FACTORS INFLUENCING SUSTAINABILITY OF HEALTH BASED PROJECTS: THE CASE OF PRESBYTERIAN CHURCH OF EAST AFRICA KIKUYU HOSPITAL IN KIAMBU COUNTY, KENYA

By

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A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT FOR REQUIREMENTS OF THE AWARD OF DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI

2015
DECLARATION

This Research project report is my original work and has not been presented for a degree award in any other University.

SIGNATURE________________ DATE ____________________

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L50/65791/2010

This Research Project Report has been submitted for examination with my approval as the University Supervisor.

SIGNATURE________________ DATE: ____________________

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DEDICATION

I dedicate my work to my wife Jentrix Bera and daughter Mitchelle Laïsa. I thank my beloved father Patrick Masombo and mother Margaret Masombo (late) who not only nurtured and educated me but also offered their unrelenting prayers and encouragement throughout my studies. My brothers; David and Isaac, sisters; Winrose and Norah, cousins, nephews, nieces, thanks for your moral support during my studies.
ACKNOWLEDGEMENT

My sincere gratitude and appreciation goes to all those who made the completion of my work a reality. I would like to express my sincere appreciation to my supervisor; Dr. Naomi Gikonyo for guidance and support as well as patience and understanding towards the completion of this project. My appreciation also goes to Prof. Harriet Kidombo, Prof. C. Gakuu Mwangi and all lecturers who took me through the entire course work and research project. I acknowledge the moral support of Prof. Mutoro of Nairobi University and Prof. Mse of Kenyatta University who behind the scenes were the motivation of my going back for post graduate studies. I also acknowledge Kiambu County Health Officer, and the entire Kikuyu Hospital Officers for the support and encouragement in this study. In the same breadth, I thank the community members in PCEA Kikuyu Hospital for taking part in the study by completing the questionnaires. My appreciation goes to Mary N. Wasike for tireless typing and typesetting this project report. To all I say thank you. Glory and honour be to God.
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<td>Acquired Immune Deficiency Syndrome</td>
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<td>BODs</td>
<td>Board of Directors</td>
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<td>HAS</td>
<td>Health System Assessment</td>
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<td>HBP</td>
<td>Health Based Project</td>
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<td>Millennium Development Goals</td>
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<td>NACOSTI</td>
<td>National Council for Science, Technology and Innovation</td>
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<td>Non- Governmental Organization</td>
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<td>NHSSP</td>
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<td>PCEA</td>
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<td>TB</td>
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<td>UK</td>
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<td>UNECA</td>
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ABSTRACT

This research study aimed at investigating factors influencing sustainability of health based projects, a case of PCEA Kikuyu Hospital in Kiambu County, Kenya and to recommend areas for improvement in future. It was guided by the following objectives; to establish the extent to which community involvement influences sustainability of health based projects in Kiambu County, Kenya, to investigate the influence of service charge on sustainability of health based projects in Kiambu County, Kenya, to establish the influence of customer care on sustainability of health based projects in Kiambu County, Kenya and to investigate influence of financial sources on sustainability of health based projects in Kiambu County, Kenya. Related literature was reviewed based on the objectives of the study. The research design adopted was descriptive survey. Stratified random sampling technique was used for the study since the population was made up of different homogenous categories. A sample size of one hundred and twenty five (125) respondents was obtained from the target population of two hundred and thirty (230) Board members, Doctors, Clinical officers, Nurses and Patients. Quantitative data was analysed using SPSS computer programme version 17.0 and qualitative data manually. Presentation was done using frequency distribution tables with values and percentages. From the findings of the study, it was established that representation of the community was found to be very poor. The hospital has employees from the community ranging from 101 to 150 out of 459 as provided in the records of employees in the institution. Besides, the composition of the Elders/Women Guilds (E/WGs) in terms of gender was predominantly male (75.0%). Basing on access to basic health services of acceptable quality data analysis established that patients strongly agreed that they are satisfied with services provided in the PCEA Kikuyu hospital (50.0%) and that service charges are relatively fair and affordable to the poor (50.0%). However, Doctors (25.0%) and Nurses (26.6%) identified lack of advanced services like CT-Scan and MRI-Scan to be a serious challenge in the hospital. The researcher recommends that the managers of the health based projects should ensure that the facility is able to finance its own programs by generating enough internal income through entrepreneur strategies and adopt adaptive governance approach for greater sustainability. Dependence on external sources of funds and support should be discouraged and innovativeness of new ways in raising funds internally encouraged. The hospital should also invest more finances in modern technological machines to address the emerging medical challenges like cancer and Ebola treatment besides adopting a comprehensive scheme of service to motivate and retain professional employees. A replica of the study should be performed in other health based projects in other counties in Kenya to provide comparison in the findings.
1.1 Background of the study

Sustainability is an important element in strategic management especially in health based projects. This is because health based project exist in open system and hence affect and are affected by external conditions that are largely beyond their control (Pearce & Robinson, 1997). Swanapoel (1993) noted that, people…are often reluctant to take initiative because they are not sure of themselves and partly because they are not used to it. They are used to the fact that some authority or organization takes the initiative. In most cases, they are quite willing to follow passively. An international symposium on the challenge of rural poverty held in West Germany in 1987 observed in a resolution that involvement of people would realize its full transforming potential; only through the motivation, active involvement and organization at grassroots level of the rural people, with emphasis on the least advantaged in conceptualizing and designing social and economic institutions including cooperatives and other voluntary forms of organizations for planning, implementing and evaluating them.

The International Association for Public Participation (2000), communities should have a say in decisions about actions that affect their lives. Hence involvement is a process through which stakeholders’ influence and share control over development initiatives and the decisions and resources which affect them.
In the United States, in addition to their impact on human life, hospitals are a major driver of the economy for purposes of sustainability. The hospital industry is the second largest private-sector employer in the U.S. and contributes nearly $2 trillion of economic activity. In many small communities across the country, the local hospital is the largest employer and most valuable economic asset.

Consumer attitude toward hospitals waxes and wanes, seemingly with some dependence on hospital news that makes headlines, such as traumatic medical errors, rampant hospital-acquired infection, and unscrupulous billing practices. There is no doubt that health based projects like hospitals face greater scrutiny over the issues that can erode public trust and affect sustainability. In order to secure the public’s trust, hospitals have become highly reliable – ensuring patients’ safety, providing clinically effective care, and embodying the ethical ideal that has long been the expectation of the public. Health based projects that are striving to achieve good sustainability rely on strong managerial systems and processes to let them know where they are; how they are performing and how likely it is that their objectives will be met. They use information from internal and external audit, inspection and stakeholders and partners to provide challenge to and confirm their own systems and processes (Audit commission – UK, 2003).

In 1990, the African Charter on popular participation in Development and Transformation known as “the Arusha Declaration” was hoisted which sought to put popular involvement at the heart of development. This saw different countries adopting different methods of governing their hospitals, but their aims remain the
same, a well-managed health sector system. Indonesia has tried to adopt The World health report 2006 – working for health that emphasized the critical role of governments in developing sound policies and plans for human resources for health, and calls on governments to identify key issues and priorities for action leading to sustainability. Besides, the Arusha meeting convened at the instance of United Nations Economic Commission for Africa (UNECA) had an assemblage of different stakeholders, peoples organizations with one of the objective being; ‘to identify obstacles to community involvement in development and define appropriate approaches to promotion of popular involvement in policy design, formulation, planning, implementation and monitoring and evaluation of development programs.

The conference ended with a declaration that community involvement is a fundamental element of development and urged African countries to better integrate their people in development process (Adejumobi & Olukoshi, 2009). Hence, the last decade has seen intense interest in a number of developing countries in changing the structure and internal relations of the health sector (Adejumobi & Olukoshi, 2009). In Zambia the voluntary sector, consisting mainly of mission health care, was estimated to have been responsible for providing 40 per cent of rural health services (WHO, 2004). While Ghanaian NGOs provide 25 per cent of all hospital beds in the country, they provide 46 per cent of beds in the six less-developed northern regions (WHO, 2004).
According to Julius Nyerere (1973), people will only develop themselves “by what they do; they develop themselves by making their own decisions, by increasing their own knowledge and ability and their own full participation as equals”. People should of necessity participate in decisions that affect their lives. This serves to instill local responsibility as well as enhancing their sense of dignity and worth. It’s believed that people will give their local support to initiatives that they help to create, (Mulwa, 2007). Health sector and its provisions are an important enabling factor for development. Just like education sector, health sector increases social options and provides the means towards social mobility and socio-economic advancement (NEPAD, 2009) basing on sustainability. Eradicating diseases is the single most effective way of reducing poverty. Disease free country helps people work better and can create opportunities for sustainable and viable economic growth now and in future. Health sector should be well managed (Green et al., 2002) because it is here that greater emphasis appears, therefore, to have been placed by international donor agencies on infrastructure development in developing countries (Bossert, 1990; Lafond, 1995).

Just like other developing countries, Kenya has committed to reforms to decentralize the country's health management system. This has created opportunities to be utilized through various strategies by both the public and private sectors in order to attain sustainability. According to National Development Plan, (2002-2008), it’s expected that the implementation of policies, programmes and projects be closely monitored and evaluated to ensure
maximum impact and timely delivery of projects and programmes output. To implement this, communities are encouraged to prepare community action plans against which they could actively participate in monitoring and evaluation of projects at community through community project committees.

Under Vision 2030, a number of flagship projects have been identified in each sector which will be implemented over the five years of the vision to facilitate the desired growth on a sustainable basis. Health projects have been identified as key in driving health growth in the health sector. The millennium development goals (MDGs) can only be achieved if only the health systems are improved at all levels or regions in the country. The ‘ring fencing’ policy whereby all agreed allocations to a particular sector are never reduced no matter what happens to the revenue has helped improve for instance maternal health. For instance in Kenya, the ring fencing protects the health, education and poverty sectors from such cuts.

All organizations, health based projects are no exception, cannot do without human resources and patients. Hospital administrators must therefore plan their programmes in such a way that they use their human resources well to enhance sustainability. They must also ensure that the workers feel needed, important and happy (Travis et al., 2002).
Health based projects in Kenya, PCEA Kikuyu Hospital included, are in dire need of proper funding to rehabilitate, redesign, equip and staff them to ensure effective and efficient service delivery to Kenyans (RoK, 2001). For this to happen there is need for qualified members of the Board of Directors to offer managerial services. Inefficiency in Community Health Workers programme in the hospital has adversely affected the delivery of health services (PCEA Kikuyu Hospital Medical practitioners Report, 2013). It is against this background that the current study is going to investigate some factors influencing sustainability in health based project in Kenya: a case of PCEA Kikuyu hospital in Kiambu County, Kenya.

1.2 Statement of the Problem

The quality of health facilities is often very poor, coverage is limited, technical capacity is inadequate, decision making is over-centralized, and service provision is plagued by inefficiencies and petty corruption which results in withdrawal by potential users (Mburu, 2007) hence a barrier to sustainability. Health based projects are facing high expectations from the public and stakeholders in an increasingly challenging environment. Issues like escalating health care costs that are no longer publicly – or politically – tenable, demands for transparency of cost and quality data, and workforce shortages are influencing sustainability of health based projects.

The major problem in Kikuyu District is the lack of integrated community involvement plan and participation policy statement that could guide the
sustainable health based projects (Kikuyu District Development Plan 2010-2015). This has really affected health based projects in PCEA Kikuyu Hospital. Most projects are in dire need of proper funding to rehabilitate, redesign, equip and staff them to ensure effective and efficient service delivery to Kenyans (PCEA Kikuyu Hospital Medical practitioners Report, 2013). For this to happen there is need for qualified members of the Board of Directors to offer managerial services. Inefficiency in Community Health Workers programme in the hospital has adversely affected the delivery of health services (PCEA Kikuyu Hospital Medical practitioners Report, 2013). It is against this background that the current study is going to investigate some factors influencing sustainability in health based project: a case of PCEA Kikuyu Hospital in Kiambu County, Kenya.

1.3 Purpose of the Study

The purpose of the study was to investigate the factors influencing sustainability of health based projects: a case of PCEA Kikuyu Hospital in Kiambu County, Kenya.

1.4 Objectives of the Study

The study was guided by the following objectives:

i. To establish the extent to which community involvement influences sustainability of health based projects in Kiambu County, Kenya.

ii. To investigate the influence of service charge on sustainability of health based projects in Kiambu County, Kenya.
iii. To establish the influence of customer care on sustainability of health based projects in Kiambu County, Kenya.

iv. To investigate influence of financial sources on sustainability of health based projects in Kiambu County, Kenya.

1.5 Research Questions

The study used the following research questions:

i. To what extent does community involvement influence sustainability of health based projects in Kiambu County, Kenya?

ii. How does service charge influence sustainability of health based projects in Kiambu County, Kenya?

iii. In which ways does the customer care influence sustainability of health based projects in Kiambu County, Kenya?

iv. In which way does financial sources influencing sustainability of health based projects in Kiambu County, Kenya?

1.6 Significance of the Study

The study was expected to determine the challenges that mission hospitals face in implementing strategy to realize sustainability. The study would benefit the Board of Directors and practitioners in hospitals who closely deal with issues of sustainability of hospitals. The government would have a better understanding of the challenges that the mission hospitals face in the provision of medical services and therefore come up with intervention strategies that will see the provision and expansion of medical services through attraction of more medical service
providers to the county. Under the country’s new decentralization strategy, counties are responsible for delivering health services and implementation of health programs. In addition, Kiambu County would use this research in designing better structures that will ensure sustainability to guarantee better provision of health and medical services in mission hospitals. To the general academia, this would go a long way in building a body of knowledge on health and medical services. Various stakeholders can use the study to facilitate further research in private and other public health sectors in Kenya.

1.7 Limitations of the Study

In this study, the researcher encountered problems due to lack of access to all necessary official records kept in the hospital. However an official request was made to the management and some relevant information were provided for the study. Besides, the number of patients coming per day varied from about 50 to 150. The average of the two estimates provided was adopted as the patients’ population

1.8 Delimitations of the Study

According to Mutai (2000), the term delimitation refers to the boundaries of the study. In this research, the study was delimited to PCEA Kikuyu hospital in Kiambu County, Kenya. The Board of Directors, Doctors and patients per day from public hospitals was not the central focus of the study because the scope of this research was mainly on mission funded hospitals.
1.9 Basic Assumptions of the Study

The basic assumptions of the study:

i. Respondents would be willing to answer research questions without fear.

ii. That the hospital would be having Board of Directors (BODs) who have significant roles to play with regard to management and sustainability.

1.10 Definition of Significant Terms

Community involvement refers to the extent members from the community are allowed to participate in the running of the health based project.

Customer care refers to how clients demands, expectations and opinions are handled in the health based projects.

Government involvement refers to Government policy formulations that affect the health based projects.

Main Financial sources refers to the major contributor towards the annual budget for the Hospital.

Ownership refers to the people who are responsible for financing the health based project.

Service charges refer to fee levied on services offered in the health based projects.

Sustainability refers to the capacity of a health based project to continuously meet the demands of the community through delivery of health services.
1.11 Organization of the Study

The study is organized into five chapters; Chapter One focuses on the background to the study, statement of the problem, purpose of the study, research objective, research questions, significance of the study, limitation of the study, delimitation of the study assumption of the study, and definition of significant terms. Chapter Two focuses on literature review based on the objectives of the study, theoretical and conceptual framework, and summary of literature review. Chapter Three explores the research design, target population sample size and sampling procedure, research instruments, instrument validity, instrument reliability, data collection procedure and data analysis techniques. Chapter Four focuses on data analysis, presentation and interpretation of the research findings. Chapter Five presents summary of the findings, discussion, conclusion, recommendations and suggestions for further research.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter gives a review of literature related to the study. Both primary and secondary data sources will be reviewed. It is organized into the following subheadings: the concept of sustainability, how community involvement influences sustainability of mission hospitals, the influence of service fees on sustainability of health based projects, the influence of customer care on sustainability of health based projects, challenges facing health based projects and a summary of literature review, theoretical framework and conceptual framework.

2.2 The Concept of Sustainability

Project sustainability is defined by many economists and international development agencies as the capacity of a project to continue to deliver its intended benefits over a long period of time (The World Bank’s definition cited in Bamberger and Cheema, 1990). A development program is sustainable when it is able to deliver an appropriate level of benefits for an extended period of time after major financial, managerial and technical assistance from an external donor is terminated (US Agency for International Development, 1988). These definitions emphasize benefits as being at the heart of the sustainability process. Sustainability as institutionalization, reutilization or incorporation refers to the long term viability and integration of a new program within an organization.
(Steckler & Goodman, 1989). Project planning ultimately involves the process by which new practices become standard business in a local agency. Whether the process is called routinization, institutionalization, incorporation, or some other term, it is central to all organizations (Yin, 1979).

Sustainability as health promotion capacity refers to the extent to which a community has local access to the knowledge, skills and resources needed to conduct effective health promotion programs (Jackson, 1994). Sustainability thus appears to be a multidimensional concept of the continuation process whose reality remains elusive.

As the global community continues to scale up HIV/AIDS, TB, and malaria interventions, it is vital to understand the state of the health systems in which these services are being delivered. Good health systems should be able to deliver effective and quality health care services to the needy in a cost effective way. To address the health challenges facing the health sector, the health ministries have, in recent years, been implementing health sector reforms with health system strengthening as a top health reform agenda. The National Health Sector Strategic Plan (NHSSP II) underscores the importance of health system strengthening with major efforts directed at institutional strengthening, organizational development, improving the availability of human resources for health, health financing, service delivery and information, medical commodity availability, and improved donor coordination ((WORLD VISION, 2002).
As the ministries continue to strengthen the health system, a thorough understanding of its unique strengths and weaknesses becomes paramount. The Health Systems Assessment (HSA) process allows countries to systematically assess their national health system and provides policymakers with information on how to strengthen the health system. The HSA approach, therefore, provides a comprehensive assessment of key health systems functions, organized around the six WHO building blocks: governance, health financing, health service delivery, human resources, medicines and medical product management, and health information systems (WORLD VISION, 2002).

2.3 Influence of Community Involvement on Sustainability of HBP

The concept of community involvement on sustainability of health projects is not a new phenomenon as far as rural development is concerned; it has been talked and written about since 1960s or even before (Gujit & Shah, 1998), Nelson & Wright (1995), in Odhiambo (2010). Shaeffer (2005) provides some specific activities that involve a high degree of involvement in a wider development context including collecting, analyzing information, determining priorities and setting goals, deciding on and planning programs; designing strategies to implement these programs and dividing responsibilities among participants, monitoring progress of the program and evaluating results and impacts.

A review of literature on the ways in which involvement is operationalized in different interventions reveals multiple conceptions of involvement. According to Pretty et al., (1995), involvement builds local capacity and self-reliance, but also
to justify the extension of control of the state. It has been used to devolve power and decision making away from external agencies, but also to justify external decisions. It has been used for data collection and also for interactive analysis. This shows how this ‘all-embracing’ concept is used and practiced in different ways (Pretty et al., 1995).

Community involvement has a great impact on how independent medical practitioners think about the mission of the hospital and its sustainability. On their mission, independent medical practitioners’ success and fulfillment is tied directly to how committed they are to helping people and integrating themselves into local communities. Sometimes doctors feel not being effective unless local residents trusted and respected them. Hence, they use the medicine as a way to make the community better and use the community to make medicine more fulfilling (Brinkerhoff, 2003). In US, there is tremendous need for community involvement for medical practitioners to help those without direct access to medicine. Doctors try to bring light to the situations many face and address their needs in a sustainable fashion for hospitals to progress (Brinkerhoff, 2003). Community involvement functions as an integral part of project execution. It is simply a way of making efficient project follow-up and to provide systematic, consistent and reliable information on project progress. The purpose is to steer a project towards its purpose and to detect any problems that makes it probable that the project will not achieve expected results. In USA, this is done through periodic follow up of technical progress and financial expenditure, whereby actual performance and results are compared to plans (Pasteur & Turrall, 2006).
Conceptually, community involvement means to check and assess the implementation status of a project during implementation on a regular basis. The system of watching/monitoring the progress of a project implementation, besides being an important link in the project cycle, helps in the identification/analysis and removal of bottlenecks and expediting action where projects have stalled or fallen behind schedule. Project sustainability is invariably done with the active participation of the project management and the community.

Saltman (1994) has said that a sustainable participatory process in health care and social services will probably require that citizens be empowered with real influence in budgetary and resource-allocation decisions. Some of the benefits of supporting community decision-making include:-

i) Decisions are likely to be based on first-hand understanding of the issues.

ii) Projects are tailored to the needs of the community, so are more likely to succeed.

iii) Community members are empowered.

iv) Connections and trust between community members are strengthened, building a solid base for future decision-making.

v) Holistic ways of operating can be achieved, by bringing together local people from different sectors such as health, education, and housing.

There is need, therefore, for this study to investigate on the influence of community involvement on sustainability of health based projects in PCEA Kikuyu hospital in Kiambu County.
2.4 Influence of Service Charges on Sustainability of HBP

More than ever before, mission hospitals have been confronted with complex strategic and financial decisions when they seek to invest capital in human resources, facilities and technology. The current economic crisis has forced providers to suspend projects, delay and rethink their capital allocation plans perhaps unlike any other period in the past (American Hospital Association, 2008).

Access to basic health services of acceptable quality is still denied to many of the world’s poorest people. Against a backdrop of severely underfunded health systems, governments are faced with a dilemma. Payments for health services, in the form of user charges, are likely to present a barrier to access. Yet, a shortage of resources at the facility level is a contributor to failure to deliver quality services, and this also presents a barrier to access. Some have argued that user charges can generate vital resources at the local level and help provide good quality services; others have highlighted their negative effects, particularly on equity. Recently, several international campaigns have advocated the removal of user fees, especially for primary care services. Some recent articles have underlined the paucity of evidence on the effectiveness of policy interventions in low-income countries; others have noted the importance of systematic reviews for understanding health systems.
Despite the central importance of the user-fee debate, no systematic review has examined the quality of the empirical evidence on this topic. To redress this imbalance, this review set out to assess the quality of the existing evidence on the impact of user fees on health service utilization, household expenditures and health outcomes in low- and middle-income countries (Abdu et al., 2004). To make matters worse, the new administration’s health care reform plans has further challenged capital spending by mission hospitals. According to (Trustee Magazine, January, 2009), hospital boards need to have renewed appreciation and understanding of the risks associated with payment procedures. Both consumers and payers are demanding improved care and competition; hence the hospital must handle with care its position for future sustainability. For some hospitals, access to capital and funding to support expansion/renovation of projects have become a challenge. A key to attracting capital is now about a hospital’s ability to demonstrate a plan of action that addresses the risk.

According to Lisa Goldstein, Senior Vice President and Team Leader for Moody’s Investor Services (2008), hospitals that have prepared well-conceived project with specific plan including, analysis that demonstrates the impact of the project on the enterprise, realistic project budget, schedule, transition plan, and an overall risk mitigation strategy are more likely to attract capital (Healthcare Financial Management Magazine, February 2008). Hence the need for this study to investigate charges for the services and complexity of the payment process influence sustainability of health based projects in Kenya: A case of PCEA Kikuyu Hospital in Kiambu County, Kenya.
2.5 Influence of Customer Care on Sustainability of HBP

Human and public relations open eyes to the sufferings that occur to so many people and allow lying down a good foundation to future sustainability that is rewarding (Cornelissen, 2004). Customer care is uniquely placed to identify and understand the needs and expectations of the health based project as perceived by the members of the community. Through communication planning and management, public relations practitioners build and enhance hospital reputation and build and maintain relationships that are important to the hospital and its goals (Amisha & Robina, 2009).

A host of factors on customer care have been identified as obstacles to effective sustainability of health based projects. Oakley (1991) says that customer care services that relate to bureaucratic procedures, operated by a set of guidelines and adopt a blue print approach, providing little space for people to make their own decisions or control their development process become an obstacle to sustainable health based projects. This can lead to mentality of dependence, culture of silence, domination of the local elite, gender inequality, and low levels of education and of exposure to non-local information. According to Cooke and Kothari (2001), this has been translated into managerial “toolboxes” of procedures and techniques. This limited approach gives rise to a number of critical paradoxes: projects approaches remain largely concerned with efficiency, and focus attention only on the highly visible, formal, local organizations, overlooking the numerous communal activities that occur through daily interactions and socially embedded arrangements.
Dale (2004) identifies other barriers such as power structures within local communities, rigid professional attitudes among programme and project staff, little awareness among people of rights they may have or opportunities they may exploit, and little emphasis on qualitative achievements of participation. Another barrier is lack of understanding of the policy process and interventions. Before rural communities can make attempts to impact public policy or an intervention, it is important that they have an understanding of the policy-making process itself. Understanding the policy-making process can help individuals and community-based organizations decide whether they will become involved in trying to develop or change a policy and, if so, how to best go about it. Unfortunately, the policy-making process tends to be very complex making it difficult for almost anyone to understand it completely. However, understanding the process can help empower individuals and community-based organizations to impact policy (Dukeshire et al, 2002).

(Chambers 2002) states that customer care barriers are situation-specific, and need to be carefully analyzed in particular contexts. Therefore, there is need for this study to investigate how customer care influence sustainability of health based projects in Kenya: A case of PCEA Kikuyu Hospital in Kiambu County, Kenya.

2.6 Influence of Financial sources on Sustainability of HBP

According to Stout (2008), when all of the funding for a local mission hospital’s budget comes from foreign sources, the local members do not have true
ownership of what the hospital is doing for them. Hence, local creativity and ingenuity suffers in the long run. This affects sustainability of the hospital. According to Glenn (2007), there are several benefits for community involvement as they practice sustainable models of financial support.

As they assume the responsibility of providing for the needs of their local hospital, they feel the weight and responsibility of ownership. They realize that if they want to see their community reached, they must stretch to their faith, give sacrificially out of their earnings or harvest, and find creative and frugal ways to make their giving have as much impact as possible in their context. If the community members are the ones who receive the benefits of hospitalization, then sustainability of the hospital is for them (Glenn, 2007).

Webler (2001) argues that effective public participation is achieved by making the decision-making process transparent and responsive to public input, so that participants can see how their input is considered and weighed by the decision-makers (Webler, et.al 2001). Project implementation requires increased community involvement in decision making. Saltman (1994) has said that a sustainable community involvement process in health care and social services will probably require that citizens be empowered with real influence in budgetary and resource-allocation decisions.
According to Cameron (1994), participation by ordinary citizens is determined by the balance between benefits and costs, and, although benefits include collective goals, personal incentives and personal costs are notably the dominant factors. The intensity of involvement varies inversely with the size of the participating group. The more intense the activity, the higher the cost to participants in money and time -- with the result that fewer people participate. The smaller the participating group, the less representative it will be of the affected population. Finally, individuals of higher socioeconomic status are better placed to bear the costs of participation and hence tend to be overrepresented when participation is intensive. Hence, the need for this study to investigate how community involvement influences sustainability of health based projects: A case of PCEA Kikuyu Hospital in Kiambu County, Kenya.

2.7 Theoretical Framework

This study was anchored on open systems and public relations theory. Open systems view the environment as important to survival. Open systems continuously exchange inputs and outputs with the environment through permeable boundaries (Cutlip, Center & Broom, 2006; Morgan, 1998). Organizations actively seek information from their environment, which is received as input into the organizational system. The open systems approach encourages congruency or fit among the different systems and the identification and elimination of any potential dysfunctions (Morgan, 1998). Open systems identify incongruence and respond to environmental pressures that may affect the viability or survival of the organization (Witmer, 2006).
In open systems, public relations take on a functional approach that is concerned with two-way communication between the organization and the environment. This requires resources for organizations to not only monitor their environment and public opinion but also to build and maintain relationships with key organizations and stakeholders within the environments. These relationships are built on mutual and interests in bringing about a solution that meets the needs of all parts of the system (Cornelissen, 2004). This theory will be supported by Stewardship theory of management developed by Davis, Schoorman & Donaldson (1997) which argues that managers, left on their own, will indeed act as responsible stewards of the assets they control. This theory is an alternative view of agency theory (Berle & Means 1932; Pratt & Zeckhauser, 1985), in which managers are assumed to act in their own self-interests at the expense of shareholders. It specifies certain mechanisms which reduces agency loss including tie executive compensation, levels of benefits and also managers’ incentive schemes by rewarding them financially or offering shares that aligns financial interest of executives to motivate them for better performance.

The influence of community involvement on sustainability of health based projects is becoming increasingly popular in developmental circles worldwide and as a means of contributing towards rural development and poverty alleviation. It has been realized that sustainability of community projects continue suffering as long as development professionals keep doing everything for the people. It has been identified that top- down, directive methodological approaches employed are largely responsible for this inadequacy. It’s the methodological choices and
processes involved during the entire project cycle e.g. problem identification, prioritization, implementation and monitoring and evaluation) that ultimately determine what happens when the funding is over, (Mulwa, 2004). The major problem in Kikuyu mission hospital in Kiambu County is the lack of an integrated community involvement plan and participation policy statement that could guide the sustainable implementation of community based health projects (Kikuyu District Development Plan 2010-2011). It was therefore in this context that the study was to establish the influence of community involvement on sustainability of health based projects in PCEA Kikuyu Hospital in Kiambu County, Kenya.
2.8 Conceptual Frame Work

The following is a conceptual framework on selected factors influencing sustainability of health based projects in Kenya (Figure 1).

![Diagram of Conceptual Frame Work on Sustainability of HBP]

**Independent variables**

- **Community involvement**
  - Community Representation in the board of management
  - Community Representation in the executive
  - Community Representation in the Subordinates

- **Service charge**
  - Registration and payment procedures
  - Cost of service

- **Customer care**
  - Customer complaints and opinion.
  - Duration before action is taken
  - Customer feedback

- **Main Financial Sources**
  - Internal sources
  - External sources

**Moderating variable**

- **Government Policy**

**Dependent variable**

- **Sustainability of health based projects**
  - Technological improvement of the facility and services
  - Attraction and retention of medical personnel
  - Emergency preparedness to disease out breaks

- **Competition from other health service providers**

**Intervening variable**

Figure 1: Conceptual Frame Work on Sustainability of HBP
The conceptual framework shown in figure 1 indicates the relationship between dependent variable which is sustainability of health based projects and the independent variables which are community involvement, service fee, customer care, and system ownership. The relationship between the independent and dependent variables are also influenced by intervening variable such as competition from other health service providers and moderating variable such as Government Regulations. When there is full community members involved in various project as which are tailored according to their needs, high are the chances that such projects are well implemented and sustained to deliver the required benefits even after the five year term.

2.9 Knowledge gap

Many studies have been conducted in many public and private hospitals but not in PCEA Kikuyu Hospital. Available data show that just like other developing countries, Kenya has committed to reforms to decentralize the country’s health management system. This has created opportunities to be utilized through various strategies by both the public and private sectors in order to attain sustainability. To implement this, however, empirical evidence show that communities are encouraged to prepare community action plans against which they could actively participate in monitoring and evaluation of projects at community through community project committees. In this study, the researcher has tried to establish ways in which hospital administrators plan their programmes in such a way that they use their human resources well to enhance sustainability. They must also ensure that the workers feel needed, important and happy. This study therefore
provides some specific activities that involve a high degree of involvement in a wider development context including collecting, analyzing information, determining priorities and setting goals, deciding on and planning programs; designing strategies to implement these programs and dividing responsibilities among participants, monitoring progress of the program and evaluating results and impacts.

Besides, this study seeks to establish why Health based projects in Kenya, PCEA Kikuyu Hospital included, are in dire need of proper funding to rehabilitate, redesign, equip and staff them to ensure effective and efficient service delivery to Kenyans. For this to happen there is need for qualified members of Elders/Women Guilds to offer managerial services. Inefficiency in Community Health Workers programme in the hospital has adversely affected the delivery of health services (PCEA Kikuyu Hospital Medical practitioners Report, 2013). It is against this background that the current study is going to investigate some factors influencing sustainability in health based project in Kenya: a case of PCEA Kikuyu hospital in Kiambu County, Kenya.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter focuses on the research design, the target population, sample size and sampling procedures, research instruments, instrument validity and instrument reliability, data collection procedures, and data analysis techniques.

3.2 Research design
The study used descriptive survey design to establish the managerial factors influencing sustainability of health based projects in Kenya: A case of PCEA Kikuyu hospital in Kiambu County. According to Orodho (2005) a descriptive survey is a method of collecting information by interviewing or administering questionnaires to a selected sample. The researcher prefered descriptive survey research design because the research was intended to produce statistical information about the factors influencing sustainability of health based projects in Kenya: A case of PCEA Kikuyu hospital in Kiambu County. Moreover, the design would allow gathering of information, summarizing, analyzing, presenting and interpreting it for the purpose of clarification. This was in line with Koul (1984) who points out that descriptive survey research design can enable the researcher to collect descriptions of existing phenomena with the intent of employing data to justify current conditions and practices or make more intelligent plans for improving them.
3.3 Target population

Target population refers to an entire group of individuals, events or objects having a common observable characteristic of interest to the researcher (Mugenda & Mugenda 2003). According to PCEA Kikuyu Hospital’s data, there were twelve (12) Elders/Women Guild, ten (10) Directors, thirty one (31) Doctors, seventeen (17) Clinical Officers and one hundred and forty (140) Nurses (Kikuyu District Development Plan 2010-2015). Concerning patients who visited the hospital, the number varied from 50 to 150 per day and even more depending with the season. But for the purpose of this study, a population of twenty (20) patients was appropriate. Hence, the target population was two hundred and thirty (230) respondents.

3.4 Sample Size and Sampling Procedures

3.4.1 Sample Size

Kombo and Tromp (2006) observed that a sample size of at least 10% of the target population would be representative. A larger sample was statistically chosen for this study so as to minimize the possibility of sample error. A Sample Size of one hundred and twenty five (125) respondents was obtained from the target population and had representation from each stratum. The sample size in this research forms 54.35% of the target population.

3.4.2 Sampling Procedures

Stratified random sampling was done to select one (1) Elders/Women Guild, one (1) Director, two (2) Doctors, two (2) clinical officers, fourteen (14) nurses and
two (2) patients who participated in the piloting study. Kombo and Tromp (2006) observed that a sample size of at least 10% of the target population would be representative. Based on this premise, 60% of the remaining eleven (11) Elders/Women Guilds, nine (9) Directors, twenty nine (29) Doctors, fifteen (15) clinical officers, eighteen (18) patients and 126 nurses were adequate for the purpose of this research study. The researcher, therefore, used a sample size of seven (7) Elders/Women Guilds, five (5) Directors, sixteen (16) Doctors, twelve (12) Clinical Officers, seventy five (75) Nurses and ten (10) patients. Simple random sampling technique was applied to select the seven (7) Elders/Women Guilds, five (5) Directors, sixteen (16) Doctors, twelve (12) Clinical Officers, seventy five (75) Nurses and ten (10) patients out of the 12 Elders/Women Guilds, nine (9) Directors, twenty seven (27) Doctors, twenty one (21) clinical officers, 126 nurses and eighteen (18) patients because all had the same probability of being chosen.

In summary, the research study had a sample size of 125 respondents, which comprised of seven (7) Elders/Women Guilds, five (5) Directors, sixteen (16) Doctors, twelve (12) Clinical Officers, seventy five (75) Nurses and ten (10) patients that were randomly selected from each stratum.

Table 3.1 Summary on Target Population and Sample size

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elders/Women Guild</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Directors</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Doctors</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>Clinical officers</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Nurses</td>
<td>140</td>
<td>75</td>
</tr>
<tr>
<td>Patients</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>230</strong></td>
<td><strong>125</strong></td>
</tr>
</tbody>
</table>
3.5 Research instruments

The study employed three questionnaires: for the Elders/Women Guild and Directors, Doctors and Nurses and patients as the research instruments. The questionnaire would help to save time, cost and reduce biasness of interviews leading to honest answers because there were no identification needed (Manson & Bramble, 1997). The questionnaire was divided into two parts: part A and B respectively. Part A consists of demographic data and part B the managerial factors influencing sustainability of health based projects: A case of PCEA Kikuyu hospital in Kiambu County, Kenya. Each item in the questionnaire was developed to address specific objectives or research questions of the study.

3.5.1 Validity of the Instruments

Mugenda and Mugenda (2003) states that, validity is the degree to which result obtained from the analysis of the data actually represents the phenomenon. The content validity was established by consulting supervisor who rendered judgment at the quality of the questionnaires by looking at the content of the items.

3.5.2 Reliability of the Instrument

According to Mugenda and Mugenda (2003), the reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. To establish the reliability of the questionnaires, pretesting through piloting method was done. The reliability r guided the researcher on the magnitude and direction of the relation. It varies from -1.00 to 0 showing negative association and 0 to 1.00 showing positive association. A reliability of 0 shows no relation while that +1 or -1 shows perfect positive or perfect negative
reliability respectively. The split-half method was used to determine the instrument reliability. The split-half involves splitting the questionnaires into two halves for example odd and even number item. Pearson’s correlation coefficient \( r \) (Best & Kahn, 2006) was calculated for the score of the two halves of questionnaires.

The formula is shown below

\[
r = \frac{\sum xy - (\sum x)(\sum y)/N}{\sqrt{[\sum x^2 - (\sum x)^2/N][\sum y^2 - (\sum y)^2/N]}}
\]

Where \( r \) = degree of relationship between odd and even numbers
- \( \Sigma x \) = sum of odd number scores
- \( \Sigma y \) = sum of even number scores
- \( (\Sigma y)^2 \) = square of \( \Sigma y \)
- \( (\Sigma x)^2 \) = square of \( \Sigma x \)
- \( \Sigma x^2 \) = sum of square of \( x \)
- \( \Sigma y^2 \) = sum of square of \( y \)
- \( \Sigma xy \) = sum of product of \( x \) and \( y \)
- \( N \) = number of paired odd and even numbers

A correlation coefficient of 0.7 was achieved which is reliable (Best & Kahn, 2006).

\[
r = \frac{2r}{1+r}
\]

### 3.6 Data collection procedures

After obtaining the University letter of research approval, the researcher sought for a research permit from the National Council for Science, Technology and Innovation (NACOSTI). A courtesy call was also made to the Clinical Council Office before embarking on final research. The interviewees were informed in advance before the data collection date. The researcher visited the hospital
selected and gave out the questionnaires. Once they were filled in, the researcher collected them after a week.

3.7 Data analysis techniques
Data analysis was anchored on the research questions adopted by the study. The filled in questionnaires were collected and edited by the researcher for completeness and consistency. Data was then summarized, coded, edited and then the information synthesized to reveal the essence of data. The issues requiring open-ended questions were analyzed qualitatively. Data was then analyzed both manually and by use of Statistical Package for Social Sciences (SPSS) (Mugenda & Mugenda, 2003). Once data had been analyzed, interpretation was carried out by looking at relationships among categories and patterns that would suggest generalizations and conclusions (Best & Kahn, 2006) as per the objectives and research questions of the study.

3.8 Ethical issues
The participants were given the assurance that their identity would not be disclosed. Participation in the study was optional and writing of names in the questionnaire was not allowed. The researcher sought permission first before approaching the participants to participate in the study. The copy of the permit was circulated to committee members and departmental Heads / Directors who were available before the day of data collection.
### 3.9 Operationalization of Study Variables

#### Table 3.2: Operationalization of study variables

<table>
<thead>
<tr>
<th>Objectives</th>
<th>variables</th>
<th>Indicators</th>
<th>Measure</th>
<th>Level of Measurement</th>
<th>Tools of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish how community involvement influences sustainability of health based projects</td>
<td><strong>Independent</strong> Community involvement</td>
<td>Representation in the: - Boards - Subordinates staff</td>
<td>Number of male and female in: - boards - subordinates staff</td>
<td>Ratio</td>
<td>Descriptive analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frequency distribution tables</td>
</tr>
<tr>
<td>To investigate how service charge influences sustainability of health based projects</td>
<td><strong>Independent</strong> Service charge</td>
<td>- Duration for registration and payment - Cost of services</td>
<td>- Length of time for registration and payment before service - Degree of affordability of service to the poor</td>
<td>Ordinal</td>
<td>Descriptive analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frequency distribution tables</td>
</tr>
<tr>
<td>To establish how customer care influence sustainability of health based projects</td>
<td><strong>Independent</strong> Customer care</td>
<td>- Complaints and opinions - Reaction promptness - Customer feedback</td>
<td>Degree of: - Frequency in receiving complaints and opinions - Time taken to respond - Frequency in making follow-up</td>
<td>Ordinal</td>
<td>Descriptive analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frequency distribution tables</td>
</tr>
<tr>
<td>To investigate how financial sources influence sustainability of health based projects</td>
<td><strong>Independent</strong> Main financial sources</td>
<td>Sources of funds: - Internal sources - External sources</td>
<td>- Percentage range of funding from donations - Percentage range of funding from income due to service charge - Percentage range of funding from stakeholder</td>
<td>Interval</td>
<td>Descriptive analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frequency distribution tables</td>
</tr>
<tr>
<td><strong>Dependent</strong> Sustainability of health based project</td>
<td></td>
<td>Physical facilities Human resource</td>
<td>- Level of integrating new technology - Capacity to hire and retain enough personnel - Level of preparedness for disease out-breaks</td>
<td>Ordinal</td>
<td>Descriptive analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frequency distribution tables</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter gives analysis of the research findings that are presented using tables with values and percentages from which interpretation was derived. Data was analyzed both manually and by use of SPSS computer programme.

4.2 Questionnaire return rate

A total of seven (7) Elders/Women Guilds’ (E/WGs) questionnaires, five (5) Directors’ (Ds) questionnaires, sixteen (16) Doctors’ questionnaires (Drs), twelve (12) Clinical Officers’ (Cos) questionnaires, seventy five (75) Nurses’ (NSs) questionnaires and ten (10) patients’ questionnaires were distributed. All other questionnaires were returned duly completed representing 100.0% except for the nurses where only sixty (60) were returned and fifteen (15) did not. The overall return rate was one hundred and fifteen (115) out of one hundred and twenty five (125) representing ninety two percent (92%) which was sufficient for the research. The data collected was tabulated as per the questionnaires systematically covering all the items as per the research objectives.

4.3 General Characteristics

It was essential for the study to gather data on Elders/Women Guilds’, Directors’, Doctors’, Clinical Officers’ and Nurses’ background in terms of gender. The ages, academic and professional qualifications of respondents were also captured.
These variables would directly or indirectly influence sustainability of health based projects in Kenya. The Elders/Women Guilds’, Directors’, Doctors’, Clinical Officers’ and Nurses’ demographic data are summarized as follows:

4.3.1 Distribution of personnel based on gender

Gender was considered important in this study because it could directly or indirectly influence management and sustainability of health based projects in Kenya. Much at times male gender has been empowered than female when it comes to some occupations and careers in the society. Hence, the need for this study to establish number of Elders/Women Guilds, Directors, Doctors, Clinical Officers and Nurses in terms of gender.

Table 4.1 Distribution of personnel based on Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>E/WG</th>
<th>%</th>
<th>Ds</th>
<th>%</th>
<th>Drs</th>
<th>%</th>
<th>COs</th>
<th>%</th>
<th>NSs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>9</td>
<td>75.0</td>
<td>6</td>
<td>60.0</td>
<td>13</td>
<td>41.9</td>
<td>8</td>
<td>47.1</td>
<td>127</td>
<td>88.8</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>25.0</td>
<td>4</td>
<td>40.0</td>
<td>18</td>
<td>58.1</td>
<td>9</td>
<td>52.9</td>
<td>16</td>
<td>11.2</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>16</td>
<td>100.0</td>
<td>12</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3.2 Age Bracket of the Respondents in years

Elders/Women Guilds, Directors’, Doctors, Clinical Officers’, Nurses’ and patients’ age were also asked to indicate their age bracket and the data collected are in Table 4.2.
### Table 4.2: Distribution of Respondents’ by Age in Years (Yrs)

<table>
<thead>
<tr>
<th>Yrs</th>
<th>E/WG</th>
<th>%</th>
<th>D</th>
<th>%</th>
<th>Drs</th>
<th>%</th>
<th>CO</th>
<th>%</th>
<th>NS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-30</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>18.8</td>
<td>7</td>
<td>58.3</td>
<td>36</td>
<td>60.0</td>
</tr>
<tr>
<td>31-40</td>
<td>0</td>
<td>14.3</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>31.3</td>
<td>5</td>
<td>41.7</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>41-50</td>
<td>4</td>
<td>57.1</td>
<td>3</td>
<td>60.0</td>
<td>6</td>
<td>37.5</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>51-60</td>
<td>3</td>
<td>28.6</td>
<td>2</td>
<td>40.0</td>
<td>2</td>
<td>12.4</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>16</td>
<td>100.0</td>
<td>12</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From Table 4.2, the results indicate that majority of Elders/Women Guilds (57.1%), Directors (60.0%) and Doctors (37.5%) were in the age bracket of 41-50 years respectively. The age of Elders/Women Guilds, Directors and Doctors indicate that they have good experience, knowledge and understanding when it comes to planning, organization, coordination and control in the hospital.

### 4.3.3 Academic and professional qualifications of the Respondents

Academic and professional qualifications of Elders/Women Guilds, Directors, Doctors, Clinical Officers and Nurses were also factors considered in this study. Elders/Women Guilds’, Directors’, Doctors’, Clinical Officers’ and Nurses’ academic and professional qualifications directly or indirectly determine how the sustainability of health based projects and other material resources can be handled in planning on how to attain the Millennium Development Goals (MDGs).
Elders/Women Guilds’, Directors’, Doctors’, Clinical Officers’ and Nurses’ academic and professional qualifications are shown in Table 4.3.

**Table 4.3: Respondents’ academic and professional qualifications**

<table>
<thead>
<tr>
<th>Education</th>
<th>E/WG</th>
<th>%</th>
<th>D</th>
<th>%</th>
<th>Drs</th>
<th>%</th>
<th>CO</th>
<th>%</th>
<th>NS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>1</td>
<td>14.3</td>
<td>2</td>
<td>40.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Bachelor</td>
<td>5</td>
<td>71.4</td>
<td>3</td>
<td>60.0</td>
<td>16</td>
<td>100.0</td>
<td>5</td>
<td>41.7</td>
<td>13</td>
<td>21.7</td>
</tr>
<tr>
<td>Diploma</td>
<td>1</td>
<td>14.3</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>7</td>
<td>58.3</td>
<td>32</td>
<td>53.3</td>
</tr>
<tr>
<td>Certificate</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>15</td>
<td>25.0</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>16</td>
<td>100.0</td>
<td>12</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Results from the Table show that the majority of the Elders/Women Guilds (71.4%), Directors (60.0%) and Doctors (100%) had a Bachelor’s degree. Another percentage of Clinical Officers (58.3%) while Nurses (21.67%) had degrees, (53.33%) had Diploma and (15%) had certificates. The overall planning of the sustainability of health projects is vested in the hands of all health officers. It is, therefore, imperative that health officers be persons with good education and sufficient practical knowledge in health programmes. They should have a required minimum academic qualification which will allow them to interpret parliamentary Acts and other policies which relate to health and planning in the hospital.
4.3.4 Respondents’ Experience

Another factor considered was Elders/Women Guilds, Directors’, Doctors’, Clinical Officers’ and Nurses’ response on years served in the hospital. Data captured was presented in Table 4.4.

Table 4.4: Respondents’ Experience

<table>
<thead>
<tr>
<th>Years</th>
<th>E/WG</th>
<th>%</th>
<th>D</th>
<th>%</th>
<th>Drs</th>
<th>%</th>
<th>CO</th>
<th>%</th>
<th>NS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>18.8</td>
<td>7</td>
<td>58.3</td>
<td>36</td>
<td>60.0</td>
</tr>
<tr>
<td>6-10</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>5</td>
<td>31.3</td>
<td>5</td>
<td>41.7</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>11–15</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>37.5</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>16–20</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>12.4</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>16</td>
<td>100.0</td>
<td>12</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Results from the table indicate that the respondents had served in the hospital for at least 5 years and above. These Elders/Women Guilds, Directors, Doctors Clinical Officers and Nurses, therefore, had good information on the Factors Influencing Sustainability of Health Based Projects: A case of PCEA Kikuyu Hospital in Kiambu County, Kenya. An organized body of leaders who have got not only technical knowledge, but also the standing to provide clinical supervision and oversight of its members’ clinical care and performance is vital. Therefore, to fail to adequately sustain members into the organization’s leadership the leaders who can evaluate and establish direction for the clinical care and decision making throughout the organization, is to create a fundamental gap in the leadership’s
capability to achieve the organization’s goals with respect to the safety and quality of care, financial sustainability, community service, and ethical behavior.

4.3.5 Hospital’s ownership structure

Hospital’s ownership structure was another factor to be considered in this study. Ownership structure in one way or another might influence sustainability of health projects. Data were collected from Elders/Women Guilds, Directors, Doctors Clinical Officers and Nurses and results are tabulated in Table 4.5.

<table>
<thead>
<tr>
<th>Ownership</th>
<th>E/WG</th>
<th>%</th>
<th>D</th>
<th>%</th>
<th>Drs</th>
<th>%</th>
<th>CO</th>
<th>%</th>
<th>NS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charitable</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>16</td>
<td>100.0</td>
<td>11</td>
<td>91.7</td>
<td>58</td>
<td>96.7</td>
</tr>
<tr>
<td>Family</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Private</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>8.3</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>16</td>
<td>100.0</td>
<td>12</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The results from the table indicate that majority of Elders/Women Guilds, Directors, Doctors Clinical Officers and Nurses indicated that PCEA Kikuyu hospital in Kiambu County is a charitable entity. This implies the hospital still relies partly on support from the external to meet objectives. A sustainable project should be self-reliant by generating enough income from service charge. The
results show that the hospital is not in a position to finance fully its operations posing a sustainability risk.

4.4 Community involvement and sustainability of HBP

Communities around the hospital play an important role in the implementation and progress of health based projects. The health projects that respond to community needs are locally owned. Lack of community participation may lead to a failed project. Data was collected and tabulated from Elders/Women Guilds, Doctors’, Clinical Officers’ and Nurses’ response on the following items related to how community involvement influences sustainability of health based projects:

A case of PCEA Kikuyu Hospital in Kiambu County, Kenya.

4.4.1 Population of the Community members in the Workforce

Elders/Women Guilds were to indicate number of employees in Kikuyu hospital.

Data collected was tabulated in Table 4.6

Table 4.6: Population of Community members in the BM and SS

<table>
<thead>
<tr>
<th>No. of Employees</th>
<th>E/WGs</th>
<th>%</th>
<th>SS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>20.0</td>
</tr>
<tr>
<td>101-150</td>
<td>4</td>
<td>57.1</td>
<td>7</td>
<td>70.0</td>
</tr>
<tr>
<td>151-200</td>
<td>2</td>
<td>28.6</td>
<td>1</td>
<td>10.0</td>
</tr>
<tr>
<td>201-250</td>
<td>1</td>
<td>14.3</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>251-300</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Over 300</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7</td>
<td>100.0</td>
<td>10</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Results from Table 4.6 show that the hospital has employees from the community ranging from 101 to 150 out of 459 as provided in the records of employees in the institution. The representation of the community is very poor. There is tremendous need for community involvement for medical practitioners to help those without direct access to medicine. Without much consideration of this, local creativity and ingenuity suffers in the long run. This affects sustainability of the hospital. This finding is inconsistent with Pretty and others (1995) who established that community involvement has a great impact on how independent medical practitioners think about the mission of the hospital and its sustainability. On their mission, independent medical practitioners’ success and fulfillment is tied directly to how committed they are to helping people and integrating themselves into local communities. The hospital management should embrace community involvement for its sustainability.

4.4.2 Size and Composition of Elders/Women Guilds

Size of the board was another factor to consider in this study. Elders/Women Guilds, Directors, Doctors, Clinical Officers and Nurses were, therefore, to give response on the size of the board. Data captured was tabulated in Table 4.7
Table 4.7: Size and Composition of Elders/Women Guilds

<table>
<thead>
<tr>
<th>Size</th>
<th>E/WGs</th>
<th>%</th>
<th>Ds</th>
<th>%</th>
<th>Drs</th>
<th>%</th>
<th>COs</th>
<th>%</th>
<th>NSs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6 members</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>7-8 members</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>12.5</td>
<td>5</td>
<td>41.7</td>
<td>2</td>
<td>3.4</td>
</tr>
<tr>
<td>9-10 members</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>14</td>
<td>87.5</td>
<td>6</td>
<td>50.0</td>
<td>30</td>
<td>50.0</td>
</tr>
<tr>
<td>11-12 members</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>8.3</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100.0</td>
<td>5</td>
<td>100.0</td>
<td>16</td>
<td>100.0</td>
<td>12</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Results from the table show that size of the board is in the range of 9-10. According Glenn (2007), the average size of the board varies depending with the capacity of the organization and what they are expected to achieve. This implies that the board size in the range of 9-10 is appropriate and hence is likely to deliver on their responsibilities for sustainable hospital development.

4.5 Service Charge and Sustainability of HBP

Access to basic health services of acceptable quality is still denied to many of the world’s poorest people. Payments for health services, in the form of user charges, are likely to present a barrier to access. According to (Trustee Magazine, January, 2009), hospital boards need to have renewed appreciation and understanding of the risks associated with payment procedures. Both consumers and payers are demanding improved care and competition; hence the hospital must handle with
care its position for future sustainability. Hence the study investigated charges for the services and the payment process at PCEA Kikuyu Hospital in Kiambu County, Kenya.

4.5.1 Response on Service Charge

Respondents were asked to state whether they agree with the statements that relate to service charge in their hospital as per scale given and data presented and tabulated in Table 4.8.

Table 4.8: Response on service charge

<table>
<thead>
<tr>
<th>Statement</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration and payment procedures do delay service delivery to patients</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>The service charges are relatively fair and affordable to the poor</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

N=10

Results from the table show that respondents disagreed with the fact that Payment procedures do delay service delivery to patients. This shows the service delivery in PCEA Kikuyu hospital is checked to ensure that patients get satisfied with services. Besides, this shows that management of PCEA Kikuyu hospital have clear knowledge and understanding of the risks associated with payment procedures. Both consumers and payers are demanding improved care and
competition; hence the hospital must handle with care its position for future sustainability. Dave, (2010) also found that everyone, regardless of nationality, who is accepted by the Health Service Executive as being ordinarily resident is entitled to access in-patient and out-patient services in publicly funded hospitals, that is, hospitals and voluntary hospitals. Certain visitors are also entitled to public health. One may have to pay some hospital charges, unless you have a medical card or belong to certain other groups listed below. There are daily in-patient charges and some long-term stay charges. If you are not resident in that community and you do not belong to any of the groups that are entitled to free services, you have to pay the full economic cost of the bed, whether it is a public bed or a private bed. You also have to pay the consultant. The hospital has the discretion to reduce or waive the charges in cases of hardship.

4.6 Customer Care and Sustainability of HBP

Human and public relations open eyes to the sufferings that occur to so many people and allow lying down a good foundation to future sustainability that is rewarding (Cornelissen, 2004). Customer care is uniquely placed to identify and understand the needs and expectations of the health based project as perceived by the members of the community. Through communication planning and management, public relations practitioners build and enhance hospital reputation and build and maintain relationships that are important to the hospital and its goals (Amisha & Robina, 2009). A host of factors on customer care have been identified as obstacles to effective sustainability of health based projects. Hence,
the need for this study to collect data related to customer care in PCEA Kikuyu hospital, in Kiambu County.

4.6.1 Responses on Customer Care
To gather information on the influence of Customer care on sustainability of health based projects, Elders/Women Guilds/Directors’ and patients’ in PCEA Kikuyu hospital were to respond to statements given and data was recorded in Table 4.9.

Table 4.9: Responses on Customer Care

<table>
<thead>
<tr>
<th>Statement</th>
<th>Patients</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The management receive complains through suggestion box regularly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The management use the suggestions and opinion received to respond to public demands</td>
<td>5</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>The management makes follow up to receive the feedback from the public</td>
<td>3</td>
<td>60.0</td>
<td>2</td>
<td>40.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Patients are satisfied with services provided</td>
<td></td>
<td>5</td>
<td>50.0</td>
<td>0</td>
<td>50.0</td>
<td>0</td>
</tr>
<tr>
<td>Payment procedures do delay service delivery</td>
<td>0.0</td>
<td>1</td>
<td>10.0</td>
<td>1</td>
<td>10.0</td>
<td>6</td>
</tr>
<tr>
<td>The service charges are relatively fair and affordable to the poor</td>
<td></td>
<td>5</td>
<td>50.0</td>
<td>5</td>
<td>50.0</td>
<td>0</td>
</tr>
</tbody>
</table>
The results in the Table 4.9 show that the responses are positive, that is they show
customer care services are standard. However, there is need for the management
to improve on customer care by avoiding delayed response and necessary
adjustment of services to patients based on complains and opinions. Mulwa,
(2004) argued that delayed response could make clients opt for similar services in
other organization within their reach. Customer care services that relate to
bureaucratic procedures, operated by a set of guidelines and adopt a blue print
approach, providing little space for people to make their own decisions or control
their development process become an obstacle to sustainable health based
projects. According to Cooke and Kothari (2001), this has been translated into
managerial “toolboxs” of procedures and techniques that overlook the numerous
communal activities that occur through daily interactions and socially embedded
arrangements.

4.7 Financial Sources and Sustainability on HBP

The study sought to investigate the financial resources and sustainability on HBP.
In order to further establish the influence of financial resources on the
sustainability of HBP, doctors and nurses were requested to indicate their level of
agreement on the extent to which the Challenges due to financial Sources was
affecting the sustainability of the Hospital.

4.7.1 Responses on challenges due to lack of finances

For sustainability to be realized in health based projects there must always be
barriers along the way that limits the capacity to deliver health care services to
patients especially with regard to finances. PCEA Kikuyu hospital is not an exception.

To establish challenges experienced which act as a barrier to sustainability in the hospital, Doctors and nurses were asked to state some challenges faced as a result of inadequate finances. Data obtained was tabulated in Table 4.10.

**Table 4.10: Response on challenges due lack of finances**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Doctors</th>
<th>%</th>
<th>Nurses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No advanced services like CT- Scan, MRI-Scan</td>
<td>4</td>
<td>25.0</td>
<td>16</td>
<td>26.6</td>
</tr>
<tr>
<td>Lack of comprehensive scheme of service for employees</td>
<td>2</td>
<td>12.5</td>
<td>9</td>
<td>15.0</td>
</tr>
<tr>
<td>Institution has sponsorship program for further staff training and upgrading/promotion</td>
<td>1</td>
<td>6.25</td>
<td>4</td>
<td>6.7</td>
</tr>
<tr>
<td>Little awareness among workers of rights they may have or opportunities they may exploit</td>
<td>3</td>
<td>18.75</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>Not prepared for emergency e.g. ebola</td>
<td>3</td>
<td>18.75</td>
<td>9</td>
<td>15.0</td>
</tr>
<tr>
<td>High rate of turnover of staffs per month and per year</td>
<td>1</td>
<td>6.25</td>
<td>6</td>
<td>10.0</td>
</tr>
<tr>
<td>Shortage of finances to employ enough medical staff</td>
<td>1</td>
<td>6.25</td>
<td>4</td>
<td>6.7</td>
</tr>
<tr>
<td>Low level of motivation of medical staffs</td>
<td>1</td>
<td>6.25</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>
From the table, several serious barriers have been identified such as no advanced services like CT-Scan, MRI-Scan, little awareness among people of rights they may have or opportunities they may exploit, hospital not prepared for emergency example; ebola, lack of comprehensive scheme of work for employees, high rate of staff turnover and minimal referrals in the General Unit. Unfortunately, these are major hindrances to sustainability in the hospital. The hospital receives Government support through hiring of some medical staffs to bridge the gap in work force.

Having been in existence for more than 100 years the hospital is expected to have enough financial resources for purchase of some expensive machines to meet the changing demands of the patients. Adjusting the system to the changing demands makes the project adaptive and resilient hence sustainable. Availability of services like CT-Scan will attract more clients that in turn increase the internal income generation. A comprehensive scheme of work will motivate and retain employees by providing room for promotions and annual salary increment. Employees are always optimistic that their future will be brighter through salary increase and promotions hence the scheme of work has to feature improvement of employment terms and conditions with respect to time and performance. Workers are highly motivated and perform better if they have job security and the management recognizes their outstanding performances. Employees with a notion of losing the same job at any time feel insecure and perform poorly. Poor performance by workers reduces the probability of achieving the objectives and goals of the organisation hence its unsustainability.
5.1 Introduction

This chapter provides a brief summary of the findings, discussion, conclusions and recommendations of the study. The study also offers suggestions for further research.

5.2 Summary of the findings

The following is a summary of the findings that were arrived at after the analysis of data and summary is based on research objectives.

5.2.1 Community Involvement and Sustainability of HBP

The representation of the community was found to be very poor. Results from Table 4.6 show that the hospital has employees from the community ranging from 101 to 150 out of 459 as provided in the records of employees in the institution. There is tremendous need for community involvement for medical practitioners to help those without direct access to medicine. Without much consideration of this, local creativity and ingenuity would suffer in the long run. This would affect sustainability of the hospital. Besides, the composition of the Elders/Women Guilds (E/WGs) in terms of gender was predominantly male (75.0%). One gender dominating in a given project can affect its sustainability. In addition, basing on
the composition and size of the Elders/Women Guilds, results from Table 4.7 show that size of the Elders/Women Guilds is in the range of 9-10.

5.2.2 Service Charge on Sustainability of HBP

Access to basic health services of acceptable quality is still denied to many of the world’s poorest people. For PCEA Kikuyu hospital, results from Table 4.9 show that the respondents disagreed with the fact that registration and payment procedures do delay service delivery to patients (60.0%). For the service charges, however, respondents stated that they are relatively fair and affordable to the poor (40.0%).

5.2.3 Customer Care and sustainability of HBP

Customer care is uniquely placed to identify and understand the needs and expectations of the health based project as perceived by the members of the community. Results from Table 4.10 show that Directors encourage patients to regularly make use of the suggestion box to launch complain (100.0%). So as to receive the feedback from the public on complaints and opinions, Directors make regular follow up to patients. Table 4.10 indicates that patients strongly agreed that they are satisfied with services provided in the PCEA Kikuyu hospital (50.0%) and that service charges are relatively fair and affordable to the poor (50.0%).
5.2.4 Financial Resources and Sustainability of HBP

From Table 4.11, Doctors (25.0%) and Nurses (26.6%) identified lack of advanced services like CT-Scan and MRI-Scan to be a serious challenge in the hospital. Besides, the hospital not being prepared for emergency like Ebola was another big challenge to Doctors (18.75%) and Nurses (15.0%).

5.3 Discussion

From the responses, the representation of the community was found to be very poor. There is tremendous need for community involvement for medical practitioners to help those without direct access to medicine. Without much consideration of this, local creativity and ingenuity would suffer in the long run. This would affect sustainability of the hospital. Besides, the composition of the work force in terms of gender was predominantly male. One gender dominating in a given project can affect its sustainability. Ensuring a strong foundation for development of both genders must be a priority area for sustainability of health projects. According to Glenn (2007), there are several benefits for community involvement as they practice sustainable models of financial support. As they assume the responsibility of providing for the needs of their local hospital, they feel the weight and responsibility of ownership. If the community members are the once who receive the benefits of hospitalization, then sustainability of the hospital is for them (Glenn, 2007).

Customer care is uniquely placed to identify and understand the needs and expectations of the health based project as perceived by the members of the
community. Results show that there is need for the management to improve on
customer care by responding faster to complain and opinions. Failure of which
could make patients to withdraw and seek health care services from other
preferred hospitals. Results in this study are clearly related to Amisha & Robina
(2009) who states that through communication, planning and management, public
relations practitioners build and enhance hospital reputation and build and
maintain relationships that are important to the hospital and its goals. Results are
also in relation to Webler (2001) who argues that effective public participation is
achieved by making the decision-making process transparent and responsive to
public input, so that participants can see how their input is considered and
weighed by the decision-makers (Webler, et.al 2001). Fortunately, the decision-
making process in PCEA Kikuyu hospital tends to be very flexible in making
almost anyone to understand its communication procedure.

Findings are in line with Dukeshire et al (2002) who state that understanding the
process can help empower individuals and community-based organizations to
impact policy. Concerning influence of financial sources on sustainability of
HBP, access to basic health services of acceptable quality and position on service
charge for future sustainability in PCEA Kikuyu hospital is handled with care by
the managerial team. This shows that PCEA Kikuyu hospital has clear knowledge
and understanding of the risks associated with high or very low cost of service.
Both consumers and payers are demanding improved health care and competition;
hence the hospital must handle with care its position on service charge for future
sustainability. However, several serious barriers were identified such lack of
provision of advanced services like CT-Scan and MRI-Scan, little awareness among people of rights they may have or opportunities they may exploit, hospital not prepared for emergency e.g. Ebola and lack of comprehensive scheme of work to employees. Unfortunately, these are major hindrances to sustainability in the hospital.

5.4 Conclusions of the study

From the findings of the study, Community Involvement has a positive impact on sustainability. It brings about harmony among the community, Elders/Women Guilds, Directors, Doctors, Clinical Officers and Nurses. High service charge eliminates the low income population thus impacting negatively on sustainability. Service charge should be designed to suit all members of the community based on their ability to pay. Failure to accept complains and opinions or delay in responding to the demands could make patients to withdraw thus undermining sustainability of the health based projects.

Failure of the management to invest more financial resources in buying the necessary equipment like MRI-Scanning machines and improving the working conditions for the staffs have a negative impact on sustainability of the health based projects. The project should be managed such that it can finance sustain itself by generating enough internal income. Dependence on donations from well-wishers and Government support in human resources impacts negatively on sustainability.
5.5 Recommendations of the Study

Basing on the stated findings and conclusions, the following recommendations were made:

i. The GOK should collaborate with World Bank and WHO to ensure that sustainability is achieved in health based projects in Kenya.

ii. Elders/Women Guilds and Directors should be on the forefront to ensure that the policy of sustainability is implemented in the hospital. Mechanisms have to be put in place to upgrade planning skills of all the health officers in the hospital. This would be done through medical research, conferences, seminars and workshops organized either by the hospital or by the Ministry of Health (MoH) so as to empower them with skills for sustainability of the health projects.

iii. Based on the findings, the management need to come up with a comprehensive scheme of service for professional workers that provides room for upward mobility in job group promotions and salary increments that are attractive to motivate and retain staff.

iv. The management needs to maintain a vibrant customer care system to avoid delayed response to complain and opinions. These will enable the management to identify gaps within the structure and make necessary adjustments to meet the demands of patients. The customer care system will enhance good relationship of the hospital with the clients and the community at large hence building trust and support for its sustainability.

v. Based on the findings of influence of financial resources on Sustainability the researcher recommends that: the managers of the health based projects
should ensure that the facility is able to finance its own programs by generating enough internal income through entrepreneur strategies and adopt adaptive governance approach for greater sustainability. Dependence on external sources of funds and support should be discouraged and innovativeness of new ways in raising funds internally encouraged.

vi. The researcher recommends that the hospitals need to source for funds to purchase expensive but very useful machines for MRI-Scanning and CT-Scanning whose demand has escalated. This will attract more clients hence more income generation.

### 5.6 Suggestions for further research

The following suggestions can be considered for further research:

i) A replica of the study should be performed in other health based projects in other counties in Kenya to provide comparison in findings.

ii) A study should be done on how comprehensive scheme of service for workers influences performance and sustainability of community health based project in Kenya.
REFERENCES


Alliance for Health Policy and Systems Research (2008). *Neglected health systems research*. Governance and Accountability


Holly J. G & Marsha E. S. (1999), Corporate Governance, “What it is and Why it matters”, 9th International Anti-Corruption Conference, 10-15 October 1999, Durban, South Africa


Jones, Renee M., (2010) "Corporate Governance and Accountability”. Boston College Law School Faculty Papers. Paper311. [http://lawdigitalcommons.bc.edu/lsfp/311](http://lawdigitalcommons.bc.edu/lsfp/311)


Seward M. Cooper, Esq., (2007). Corporate Governance in Developing Countries: Shortcomings, Challenges & Impact on credit


Trustee Magazine (January, 2009). “Capital Project Success Depends on Strong Board Oversight”


WORLD VISION (2002) Transformational Development Indicators Field Guide. Washington:

APPENDICES

APPENDIX 1: INTRODUCTION LETTER

UNIVERSITY OF NAIROBI
SCHOOL OF CONTINUING AND DISTANCE LEARNING
DEPARTMENT OF EXTRA-MURAL STUDIES
NAIROBI
10TH JULY, 2015

Dear Respondent,

**RE: COLLECTION OF SURVEY DATA**

I am a postgraduate student at the University of Nairobi pursuing a Master of Arts degree in project planning and management. In order to fulfill the degree requirements, I am undertaking a research project titled: Factors Influencing Sustainability of Health Based Projects: The case of PCEA Kikuyu Hospital in Kiambu County.

PCEA Kikuyu Hospital has been selected to form part of this study. This is to kindly request you to assist me collect the data by honestly filling out the accompanying questionnaire. The information collected will be used strictly for academic purposes and will be treated with utmost confidentiality. At no time will your name appear in my report.

Your cooperation will be highly appreciated and your feedback will assist the researcher come up with useful information on the study. Thank you.

Yours sincerely

Joseph Masombo
L50/65791/2010
APPENDIX 2: QUESTIONNAIRE FOR ELDERS/WOMEN GUILD AND DIRECTORS

This questionnaire is designed to collect views on Factors Influencing Sustainability of Health Based Projects: The case of PCEA Kikuyu Hospital in Kiambu County. The information collected will be used strictly for academic purposes and will be treated with utmost confidentiality. Your feedback will assist the researcher come up with useful information on the study.

Part One: General Information

Respondent Profile

1) Please tick your gender: Male [ ] Female [ ]

2) Please tick your age bracket:
   20-30 [ ] 31-40 [ ]
   41-50 [ ] 51 and above [ ]

3) Please tick your highest level of education?
   a) Certificate [ ]
   b) College diploma [ ]
   c) University degree [ ]
   d) Master’s degree [ ]
   e) Others (please state) ________________________________

4) Please tick the number of years you have worked in this hospital?
   a) 0-5 years [ ]
   b) 6-10 [ ]
   c) 11 – 15 [ ]
   d) 16 – 20 [ ]
e) 20 years and above [ ]

**Hospital Profile**

5) Name of your Hospital (Optional) __________________________________

6) What is the ownership structure of your hospital? (Please tick applicable):
   a) Charitable/Religious institution [ ]
   b) Family business [ ]
   c) Individual/Private Limited [ ]
   d) other (please specify) __________

7) Is your hospital run by board members/directors: Yes [ ] No [ ]

8) If yes, what is the size of the board:
   a) 5-6 members [ ]
   b) 7-8 members [ ]
   c) 9-10 members [ ]
   d) 11-12 members [ ]
   e) any other __________

9) What is the composition of the board in terms of gender (male vs. female)?
   ____________________________________________________________

10) If no, who runs the hospital? ____________________________

**Two: Factors Influencing Sustainability of Health Based Projects**

11) Do you agree with the following statements that relate to your hospital? Use scale of 5-1, where 5 = Strongly agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly disagree: (Please tick in the appropriate column)
<table>
<thead>
<tr>
<th><strong>Response</strong></th>
<th><strong>5</strong></th>
<th><strong>4</strong></th>
<th><strong>3</strong></th>
<th><strong>2</strong></th>
<th><strong>1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The community is well represented in the Boards of management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The community is well represented in the sub-ordinate staff</td>
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<td></td>
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<tr>
<td>The management receives complains and opinions through suggestion box regularly</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The management uses the suggestions and opinion received to respond to public demands promptly</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The management makes a follow up to receive the feedback from the public</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

12) Rate the amount of finances received from the following sources in terms of percentages as compared to the total budget of the Hospital per year

(Please tick in the appropriate column)

<table>
<thead>
<tr>
<th><strong>Percentage intervals (%)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources of funds</td>
</tr>
<tr>
<td>------------------------------</td>
</tr>
<tr>
<td>Internal income generation from service charge</td>
</tr>
<tr>
<td>Contribution from stakeholders like church, community and the Government of Kenya</td>
</tr>
<tr>
<td>Donations from well-wishers like sponsors and missionaries</td>
</tr>
</tbody>
</table>

14) Please share any other information on challenges that you may have about Kikuyu mission hospital in Kiambu County.______________________________
APPENDIX 3: QUESTIONNAIRE FOR DOCTORS AND NURSES

This questionnaire is designed to collect views on Factors Influencing Sustainability of Health Based Projects: The case of PCEA Kikuyu Hospital in Kiambu County. The information collected will be used strictly for academic purposes and will be treated with utmost confidentiality. Your feedback will assist the researcher come up with useful information on the study.

Part One: General Information

Respondent Profile

1) Please tick your gender: Male [ ] Female [ ]

2) Please tick your age bracket:

   20-30 [ ]
   31-40 [ ]
   41-50 [ ]
   51 and above [ ]

3) Please tick your highest level of education?

   a) Certificate [ ]
   b) College diploma [ ]
   c) University degree [ ]
   d) Masters degree [ ]
   e) others (please state)

4) Please tick the number of years you have worked in this hospital?

   a) 0-5 years [ ]
   b) 6 -10 [ ]
   c) 11 – 15 [ ]
d) 16 – 20 [ ]  
e) 20 years and above [ ]

**Hospital Profile**

5) Name of your Hospital (Optional) __________________________________

6) What is the ownership structure of your hospital? (Please tick applicable):
   - a) Charitable/Religious institution [ ]
   - b) Family business [ ]
   - c) Individual/Private Limited [ ]
   - d) other (please specify) __________

7) Is your hospital run by board members/directors: Yes [ ] No [ ]

8) If yes, what is the size of the board:
   - a) 5-6 members [ ]
   - b) 7-8 members [ ]
   - c) 9-10 members [ ]
   - d) 11-12 members [ ]
   - e) any other __________

9) What is the composition of the board in terms of gender (male vs. female)?
   ___________________________________________________________________

10) If no, who runs the hospital? ________________________

11) Is the community represented in the board of management? Yes [ ] No [ ]

12) Do you agree with the following statements that relate to your hospital? Use scale of 5-1, where 5 = Strongly agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly disagree: (Please tick in the appropriate column)
Part Two: Factors Influencing Sustainability of Health Based Projects

<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

The facility do not offer some advanced services like CT-Scan, MRI-Scan

Institution lacks sponsorship program for further staff training and upgrading/promotion

The hospital experiences high rate of staff transfers

Absence of comprehensive scheme of service for employees that stipulates annual salary increment, upgrading, promotions and other incentives

The hospital frequently experience shortages of medical personnel

Little awareness among workers of rights they may have or opportunities they may exploit

The facility is equipped to handle disease outbreak like Ebola

13) Please share any other information on challenges that you may have about Kikuyu mission hospital in Kiambu County.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
APPENDIX 4: QUESTIONNAIRE FOR PATIENTS

This questionnaire is designed to collect views on Factors Influencing Sustainability of Health Based Projects: The case of PCEA Kikuyu Hospital in Kiambu County. The information collected will be used strictly for academic purposes and will be treated with utmost confidentiality. Your feedback will assist the researcher come up with useful information on the study.

Part One: General Information

Respondent Profile

1) Please tick your gender: Male [ ] Female [ ]

2) Please tick your age bracket:
   20-30 [ ]
   31-40 [ ]
   41-50 [ ]
   51 and above [ ]

3) Please tick your highest level of education?
   a) Certificate [ ]
   b) College diploma [ ]
   c) University degree [ ]
   d) Masters degree [ ]
   e) Others (please state)

_________________________________________________________________

_________________________________________________________________
4) Please tick the most appropriate as a beneficiary in this hospital.

<table>
<thead>
<tr>
<th>Response</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration and payment procedures do delay service delivery to patients</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The service charges are relatively fair and affordable to the poor community members</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

5) Please share any other information on challenges that you may have about Kikuyu mission hospital in Kiambu County.

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
APPENDIX 5: AUTHORIZATION LETTER

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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

Ref: No.

NACOSTI/P/15/3570/7158

Joseph Laisa Masombo
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Factors influencing sustainability of health based projects the case of Kikuyu Mission Hospital in Kiambu County Kenya,” I am pleased to inform you that you have been authorized to undertake research in Kiambu County for a period ending 4th December, 2015.

You are advised to report to the Medical Superintendent, Kikuyu Mission Hospital, the County Commissioner and the County Director of Education, Kiambu County before embarking on the research project.

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

DR. S. K. LANGAT, OGW
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Medical Superintendent
Kikuyu Mission Hospital.

The County Commissioner
Kiambu County.
APPENDIX 6: RESEARCH PERMIT

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

Republic of Kenya
National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 5946

CONDITIONS: see back page

This is to certify that:
MR. JOSEPH LAISA MASOMBO of NAIROBI UNIVERSITY, 0-902 KIKUYU, has been permitted to conduct research in KIAMBU COUNTY on the topic: FACTORS INFLUENCING SUSTAINABILITY OF HEALTH BASED PROJECTS THE CASE OF KIKUYU MISSION HOSPITAL IN KIAMBU COUNTY.

for the period ending:
4th December, 2015

Permit No.: NACOSTI/P/15/3570/7158
Date Of Issue: 24th July, 2015
Fee Received: Ksh 1,000

Applicant's Signature:

For Director General
National Commission for Science, Technology & Innovation