Healthcare Services in Kenya: An Analysis of Health Centers in Nyamira County."** I kindly request you to engage in this study by filling the attached questionnaire.

The information gathered will strictly be used for academic purposes and whose findings will help Nyamira County Government in better management of the health sector. Kindly do not indicate your name on the questionnaire. Please note that your responses will be treated confidential and will only be disclosed with your consent.

Yours sincerely.

Jared Mwancha Ongaki.

Appendix II: Questionnaire for HealthCare Recipients

Dear Respondent,

My name is Jared Mwancha Ongaki. I am a Master of Public Policy and Administration Student at Kenyatta University currently conducting a research titled **"Determinants of Healthcare Services in Kenya: An Analysis of Health Centers in Nyamira County."** I kindly request you to engage in this study which will strictly be used for academic purposes and whose findings will help Nyamira County Government in better management of the health sector. Kindly do not indicate your name on the questionnaire.

Section One: General Information

Instructions: Please tick where applicable [ ]

1. Gender

   i. Male [ ]

   ii. Female [ ]

2. Age

   i. 18-35 [ ]

   ii. 36-60 [ ]

   iii. Above 60 [ ]

3. Highest Level of Education

   Ph.D. [ ] Masters [ ] Bachelors [ ] Higher Diploma [ ] Ordinary Diploma [ ] A-Level [ ] O-Level/KCSE [ ] Primary [ ]

Section Two: Employee Capacity

4. Write your level of agreement with the following statements relating to employee capacity and quality of healthcare services in facilities run by Nyamira County Government by putting a tick [√] to the level you require. Uses a scale of 1 to 5, where; 1 correspond to Strongly Disagree (SD), 2 correspond to Disagree (D), 3 correspond to Undecided (U), 4 correspond to Agree (A), and, 5 correspond to Strongly Agree (SA).

No.	**Employee Capacity**	**Level of agreement with statement**				
		SD	**D**	**U**	**A**	**SA**
		1	**2**	**3**	**4**	**5**
1	The County government facilities adhere to the recommended doctor/nurse patient ratios					
	Health workers in Nyamira County Health facilities are well trained					
2	Nyamira County health centers have enough specialized healthcare givers to attend to specific health issues					
3	Nyamira County health centers have enough medical staff to reduce the waiting duration to be attended					
4	There are minimal referrals from Nyamira County health facilities to the national health facilities due to adequate staff					
5	Employees in the health centers are remunerated well thus motivated and committed to their work					
5	The attitude of staff in Nyamira county health facilities make me recommend the facilities to other people					

Section Three: Technology Advancement

5. Indicate your level of agreement with the following statements relating to technology advancement and quality of healthcare services in facilities run by Nyamira County Government by putting a tick [√] to the level you require. Uses a scale of 1 to 5, where; 1 correspond to Strongly Disagree (SD), 2 correspond to Disagree (D), 3 correspond to Undecided (U), 4 correspond to Agree (A), and, 5 correspond to Strongly Agree (SA).

No.	**Technology Advancement**	**Level of agreement with statement**				
		SD	**D**	**U**	**A**	**SA**
		1	**2**	**3**	**4**	**5**
1	Health centers in Nyamira have embraced technology in patient identification					
2	Medical prescriptions in Nyamira County centers are technology based					
3	Employees have undergone training on how to use ICT in their undertakings					
4	Health centers have installed disaster recovery infrastructure as a disaster/risk mitigation strategy					
5	Data back-up devices have been acquired by many health centers in Nyamira County					
6	Departments within health facilities have been networked to enable information sharing and reduce paper work					
7	Health facilities in Nyamira County are well equipped in terms of laboratories, storage of drugs, computers, X-Ray machines, CT Scan machines, Ultra Sound etcs					
8	ICT departments are manned by full time ICT experts					

Section Four: Adequacy of Financial Resources

6. Indicate your level of agreement with the following statements relating to Adequacy of financial resources and quality of healthcare services in facilities run by Nyamira County Government by putting a tick [√] to the level you require. Uses a scale of 1 to 5, where; 1 correspond to Strongly Disagree (SD), 2 correspond to Disagree (D), 3 correspond to Undecided (U), 4 correspond to Agree (A), and, 5 correspond to Strongly Agree (SA).

No.	**Adequacy of Resources and Quality**	**Level of agreement with statement**				
		SD	**D**	**U**	**A**	**SA**
		1	**2**	**3**	**4**	**5**
1	The County Government of Nyamira allocates adequate financial resources every financial year towards provision of healthcare					
2	Absorption of all funds allocated to the County Government by the National Government ensures health facilities' budgets are fully used					
3	Consultations between the county government and other stakeholders ensure allocation of adequate resources for healthcare at County level					
4	Managers of health centers in Nyamira County manage the resources prudently and transparently					
5	There is Value for money for the outpatient health services I get in Nyamira County Health facilities					
6	Health facilities in Nyamira County have recorded many financial mismanagement and misappropriation cases					

7. Kindly rate the effectiveness of Nyamira County in the provision of outpatient healthcare services based on the following parameters. With the use of a scale of 1 to 5 where: 1= Not Effective; 2=Least Effective; 3=Fair; 4=More Effective; and 5= Most Effective.

No.	**Effectiveness of Healthcare Provision**	**Level of agreement with statement**				
		SD	**D**	**U**	**A**	**SA**
		1	**2**	**3**	**4**	**5**
1	Real time service					
2	Quality of medication					
3	Medication process					

8. Suggest recommendation on how Nyamira County Government can improve healthcare service provision in its facilities

_____

_____

_____

_____

_____

Thank You

Appendix III: Interview Schedule for Health Providers and County administrators

1. What is your general comment on the quality of healthcare provision by public health facilities in Nyamira County?

……

……

……

2. Do you think the employee capacity in health facilities in Nyamira County of Nyamira County is sufficient? (Explain)

……

……

……

3. Comment on technology advancement by health facilities within Nyamira County.

……

……

……

4. Do you think the resources allocated to health facilities in Nyamira County by the County Government of Nyamira are sufficient to deliver quality health care? (Explain)

……

……

……

5. Mention the challenges health facilities in Nyamira County are facing.

……

……

……

6. What are some of the measures that the County has put in place to ensure quality healthcare service provision?

……

……

……

7. In the measures mentioned above which one among them would you say that is the most appropriate and why?

……

……

……

Appendix IV: Work Plan

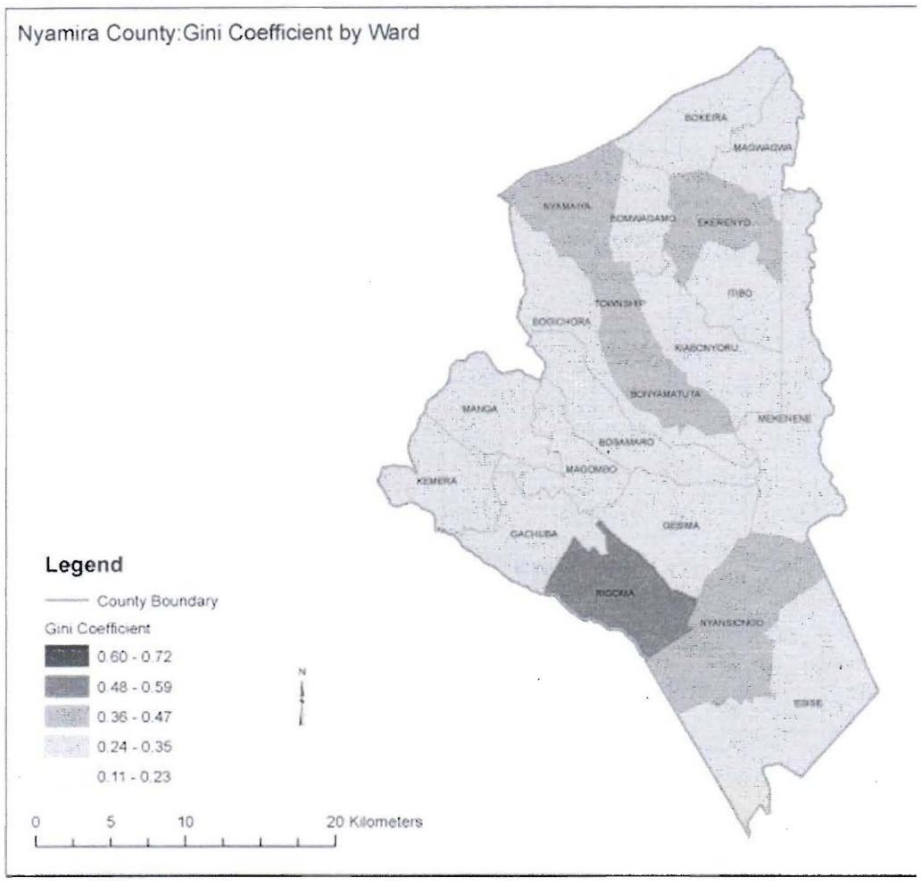
	OCT 2016-MAY 2017.	**JUNE 2017 – JULY 2017.**	**AUG2017**	**SEPT 2017**	**OCT 2018**
Developing and writing a proposal					
Gathering of Information					
Presentation and information research					
Drafting and writing of the analysis report					
Preparation of the project and presentation.					

Appendix V: Proposed Budget

ITEM.	**AMOUNT**	**TOTAL**
1.Stationary	**10** Ball pens @30 10 ream of foolscaps@300 each 2 flash disc@1000 Spiral binding,10copies @100 Hard binding, 3 copies@1000 Photocopy of literature Secretarial and printing cost	**300** **3,000** **2,000** **1,000** **3,000** **3,000** **12,000**
2. Internet and Telephone	Internet browsing Telephone cost	**3,000** **1,000**
3.Travel and accommodation	Transport expenses Accommodation expenses	**10,000** **30,000**
4.Administration fee	10% of total cost	**9,330**
5.Miscellaneus expenses	Research assistant	**25,000**
TOTAL		**102,630**

Appendix VI: Site of Study

Nyamira County Map



Source:

Google Maps

Appendix VII: Approval of Research proposal

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Dean, Graduate School

DATE: 17th July, 2018

TO: Mwancha Jared Ongaki
C/o Public Policy and Administration Dept.

REF: C153/OL/CTY/26787/2015

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

We acknowledge receipt of your revised Research Proposal as per our recommendations raised by the Graduate School Board of 4th July, 2018 entitled "Healthcare Determinants Services in Kenya: A Case of Health Centers in Nyamira County".

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

ANNBELL MWANIKI
FOR: DEAN, GRADUATE SCHOOL

C.c. Chairman, Department of Public Policy and Administration

Supervisors:

1. Dr. Wilson Kamau Muna
   C/o Department of Public Policy and Administration
   Kenyatta University

AM/lnn

Appendix VIII: Research Authorization

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/98198/23077**

Date: **13th June, 2018**

Jared Ongaki Mwancha
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Healthcare determinants services in Kenya an analysis of Health Centres in Nyamira County"*** I am pleased to inform you that you have been authorized to undertake research in **Nyamira County** for the period ending **8th June, 2019.**

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

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nyamira County.

The County Director of Education
Nyamira County.

Appendix IX: Research Clearance Permit

THIS IS TO CERTIFY THAT:
MR. JARED ONGAKI MWANCHA
of KENYATTA UNIVERSITY, 0-100
NAIROBI,has been permitted to conduct
research in *Nyamira County*

on the topic: *HEALTHCARE DETERMINANTS SERVICES IN KENYA AN ANALYSIS OF HEALTH CENTRES IN NYAMIRA COUNTY*

for the period ending:
8th June,2019

.....
Applicant's Signature

Permit No : NACOSTI/P/18/98198/23077
Date Of Issue : 13th June,2018
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No.A 18952

CONDITIONS: see back page