EFFECTS OF DEVOLUTION ON MATERNAL HEALTH CARE: THE CASE OF LEVEL FOUR HOSPITALS IN NAIROBI CITY COUNTY, KENYA

BY

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

FEBRUARY 2019
DECLARATION

I hereby declare that this research is my sole effort and that it is original and have never been submitted for examination purposes before.

Signed: ………………………………                      Date: ………………………

Bulinda Hudson Shilibwa

C153/CTY/PT/24835/2012

This research project has been submitted for examination with my approval as the University supervisor.

Signed: ………………………………                      Date: ………………………

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DEDICATION

This research project is dedicated to my wife Hedricks, my sons Jakes, Carlvin, Marlvin and daughter Veroh who were an inspiration towards my education. I also dedicate it to warrant officers. Ben Wafula and Benson Makokha whose support was invaluable throughout this period I appreciate their spiritual and material support that they accorded me as I worked on this project. Thank you and May the Almighty God bless you all.
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not least, I would like to give my most special tributes to our Almighty Lord for all
His blessings.
ABSTRACT

Maternal healthcare is an integral part of the Millennium development goals. However, most developing countries have been experimenting with different types of interventions to increase access and utilization of maternal care services. Health care devolution was greeted with great anticipation in Kenya as a means of bringing services closer to the people. However, since the implementation of the recent devolution reforms, criticism has mounted, with evidence of corruption, poor management, late payment of county staff and considerable disaffection among service providers, especially health professionals. Thus, this study assessed the effects of devolution on maternal health care in Nairobi City County in Kenya. Particularly, the study examined the situation of maternal healthcare before and after devolution and how devolution affected provision of maternal healthcare in Nairobi City County. The study also assessed how devolution affected maternal health care programs implementation and the challenges facing the devolved maternal health care in Nairobi City County. The study adopted the systems approach and the decentralization theorem. This study employed a descriptive research design and the population of the study was made up of the 4 level four hospitals in Nairobi County and all the 189 selected medical health workers in the hospitals. A sample of 57 respondents was selected through simple random sampling. Additionally, the study used questionnaires and an interviews guide to collect data. The questionnaires were administered to the sampled medical workers and the interviews schedules were administered to the key informants who comprised of the medical superintendent from every hospital. Quantitative data was collected through the use of the questionnaires was analyzed using descriptive statistics with the aid of the Statistical Package for Social Sciences. Qualitative data was analyzed using content analysis. The study found that the status of maternal healthcare infrastructure under devolution of health services in Nairobi was good. The findings also established that most health workers preferred that the national government should manage maternal health care infrastructure as opposed to county governments. The study further revealed that county governments had not instituted and implemented effective maternal healthcare programs formulated by the national government. Finally, the study concludes the major challenges influencing the implementation of maternal healthcare services include attitude and perception of health professionals, resistance of devolution by health workers, strikes by health workers, shortage of healthcare workers corruption and tribalism, increased pressure on hospital equipment and infrastructure and stock outs of essential commodities in the facilities affect devolved maternal health care. The study recommended that both the county and national government should work together and combine their efforts to enhance the devolved systems of healthcare so that they can enhance maternal healthcare.
ACRONYMS AND ABBREVIATIONS

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<tr>
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<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>Maternal Mortality Rate</td>
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<td>MNCH</td>
<td>Maternal, Newborn and Child Health</td>
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<td>Ministry of Health</td>
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<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
## TABLE OF CONTENTS

DEVELOPMENT ................................................................................................................... ii
DEDICATION ....................................................................................................................... iii
ACKNOWLEDGEMENT ....................................................................................................... iv
ABSTRACT ............................................................................................................................ v
ACRONYMS AND ABBREVIATIONS ................................................................................... vi
LIST OF TABLES .................................................................................................................. x
LIST OF FIGURES .............................................................................................................. xi
OPERATIONAL DEFINITION OF TERMS ........................................................................ xii

CHAPTER ONE: INTRODUCTION....................................................................................... 1
  1.1 Background to the Study .............................................................................................. 1
  1.2 Statement of the Problem ......................................................................................... 5
  1.3 Research Objectives ................................................................................................. 7
  1.4 Research Questions ................................................................................................. 7
  1.5 Research Premises ................................................................................................... 7
  1.6 Justification and Significance of the Study ............................................................... 8
  1.7 Scope of the Study ................................................................................................... 9
  1.8 Limitations of the Study .......................................................................................... 9

CHAPTER TWO: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK ................. 11
  2.1 Introduction .............................................................................................................. 11
  2.2 Devolution of Maternal Health Care ....................................................................... 11
  2.3 Devolution and Infrastructure of Maternal Health Care ........................................ 12
  2.4 Devolution and Maternal Health Care Programs Implementation ...................... 15
  2.5 Barriers affecting the Devolved Maternal Health Care ........................................... 17
  2.6 Theoretical Review ................................................................................................. 20
    2.6.1 The Systems Thinking Approach ..................................................................... 20
    2.6.2 Decentralization Theorem .............................................................................. 22
REFERENCES .................................................................................................................. 49

APPENDICES .................................................................................................................. 56

Appendix I: Consent form ............................................................................................... 56
Appendix II: Questionnaire ............................................................................................. 57
Appendix III: Interview Schedule for Medical Superintendents .................................. 61
Appendix IV: Map of Kenya ............................................................................................ 62
Appendix V: Map of Nairobi City County ......................................................................... 63
Appendix VI: Research Approval ..................................................................................... 64
Appendix VII: Research Authorization ............................................................................ 65
Appendix VIII: Research Permit ...................................................................................... 66
LIST OF TABLES

Table 3.1 Target Population ........................................................................................................ 26
Table 3.2 Sample Size Distribution .......................................................................................... 27
Table 4.1: Questionnaire Response Rate .................................................................................... 31
Table 4.2: Reliability Results .................................................................................................... 31
Table 4.3: Education Levels ....................................................................................................... 33
Table 4.4: Period Worked as a Medical Health Worker ............................................................ 33
Table 4.5: Status of Health Care Infrastructure under Devolution .......................................... 34
Table 4.6: Effectiveness of County Governments in Managing Hospital Infrastructure ......... 37
Table 4.7: Devolution Effects on Maternal Health Care Programs Implementation ............ 39
Table 4.8: Barriers affecting the Devolution of Maternal Health Care ................................. 42
LIST OF FIGURES

Figure 2.1 Systems Thinking Approach ................................................................. 22
Figure 2.2: Conceptual framework ................................................................. 24
Figure 4.1: Respondents Gender ................................................................. 32
Figure 4.2: Level of Government Preferred to Provide Hospital Infrastructure .... 35
Figure 4.3: Devolution and Enhancement of Maternal Health Care Infrastructure 38
Figure 4.4: Devolution and Maternal Health Care Programs Implementation ...... 41
OPERATIONAL DEFINITION OF TERMS

**County government:** One of the two levels of the government in Kenya established by the Constitution of Kenya 2010

**Devolution:** Devolution is a form of decentralization, or the transfer of authority and responsibility from central to lower levels of government for a range of public functions.

**Health:** The state of complete physical, mental and social wellbeing.

**Health care system:** The people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people’s legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health.

**Health infrastructures:** Health Infrastructures includes hospital equipment, buildings and Ambulatory systems (such as hospital ambulances, vans and cars).

**Maternal Health care:** Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for too many women it is associated with suffering, ill-health and even death.
Maternal Mortality: Death of a woman while pregnant or within 42 days of termination of pregnancy, regardless of the site or duration of pregnancy, from any cause related to or aggravated by the pregnancy or its management.
CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Maternal health refers to the health of women during pregnancy, childbirth, and the postpartum period. It includes the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to reduce maternal morbidity and mortality (WHO, 2010). Improving maternal health is a Millennium Development Goal adopted at the 2000 Millennium Summit of the United Nations (Kengia, Igarashi & Kawabuchi, 2013). Across the world, there are increasing efforts to improve maternal health outcomes including the reduction in maternal mortality rates, improved access to skilled care utilization during pregnancy and delivery has been one of the strategies employed to improve maternal health outcomes (Lang’at & Mwanri, 2015).

Maternal health care plays an important role in maternal mortality reduction, especially antenatal care, skilled attendance at birth and postnatal care (Mungai, 2015). However, globally, the healthcare sector is facing enormous, challenges around both development and maintenance (KPMG, 2014). Thus, systems across the globe have and are experimenting with old as well as new approaches like devolution to fix their health care systems. Health sector decentralization policies have been implemented on a broad scale throughout the developing world. Devolution of healthcare, as other types of decentralization, profoundly changes governance relations in the health system. Devolution is meant to improve performance of the health system by transferring responsibilities and authority to locally elected governments (Mabonga, 2017).

Devolution is a form of decentralization, which is defined as the process of transferring decision-making and implementation powers, functions, responsibilities and resources to legally constituted, and popularly elected local governments (Medhanit, 2016). Devolution has been a political response to the ills
plaguing fragile and plural societies, such as, conflicts, inequalities, rent seeking, economic stagnation, corruption and inefficient use of public resources (Onyango, 2016). Devolution is premised on the rationale that institutions closest to the citizens are the most likely to meet and properly articulate needs of the citizen; this is according to a study on the Impact of Free Delivery Policy on Utilization of Maternal Health Services the devolution of health system (Nyambane, 2014). In a devolved system, local governments have clear and legally recognized geographical boundaries over which they exercise authority and within which they perform public functions (Mwatsuma & Nyamu, 2014).

Devolution has been increasingly seen and adopted worldwide as a guarantee against discretionary use of power by central elites, as well as a way to enhance the efficiency of social service provision, by allowing for a closer match between public policies and the desires and needs of local constituencies (Machira, 2015). In the United States, for instance, the primary responsibility for a number of social programs has been shifted back to the states. In the United Kingdom decentralization movements have brought about the foundation of Scotland and Wales’ own parliaments; and in Italy, Spain, and other countries, there has been increasing fiscal powers for regional and local authorities (Jiménez & Smith, 2005). In the Philippines, devolution has relatively increased resource allocation, facilitated greater citizen participation in addressing unique health needs and bolstered decision-making power at the local levels (Mabonga, 2017). According to KPMG 2013, there has been a trend in the devolution of authority in healthcare.

In addition, Mabonga (2017) observed that in the last two decades, health sector devolution policies have been implemented on a broad scale throughout the developing world, usually as part of a broader process of political, economic, and technical reform. Devolution of health services is widely practiced throughout the world especially in the developing countries to ensure improvement in the performance of the health system, increase population access to service and the
efficiency of the delivered services (Noory, 2016; Muchomba & Karanja, 2015). The devolution of health system structure and management has been and continues to be a key issue for many countries in the achievement of health for all, and development of primary health care (Mwatsuma & Nyamu, 2014).

Devolution has been a major policy agenda item across many African countries over the last few decades and efforts to strengthen local governments have been aimed at dealing with the region’s continuing problems with governance (Mohmand & Loureiro, 2017). Since the 1990s, there has been a shift in the aims of decentralization to enhance democratization and reduce the role of central governments as well as in its form, from deconcentration to devolution (Lakshminarayanan, 2003). Devolution reforms have been put forward as the answer to many of the governance problems of emerging democracies. However, the history of decentralization reforms in Africa is full of bad examples, mostly due to the absence of meaningful local political process, over-centralization of resources, weak local revenue base, lack of local planning capacity, and limited changes in legislation and regulations (Kilonzo, Kamaara & Magak, 2017).

Many countries in Africa have embarked on health sector reforms though the design of the reforms differs considerably (Jeppsson & Okuonzi, 2000). Devolution is one of the most common health sector reforms initiated in developing countries in Africa (Lakshminarayanan, 2003). However, millions of women in developing countries experience life threatening and other serious health problems related to pregnancy or childbirth (Mungai, 2015). Achieving millennium development goal 5 on reducing maternal mortality and morbidity by 75% and universal access to reproductive health remains a major developmental challenge for most sub-Saharan African countries. Health challenges are more acute in sub-Saharan Africa compared to other developed nations. These challenges are embedded in a broader context of poverty, poorly developed
infrastructure, politically instigated conflicts and disappointingly managed governmental institutions (Kibui et al., 2015).

In Kenya, the constitution identifies the decentralization process as devolution because of the existence of locally elected governors and county assembly members although minor elements of de-concentration and delegation (Taylor & Mulaki, 2015). Initially, Kenya’s health care system was largely centralized with decisions taken at MOH headquarters from where they were conveyed top-down through the provincial medical officers to the district level. In an effort to increase equity in access to services, health care provision was devolved to county governments (Ministry of Health, 2015). Under the new framework, responsibility for health service delivery was assigned to the counties while policy, national referral hospitals, and capacity building are the national government’s responsibility (Barker et al., 2014). However, County governments inherited a sector with a mixed performance remarkable improvement stand side by side with sluggish performance (World Bank, 2014).

Kenya has made significant improvements in reducing infant and under five mortality rates but MMR remains stubbornly high (Work Bank, 2014). As a signatory to most international and continental agreements on improving access to maternal health, Kenya has launched several health campaigns. The Kenyan government’s commitment to improve access to quality healthcare for mothers and children is demonstrated by such initiatives as free access to maternity care available at public health facilities. However, public health facilities are almost non-existent and inaccessible to most mothers and their children in underserved areas such as in the urban informal settlements (Bakibinga et al., 2014). The country also failed to achieve UN Millennium Development Goal 5 (to reduce maternal deaths by 75 per cent between 1990 and 2015) and Kenyan mothers still experience many maternal health-care challenges including complications during pregnancy and childbirth (Kilonzo, Kamaara & Magak, 2017).
A study by Nyambane, (2014) in Kenya on the impact of free delivery policy on utilization of maternal health services established that devolution of health system had been vital promoting access to health services throughout the county. Devolution of health care has addressed the issues of discrimination of areas, problems of bureaucracy, low quality health services and promoted efficiency in the delivery of health services. Machira, (2015) in her study on women’s perspectives on quality of maternal healthcare services, acknowledged that the packaging and delivery of healthcare services (supply-side) reforms have to be complemented by strengthening access and utilization (demand-side) to assure quality, acceptability and effectiveness of health care services. These studies however focused on free delivery policy an initiate by the national government in Kenya and did not focus more on maternal healthcare under devolution. This necessitates a study on the effect of devolution on maternal health care in Kenya. This situation therefore creates room for future studies on the impact of devolved medical and healthcare services.

1.2 Statement of the Problem

Maternal health care is an integral part of the MDGs. However, most developing countries have been experimenting with different types of interventions to increase access and utilization of maternal care services, including, subsidies, vouchers and decentralization (Hartwig et al., 2015). As such, devolution has been advocated as a response to most healthcare ills, and nations around the world have increasingly adapted it as a strategy to improve governance and remedy institutional deficiencies which highly centralized governments have experienced (Mabonga, 2017). However, maternal mortality and morbidity continue to pose significant health burdens particularly in low and middle-income countries despite decentralization of maternal care services (Mazalale et al., 2015). Globally, statistical estimates indicate that over half a million reproductive age women (15–49 years) do not have access to proper maternal care services (Barker et al., 2014).
In Kenya, healthcare devolution was introduced to enhance the quality of care, user satisfaction, equity, and efficiency in service delivery. Health care devolution was greeted with great anticipation in Kenya as a means of bringing services closer to the people (Mwatsuma & Nyamu, 2014). However, since the implementation of the recent devolution reforms, criticism has mounted, with evidence of corruption, poor management, late payment of county staff and considerable disaffection among service providers, especially health professionals (Kilonzo, Kamaara & Magak, 2017). Health care devolution has since been facing plethora of challenges mostly because healthcare workers who play a significant role in achieving health objectives, were neglected during implementation (Oyugi, 2015). To date, despite the devolution of health services, Kenya falls in the quadrant of weak performers in both maternal and infant mortality (World Bank, 2014). In Nairobi County, for instance maternal and child health in Nairobi slums are worse off than the rest of Nairobi or other urban areas in Kenya according to Magadi, (2005) in his study on the determinants of utilization of maternal healthcare.

A number of studies have explored the concept of devolved health care across the world. For instance, Grundy et al (2003) concluded that decentralization widens the decision-making space of middle level managers, enhance resource allocations from central to peripheral areas and improve the efficiency and effectiveness of health services management in Pakistan. In Kenya, Savage and Lumbasi (2016) concluded that whereas there have been increases in infrastructure, resources and changes to governing systems, the full extent of decentralization is yet to be realized. Kipruto and Letting (2017) assessed the factors influencing provision of health care in a devolved system of government and concluded that disbursement and adequacy of finances, supplies and equipment affected health care provision in a devolved system of government. However, there most studies provide a general overview of the effects of devolution on the total health care thus; there is little evidence on the effect of devolution on maternal health care. Hence, the needs to
assess the effects of devolution on maternal health care in Nairobi City County in Kenya.

1.3 Research Objectives

The study was guided by the following objectives:

1. To analyze how devolution has affected infrastructure of maternal health care in Nairobi City County.
2. To establish how devolution has affected the implementation of maternal health care programs in Nairobi City County
3. To examine the key barriers affecting the devolution of maternal health care in Nairobi City County

1.4 Research Questions

The study sought to answer the following research questions:

1. How has devolution affected infrastructure of maternal health care in Nairobi City County?
2. How has devolution affected the implementation of maternal health care programs in Nairobi City County?
3. What are the key barriers affecting the devolution of maternal health care in Nairobi City County?

1.5 Research Premises

The study was based on the following premises

1. Devolution has affected infrastructure of maternal health care in Nairobi City County
2. Devolution of health services has improved the implementation of maternal health care programs in Nairobi City County
3. There are various barriers affecting the devolution of maternal health care services in Nairobi City County

1.6 Justification and Significance of the Study

The devolution of health services has enabled the county government of Nairobi to improve on service delivery and increase the quality of health care in the counties. The devolution of health services was expected to improve efficiency, stimulate innovation, improve access to and equity of services, and promote accountability and transparency in service delivery.

This study is justified due to the existing research gaps in the field of maternal health care especially with regards to devolution of healthcare whereby there is a time limit to conduct the research by the university, thus it may not be feasible for the researcher to conduct in-depth on all the areas. More and more studies should be done in order to determine the existing challenges and how to overcome them.

The listed Level 4 Hospitals; Mama Lucy Kibaki Hospital, Mbagathi District Hospital, Pumwani Maternity Centre and Dagoretti Sub County Hospital would benefit from this study as they can adopt the study recommendations and findings to solve the challenges associated with maternal health care services.

The maternal healthcare fraternity could benefit from the study findings since with this research enabled them to compare the existing situation before, during and after the devolution of maternal healthcare. In addition, the study assessed the challenges influencing the devolution of maternal health care services and provides recommendations which could help mitigate the various challenges thus translating to improved maternal health care.

The findings of this study could be significant to residents of Nairobi City County as it will help to establish whether devolution affects maternal health care. The findings could be useful to health workers as it might determine whether
devolution affects maternal health care within the County of Nairobi. The findings of the study will also be of significance to policy making institutions like the Ministry of Health in Kenya, the County government of Nairobi and other policy organizations in the health sector. The policy makers may use the findings of the study to develop strategies courses of action to enhance maternal health and also to improve devolution of health services. Finally, the findings of the study will add on to the available academic knowledge on devolution and maternal health care.

1.7 Scope of the Study

This study sought to examine the effects of devolution on maternal health care in Nairobi City County in Kenya. The study covered level four hospitals in Nairobi City County. The hospitals included Mama Lucy Kibaki Hospital, Mbagathi District hospital, Pumwani Maternity Centre and Dagoretti Sub district hospital. The study focused on the medical workers in the all the level four hospital within Nairobi county.

1.8 Limitations of the Study

Devolution also provides a unique opportunity to address long-standing inefficiencies as well as inequities in the health sector. However, every country is unique in each approach to devolution of its health services. Therefore, the findings of this study were only applicable to the Kenyan Context since Kenya implemented full devolution of health services with transfer of authority and accountability to the County Governments.

Secondly, this study only obtained data from the medical health workers using primary sources of data. However, in most hospital in Kenya there are very few workers hence most of the sampled respondents were not be able to respond to the research instruments. This, have an effect on the response rate as 100% response rate was not achieved.
With regards to data collection, a number of respondents were not willing to take part in the research however the problem was solved by explaining the purpose of the research to the respondents and support was also sought from the hospital’s administration. Additionally, some of the questionnaires had missing values where the respondents had not respondent to some of the questions an issue which was addressed through dropping such questionnaires from analysis.
CHAPTER TWO: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

This chapter presents a review of literature on devolution and maternal health care as expounded by several scholars around the world and also in Kenya. The chapter also presents the theoretical framework, which includes the systems thinking approach by World Health Organization (WHO) and the devolution theorem.

2.2 Devolution of Maternal Health Care

Maternal health patients in Kenya perceive devolution of health services to have improved availability of referral maternal health care. This availability seems to have increased the number of users seeking services in public health facilities. The situation is still far from satisfactory, but it is a major step from the old centralized health system in which commodities were almost always unavailable. Harvey (2015) in a study on ending preventable maternal, newborn and child mortality also observes that devolution has provided a unique opportunity to address long-standing inefficiencies as well as inequities in Kenya. Amid this transition, health outcomes and utilization of health services have improved significantly: due to the free-maternity services policy, anecdotal evidence points to an increase in women seeking skilled birth.

Prior to devolution, the delivery of health services was the responsibility of the central government and funding for all health services was provided by the national government. Before devolution public hospitals in Kenya were managed by the national government and they were characterized by poor and inefficient service delivery as well as high maternal and neonatal mortality rate. Neonatal mortality rate in Kenya increased steadily from 26 deaths per 1,000 live births to 33 deaths per 1,000 live births in the year 2003 (Mabonga, 2017). Before
Devolution, the Kenyan health sector actors had little information about their roles and responsibilities during devolution (Taylor & Mulaki, 2015).

Devolution represented a major change in health systems in Kenya from the system that existed before the 2010 constitution which affected the available infrastructure in most public hospitals. Devolution of healthcare in Kenya was anchored on the Kenyan Constitution 2010 and it underscored the right of every person to receive the highest attainable standard of health (Mabonga, 2017). The 47 county governments elected in March 2013 were tasked with the responsibility of managing all aspects of service delivery while the central government was responsible for regulation through policy formulation and monitoring (Machira, 2015). However, services and resources were devolved rapidly, but a number of outstanding questions and concerns remain for the Kenyan health system. Unsurprisingly, significant capacity gaps are common within county political and management structures. When resources were devolved, few counties possessed the administrative capability to absorb the available funding or plan for its use (Taylor & Mulaki, 2015).

2.3 Devolution and Infrastructure of Maternal Health Care

The success of devolution of health services have also been witnessed in other countries across the globe. For instance, Noory (2016) in a study on maternal and child health services research examined the process of the devolution implementation through the perspective of multiple stakeholders in the process. The study found that although the availability of drugs and health workers improved after devolution, but the available was described as junior poorly trained staff, and expensive drugs that are out of health insurance coverage. The study also found centralization of the human resource management, deterioration in job security and training quality after devolution of health services.
A study by Muchomba and Karanja (2015) examined the influence of devolution of government service delivery on provision of healthcare. The study revealed that devolved procurement process, availability of infrastructure, resources allocation and availability as well as policy and regulatory framework had a significant influence on the performance of the level four hospitals and the overall health sector but the devolution process has not been fully implemented and its effect has not been fully experienced in the health sector. However, in their study on the impact of devolution of health care services on hospitals in Kenya, Savage and Lumbasi (2016) found that due to devolution of health services there have been increases in health facilities and infrastructure, increases in health personnel, as well as improvements to maternal health care. A study by Kilonzo, Kamaara and Magak (2017) on improving access to maternal health care through devolution in Western Kenya, found that improved access to maternal health-care was not only linked to devolved health services but also to other developments both at the national level (health campaigns, increased mobile telephony) and county level (improved infrastructure, relocation of available fund).

In Pakistan, Grundy et al (2003) examined the devolution of health services in the Philippine. The study established that subsequent to the introduction of devolution affected the infrastructure, quality and coverage of health services declined in some locations, particularly in rural and remote areas. In Uganda, Hutchinson, Akin and Ssengooba (2003) examined the impacts of decentralization on health behaviors in Uganda and found that decentralization led to increases in the use of curative services with exclusively private benefits, perhaps at the expense of use of primary health care services and services with consumption externalities. Bossert and Beauvais (2002) also assessed the experience of decentralization in four developing countries: Ghana, Uganda, Zambia and the Philippines and concluded that there was insufficient evidence of the impact of decentralization to assess how these differences in 'decision space' influenced the performance of each health system.
Mazhar and Shaikh, (2012) in their study on role of development partners in maternal, newborn and child health programming in post-reform times in Pakistan revealed that devolution tends to simplify a healthcare systems management structure and ensure more efficient delivery of health services to underserved populations, in this case women and children. Devolution of health care has positive effects through increasing local ownership and accountability, improving hospital infrastructure and responsiveness to local needs and strengthening integration of services at the local level. Devolved decision-making simplifies the management of, and augment access to, essential maternal cares services such as antenatal and postnatal care, delivery by skilled birth attendants and family planning. Better-informed and timelier decisions will improve the responsiveness and quality of services.

Additionally, a study by Jiménez and Smith (2005) in Canada explored impact of health care decentralization on a characteristic of human development and found that decentralization in Canada has had a positive and substantial influence on the effectiveness of public policy in improving population’s health. Jeppsson and Okuonzi (2000) also explored the vertical or holistic decentralization of the health Sector in Zambia and Uganda and established decentralization of health services had led to a clear and appreciable improvement of health care infrastructure and, ultimately, to a clear focus on development goals, such as poverty alleviation. However, Lakshminarayanan (2003) carried out a study on decentralization and its implications for reproductive health in Pakistan established that decentralization does not always improve the efficiency, equity and effectiveness of the health sector. Instead, it can exacerbate inequities, weaken local commitment to priority health issues and decrease the efficiency and effectiveness of service delivery by disrupting the referral chain.
2.4 Devolution and Maternal Health Care Programs Implementation

In Kenya, devolution of health services is largely understood to mean that counties take up responsibilities to deliver essential health services whilst the central government focuses on policies and regulations (Ministry of Health, 2015). The 2010 constitution defined the role of the Ministry of Health Headquarters as providing national leadership and stewardship on health matters. The central level will be responsible and accountable for quality and quantity of health care to ensure physical access, affordability, acceptability and equity to all people. The County government will provide county leadership and stewardship on health matters. It will be responsible and accountable for implementation of national policies, strategies and guidelines (Tutzing et al., 2011). The division of roles and responsibilities between central and county governments, and equitable resource allocation has the potential to improve health service delivery and enhance accountability. This potential can only be realized if due care is paid to successful management, equitable distribution of resources including use of targeted funding and conditional grants (KPMG, 2013).

The health system in Kenya was devolved in order to promote access to quality, efficient and equitable health services throughout the country and to address the problems of bureaucracy especially in procurement. Mabonga (2017) conducted a study on the influence of devolution on the healthcare in Kenya and established that, with the advent of devolution, the public health sector went into a spin following a protracted stand-off between the national and county governments and the industry players over the management of health services. The study focused on the influence of devolution on the healthcare and not Maternal healthcare.

Simiyu, Mweru and Omete, (2014) in their study on the effects of devolved funding on socio-economic welfare of Kenyans observed that successful decentralization requires administrative and financial capacity and effective citizen participation, but many rural governments lack an adequate revenue base or
sufficient professional management capacity. Korir (2013), in her study on the role of communication in maternal child healthcare promotion in Kenya, states that for in order for devolution to succeed training, empowerment and mobilization of resources should be encouraged by the authorities and systems should be established at local level to ensure the devolved services reaches the ordinary citizens. The context of the study was devolved funding on socio-economic welfare and not maternal health care.

Although devolution in Kenya provides better opportunities for increasing access to high-quality healthcare services, if the transition is not well managed it may erode the gains made over the last decade, especially in maternal and child health. For example, a 2013 Service Availability and Readiness Assessment Mapping study found that non-availability of medicines is commonly cited as the most important element of quality by health care consumers, and the absence of medicines is a key factor in the underuse of public health services (MOH, 2013).

A report by KPMG (2014) on devolution in Kenya established that although most counties face unique challenges during the devolution process some counties struggle in more areas, from inadequacies in infrastructure and equipment to poor governance. The KPMG (2014) report also found that counties that performed relatively well still had inadequate healthcare inputs according to national or international standards. For instance, none of the counties met the national benchmark for population density of medical practitioners.

In Uganda, Jeppsson (2004) investigated the process of ascertaining goal achievement with regard to needs-based health care services and national health policy implementation in the decentralized health care system. The study found that increasing decentralization of the health care system in Uganda did not follow the implementation of a global national health policy necessary for a decentralized system. In Pakistan, Pervaiz, Shaikh and Mazhar (2017) explored the implications of government reforms including the devolution on the maternal newborn and
child health and suggested that coordination between the different tiers of the government and the donors could streamline the implementation of MNCH partnership in post reform terms.

2.5 Barriers affecting the Devolved Maternal Health Care

The devolution of health services in Kenya has so far been met with gross opposition from the professionals from that field. Nyambane (2014) assessed the devolution of healthcare systems in Kenya. The study revealed that many health workers in the civil service are questioning the government’s rationale to devolve health services, for instance, while health workers have opposed the move to transfer their salaries to the counties, the government insists that health being one of the devolved functions, must be handled at the county level while other challenges are still pending. The Ministry of Health observes posits that devolution came with a ton of challenges considering the fact that implementation of the entire devolution process was to be gradual and conducted in three years. The list of challenges includes country-specific issues such as restructuring to accommodate devolution and universal aspects such as quality, cost and access as well as the high disease burden and the changing patterns of disease (Ministry of Health, 2015).

According to the ministry of health (2015), the devolution of health workers to county management occurred under myriad of problems and resistance by the health workers. To date the country has witnessed several strikes by health workers in different counties as well as resignation of some health workers, especially doctors. The country has also witnessed inequitable distribution of available health workforce due to health workers leaving certain counties in favor of others that have better working conditions. Other challenges include but are not limited to shortage of health care workers, loss of skilled workers to the private sector and other countries that offer better financial packages, lack of career opportunities as well as education opportunities, the lack of clarity in the due
process for the transfer of health care workers in between counties, promotion of health workers, devolving of HRH records and administration of the HRH pension among others (Ministry of Health, 2015).

Other concerns affecting devolution according to a study by Nyongesa et al., (2015) on the influence of devolution of government service delivery on healthcare in Kenya; include inequity and delays in disbursement to the various units with favoritism to politically correct areas may also limit health care availability and utilization. To adequately fund health care, the local authorities usually undertake an extraneous way of generating funds. An allocation formula for health finances that is stringently followed is drawn by independent parties factoring in the population size and geographic size. In addition, Cook, (2017) studied the effects of Kenya’s free maternal health care policy on the utilization of health facility delivery services. The study revealed that one of the most commonly recognized problems of local or decentralized government in less developed countries is lack of resources to carry out their basic functions and services the so-called unfunded mandates or responsibility resource gap.

Devolution in Kenya has brought new health facilities and medical equipment to all counties. A study on by Muchangi (2015) examined the effects of Kenya’s free maternal healthcare policy on the neonatal mortality rate in Kenya. The findings revealed that health workers are largely dissatisfied. Nurses and doctors’ unions - whose members are protesting delayed salaries and promotions in some counties - claim health was better managed by the national government. Kibui et al. (2015) in the study of health policies in Kenya and the new Constitution for Vision 20130 in Kenya also posits that corruption compromises the distribution and use of financial resources directed to the development of health care. Traditions and religious beliefs also hinder the government’s efforts to provide high standards of health care in the country. Some traditional and religious beliefs discourage members
against seeking medical attention in dispensaries and hospitals in their regions and also prohibit members from taking medicines in case of an illness.

The devolution of health services in Kenya has not devoid of challenges. For instance, Mungai (2015) examined the determinants of maternal health care services in Kenya. The study found that despite the fact that improved accessibility to referral maternal health care has increased pressure on equipment, commodities, infrastructure and personnel. Discontent among health workers has been exacerbated by delays in fiscal remittances from national government and there are also perceptions that devolution has increased tribalism. Health facilities are inadequate, and where they are available, many lack essential equipment and space for service provision. A study by Tutzing et al (2011) on the determinants of maternal healthcare utilization in Ethiopia found that although effective interventions to prevent mortality are known, for many women and newborns appropriate care remains unavailable, unused, and inaccessible or of poor quality due to lack or inadequate infrastructure and equipment.

A study by Shaikh et al. (2012) examined the strengths and weaknesses of the devolved district health system from the experiences of different stakeholders. The study found that the main strengths identified included inter-sectorial collaboration, close monitoring and supervision and greater financial autonomy to priorities according to needs. The reported weaknesses included lack of teamwork, limited autonomy, and lack of capacity, nepotism and poor accountability. McIntyre and Klugman (2003) also explored how the process of decentralization creates disjuncture between the policy-making authority and the implementation capacity of service provision levels. The study concluded that the complexity of experience and feelings described by health managers that may determine the extent and quality of service delivery.
Lang’at and Mwanri (2015) assessed the perception of service providers and facility administrators on the free maternal health care services. The study found that free maternal healthcare service provision was perceived to boost skilled care utilization during pregnancy and delivery. However, challenges including; delays in the reimbursement of funds by the government to the facilities, stock outs of essential commodities in the facilities to facilitate service provision, increased workload amidst staff shortage and lack of consultation and sensitization of key stakeholders were perceived as barriers to effective implementation of this policy.

2.6 Theoretical Review

This study adopted the systems thinking approach and the decentralization theorem

2.6.1 The Systems Thinking Approach

The systems thinking approach is also referred to Systems Thinking for Health Systems Strengthening was proposed by the World Health Organization (2009). The systems thinking approach acknowledges that problems are part of the system and the component parts of a system can best be understood in the context of relationships with each other and with other systems, rather than in isolation (Bakibinga et al., 2014). The approach demands a deeper understanding of the linkages, relationships, interactions and behaviors among the elements that characterize the entire system (Savigny & Mookherji, 2009). Systems thinking approach helps to re-orient our perspectives by expanding our understanding of the characteristics of complex adaptive systems and identifying how this learning may be applied to system problems and the creation of potential solutions (Taghreed, 2012).

The systems thinking approach underscores the importance of looking at systems from a broader perspective rather than simple parts, which make up the system (Mutale et al., 2016). Anticipating how an intervention might flow through, react
with, and impinge on these sub-systems is crucial and forms the opportunity to apply systems thinking in a constructive way. Systems’ thinking is an essential approach for strengthening health systems, particularly in designing and evaluating interventions. Strengthening health systems provides an opportunity to develop new strategies that will enable countries to achieve targets for millennium development goals. Strong health systems are fundamental if we are to improve health outcomes and accelerate progress towards the Millennium Development Goals of reducing maternal and child mortality and other diseases (Savigny & Mookherji, 2009).

The WHO health systems framework describes six building blocks as shown in figure 2.1 that may be viewed as inputs and processes aimed at delivering outputs, outcomes and impact. For instance, devolved decision-making as an input with regard to the deployment and distribution of health workers, prompt availability of logistics and equitable, high-quality services can enhance maternal health care (Dunne, 2012). Additionally, improved coordination, and the introduction of a logistics management information system for regulating MCH-related drugs specifically, would protect this segment of the population from incurring catastrophic expenses. The aim of the framework is to promote a common understanding of what a health system is, and in turn what strengthening it means. In this study, the systems thinking approach elaborates how the systems building blocks can be used to ensure effective and efficient maternal health care services especially in a devolved health care system.
2.6.2 Decentralization Theorem

The decentralization theorem was proposed by Oates (1972) on the assumption that the central government is incapable to discriminate public policy on a regional basis (Greco, 2003). The decentralization theorem states that without spillovers, a decentralized system will be preferred. Otherwise, there is a trade-off whose resolution depends on the extent of heterogeneity in tastes and the degree of spillovers. The theory assumes that, in each system, governments maximize the aggregate surplus of their constituents and that, in a centralized system, the government chooses a uniform level of public spending for each locality (Besley & Coate, 2003).

The decentralization theorem basically postulates, the grounds of economic efficiency, a presumption in favor of sub national provision of local public goods and services: given that local preferences and costs of a local public good or service are likely to vary across jurisdictions, decentralization could increase economic welfare in the society as a whole (Jiménez & Smith, 2005). The theory
also presupposes that the gains in allocative efficiency are further enhanced by the increase in competition among local governments that decentralization might bring about. Competition among the local government also increases productive efficiency as a result of the greater experimentation and innovation in the production of public goods and services than if those goods or services were provided by the central government (Besley & Coate, 2003).

The major assumption of decentralization theory is that sub national governments have access to better information about local circumstances than central authorities, and therefore can use this information to tailor services and spending patterns to citizen’s needs (Greco, 2003). However, although decentralization can result in greater total health gains, it may also lead to increased inequalities in health care (Jiménez & Smith, 2005). The decentralization theorem was relevant to the study in that the potential efficiency gains from decentralizing the health services might lead to an improvement in maternal health care of the population if decentralization of health services enables an increase in the quality of health inputs, and if these health inputs adjust to the particular preferences/needs of the local citizens.
2.7 Conceptual Framework

A conceptual framework entails forming ideas on relationships between variables in the study and showing these relationships diagrammatically (Mugenda & Mugenda 2003). Bogdan and Bikenn (2003) defines conceptual framework as a basic structure that consists of certain abstracts which represents the observational the experiential and the analytical aspects of a process of system being conceived.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal health care and Health care infrastructures</td>
<td>Provision of maternal healthcare</td>
</tr>
<tr>
<td>Implementation of maternal health care programs</td>
<td></td>
</tr>
<tr>
<td>Barriers of devolved maternal health care</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.2: Conceptual Framework
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction
The chapter presents the research design, the study location, the target population and the sample size and sampling procedures. The chapter also presents the research instruments, the data collection methods, data analysis techniques and finally the ethical considerations.

3.2 Research Design
A research design is used to structure the research, display the functions of major parts of the research project and explain the contribution of each part in addressing the central research questions (Troachim, 2008). A research design is defined as the master plan that is used in the study in order to answer the research questions. This study adopted a descriptive research design. A descriptive study tries to discover answers to the question who, what, when, which and sometimes how. Descriptive studies are usually the best methods for collecting information that will demonstrate relationships and describe the world as it exists. The study adopted a descriptive design since the design lays a greater emphasis on sample selection because the major concern is to obtain a broad picture of the social problem prevailing in the defined universe and make recommendations to bring about the desired change (Kothari, 2006).

3.3 Study Location
The study was carried out in Nairobi City County. Nairobi County is the biggest economic contributor to the national economy. A number of economic, political and administrative activities are undertaken in Nairobi. It is also the seat of the national government and its operations. The county borders Kiambu County to the North and West, Kajiado to the South and Machakos to the East. Among the three neighboring counties, Kiambu County shares the longest boundary with Nairobi County. The county is composed of 17 Parliamentary constituencies. In 2012, the
county population was projected to be 3,517,325 and is expected to rise to 3,942,054 in 2015 and 4,253,330 in 2017. The Nairobi City County is the creation of the Constitution of Kenya 2010 and successor of the defunct City Council of Nairobi. It operates under the auspices of the Cities and Urban Areas Act, The Devolved Governments Act and a host of other acts. The Nairobi City County is charged with the responsibility of providing a variety of services to residents within its area of jurisdiction (Medhanit, 2016).

3.4 Target Population

A research population is a collection of individuals or objects/entities in a selected area. The pollution of the study was made up of the 4 level four hospitals in Nairobi County and all the 189 medical health workers in the hospitals. The hospitals included Mama Lucy Kibaki Hospital, Mbagathi District hospital, Pumwani Maternity Centre and Dagoretti Sub district hospital. Table 3.1 shows the population distribution

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mama Lucy Kibaki Hospital</td>
<td>45</td>
<td>24%</td>
</tr>
<tr>
<td>Mbagathi District hospital</td>
<td>67</td>
<td>35%</td>
</tr>
<tr>
<td>Pumwani Maternity Centre</td>
<td>53</td>
<td>28%</td>
</tr>
<tr>
<td>Dagoretti Sub district hospital</td>
<td>24</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>189</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Nairobi City County

3.5 Sampling Procedure and Sample Size

A sample is a subset of a population. The sample constitutes the representative of the population from which it is drawn and it must have good size to warrant statistical analysis (Kothari, 2006). This study selected a sample of 57 respondents. The respondents comprised of all medical health workers (doctors, nurses and clinical officers). The sample was 30% of the respondents as suggested by Gay et
al (2006) that sample size should be at least 30 percent of the target population to achieve normal distribution and to be sufficiently representative.

Sampling procedures are techniques which when used determine the number of respondents that are involved in the study to provide the necessary data that can be processed and analyzed to provide meaningful information. The sample was selected through simple random sampling where the respondents were randomly selected from each hospital. Simple random sampling was selected since it gave each respondent an equal chance of being included in the study. Table 3.2 shows the sample size distribution

**Table 3.2: Sample Size Distribution**

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Sample (30%)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mama Lucy Kibaki Hospital</td>
<td>14</td>
<td>25%</td>
</tr>
<tr>
<td>Mbagathi District hospital</td>
<td>20</td>
<td>35%</td>
</tr>
<tr>
<td>Pumwani Maternity Centre</td>
<td>16</td>
<td>28%</td>
</tr>
<tr>
<td>Dagoretti Sub district hospital</td>
<td>7</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Source: Researcher (2018)**

**3.6 Research Instruments**

This study used a questionnaires and interviews guides to collect data. The questionnaires contained structured and unstructured questions and were used to collect data from the medical health workers and were designed to obtain data on the effects of devolution on maternal health care. The questionnaire was divided into five parts where the first part was used to obtain data on the respondents’ background information while the other sections were used to obtain data on the research variables. The interview guides were used to obtain data from medical superintendents in each of the 4 hospitals.
3.6.1 Validity and Reliability of the Research Instruments

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. Validity is the degree to which a research tool measures what it purports to be measuring (Sekaran & Bougie, 2010). The validity of the questionnaire, comments from experts was sought and shared with research supervisor throughout the research process. Reliability on the other hand was established using the Cronbach alpha coefficient. The Cronbach alpha coefficient is a multiple item scale’s reliability measure which ranges between 0 and 1 and a value of 0.7 and above was considered an indication of reliability. The study yielded a Cronbach alpha coefficient of 0.896, which was deemed sufficient for the study and indicated that the instrument was reliable.

3.7 Data Collection Procedures

The study used both primary and secondary data. Primary data was collected through the use of questionnaires and interview guides. The questionnaires were administered to the sampled medical workers with the help of two research assistants with medical background who were recruited and trained in the use of research tools prior to the execution of data collection. The interview was administered to the key informants who comprised of the medical superintendent from every hospital by the principal researcher. Secondary data included published and unpublished reports like dissertations, thesis, journal articles, books, internet materials and other relevant publication from the Ministry of Health, Nairobi City County and the government of Kenya. Secondary data was used to supplement the primary sources of data.

3.8 Data Analysis

Data analysis is aimed at meeting the research objectives and provides answers to research questions. The study collected quantitative and qualitative data. Quantitative data was collected through the use of the questionnaires was analyzed
using descriptive statistics with the aid of the Statistical Package for Social Sciences (SPSS Version 21). Descriptive statistics were used to summarize the data using frequencies, percentages and the mean and was presented using frequency tables, graphs and charts. Qualitative data collected through interviews was analyzed thematically using content analysis and the findings were presented in direct quotations and selected comments.

3.9 Ethical Considerations

Permission to carry out the research was obtained from the National Commission for Science, Technology and Innovations (NACOSTI) after an approval from the Kenyatta University Graduate School. In addition, permission will be sought from the medical superintendents in the various level hospitals in Nairobi County. Further, participation in the research was on voluntary basis and the consent of the respondents was sought and the respondents were required to sign the consent form before participating in the study. Further, the aim of the study was explained to the respondents and all the information obtained was used for academic purposes and was kept confidential. The identity of the respondents also remained anonymous and was not revealed to any unauthorized persons.
CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction
This chapter presents the results and discussions of the study findings. The chapter contains the findings of the response rate, the respondents’ demographic information, the results on the status of devolved maternal health care and on devolution and maternal health care provision. The study objectives include analyzing how devolution has affected infrastructure of maternal health care in Nairobi City County, to assess how devolution has affected maternal health care programs implementation in Nairobi City County and to establish the barriers affecting the devolution of maternal health care in Nairobi City County. The study considered level hospital since they are the most in Nairobi city county and they are under the management of the county government.

4.2 Questionnaire Response Rate
The study targeted 57 respondents from four level 4 hospitals in Nairobi County among them Mama Lucy Kibaki Hospital, Mbagathi District hospital, Pumwani Maternity Centre and Dagoretti Sub district hospital. The study managed to obtain 48 questionnaires which were completely responded to by the respondents hence a total response rate of 84.2% which was deemed sufficient to carry out the study. Table 4.1 shows the results
Table 4.1: Questionnaire Response Rate

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Questionnaires issued</th>
<th>Questionnaires returned</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mama Lucy Kibaki Hospital</td>
<td>14</td>
<td>11</td>
<td>78.6</td>
</tr>
<tr>
<td>Mbagathi District hospital</td>
<td>20</td>
<td>17</td>
<td>85.0</td>
</tr>
<tr>
<td>Pumwani Maternity Centre</td>
<td>16</td>
<td>14</td>
<td>87.5</td>
</tr>
<tr>
<td>Dagoretti Sub district hospital</td>
<td>7</td>
<td>6</td>
<td>85.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57</strong></td>
<td><strong>48</strong></td>
<td><strong>84.2</strong></td>
</tr>
</tbody>
</table>

Source: Researcher (2019)

According to the Table 4.1 above, the response rate for all the target hospitals was more than the recommended 70%. This therefore proves that the data collected is accurate and reliable to provide the researcher with the intended information.

4.2.1 Reliability Results

The study assessed for reliability using the Cronbach alpha coefficient. The reliability results were as follows

Table 4.2: Reliability Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
<th>No of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>.841</td>
<td>4</td>
</tr>
<tr>
<td>Implementation of maternal healthcare programs</td>
<td>.837</td>
<td>6</td>
</tr>
<tr>
<td>Barriers of devolved maternal care</td>
<td>.850</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Researcher (2019)
The Cronbach alpha results on table 4.2 shows that all the Cronbach alpha values of 0.841, 0.837 and 0.850 are more than the recommended value of 0.7. This indicate that the questionnaire was reliable and an appropriate.

4.3 Demographic Information of the Respondents

This section analyses data on the respondents’ gender, education levels and the number of years they had worked as medical workers. The results are presented under the following sections

4.3.1 Respondents Gender

Figure 4.1 shows the obtained results

![Figure 4.1: Respondents Gender](image)

Source: Researcher (2019)

The results on figure 4.1 show that 56% of the respondents were male while 44% of the respondents were female. This finding shows that majority of health workers in level 4 hospitals in Nairobi County are male workers. The percentage of female workers, which was 44%, is also encouraging since it shows that both genders are actively involved in the provision of maternal healthcare services. The data obtained was therefore reliable and not biased on gender. Similar studies for instance, Lang’at and Mwanri (2015), Muchangi (2015) and Kibui et al. (2015)
had obtained similar findings where the ratio of female to male respondents were more than 30% as required by the constitution.

4.3.2 Education Levels

Table 4.3: Education Levels

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>14</td>
<td>29.2</td>
</tr>
<tr>
<td>Graduate</td>
<td>21</td>
<td>43.8</td>
</tr>
<tr>
<td>Post graduate</td>
<td>13</td>
<td>27.1</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researcher (2019)

The findings on table 4.3 shows that 43.8% of the respondents were graduates whereas 29.2% of the health workers were diploma holders while 27.1% where post graduates. This indicates that majority of the respondents were graduates followed by diploma holders and then post graduates. This hence increases the confidence in the data obtained since the respondents were well educated and trained to accurately fill in the questionnaires and give true information on maternal healthcare services. The results also indicate that in the health sector training and development is highly regarded and staffs are properly trained.

4.3.3 Period Worked as a Medical Health Worker

Table 4.4 shows the results of period worked

Table 4.4: Period Worked as a Medical Health Worker

<table>
<thead>
<tr>
<th>Work experience</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>11</td>
<td>22.9</td>
</tr>
<tr>
<td>5 – 10 years</td>
<td>23</td>
<td>47.9</td>
</tr>
<tr>
<td>Over 11 years</td>
<td>14</td>
<td>29.2</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researcher (2019)
According to table 4.4 above, 22.9% of the respondents had less than 5 years’ experience, while 47.9% had 5-10 years of experience while the remaining 29.2% had more than 11 years of experience. This therefore proves that their experience allowed them to give accurate information since they were in a position to compare maternal healthcare before and after devolution of the healthcare services.

4.4 Devolution and Infrastructure of Maternal Health Care

This section sought to analyze how devolution had affected the infrastructure of maternal health care in Nairobi City County. The results are presented as follows. This sought to establish to what extent infrastructure in terms of the beds, number of doctors and theatre facilities have been devolved for maternal healthcare. Table 4.5 shows the results.

### Table 4.5: Status of Health Care Infrastructure under Devolution

<table>
<thead>
<tr>
<th>Devolved infrastructure level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>5</td>
<td>10.4</td>
</tr>
<tr>
<td>Good</td>
<td>21</td>
<td>43.8</td>
</tr>
<tr>
<td>Average</td>
<td>18</td>
<td>37.5</td>
</tr>
<tr>
<td>Poor</td>
<td>4</td>
<td>8.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Source: Researcher (2019)*

The findings on table 4.5 shows that 43.8% of the respondents indicate that the status of health care infrastructure under devolution was good, 37.5%, 10.4% and 8.3% indicated that it was average, excellent and poor respectively. This finding on average indicates that the status of health care infrastructure under devolution was good however, a good number of respondents indicated that the available infrastructure was average. A study by Mungai (2015) found that despite the fact that improved accessibility to referral maternal health care had increased pressure on equipment, commodities, infrastructure and personnel.
The key respondents through interviews were asked to describe the status of health care infrastructure under devolution and majority indicated that the available infrastructure was good and commendable. They however preferred the Health sector would still be under the National government but still appreciated the work done by the county government. One of the medical superintendents ‘A49’ indicated that “county governments were not adequately prepared and lack the capacity to fully run medical services in the county”. Korir (2013), in her study on challenges affecting devolution of public sector services in local authorities in Kenya, supported this observation and suggested that in order for devolution to succeed training, empowerment, mobilization of resources should be encouraged by the authorities, and systems should be established at local level to ensure the devolved services reaches the ordinary citizens.

4.4.2 Preferred Level of Government to Provide Hospital Infrastructure

This aimed at establishing which level of government the respondents preferred to provide infrastructure on maternal health care’s services. Figure 4.2 shows the results.

![Figure 4.2: Level of Government Preferred to Provide Hospital Infrastructure](source: Researcher (2019))
The results on figure 4.2 show that 69% of the respondents indicated that they preferred the national government to provide infrastructure on maternal healthcare services while 31% preferred the county governments. This indicates that most health workers prefer working with the national government as opposed to county governments.

The respondents through interviews were asked to indicate level of government they would prefer to run maternal health care’s services and indicated that they would prefer the national government but some of them indicated that the national government can partially carry out some function in conjunction with the county government before they completely devolve all services. Respondent ‘A50’ said that ‘the national government should run the major areas like infrastructure provision and delegate a few responsibilities to the county as such would help the county governments to grow in terms of the level of service providence to increases the customer satisfaction and trust in them’. A report by KPMG (2014) on devolution in Kenya established that although most counties face unique challenges during the devolution process some counties struggle in more areas, from inadequacies in infrastructure and equipment to poor governance. The KPMG (2014) report also found that counties that performed relatively well still had inadequate healthcare inputs according to national or international standards.

4.4.3 Effectiveness of County Governments in Managing Hospital Infrastructure

This aimed at establishing how effectively county governments are managing infrastructure on maternal healthcare services. Table 4.6 shows the results
Table 4.6: Effectiveness of County Governments in Managing Hospital Infrastructure

<table>
<thead>
<tr>
<th>Effectiveness of county governments</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Effective</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>Effective</td>
<td>15</td>
<td>31.3</td>
</tr>
<tr>
<td>Less effective</td>
<td>20</td>
<td>41.7</td>
</tr>
<tr>
<td>Not effective</td>
<td>12</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Source: Researcher (2019)**

The results on table 4.6 indicate that 41.7% of the respondents indicated that the county government was less effective while 25% indicated that it was not effective. On the other hand, 31.3% indicated that the county government was effective whereas 2.1% indicate it was very effective. On average these results indicate that the county government was less effective in managing hospital infrastructure on maternal healthcare services.

The respondents through interviews were also asked to indicate whether the devolution of maternal health care services was working out effectively and indicated that it was not effective as most medical workers had not accepted working under the county government and thought that the process of devolving healthcare services was devolved and the input of medical workers was not factored. One of the Key respondents ‘A52’ said that ‘most medical workers are of the view that county governments do not have the capacity to manage hospital infrastructure and hospital staff.’ Savage and Lumbasi (2016) found that due to devolution of health services there have been increases in health facilities and infrastructure, increases in health personnel, as well as improvements to maternal health care.
4.4.4 Devolution and Enhancement of Maternal Health Care Infrastructure

This sought to establish whether devolution of health services had enhanced maternal health care infrastructure in Nairobi County. Figure 4.3 shows the obtained results.

Figure 4.3: Devolution and Enhancement of Maternal Health Care Infrastructure

Source: Researcher (2019)

The results on figure 4.3 shows that 48% indicated that devolution had not enhanced maternal health care infrastructure whereas 29% of the respondents were not certain on whether devolution had enhanced maternal health care while 23% agreed that devolution had positively enhanced maternal healthcare services. On average, the finding indicates that devolution had not advanced maternal healthcare services infrastructure. A study by Muchomba and Karanja (2015) on the influence of devolution of government service delivery on provision of healthcare revealed that devolved procurement process, availability of infrastructure, resources allocation and availability as well as policy and regulatory framework had a significant influence on the performance of the level four.
hospitals and the overall health sector but the devolution process has not been fully implemented and its effect has not been fully experienced in the health sector

4.5 Devolution and Maternal Health Care Programs Implementation

This aimed at assessing how devolution has affected maternal health care programs implementation in Nairobi City County. This aimed at ascertaining whether devolution affects maternal health care programs implementation. The results are shown by table 4.7

<table>
<thead>
<tr>
<th>Devolution effects on maternal health care</th>
<th>1 F (%)</th>
<th>2 F (%)</th>
<th>3 F (%)</th>
<th>4 F (%)</th>
<th>5 F (%)</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>County governments have instituted and implemented effective maternal healthcare programs to enhance deliver of the essential health services</td>
<td>1 (2.1)</td>
<td>5 (10.4)</td>
<td>3 (6.3)</td>
<td>16 (33.3)</td>
<td>23 (47.9)</td>
<td>4.15</td>
<td>1.072</td>
</tr>
<tr>
<td>County governments have implemented all the maternal health care programs formulated by the national government</td>
<td>0 (14.6)</td>
<td>7 (2.1)</td>
<td>1 (37.5)</td>
<td>18 (45.8)</td>
<td>22 (45.8)</td>
<td>4.17</td>
<td>1.031</td>
</tr>
<tr>
<td>Implementation of maternal healthcare programs enhances accountable for quality of health care, affordability and acceptability to all people</td>
<td>25 (52.1)</td>
<td>20 (41.7)</td>
<td>0 (6.3)</td>
<td>0</td>
<td>0</td>
<td>1.60</td>
<td>.792</td>
</tr>
<tr>
<td>Division of roles and responsibilities between central and county governments has affected the implementation of maternal healthcare programs</td>
<td>13 (27.1)</td>
<td>35 (72.9)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.73</td>
<td>.449</td>
</tr>
<tr>
<td>County governments lack adequate capacity to implement all maternal health care programs</td>
<td>8 (16.7)</td>
<td>33 (68.8)</td>
<td>0</td>
<td>7 (14.6)</td>
<td>0</td>
<td>2.12</td>
<td>.866</td>
</tr>
</tbody>
</table>
Table 4.7 shows that the mean value of whether County governments had instituted and implemented effective maternal healthcare programs to enhance deliver of the essential health services and whether County governments had implemented all the maternal health care programs formulated by the national government were 4.15 and 4.17 respectively corresponding to scale value of 4 which stands for disagree. This is an indication that county governments have not instituted and implemented effective maternal healthcare programs to enhance deliver of the essential health services and have not implemented all the maternal health care programs formulated by the national government. A study by Kilonzo, Kamaara and Magak (2017) found that improved access to maternal health-care was not only linked to devolved health services but also to other developments both at the national level (health campaigns, increased mobile telephony) and county level (improved infrastructure, relocation of available fund. In addition, Mazhar and Shaikh, (2012) revealed that devolution programs assist in decision-making simplifies the management of, and augment access to, essential maternal cares services such as antenatal and postnatal care, delivery by skilled birth attendants and family planning.

The results show that the mean values of whether implementation of maternal healthcare programs enhances accountable for quality of health care, affordability, acceptability to all people and that the division of roles and responsibilities between central and county governments has affected the implementation of maternal healthcare programs were 1.60 and 1.73 which corresponds to scale value of strongly agree. This indicates that the respondents strongly agreed that implementation of maternal healthcare programs enhances accountable for quality of health care, affordability, acceptability to all people and that the division of roles and responsibilities between central and county governments has affected the implementation of maternal healthcare programs. Finally, the mean value of whether county governments lack adequate capacity to implement all maternal health care programs is 2.12 which corresponds to the scale value of agree. This is
an indication that county governments lack adequate capacity to implement all maternal health care programs.

The key respondents through interviews were asked to indicate how devolution had affected the maternal health care programs implementation in Nairobi City County and indicated that devolution had not affected the implementation to a great extent as most maternal healthcare program are developed and funded by the national government. One the respondents ‘A51’ indicated different counties have instituted and implemented different programs but they could not match those of the national government. A study by Muchomba and Karanja (2015) on the effect of devolved governance on the performance of the health sector in Kenya and revealed that devolution process has not been fully implemented and its effect has not been fully experienced in the health sector.

4.5.1 Devolution and Maternal Health Care Programs Implementation

This aimed at establishing whether devolution had positively affected the provision of maternal care services in Nairobi City County. Figure 4.5 shows the results

![Figure 4.4: Devolution and Maternal Health Care Programs Implementation](image)

Source: Researcher (2019)
Figure 4.4 shows that 75% of the health workers indicated that devolution had not positively affected the provision of maternal care services in Nairobi City County whereas 15% and 10% were not sure and agreed respectively. This result indicates that devolution had not positively affected the provision of maternal care services in Nairobi City County. According to the Ministry of Health (2015), devolution of health services is largely understood to mean that counties take up responsibilities to deliver essential health services whilst the central government focuses on policies and regulations.

### 4.6 Barriers affecting the Devolution of Maternal Health Care

This section aimed at establishing the various barriers, which had affected the devolved maternal health care. Table 4.8 shows the results as follows

<table>
<thead>
<tr>
<th>Challenges of devolution</th>
<th>1 F (%)</th>
<th>2 F (%)</th>
<th>3 F (%)</th>
<th>4 F (%)</th>
<th>5 F (%)</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude and perception of health professionals</td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>16</td>
<td>18</td>
<td>4.10</td>
<td>1.000</td>
</tr>
<tr>
<td>Resistance of devolution by health workers</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>28</td>
<td>4.44</td>
<td>.796</td>
</tr>
<tr>
<td>High disease burden and the changing patterns of diseases</td>
<td>8</td>
<td>13</td>
<td>13</td>
<td>10</td>
<td>4</td>
<td>2.77</td>
<td>1.207</td>
</tr>
<tr>
<td>Strikes by health workers</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>20</td>
<td>19</td>
<td>4.13</td>
<td>.914</td>
</tr>
<tr>
<td>Inequitable distribution of available health workforce</td>
<td>0</td>
<td>5</td>
<td>8</td>
<td>23</td>
<td>12</td>
<td>3.88</td>
<td>.914</td>
</tr>
<tr>
<td>Shortage of health care workers</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>21</td>
<td>20</td>
<td>4.21</td>
<td>.849</td>
</tr>
<tr>
<td>Loss of skilled workers to the private sector</td>
<td>8</td>
<td>15</td>
<td>11</td>
<td>10</td>
<td>4</td>
<td>2.73</td>
<td>1.216</td>
</tr>
<tr>
<td>Inequity and delays in disbursement of funds</td>
<td>2</td>
<td>9</td>
<td>13</td>
<td>13</td>
<td>11</td>
<td>3.46</td>
<td>1.166</td>
</tr>
<tr>
<td>Corruption and tribalism</td>
<td>0</td>
<td>7</td>
<td>3</td>
<td>18</td>
<td>20</td>
<td>4.06</td>
<td>1.040</td>
</tr>
<tr>
<td>Increased pressure on hospital equipment and infrastructure</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>23</td>
<td>17</td>
<td>4.19</td>
<td>.799</td>
</tr>
<tr>
<td>Stock outs of essential commodities in the facilities</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>23</td>
<td>18</td>
<td>4.15</td>
<td>.875</td>
</tr>
</tbody>
</table>
Table 4.8 indicates that attitude and perception of health professionals, resistance of devolution by health workers, strikes by health workers, shortage of healthcare workers, corruption and tribalism, increased pressure on hospital equipment and infrastructure and stock outs of essential commodities in the facilities affect devolved maternal health care to a large extent as indicated by mean values of 4.10, 4.44, 4.13, 4.21, 4.06, 4.19 and 4.15 respectively. The results also show that inequitable distribution of available health workforce and inequity and delays in disbursement of funds affect devolved maternal health care to a moderate extent as indicated by mean values of 3.88 and 3.46 respectively. The results also show that high disease burden and the changing patterns of diseases and loss of skilled workers to the private sector affect devolved maternal health care to a minimal extent as shown by mean values of 2.77 and 2.88 respectively.

The key respondents through interviews were also asked to indicate the challenges are facing the devolved maternal health care services. The respondent indicated that the key challenges included limited funding, late payment of health workers perks and salaries, conflict between medical workers and administrative of county governments, lack of support by county governments, medical workers turnover and absenteeism, lack of motivation among medical workers and work overload and inadequate staff.

These findings conform to those of Nyambane (2014) in his study on impact of free delivery policy on utilization of maternal health services the devolution of health system, who indicates that health workers have opposed the move to transfer their salaries to the counties, the government insists that health being one of the devolved functions, must be handled at the county level while other challenges are still pending. The Ministry of Health (2015) indicates that limited to shortage of health care workers, loss of skilled workers to the private sector and other countries, the lack of clarity in the due process for the transfer of health care workers in between counties, promotion of health workers affects the provision of
maternal healthcare services. Nyongesa et al., (2015) in a study on risk factors for maternal mortality in antenatal care states that maternal healthcare challenges include inequity and delays in disbursement to the various units with favoritism to politically correct areas may also limit health care availability and utilization.

In addition, a study by Cook, (2017) revealed that one of the most commonly recognized problems of local or decentralized government in less developed countries is lack of resources to carry out their basic functions and services the so-called unfunded mandates or responsibility resource gap. Muchangi (2015) revealed that health workers are largely dissatisfied. Nurses and doctors’ unions - whose members are protesting delayed salaries and promotions in some counties - claim health was better managed by the national government. Lang’at and Mwanri (2015) found that free maternal healthcare service provision was perceived to boost skilled care utilization during pregnancy and delivery. However, challenges including; delays in the reimbursement of funds by the government to the facilities, stock outs of essential commodities in the facilities to facilitate service provision, increased workload amidst staff shortage and lack of consultation.
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND
RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the key findings, the study conclusions, recommendations and suggestions for additional research.

5.2 Summary of Key Findings

The finding of how devolution had affected the infrastructure of maternal health care in Nairobi City County established that the status of health care infrastructure under devolution was good however, a good number of respondents indicated that the available infrastructure was average. The key respondents however indicated that the status of health care infrastructure under devolution and majority they indicated that the available infrastructure was good and commendable. The findings also revealed that most health workers preferred working with the national government as opposed to county governments. The results also indicate that the county government was less effective in managing hospital infrastructure on maternal healthcare services and that devolution had not advanced maternal healthcare services infrastructure.

The finding on how devolution had affected maternal health care programs implementation in Nairobi City County revealed that county governments had not instituted and implemented effective maternal healthcare programs to enhance deliver of the essential health services and have not implemented all the maternal health care programs formulated by the national government. The findings also revealed that implementation of maternal healthcare programs enhances accountable for quality of health care, affordability, acceptability to all people and that the division of roles and responsibilities between central and county governments has affected the implementation of maternal healthcare programs. Finally, the study found that county governments lack adequate capacity to
implement all maternal health care programs and that devolution had not positively affected the provision of maternal care services in Nairobi City County.

The findings revealed that attitude and perception of health professionals, resistance of devolution by health workers, strikes by health workers, shortage of healthcare workers, corruption and tribalism, increased pressure on hospital equipment and infrastructure and stock outs of essential commodities in the facilities affect devolved maternal health care to a large extent. The results also established that inequitable distribution of available health workforce, inequity and delays in disbursement of funds affect devolved maternal health care to a moderate extent, and that high disease burden and the changing patterns of diseases and loss of skilled workers to the private sector affect devolved maternal health care to a minimal extent.

5.3 Conclusions

The findings revealed that the status of health care infrastructure under devolution was good though some respondents indicated that it was average. The findings also established that most health workers preferred working with the national government as opposed to county governments. The findings also revealed that the county government was less effective in managing hospital infrastructure on maternal healthcare services and that devolution had not advanced maternal healthcare services infrastructure. The study based on these results concludes that the status of infrastructure under the county government is good despite the fact that they have not been advanced further since maternal health care was devolved.

The study further revealed that county governments had not instituted and implemented effective maternal healthcare programs and had not implemented all the maternal health care programs formulated by the national government. The study therefore concludes that county governments were slow in implementing
various maternal health care programs instituted by both the county and national government

Finally, the study concludes the major barriers affecting the implementation of maternal healthcare services include attitude and perception of health professionals, resistance of devolution by health workers, strikes by health workers, shortage of healthcare workers corruption and tribalism, increased pressure on hospital equipment and infrastructure and stock outs of essential commodities in the facilities affect devolved maternal health care.

5.4 Recommendations for Policy Implications

The study found out that maternal health services infrastructure was much better under the national government as compared to when the services were devolved. Based on the finding, the study recommends that both the county and national government should work together and combine their efforts to enhance the devolved systems of healthcare so that they can enhance maternal healthcare.

The study also made an assumption that county governments were slow in implementing various maternal health care programs instituted by both the county and national government. The study therefore recommends that county governments should speed up the implementation of maternal healthcare programs to enhance the provisions of maternal healthcare under the devolved system.

Finally, the study revealed that there are several barriers influencing the implementation of maternal healthcare services. The study therefore recommends that both the national and county governments should institute policy mechanisms to mitigate the various challenges affecting the devolution of maternal healthcare services and programs.
5.5 Suggestions for Further Research

This study focused and obtained data from the medical workers in all the level four hospital within Nairobi county. The results are thus based on the views of the medical workers hence the views of county government administrators and the people who consume and use maternal health care services in various public hospital were not incorporated. The study therefore recommends a similar study on the effect of devolution on maternal healthcare services by seeking the views of county government administrators and the people who use public hospitals in Kenya.

The study also focused on Nairobi City County and only on Level 4 hospitals. Nairobi County is more developed and advanced. The study also recommends an additional study on other levels of public hospital under the management of county governments.
REFERENCES


Jeppsson, A. (2004). *Decentralization and National Health Policy Implementation in Uganda - a Problematic Process*. Department of Community Medicine, Malmö University Hospital


APPENDICES

Appendix I: Consent form

Dear Respondent,

I am Bulinda Hudson Shilibwa and I am a student at Kenyatta University. I am carrying out a study on the effects of devolution on maternal health care in Nairobi City County in Kenya. The research is purely academic in nature, any information obtained will be kept confidential, and it is aimed at fulfilling the academic requirements towards the award of the Master of Arts in Public Policy and Administration at Kenyatta University. You and other respondents have been selected to take part on voluntary basis and I would like your permission to involve you in the study.

Please sign for your approval

Signature ________________________ Date ______________
Appendix II: Questionnaire

This questionnaire seeks to obtain data on the effects of devolution on maternal health care in Nairobi City County in Kenya. I would appreciate if you kindly take some of your time to answer the questionnaire appropriately. The information gathered will be accorded a high degree of confidentiality. Please tick and fill where appropriate.

Section 1: Demographic Information

1. Please indicate your gender

   Male   [ ]   Female   [ ]

2. Please indicate your education level

   Diploma [ ]   Graduate   [ ]   Post graduate   [ ]

3. For how long been a medical health worker

   Less than 5 years [ ]   5 – 10 years [ ]   Over 11 years [ ]

Section II: Devolution and Infrastructure of Maternal Health Care

4. How would you rate the current status of maternal healthcare infrastructure in Kenya?

   Excellent   [ ]   Good [ ]   Average [ ]   Poor [ ]

5. Which level of government would you prefer to provide infrastructure on health care’s services and why?

   County Government   [ ]   National Government [ ]

   Explain the reason for your choice

__________________________________________________________________________________________

__________________________________________________________________________________________
6. How effective are county governments managing maternal healthcare services infrastructure?
   
   Very Effective [    ]   Effective [    ]   Less effective [    ]   Not effective [    ]

7. Has devolution of health services enhanced maternal health care infrastructure in Nairobi County?
   
   Yes [    ]   No [    ]   Not sure [    ]

   Explain the reason for your choice

   ____________________________________________________________
   ____________________________________________________________

Section III: Devolution and Maternal Health Care Programs Implementation

8. Evaluate the following statements to ascertain whether devolution affects maternal health care programs implementation. Use the following scale where appropriate

   1 – Strongly agree  2- Agree  3- Neutral  4-Disagree  5-Strongly disagree

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>County governments have instituted and implemented effective maternal healthcare programs to enhance deliver of the essential health services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County governments have implemented all the maternal health care programs formulated by the national government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation of maternal health care programs enhances accountable for quality of health care and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ensures physical access, affordability, acceptability and equity to all people
Division of roles and responsibilities between central and county governments has affected the implementation of maternal healthcare programs
County governments lack adequate capacity to implement all maternal health care programs

9. Has devolution positively affected the maternal health care programs implementation in Nairobi City County?
   Yes [ ]    No [ ]    Not sure [ ]

   Explain the reason for your choice
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

Section IV: Challenges facing Devolved Maternal Health Care

10. Please indicate the extent to which the following factors have affected devolved maternal health care. Use the following scale where appropriate:

   1 - not at all; 2 - minimal extent; 3 - moderate extent; 4 - large extent; 5 - very large extent

<table>
<thead>
<tr>
<th>Challenge</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude and perception of health professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistance of devolution by health workers</td>
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<tr>
<td>High disease burden and the changing patterns of diseases</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---------------------------------------------------------------------------</td>
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<td></td>
<td></td>
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<tr>
<td>Strikes by health workers</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Inequitable distribution of available health workforce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Shortage of health care workers</td>
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</tr>
<tr>
<td>Loss of skilled workers to the private sector</td>
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<td></td>
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<tr>
<td>Inequity and delays in disbursement of funds</td>
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</tr>
<tr>
<td>Corruption and tribalism</td>
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<td></td>
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<tr>
<td>Increased pressure on hospital equipment and infrastructure</td>
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<td></td>
</tr>
<tr>
<td>Stock outs of essential commodities in the facilities</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

11. Apart from the listed challenges which other challenges have affected the devolution of maternal healthcare services

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank you for your time
Appendix III: Interview Schedule for Medical Superintendents

Hospital name _______________________________

Questions

1. How would you describe the current status of maternal health care infrastructure under the devolved governments?
2. How would you describe the status of maternal health care infrastructure before devolution of health services?
3. Which level of government would you prefer to manage maternal health care’s infrastructure and why?
4. Is the devolution of maternal health care services working out effectively?
5. To what extent has devolution has effect the provision of maternal health care services?
6. Has devolution effected the maternal health care programs implementation in Nairobi City County?
7. What are some of the challenges are facing the devolved maternal health care services?
8. In your own opinion, do you think devolution has any effect on maternal health care services?

Thank you for your time
Appendix IV: Map of Kenya.

Source: Kenya google map
Appendix V: Map of Nairobi City County.

Source: http://kenyannews.co.ke
Appendix VI: Research Approval

KENYATTA UNIVERSITY
GRADUATE SCHOOL

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

FROM: Dean, Graduate School

TO: Bulinda Hudson Shilibwa
C/o Public Policy and Administration Dept.

DATE: 6th August, 2018

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 9th May, 2018 approved your Research Project Proposal for the M.FPA Degree Entitled, “Effects of Devolution on Maternal Health Care: The Case of Level Four Hospitals in Nairobi City County, Kenya”.

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

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

Thank you.

HARRIET ISABOKI
FOR: DEAN, GRADUATE SCHOOL

cc. Chairman, Public Policy and Administration Department.

Supervisors:

1. Dr. Felix Kiruthu
   C/o Department of Public Policy and Administration
   Kenyatta University
Appendix VII: Research Authorization

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref. No. NACOSTI/P/18/46648/22640

Hudson Shilibwa Bulinda
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Effects of devolution on maternal health care: The case of level four hospitals in Nairobi City County, Kenya,” I am pleased to inform you that you have been authorized to undertake research in Nairobi County for the period ending 25th August, 2019.

You are advised to report to the County Commissioner, the County Director of Education and the County Director of Health Services, Nairobi County before embarking on the research project.

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

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.
Appendix VIII: Research Permit

THIS IS TO CERTIFY THAT:

MR. HUDSON SHILIBWA BULINDA
of KENYATTA UNIVERSITY, 43844-100
NAIROBI, has been permitted to conduct
research in Nairobi County

on the topic: EFFECTS OF DEVOLUTION
ON MATERNAL HEALTH CARE: THE CASE
OF LEVEL FOUR HOSPITALS IN NAIROBI
CITY COUNTY, KENYA

for the period ending:
25th August, 2019

Applicant’s Signature

Permit No.: NACOSTI/P/18/46648/22640
Date Of Issue: 25th August, 2018
Fee Collected: Ksh. 1000

Director General
National Commission for Science,
Technology & Innovation