

**OPERATIONAL STRATEGIES AND ENHANCEMENT OF MATERNAL AND  
CHILD HEALTHCARE SERVICE DELIVERY IN DEVOLVED HEALTHCARE  
UNITS IN MACHAKOS COUNTY**

**THERECIA MWENDE KAVINDU**

**A Research Project Submitted In Partial Fulfillment of the Requirements for the Award  
of the Degree of Master of Business Administration of South Eastern Kenya University**

**2019**

## DECLARATION

I understand that plagiarism is an offence and I therefore declare that this research project is my original work and has not been presented to any other institution for any other award.

Signature: .....

Date: .....

**THERECIA MWENDE KAVINDU**

**D61/MAC/20726/2016**

This Research Project has been submitted for examination with my approval as a university supervisor.

Signature: .....

Date: .....

**DR. SUSAN WAMITU**

**LECTURER**

**SOUTH EASTERN KENYA UNIVERSITY**

## **ACKNOWLEDGEMENT**

The success and final outcome of this research project required a lot of guidance and assistance from many people and I am extremely privileged to have got this all along my study. All that I have done is only due to such supervision and assistance and I would not forget to thank them.

My appreciation goes to the Almighty God for being with me throughout this period. Secondly, I would wish to express my sincere gratitude to my University Supervisor Dr. Susan Wamitu for her continuous and constructive advice, academic guidance and encouragement towards accomplishment of this project. I also sincerely appreciate the efforts of all lecturers who took me through the course. Lastly, to my family members for their continuous effort, support and encouragement during the development of this project.

## TABLE OF CONTENT

|   |             |
|---|-------------|
| <b>DECLARATION</b> .....  | <b>ii</b>   |
| <b>ACKNOWLEDGEMENT</b> .....  | <b>iii</b>  |
| <b>LIST OF TABLES</b> .....   | <b>viii</b> |
| <b>LIST OF FIGURES</b> .....  | <b>ix</b>   |
| <b>LIST OF APPENDICES</b> .....   | <b>x</b>    |
| <b>ABBREVIATIONS AND ACRONYMS</b> .....   | <b>xi</b>   |
| <b>DEFINITION OF SIGNIFICANT TERMS</b> .....  | <b>xii</b>  |
| <b>ABSTRACT</b> .....   | <b>xiii</b> |
| <b>CHAPTER ONE</b> .....  | <b>1</b>    |
| <b>1.0 INTRODUCTION</b> .....   | <b>1</b>    |
| 1.1 Introduction.....   | 1           |
| 1.2 Background of the Study .....   | 1           |
| 1.2.1 An Overview of Operational Strategies and Healthcare Service Delivery in Africa ..... | 2           |
| 1.2.2 Operational Strategies and Healthcare Service Delivery in Kenya .....                 | 2           |
| 1.2.3 Machakos County and Maternal and Child Healthcare Service Delivery .....              | 4           |
| 1.3 Statement of the Problem.....   | 6           |
| 1.4 Research Objectives.....  | 7           |
| 1.4.1 General Objective .....   | 7           |
| 1.4.2 Specific Objectives .....   | 7           |
| 1.5 Research Questions .....  | 7           |
| 1.6 Significance of the Study .....   | 8           |
| 1.7 Limitations of the Study.....   | 8           |
| 1.8 Scope of the Study .....  | 9           |
| 1.9 Assumptions of the Study .....  | 9           |
| <b>CHAPTER TWO</b> .....  | <b>10</b>   |
| <b>2.0 LITERATURE REVIEW</b> .....  | <b>10</b>   |
| 2.1 Introduction.....   | 10          |
| 2.2 Theoretical Framework.....  | 10          |
| 2.2.1 Healthcare Service Utilization Model.....   | 10          |
| 2.2.2 Social Learning Theory.....   | 11          |
| 2.2.3 Systems Interaction Theory .....  | 12          |
| 2.2.4 Resource-Based View (RBV) Theory .....  | 12          |

|  |           |
|--|-----------|
| 2.3 Empirical Literature Review .....  | 13        |
| 2.3.1 Capacity Building and Enhancement of Maternal and Child Healthcare Service .....   |           |
| Delivery.....  | 14        |
| 2.3.2 Resource Mobilization and Enhancement of Maternal and Child Healthcare.....        |           |
| Service Delivery.....  | 14        |
| 2.3.3 Community awareness and enhancement of Maternal and Child Healthcare .....         |           |
| Service Delivery.....  | 16        |
| 2.3.4 Sectoral Integration and Enhancement of Maternal and Child Healthcare Service..... |           |
| Delivery.....  | 18        |
| 2.4 Research Gap .....   | 19        |
| 2.5 Conceptual Framework.....  | 21        |
| <b>CHAPTER THREE .....</b>   | <b>23</b> |
| <b>3.0 RESEARCH METHODOLOGY .....</b>  | <b>23</b> |
| 3.1 Introduction.....  | 23        |
| 3.2 Research Design.....   | 23        |
| 3.3 Target Population.....   | 23        |
| 3.4 Sampling Procedure and Sample Size .....   | 24        |
| 3.5 Data Collection Procedure .....  | 25        |
| 3.5.1 Pilot Study.....   | 26        |
| 3.6 Data Analysis and Presentation .....   | 26        |
| 3.6.1 Validity of the Instruments .....  | 27        |
| 3.6.2 Reliability of the Instruments.....  | 27        |
| 3.7 Ethical Considerations .....   | 27        |
| <b>CHAPTER FOUR.....</b>   | <b>28</b> |
| <b>4.0 DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF THE .....</b>                   | <b>28</b> |
| <b>RESEARCH FINDINGS.....</b>  | <b>28</b> |
| 4.1 Introduction.....  | 28        |
| 4.2 Pilot Test Analysis .....  | 28        |
| 4.3 Response Rate.....   | 29        |
| 4.4 Demographic Characteristics .....  | 29        |
| 4.4.1 Distribution of Participants by Level of Education .....                           | 29        |
| 4.4.2 Location of Sub county hospital .....  | 30        |
| 4.4.3 Period of Existence in Work Station.....   | 31        |

|  |           |
|--|-----------|
| 4.5 Descriptive Statistics.....  | 32        |
| 4.5.1 Capacity Building and Enhancement of MCH .....                           | 32        |
| 4.5.2 Resource Mobilization and Enhancement of MCH .....                       | 33        |
| 4.5.3 Community Awareness and Enhancement of MCH.....                          | 35        |
| 4.5.4 Sectoral Integration and Enhancement of MCH.....                         | 37        |
| 4.5.5 Enhancement of Maternal and Child Healthcare .....                       | 38        |
| 4.6 Correlation Analysis .....   | 39        |
| 4.7 Regression of Structural Variables and Model Fitness.....                  | 40        |
| 4.7.1 Model Fitness.....   | 40        |
| 4.7.2 Relationship between Operational Strategies and Enhancement of MCH ..... | 41        |
| <b>CHAPTER FIVE .....</b>  | <b>43</b> |
| <b>5.0 DISCUSSIONS.....</b>  | <b>43</b> |
| 5.1 Introduction.....  | 43        |
| 5.2 Capacity Building and Enhancement of MCH .....                             | 43        |
| 5.3 Resource Mobilization and Enhancement of MCH.....                          | 44        |
| 5.4 Community Awareness and Enhancement of MCH.....                            | 44        |
| 5.5 Sectoral Integration and Enhancement of MCH.....                           | 45        |
| <b>CHAPTER SIX .....</b>   | <b>47</b> |
| <b>6.0 CONCLUSION AND RECOMMENDATIONS.....</b>                                 | <b>47</b> |
| 6.1. Introduction.....   | 47        |
| 6.2 Conclusion .....   | 47        |
| 6.3 Recommendations.....   | 48        |
| 6.3.1 Policy Recommendations.....  | 48        |
| 6.3.2 Practice Recommendations.....  | 50        |
| 6.3.3 Academia Recommendations.....  | 51        |
| <b>REFERENCES.....</b>   | <b>52</b> |
| <b>APPENDICES .....</b>  | <b>60</b> |
| <b>APPENDIX I LETTER OF TRANSMITTAL.....</b>                                   | <b>60</b> |
| <b>APPENDIX II UNIVERSITY INTRODUCTORY LETTER.....</b>                         | <b>61</b> |
| <b>APPENDIX III NACOSTI RESEARCH AUTHORIZATION.....</b>                        | <b>66</b> |
| <b>APPENDIX IVNACOSTI RESEARCH LICENSE .....</b>                               | <b>67</b> |
| <b>APPENDIX V QUESTIONNAIRE .....</b>  | <b>68</b> |
| <b>APPENDIX VI TIME SCHEDULE.....</b>  | <b>69</b> |

**APPENDIX VII BUDGET .....70**  
**APPENDIX VIII LIST OF COUNTY REFERRAL AND SUBCOUNTY HOSPITALS**  
**..... 71**

## LIST OF TABLES

|  |    |
|--|----|
| Table 3.1: Target Population in Machakos County Referral and Subcounty Hospitals ..... | 24 |
| Table 3.2: Sample Size Distribution .....  | 25 |
| Table 4.1: Scale Reliability Coefficients .....  | 25 |
| Table 4.2: Response Rate.....  | 29 |
| Table 4.3: Distribution of Respondents by Education Level .....                        | 28 |
| Table 4.4: Location of sub county hospital .....                                       | 28 |
| Table 4.5: Length of Experience or Stay at Workstation .....                           | 29 |
| Table 4.6: Capacity Building .....   | 30 |
| Table 4.7: Resource Mobilization .....   | 31 |
| Table 4.8: Sources of Finance .....  | 33 |
| Table 4.9: Community Awareness .....   | 33 |
| Table 4.10: Sectoral Integration .....   | 35 |
| Table 4.11: Enhancement of MCH .....   | 36 |
| Table 4.12: Correlations Matrix .....  | 38 |
| Table 4.13: Goodness of Model Fitness .....  | 39 |
| Table 4.14: Standardized Structural Model .....  | 40 |



## LIST OF FIGURES

|  |    |
|--|----|
| Figure 2.1: Conceptual Framework ..... | 21 |
|--|----|

## **LIST OF APPENDICES**

|  |    |
|--|----|
| APPENDIX I: LETTER OF TRANSMITTAL .....                              | 60 |
| APPENDIX II: INTRODUCTORY LETTER.....                                | 62 |
| APPENDIX III: NACOSTI RESEARCH AUTHORIZATION.....                    | 66 |
| APPENDIX IX: NACOSTI RESEARCH LICENSE.....                           | 67 |
| APPENDIX V: QUESTIONNAIRE.....                                       | 68 |
| APPENDIX VI: TIME SCHEDULE.....                                      | 69 |
| APPENDIX VII: BUDGET .....   | 70 |
| APPENDIX VIII: LIST OF COUNTY REFERRAL AND SUBCOUNTY HOSPITALS ..... | 71 |

## **ABBREVIATIONS AND ACRONYMS**

|                  |   |
|------------------|---|
| <b>ANC:</b>      | Antenatal Care  |
| <b>CA:</b>       | Community Awareness   |
| <b>CB:</b>       | Capacity Building   |
| <b>CBO's:</b>    | Community-Based Organizations                                   |
| <b>CEC:</b>      | County Executive Committee                                      |
| <b>CHSSIP:</b>   | County Health Sector Strategic Investment Plan                  |
| <b>CHW:</b>      | Community Health Workers  |
| <b>DHS:</b>      | Department of Health Services                                   |
| <b>FBO's:</b>    | Faith-Based Organizations                                       |
| <b>FMCHCP:</b>   | Free Maternal and Child Health Care Programme                   |
| <b>FP:</b>       | Family Planning   |
| <b>HIV/AIDS:</b> | Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome |
| <b>KDHS:</b>     | Kenya Demographic and Health Survey                             |
| <b>KNBS:</b>     | Kenya National Bureau of Statistics                             |
| <b>MCH:</b>      | Maternal and Child Healthcare                                   |
| <b>MDGs:</b>     | Millennium Development Goals                                    |
| <b>MR:</b>       | Mortality Rate  |
| <b>MSH:</b>      | Management Science for Health                                   |
| <b>NGO's:</b>    | Non-Governmental Organizations                                  |
| <b>OIM:</b>      | Observed Index Matrix   |
| <b>PHC:</b>      | Primary Health Care   |
| <b>RM:</b>       | Resource Mobilization   |
| <b>SCT:</b>      | Social Cognitive Theory   |
| <b>SDGs:</b>     | Sustainable Development Goals                                   |
| <b>SDH:</b>      | Social Determinants of Health                                   |
| <b>SEM:</b>      | Structural Equation Model                                       |
| <b>SPSS:</b>     | Statistical Package for Social Sciences                         |
| <b>SRH:</b>      | Sexual and Reproductive Health                                  |
| <b>TBA's:</b>    | Traditional Birth Attendants                                    |
| <b>UNFPA:</b>    | United Nations Fund for Population Activities                   |
| <b>USAID:</b>    | United States Agency for International Development              |
| <b>WHO:</b>      | World Health Organization                                       |

## **DEFINITION OF SIGNIFICANT TERMS**

**ANC Clinics:** These are specialized clinics run for expectant women during their pregnancy and after delivery.

**Capacity Building:** This is the method used to give new or present MCH nurses the skills they need to perform their job in MCH clinics.

**Community Awareness:** This is the engagement and education with an aim of actively and meaningfully learning from and share information with different segments of the community to enhance knowledge, skills and behaviors.

**Enhanced MCH Program:** A program staffed with qualified nurses that provides maternal and child healthcare services.

**Ethical Issues:** Situations that require an individual or organization to choose between alternatives; right (ethical) or wrong (unethical).

**Maternal Deaths:** Death of women due to complications in pregnancy and childbirth

**Maternal Health:** Women health during pregnancy, childbirth and after delivery.

**MCH Clinics:** Daily specialized clinics run specifically for women of reproductive age and children.

**Resource Mobilization:** A process of identifying and obtaining resources to help achieve organizational goals and ensure sustainability.

**Sectoral Integration:** It occurs when there are institutionalized mechanisms to enable cross-sectoral funding, regulation or service delivery.

## ABSTRACT

The purpose of this study was to establish the influence of operational strategies on enhancement of maternal and child healthcare service delivery in devolved healthcare units in Machakos County. The study objectives included: determining how capacity building mother child care strategy influence enhancement of MCH service delivery in Machakos County; establishing how resource mobilization strategy influence enhancement of MCH service delivery in Machakos County; investigating the influence of community awareness strategy on enhancement of MCH service delivery in Machakos County; establishing how sectoral integration strategy influence enhancement of MCH service delivery in Machakos County. To meet these objectives, the study was carried out in the County referral and sub county hospitals in Machakos County. The department of health services will gain from the study by getting to know whether operating strategies influence enhancement of MCH services delivery and thus affect measures which will inform use of operating strategies that result in effective and timely quality service in the hospitals. The proposed research will give stakeholders better insights into operating strategies and how the same determines MCH service delivery and will help them formulate better strategies for quality healthcare. The study population constituted 600 employees who included County Executive Committee Member, Medical Superintendent, MOH's, Clinical Officers, Nurses and Subordinates. A sample of 180 employees was selected. Ten employees were used for the pilot study who were randomly selected from county and sub county hospitals in Kitui County. The study utilized descriptive research design. The data was collected using questionnaires mainly and a mixture of cluster and purposive sampling techniques. The data was then analyzed both descriptive and inferential statistics using the Statistical Package for Social Sciences (SPSS) version 24.0 and findings tabulated and presented in form of tables. The study results indicated that capacity building ( $\beta_1=0.1415$ ;  $P=0.062<0.05$ ) had a positive insignificant influence on enhancement of MCH service delivery. Findings also show that resource mobilization ( $\beta_2=0.1507$ ;  $P=0.033<0.05$ ; community awareness ( $\beta_3=0.9220$ ;  $P=0.000<0.05$ ; sectoral integration ( $\beta_4=0.3213$ ;  $P=0.000<0.05$ ) had a significant positive effect on enhancement of MCH service delivery. The study recommends that the hospital under the county government should increase and strengthen capacity building activities to ensure sustainability of an innovation. Further, there is need for the County Department of Health Services to build permanent community structures and increase training of local communities across the county to strengthen links with wider health system with aim of creating modalities for engaging community base workers and those they serve for improved quality care. The study also recommends increment of domestic resource mobilization through the county's legislative powers with an aim of improving universal healthcare to the people of Machakos to ensure accessibility and affordability of MCH services thus enhancing quality service in the county. There is also need for the institution to involve all people & organizations interested in decision making process to build commitment towards achieving sustainable goals in delivery of quality service.

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 Introduction**

The contents of this chapter entail background to the study, problem statement, objectives and research questions. In addition, there is also significance and scope of the study

#### **1.2 Background of the Study**

Nabukeera, (2016) says that every nation in the world has to prioritize in upgrading the standards of health of every individual. Spending more on health and improve quality has been one solution that has been explored in achieving health related Sustainable Development Goals (SDGs). Policymakers however have naturally been concerned by relative failure of most African countries' failure in attaining good health outcomes despite being associated with persistent rise in health budgets.

The lack of proper incentives and governance challenges for offering health services to the public is widely recognized as a factor in spending quality, and changes in delivery mechanisms and decentralization have been proposed to tackle that problem (Singh, 2008). In addition, the researcher posits that a number of government based commencements in relation to strategy and infrastructure are now set up as a target of enhancing availability and reach to maternal and child healthcare service (MCH) in Kenya. Although there has been various attempts for several years in advocating for the systems of healthcare to be decentralized, there has been no breakthrough in resolving MCH service delivery in Africa (WHO, 2009). Crucial healthcare services including devolved management of the healthcare sector insurance of the public health have been undertaken. The ministry of health in the report done in 2016 says that the nation's economy indicates registration of unequal and steady transformation in the regions. This in turn brought about the provision and accessibility to MCH service delivery.

Complicated pregnancy and births in women are said to be the major causes of death according to world health organization. This is due to scarcity of resources in the affected regions. The complications that arise due to pregnancy and birth can be prevented and even treated. (Alkema, Blencowe & Say, 2016).The major complications that account for nearly 75% of all maternal deaths are: severe bleeding (mostly bleeding after childbirth); infections

(usually after childbirth); high blood pressure during pregnancy (pre-eclampsia & eclampsia); complications from delivery and also unsafe abortion (Say et al. 2016; United Nations, 2015; UNICEF, 2015).

### **1.2.1 An Overview of Operational Strategies and Healthcare Service Delivery in Africa**

Globally, governments through their relevant ministries seek to enhance health production by engaging in the formulation of health policies, regulating health institutions and related agencies and sectorial financing, Berman (2014). Healthcare services, as an end product in health production are esteemed only when it has a positive marginal impact on the beneficiaries (Polsa, Spence & Soneye, 2011). All governments express a measure of concern towards its public health; health systems are therefore concerned not only with the protection of the health societies, but also its improvement (UNDP, 2009).

However, imperfect healthcare systems do not meet the patients' needs for healthcare services therefore make them consume valueless healthcare services (WHO, 2010). In September 2000, 189 heads of state adopted the Millenium Development Goals (MDGs) designed to improve social as well as economic conditions in the world's poorest countries by 2015. Three of these related specifically to maternal healthcare service delivery with another two more having health components (UNDP, 2009)

In many parts of the world, increasing dissatisfaction with conventional representative systems of democracy has led to the emergence of various strategies to 'deepen democracy' by improving the quantity and quality of participation, and to deliver health services that better meet the expectations of citizens. Decentralization reforms have been a central and popular strategy within these efforts.

### **1.2.2 Operational Strategies and Healthcare Service Delivery in Kenya**

The access to public healthcare services in Kenya is funded by the exchequer so as to enhance service delivery (MOH, 2012). Similarly, healthcare institutions have kept developing initiatives geared towards improving accessibility to maternal healthcare services so as to meet the population demand for quality health services (MOH, 2014). An existing assertion however indicates that the country's private sector has also registered an increase in demand for the maternal health care services (Dean & Lang, 2008; Singh & Shah, 2011). The private sector healthcare providers assist in easing off part of the pressure faced by the public

health systems. They are viewed as agents' of quality care, efficiency in service delivery and effectiveness against the perception in government facilities. Wavomba and Sikolia (2015) asserted that the public health service providers observed overcrowded women especially at Antenatal with also overcrowding in maternal wards with mothers having to share beds.

It is opined that the concept of strategy is anchored on a number of related aspects. According to Mangala (2015) such aspects include organizational competitive advantage, unique capabilities, strategic intent, resource-based strategy, strategic capability & management, strategic goals and strategic plans. Baker (2007) defined strategy as the outcome of some form of planning, organized process for anticipating and acting in the future so as to conduct an organization's objective. Baker added that driver of strategies in an organization are viewed to be visionary, entrepreneurial and innovative. On the other hand strategy can also be viewed as the direction and scope of an organization over the long term, which achieved advantages in a changing environment through its configuration of resources and competences to meet the needs of markets and to fulfill stakeholder expectation (Johnson & Scholes, 2002).

In the Kenya context, there is an approximate population of 44 million people out of which an estimated 70% is reported to reside in rural set-ups. Healthcare services in Kenya are provided through a network of over 4,700 health facilities countrywide, with the public sector accounting for about 51% of these facilities. Kenya spends an average of 6% of its Gross Domestic Product (GDP) on healthcare service delivery systems (KDHS, 2012). A huge portion of the Kenyan population depends on healthcare services in the public hospitals (Kenya Health Sector Integrity Study Report, 2011). This is as a result of subsidized services in the public hospitals (Ministry of Medical Services, 2010) hence they offer cheaper services compared to country's private hospitals.

The government of Kenya has tried to address matters relating to health care services provision through devolution of health and enhancing the Public Health Acts that regulate the entire health sector (MOH, 2015). Counties are prospected to promote social and economic development and provide proximate, easily accessible services throughout (Constitution of Kenya, 2010). However, the maternal and child healthcare delivery system(s) are faced with three major operational strategic issues which include accessibility, affordability and quality of services offered (Wanyoike, 2016). The public health system in Kenya has for long been



characterized by a persistent inadequacies relating to staffing, and also shortage of essential drugs. This disenfranchises those seeking healthcare services in these facilities (Kilonzo, Kamaara, & Magak, 2017).

Key operational strategies best placed to address inadequacies and inefficiencies in public sector includes building sustainable skills of staff, resources and commitments to health promotion in health care settings, community settings and in other sectors may multiply health gains many times over (Fleizser, 2015; Korir, 2015). Further, while resources may be in every community, the challenge for health programs is to identify these resources and use them effectively to meet community health needs (Michuki, 2015; Alkema *et al.*, 2016). The other key operational strategy could be geared towards building permanent community structures and increased training of the local communities to strengthening links with the wider health system to creating modalities for engaging community-based workers and those they serve for improved quality of care (USAID, 2015; Okech, 2016). Lastly, a strategy on strengthening coordination structure; putting in place data base of partners their roles, coverage, programmes and resources; developing and harmonizing coordinated framework for community level interventions; exploring common system for supervision; focal point person and review meetings (Okech, 2016). If well implemented, these and other operational strategies could strengthen and thus improve utilization of healthcare services.

### **1.2.3 Machakos County and Maternal and Child Healthcare Service Delivery**

Machakos County is one of the outputs of the decentralization in Kenya located in the former Eastern Province. It is made up of eight sub-counties that include Athi River, Kangundo, Kathiani, Machakos, Masinga, Matungulu, Mwala and Yatta. The MCHSP (Machakos County HIV & Aids Strategic Plan: 2015 – 2019) report established that Machakos County operates on a number of social pillars that generally target at investing in the people within the county that include healthcare service delivery, education, water and sanitation, environment and gender, youth and vulnerability groups. The health care delivery specifically seeks to enhance the maternal and child health care system so as to lower mortality rates of mothers and their babies.

When organizational or institutional changes are suggested, it is important to understand the background of the existing services in this case MCH services and why they have evolved as they have. This is helpful in dealing with concerns on the part of the staff and the community

about the proposed changes and for planning the timing and passing measures for the integration of services. Given adoption and implementation of devolved system of governance, it is most important to ensure that no useful elements of an old PHC system are lost in the plan for a new. Barker, Mulaki and Dutta (2014) established that devolution in Kenya came with fears of disruption of services especially primary health care services that are largely linked with concerns about the counties' readiness to deliver services.

In Machakos county, primary contact of mothers and children with health workers is at the various outpatient clinics that are run at every dispensary, health center, and the hospitals across the county. One of the most effective ways of promoting child health is to have special clinics just for the mothers and children. These are called Maternal (mother) and Child Health clinics, or just MCH clinics. They provide both minor curative services for sick mother and children and all of the many preventive services which are also important (MOH, 2016).

The county was among selected counties to be supported in PHC integration process. Combining all these programs into one clinic saves a mother's time and ensures better attendance and coverage of the population (MOH, 2016). The goal of every MCH clinic is to keep its mothers and children in complete health. When disease does begin, the clinic aims to detect it as soon as possible, to treat it effectively, and thus return the person to complete health. The services involved in the MCH clinics includes: antenatal care (ANC) including card and antenatal drugs; assisted vaginal delivery (forceps and vacuum), caesarean section (elective and emergency), post-natal care services, management of ectopic pregnancy and laparotomy for obstetric complications. Also, there are other services such as immunization, nutrition evaluation advice, family planning services and care of sick children, including their prompt treatment (Korir, 2017). At the county level, PHC is anchored on three main fundamental pillars that is equity for all, community involvement, and intersectoral coordination. Machakos County has made progress in improving the healthcare systems. However, it has received a myriad of radical and renewed transformative changes especially in enhancement of MCH services. There is thus a need for a study exploring operational strategies adopted by the Machakos County Government in enhancing Maternal and Child Healthcare Service Delivery in healthcare facilities.

### **1.3 Statement of the Problem**

Better health requires that women and children have the ability to access quality services from conception and pregnancy to delivery, the postnatal period, and childhood. Healthcare and health systems in developing economies including Kenya have remained poor and experience a number of challenges that include accessibility which encapsulates distance to the facilities, availability of transportation and the cost of transportation; quality of services offered and healthcare financing far from attaining the goals of good health standards, equity, effectiveness, acceptability and sustainability as established by Gillam and Siriwardena (2014).

There are operational issues in offering better health services in public health facilities in the Kenyan Government which have continually fallen short in fiscal resource allocation towards health care in relation to the increasing demand and need for improved maternal care among the women, Karanja (2014). Further, inadequately trained staff and lack of empowering the medical staff in their decision making process to facilitate the execution of their responsibilities was also by Karanja. The Kenyan health sector, as a result of devolution into the counties, has registered a number of initiatives that have given rise to growth which includes increased number of health facilities and health workers, improved equipment and enhanced accessibility through provision of emergency services.

Machakos being one of the counties supported in PHC integration process has resulted in increased number of health facilities and emergency services in the county. Maternal and child healthcare is at dispensaries, health centers and hospitals across the county. Universal healthcare has resulted where people access free health service. Despite these changes, people of Machakos are still not able to access free quality health service. Mothers and their children have also continued to suffer due to drug stock outs and poor untimely services. Futher, Wayua (2017) established that accessibility and financial constraints led to very few people accessing maternal healthcare in good time in Machakos leading to maternal mortality. It is thus through adopting operational strategies that they will be able to have competitive advantage and be assured of consistency in provision of quality services. There is thus a research gap between the strategies to be adopted by health facilities to ensure quality service to its people. This study was motivated by the need to enhance public health

services offered to the people of Machakos County through addressing currently adopted operational strategies with a keen look at the county's referral and sub county hospitals.

#### **1.4 Research Objectives**

Research objectives refer to goals or targets set by the researcher and which are supposed to be achieved by the end of the study.

##### **1.4.1 General Objective**

The general objective of the study was to establish the operational strategies adopted and enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County.

##### **1.4.2 Specific Objectives**

The specific objectives were as follows:

- i. To determine how capacity building mother child care strategy influence enhancement of Maternal Child Healthcare Service Delivery in Machakos County.
- ii. To establish how resource mobilization strategy influence enhancement of Maternal Child Healthcare Service Delivery in Machakos County.
- iii. To investigate the influence of Community awareness strategy on enhancement of Maternal Child Healthcare Service Delivery in Machakos County.
- iv. To establish sectoral integration strategy influence enhancement of Maternal Child Healthcare Service Delivery in Machakos County.

#### **1.5 Research Questions**

The study sought answers for the following questions:

- i. What is the influence of capacity building strategy on enhancement of Maternal and Child Healthcare Service Delivery in Machakos County?
- ii. What is the influence of resource Mobilization strategy on enhancement of Maternal and Child Healthcare Service Delivery in Machakos County?

- iii. To what extent does community awareness influence enhancement of Maternal and Child Healthcare Service Delivery in Machakos County?
- iv. How does sectoral integration strategy influence enhancement of Maternal and Child Healthcare Service Delivery in Machakos County?

### **1.6 Significance of the Study**

Despite the fact that the county government of national government through the county government of Machakos implementing the MCH Service Delivery in the various health facilities across the county, MCH program under-utilization was linked to a myriad of challenges. The department of health services will therefore gain from the study by getting to know whether operational strategies adopted influence enhancement of MCH service delivery and thus affect measures which will inform use of the strategies that leads to effective MCH service delivery. The proposed research will give stakeholders better insights into the operational strategies and how the same determines MCH service delivery and will help them formulate better strategies for quality MCH services. The findings of the study might inform establishment of efficient and high quality affordable health care system which would be put in place to improve overall livelihoods of both the mothers and their babies before and after birth through delivery of better services. Also, to academicians, the findings of the study would contribute to the debate through the literature regarding strategies and MCH program enhancement nexus.

### **1.7 Limitations of the Study**

A number of factors limited the study. The study main focus was on employees of county referral and sub county hospitals in Machakos County who were to report on four operational strategies influencing enhancement of MCH service delivery. The enhancement of Maternal and Child Healthcare in Machakos County might also result from a multiplicity of other factors not covered by the study. Another limitation was that, respondents were a bit reluctant not to reveal adequate data for fear of victimization. To address this, the researcher encouraged them to be honest and give what is right since it would be beneficial in helping them health facilities adopt strategies that would improve their service delivery. They were also busy to respond immediately to the questions and thus were allowed more time. To

address this, the researcher delivered and picked the questionnaires in person to ensure generalization of the findings.

### **1.8 Scope of the Study**

The scope of the study was confined to Machakos County Referral hospital and Sub County hospitals. The target population was 600 members of staff and sample of 180 was taken.

### **1.9 Assumptions of the Study**

The study assumed that the respondents would be receptive and that the questionnaires would be returned duly filled. It also assumed that the questionnaire return rate would be 100% and that the sample size would allow generalization of the study findings. It also assumed that data collection instruments would be valid. Finally the research findings of this study would be used to improve service delivery of maternal and child healthcare in the county. To address this issue, the researcher asked for honesty and co-operation from respondents by assuring them that, the data would only be used for research purposes and strict confidentiality would be observed.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents theoretical literature and explores previous studies conducted on healthcare services. A summary of the literature review with gaps to be filled would be lastly presented.

#### **2.2 Theoretical Framework**

It refers to theories that would guide the researcher on determining the things to measure and the statistical relationships between dependent and independent variables. Various theories/models exist in the area of operational strategies and maternal & child healthcare service delivery. The theories/models used in this study include Healthcare Service Utilization Model (1995), Social Learning Theory (1977), Systems Interaction Theory (1991) and Resource-Based View Theory (1991), all of which are all relevant to this study.

##### **2.2.1 Healthcare Service Utilization Model**

This model was developed by Andersen (1995) in order to explain aspects that influence the utilization of health services. The model posits that the average estimates of demand for healthcare differ greatly, especially when health care is differentiated by the type and nature of services. According to the model, utilization of health services is dependent on three dynamics: predisposing factors, enabling factors and need factors. Predisposing aspects include characteristics such as age, race and health belief. The health belief encapsulates the belief on adequacy of the health institution to address the health need; this is influenced by the financial adequacy of the institution which impacts the facility ability to be efficient. On the other hand, enabling factors comprised family support, health insurance access and one's community. The need factors represent both the actual and perceived need for healthcare services. The major assumption of this model is that persons who hold a belief that the healthcare services provide an effective solution are more likely to seek attention for the healthcare providers of institutions. For efficient utilization of healthcare services, people need not only to belief but also be aware of the importance of services offered to them, Korir (2015). The theory will therefore guide on establishing how capacity building influence enhancement of MCH service delivery in devolved healthcare units in Machakos County. This will ensure that people of Machakos acquire right skills and information on the

healthcare services offered in the health facilities. To shape the model, Maina (2006) suggested consideration of other administrative, social, topographical, environmental and financial facets that appear to relate to the health of individuals.

Further, it claims that contemplations need to be given to household or healthcare systems (Pokhrel & Sauerborn, 2004). Hence, the stimulates for healthcare service use are also affected by aspects such as social, economic and political including cultural factors as alleged and explained by the community or individual(s). Thus, health service use includes a firm evaluation of healthcare service prominent to crediting the importance of the Social Determinants of Health (SDH).

### **2.2.2 Social Learning Theory**

This theory was developed by Albert Bandura's (1977) based on the idea that we learn from our interactions with others in a social context. Separately, by observing the behaviours of others, people develop similar behaviours. The rise in popularity of health education programs increases the physical distance between educators and students. Bandura asserted that there are three key components to social learning: observation learning, imitation, and behavior modeling. Basically, in social learning theory, employees acquire new skills and knowledge by observing other members of staff whom they have confidence in and as well believe to be credible and more knowledgeable.

The theory emerged from the exertion of Holt and Brown (1931) which suggest that new behaviors may be learnt from observations and also as a result of experience. Social learning theory focuses on the imperative duties performed by mediated, figurative, and self-regulatory procedures in emotional operative and considers human act or behavior as unceasing collaboration between cognitive, behavioral as well as environmental influences. People need to improve their general health knowledge and practices to ensure that they are fully connected to the services of the hospital, Okech (2016). They need to have functional health literacy and not just out of interactions but also understand their medications at discharge. This theory therefore can guide the research in establishing influence of community awareness on enhancing MCH service delivery in devolved healthcare units in Machakos County.



### **2.2.3 Systems Interaction Theory**

This theory assimilates the structural functionalism. It was formulated by Tuner (1991) and it underscores the core of interdependence of components. The use of this theory would be applicable in describing groups, families, or welfare service unit/organizations involved in health provision. MCH beneficiaries fall under both of these groups, families as well as welfare units as a result of co-existence of religious, socio-cultural and modern way of life in different communities. This therefore made the theory highly applicable in this particular study. The theory posits that individuals are influenced by systems in their immediate social setting for adequate life and therefore MCH services depend on such systems. The use of this theory in policy formulation would help in understanding where the elements of interaction between healthcare service as well as their environment converge with concern of acquiring and using the MCH services. Policy makers however could fail to attain their anticipated goals of better health outcomes due to problematic interactions. Failure to interact leads to lack of information and thus poor health service delivery. This theory will be applied in this study to explain how sectoral integration influence enhancement of MCH service delivery in devolved healthcare units in Machakos County.

The main strength of this theory is that it brings together all persons & organizations interested towards delivery of quality MCH service. It therefore guides in understanding what may influence MCH service delivery. The critics of this theory have also argued of lack of priority setting in every healthcare system which guides investments in healthcare and health research with respect to resource constraints. This theory will therefore guide on studying the sectoral integration influence on MCH service delivery enhancement.

### **2.2.4 Resource-Based View (RBV) Theory**

This theory was developed by Barney (1991). The theory argues that an organization can enhance its performance through establishing resources which are unique and widely distributed. It also seeks to describe the association between organization resources and performance (Fahy, 2000). This prospective of a business views the organization as a conglomeration of distinct productive resources that its management utilizes (Lockett and Wild, 2014). Wernerfelt, (1984) a proponent of this theory asserted that the theory pictures an organization as a collection of assets/resources that are temporarily linked to the

business's management. The resources include human resource, financial capital and assets such as land.

According to Barney (1991) the RBV of an organization's performance is influenced by its particular resources and internal capabilities. The term resources in the theory implies a business's assets, leadership capabilities, organization processes and attributes, information, knowledge, controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness (Wiesbaden, 2014). With this theory being based on organizational resource management and its impact on performance, the theory therefore anchored the study's objective of capacity building, financing and management, which could all be viewed as organization resources, in relation to efficient delivery of maternal and child healthcare services within Machakos County health facilities.

This theory thus view resource as the key to firm's efficient and quality performance which enables it to gain sustainable competitive advantage by exploiting these resources. While resources may be in every community, the challenge for health programs is to identify these resources and use them effectively to meet community health needs (Michuki, 2015; Alkema et al., 2016). An operational strategic resource is a valuable, rare and difficult to imitate asset which is non substitutable. This theory will therefore guide the researcher to establish how resource mobilization influence enhancement of MCH service delivery in devolved healthcare units in Machakos County.

### **2.3 Empirical Literature Review**

In most African countries, the government effort to implement the Free Maternal and Child Health Care Programme (FMCHCP) was premised on the notion that financial barriers are one of the most important constraints to equitable access and use of skilled maternal and child healthcare. This basis became a cornerstone upon which states allocated resources especially to health sectors. A recent report by UNFPA showed some progress, though hardly enough for a victory lap. Studies existing found that illiteracy, poverty and weak health care systems hamper progress in maternal and child health. The main goal of every MCH clinic was to keep its mothers and children in complete health. Operational strategies considered in enhancing adoption of MCH service delivery included capacity building, resource mobilization, community awareness and sectoral integration.

### **2.3.1 Capacity Building and Enhancement of Maternal and Child Healthcare Service**

#### **Delivery**

Capacity building is evident in the efforts of health promotion workers put into capacity-building or making their colleagues and partner organizations more interested in and more capable of engaging in effective health promotion practice (Fleizser, 2015). By building sustainable skills, resources and commitments to health promotion in health care settings, community settings and in other sectors, health promotion workers prolong and multiply health gains many times over.

Korir (2015) undertook a study on Monitoring and Evaluating Capacity Building Activities whose objective was to acquire capability to support implementation in strengthening and monitoring capabilities of employees, partners and the community. It thus plays an important role in ensuring that individuals acquire the right knowledge, skills and experience. The activities involve encouraging employees to develop their capabilities and building their networks through organization trainings. The researcher concluded that healthcare workers ought to have regular training and capacity building in order to equip themselves with relevant and up-to-date information that they would relay to the women during clinic visits and other forums of interaction.

By building capacity among staff as well as local community, the oversight of MCH progress is facilitated. This will allow identifying problems and uncertainties, thereby developing solutions to alleviate the strategic issues that might arise when providing MCH services. Capacity building especially in observation can assist in keeping the MCH under systematic review to help in monitoring progress of MCH service delivery thereby ensuring quality and relevance in service delivery.

### **2.3.2 Resource Mobilization and Enhancement of Maternal and Child Healthcare**

#### **Service Delivery**

As low- and middle-income countries transition away from donor support, the mobilization of domestic resources is increasingly important for sustaining investments in health, education, infrastructure, and other key sectors. LaFond and Lisanne (2003) conducted a study on strategies for mobilizing domestic resources and investments for structural

transformation. The study aimed at achieving better health outcomes through increased investment and adequate local capacity. The analytical findings indicated that many governments are increasing domestic resource mobilization through: (i) efforts such as tax administration reform; (ii) substantial economic growth; and (iii) reduced energy import costs resulting from falling oil prices. In order to support and grow programs that address priority health issues such as preventable maternal and child deaths, HIV/AIDS, and communicable disease, it is critical that the health sector benefit from greater overall domestic resource mobilization. The key issues to consider in this case is whether there is money allocated to health in the first place; ensuring that newly allocated funding to health is released and spent; and ensuring sustained investments (Alkema, et al., 2016).

While these resources are in every community, the challenge for health programs was to identify these resources and use them effectively to meet community health needs. To do this, programs might need to work with local individuals and groups to better understand the community's needs and to facilitate its increased involvement in healthcare services. As communities become more involved and assume greater responsibility for their health care, both individuals and groups may also actively advocate with governments at all levels to assume a larger role in supporting the provision of healthcare (MSH, 2002).

Suggested strategies for mobilizing local resources for health services included: gaining commitment of influential local individuals and groups, establishing local management committees, securing resources from local governments, obtaining resources to procure and manage essential drugs, mobilizing private sector resources and lastly charging client fees (Alkema et al., 2016). However, to be successful, ensure that the local community knows about the program funded and recognizes its value. The researcher established that desired economic transformation must be accompanied by sufficient mobilization of domestic and external resources.

Michuki (2015) undertook a study to explore factors that determine contraceptive usage in Kenya using KDHS (2014). Empowerment was shown to have a significant influence on use of contraceptive services. Specifically, the study employed binary probit regression model. The model was used in the estimation of the demographic and socio-economic variables that influence uptake of contraception. From the estimation results, it was found out that age of the woman; exposure to maternal education; level of household income (wealth index);

cultures and beliefs; and level of access to information (via mass media) were statistically significant determinants for contraceptive uptake among women in Kenya.

Further, (Uneke, Ndukwe, Ezeoha, Urochukwu & Ezeonu, 2014) undertook a study on Maternal, Child, Healthcare and Community participation whose aim was to promote the use of community participatory approach to enhance and strengthen the FMCHCP. The study established that the FMCHCP in Ebonyi State, Southeastern Nigeria is experiencing implementation challenges including: inadequate human resource for health, inadequate funding, out of stock syndrome, inadequate infrastructure, and poor staff remuneration. The study observed that there was lack of sufficient training of community women on prenatal care, life-saving skills in case of emergency, reproductive health, care of the newborn and family planning. Despite the implementation of FMCHCP, utilization of maternal child healthcare services was still poor especially in the rural areas due to poor mobilization of available resources.

### **2.3.3 Community awareness and enhancement of Maternal and Child Healthcare**

#### **Service Delivery**

Community-driven development is increasingly being promoted as a means of strengthening state-community synergies (Das-Gupta, Grandvoinnett & Romani, 2004). Emerging demand driven approaches theoretically ‘empower’ communities to command services and provide a mechanism for (re)building trust and accountability and re-establishing the ‘social contract’ between communities and government (Slaymaker, Christiansen & Hemming, 2005). Das-Gupta, Grandvoinnett and Romani (2004) suggested through a study on state-community synergies in community-driven development that it is critical to strengthen community’s role in the process of enhancing MCH services, particularly in organizing campaigns for creating awareness as this may help in increasing accountability for care provided at the community level.

Strategies range from building permanent community structures and increased training of the local communities to strengthening links with the wider health system to creating modalities for engaging community-based workers and those they serve for improved quality of care (USAID, 2015). The study found that it is critical to strengthen community’s role in the process of enhancing MCH services. Postnatal home visits are also effective in improving parenting skills. Community mobilization and the empowerment of individuals and

communities create demand for quality services that respond to their needs. Family oriented and community-oriented services support self-care (antenatal/intrapartum/postnatal family-community care), including the adoption of improved care practices and appropriate care seeking for illness.

According to the study by Okech (2016) on functional health literacy and understanding of medications at discharge, it was found that implementation of community-based participatory interventions through community health education and mobilization strengthens and broadens the scope of health programs such as the MCH program by introducing the following packages which are proven to be effective: (i). Community-based birth preparedness package; (ii). Community-based new-born care package; (iii). Community-based infant and young child package. The community-based partners may further aid pregnant women and mothers of children under 2 years (considered “at-risk community members”) to improve their general health knowledge and practices and ensure they are fully connected to the services of the hospital.

Women of child bearing age in the community could be sensitized through the health department in the counties. These services can be provided by various healthcare workers, and should be tailored to the community’s social and cultural environment. Examples of family-community care include: behavior change communications; community mobilization and engagement to stimulate adoption of improved antenatal and postnatal care practices. Evidence-based neonatal care practices (breastfeeding, thermal care, clean cord care), and promotion and practice of clean delivery and referral of complications (for home births); Community Health Workers (CHW), also known as promotoras or community health promoters, are a local, sustainable resource to provide health education in a culturally competent context (Dawson, 2008). Community health workers are successful in providing health education because they are from the community; therefore, a trustful relationship is already established and integration into the community has already occurred.

Elsewhere Partners in Health (2011) observed that CHW can provide basic clinical support and health education that may promote primary as well as secondary disease prevention. In a related study conducted by Lassi, Kumar and Bhutta (2016), on community-based care to improve maternal, newborn and child health (MNCH) the researcher aimed at encouraging healthier practices and care seeking among communities and families; recruiting and training

local community members to work alongside trained healthcare professionals; and community member involvement in service provision, including diagnosis, treatment, and referral. The study found that there were a range of approaches to creation of public awareness, such as through CHWs, traditional birth attendants (TBAs), health campaigns, school-based health promotion, home-based care, and even community franchise-operated clinics. For both at-risk pregnancies and healthy pregnancies, home visits by CHWs in the pre- and postnatal period to counsel mothers, provide newborn care, and facilitate referral which might lead to early detection of complications and appropriate referrals. Better health therefore requires that women and children have the ability to access quality services from conception and pregnancy to delivery, the postnatal period and childhood.

Korir (2015) conducted a study to establish out the role of communication in maternal and child healthcare outcomes in Machakos County, Kenya. Specifically the study examined the basic levels of knowledge on maternal and child healthcare among women of reproductive age; identified the existing modes of communication between maternal and child healthcare providers and the women of reproductive age and finally determined the effectiveness of various types of communication used in maternal and child health communication in Machakos County. The researcher utilized descriptive research design. Questionnaires were used for the quantitative and qualitative data. The study target population was of women of reproductive age between 15 - 44 years. From the study, it can be deduced that healthcare workers using one-on-one communication was the most effective mode of communication in maternal and child healthcare. The most communicated aspect of maternal and child healthcare according to this study findings were matters relating to antenatal care, family planning, and exclusive breastfeeding. The study findings indicated that lack of interaction between researchers and community policymakers were the main barriers.

#### **2.3.4 Sectoral Integration and Enhancement of Maternal and Child Healthcare Service Delivery**

Sectoral integration under MCH innovations helps bring together different persons/parties who have interest towards MCH service delivery. In a study by Okech (2016) on devolution of public healthcare services in Kenya and its implication on universal health coverage, the study aimed at examining the influence of devolution of government service delivery on provision of maternal and child healthcare. The analytical findings suggested that under integration, institutions need to identify all parties involved and interested, their roles and

functions in MCH service delivery. This will help strengthen the existing partnership and build their arrangements in enhancing service delivery.

Activities under sectoral collaboration and strategic partnership include: strengthening coordination structure; data base of partners their roles, coverage, programmes and resources; develop and harmonize coordinated framework for community level interventions; common system for supervision; focal point person and review meetings. Institutions should thus include all parties involved in decision making to help support the overall implementation and sustainability of the MCH innovation. This will help to identify persons and organizations interested thereby mobilizing them to overcome barriers towards delivery of quality and timely MCH services. Priority setting is therefore required in every healthcare system because it guides investments in healthcare & health research and as well respects resource constraints.

## **2.4 Research Gap**

It has become increasingly evident from the empirical review that for health sector programming, there is no “one size fits all” approach, particularly when addressing operational strategies. Given the dynamic, non-linear, and multidimensional nature of MCH concept itself, priorities can change one - or multiple - times throughout the life cycle of a project or programme. This requires the approach to be able to adapt quickly to shifting contexts, needs, and priorities. While a number of factors may be outside the project’s manageable interests, such as the availability of equipment, medicines, and supplies for example, there is clear evidence of increasing coverage of key FP and MCH indicators (LaFond, & Lisanne, 2003).

Though capacity development is a long-term endeavor, improved system performance to provide services as well as individual performance in accessing services can achieve measurable impact at all levels. Secondly, literature has demonstrated importance of mobilizing resources. In this case, for successful enhancement of MCH, hospitals have not managed to purposely mobilize enough local resources and creatively use them to gain support for their goal. It is clear that organizations need to have multiple sources of funding to increase organizational independence and flexibility to implement programs in this case MCH program.

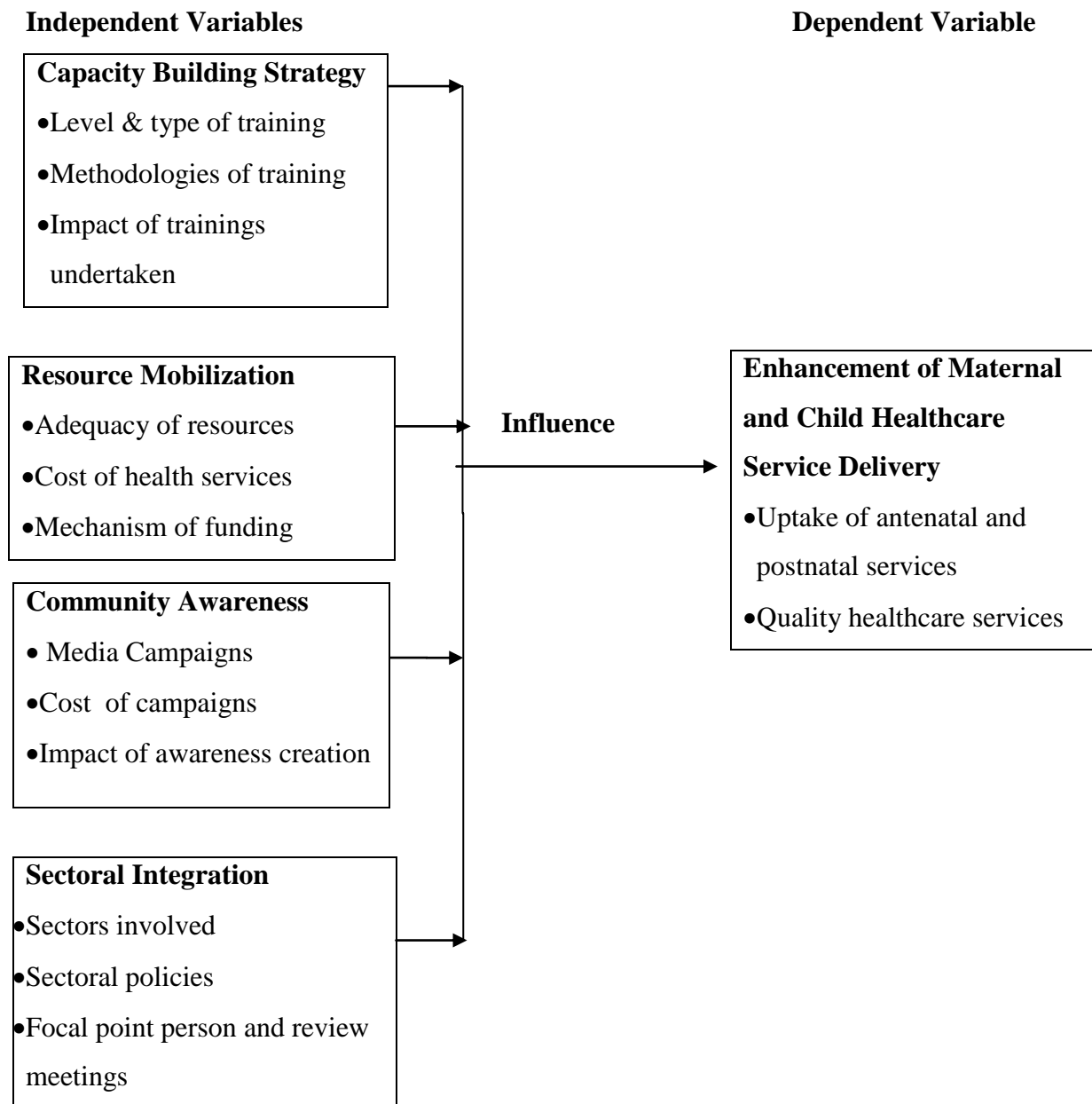


Thirdly, It is widely agreed that communities should take an active part in improving their own health outcomes and that CHWs can play a vital role. As demonstrated in the literature, there is no clear framework of education on MCH program across communities. Creation of awareness could lead to high demand for MCH services.

Lastly, multi-sectoral collaboration promotes linkages to programs outside the health sector, including the legal system, education, and food security, etc. It also increases efforts to raise-awareness among families, communities and government decision-makers about the range of determinants influencing the health of men and women, girls and boys. Therefore, strengthening coordination mechanism and harmonizing service delivery maximizes benefits from collaborating partners, however, it is not clear on the extent to which sectoral integration enhances MCH programs.

## 2.5 Conceptual Framework

The conceptual framework shows relationship between the dependent variable which is enhancement of MCH service delivery and independent variables which include capacity building, resource mobilization, community awareness and sectoral integration together with the respective indicators which are essential and indispensable components of an enhancement.



**Figure 2.1: Conceptual Framework**

**Source: Researcher (2018)**

As indicated in the conceptual framework, staff capacity building in this case infers to: building infrastructure to deliver MCH program promotion; building partnerships and

organizational environments so that programs and health gains are sustained; and lastly building problem-solving capability. Staff training is thus important element for capacity building. Literature demonstrates that training, in and of itself, does not result in changes in practitioner behavior or improvement in client outcomes.

Resource mobilization is a process through which stakeholders' influence and share control over development initiatives, the decision and resources which affect them. The purpose for resource mobilization is to create efforts in using own local assets to gain support for health facility goal, to create multiple sources of funding to increase independence and flexibility to implement programs, and also to reduce reliance on external (or foreign) funding. Community awareness through communication influences and shapes how people conduct their daily lives. As a strategy, health communication commitment is consistent with the fundamental principles and the mission of building capacities of people and communities to find sustainable solutions for their most pressing needs and vulnerabilities regarding MCH. One of the key objectives of community awareness is to influence individuals and communities and aims at improving health outcomes by sharing health-related information.

Sectoral integration involves bringing different sectors together in an effort of increasing MCH service use from these facilities. National and County governments develop country and county operational plans (CCOPs) and design programs that integrate all relevant ministries such as the ministry for education, social, youth and gender throughout the continuum of response. Multiple organizations can: promote pre-service training, in-service training, and mentoring on gender issues for relevant professions; support development of civil society organizations through building advocacy, administrative and technical skills to deliver and monitor high quality health and social services; and training of local law enforcement and members of the judiciary on laws that promote gender equality and protect the right of women and girls.

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design, the target population, sampling procedure & sample size and data collection procedure. The section also presents data analysis and presentation as well as ethical considerations.

#### **3.2 Research Design**

According to Cooper and Schindler (2008) a research design is a statement of the essential elements of a study and constitutes the blue-print for the collection, measurement and analysis of data. It refers to the structure of an enquiry; it is a logical matter rather than a logistical one. The function of a research design is to ensure that the evidence obtained enables us to answer the research question as unambiguously as possible. The research design for this study would be descriptive design that determines the data characteristics of the variables and establishes the predictive power of explanatory variables in the study. The research design involves collecting data in order to test hypothesis or to answer questions concerning the current status of the subject of the study (Dulock, 1993; Kothari, 2004).

#### **3.3 Target Population**

According to Mugenda and Mugenda (2003), a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. The target population of the study comprised of the employees working in MCH clinics in the one county referral hospital and eight sub county hospitals located in Machakos County. The staff cadres to be included are County Executive Committee member (CEC), Medical superintendent, MOH's, Health administrators, Clinical Officers, Nurses and Subordinates. Currently, the total number of staff in these nine health facilities is 600 according to CHSSIP (2017 - 2022) which forms the target population.

The target population is shown in Table 3.1 below.

**Table 3.1: Distribution of Target Population in Machakos County Referral and Sub county Hospitals**

| Health Facility          | County Executive Committee Member (CEC) | Medical Superintendent(s) | MOH's    | Health Administrator(s) | Clinical Officers | MCH Nurses | Subordinates | Total Number of Staff |
|--------------------------|---|---------------------------|----------|-------------------------|-------------------|------------|--------------|-----------------------|
| Machakos County Referral | 1                                       | 1                         | 1        | 3                       | 46                | 30         | 25           | <b>107</b>            |
| Mwala Sub County         |   | 1                         | 1        | 1                       | 43                | 29         | 22           | <b>97</b>             |
| Matuu Sub County         | -                                       | 1                         | 1        | 1                       | 17                | 24         | 17           | <b>61</b>             |
| Kathiani Sub County      | -                                       | 1                         | 1        | 1                       | 41                | 28         | 21           | <b>93</b>             |
| Kangundo Sub County      | -                                       | 1                         | 1        | 1                       | 23                | 25         | 18           | <b>69</b>             |
| Athiriver Sub County     | -                                       | -                         | 1        | 1                       | 8                 | 15         | 9            | <b>34</b>             |
| Yatta Sub County         | -                                       | -                         | 1        | 1                       | 14                | 16         | 15           | <b>47</b>             |
| Matungulu Sub County     | -                                       | -                         | 1        | 1                       | 12                | 15         | 18           | <b>47</b>             |
| Masinga Sub County       | -                                       | -                         | 1        | 1                       | 9                 | 22         | 12           | <b>45</b>             |
| <b>TOTAL</b>             | <b>1</b>                                | <b>5</b>                  | <b>9</b> | <b>11</b>               | <b>213</b>        | <b>204</b> | <b>157</b>   | <b>600</b>            |

**Source: CHSSIP (2017 - 2022)**

### 3.4 Sampling Procedure and Sample Size

According to Neuman (2000) sampling procedure is the process of selecting a number of individuals for a study in a way that the individuals selected represent the large number from which they are selected. Cluster sampling was employed based on the level of the medical facilities where target population was grouped into two groups; county referral and sub county hospitals. The county referral hospital was purposively selected. A simple random sample was selected from the sub county hospitals where the sample size for this study

totalled to 180 respondents (arrived at by calculating 30% of the target population). This made it possible to attribute the outcome from the sample to the entire population. On the other hand, sample size is defined as a subset of the total population drawn from a targeted population (Uprichard, 2013). In case of the cadres with one element, the element was sampled mainly because they possess important information. Respective distribution was also maintained.

**Table 3.1: Sample Size Distribution**

| <b>Health Facility</b>   | <b>County Executive Committee Member (CEC)</b> | <b>Medical Superintendent(s)</b> | <b>MOH's</b> | <b>Health Administrator(s)</b> | <b>Clinical Officers</b> | <b>MCH Nurses</b> | <b>Subordinates</b> | <b>Sample Population (Size)</b> |
|--------------------------|--|----------------------------------|--------------|--------------------------------|--------------------------|-------------------|---------------------|---------------------------------|
| Machakos County Referral | 1  | 1                                | 1            | 2                              | 33                       | 22                | 18                  | <b>78</b>                       |
| Mwala Sub County         | -  | 1                                | 1            | 1                              | 31                       | 20                | 15                  | <b>69</b>                       |
| Masinga Sub County       | -  | -                                | 1            | 1                              | 6                        | 16                | 9                   | <b>33</b>                       |
| <b>TOTAL</b>             | <b>1</b>                                       | <b>2</b>                         | <b>3</b>     | <b>4</b>                       | <b>70</b>                | <b>58</b>         | <b>42</b>           | <b>180</b>                      |

**Source: CHSSIP (2017-2022)**

### **3.5 Data Collection Procedure**

This study utilized a questionnaire to collect primary data. The questionnaire was designed using the variables identified as important for meeting the study objectives. Questionnaires are useful and helpful in gathering information that is unique to individuals, such as attitudes or knowledge also in maintaining participants' privacy because participants' responses can be anonymous or confidential. Secondly, the questionnaire will be used since it is easy to administer and easy to analyze once data is obtained (Mugenda & Mugenda, 2003). The responses to the questionnaire were designed on a 5- point scale of measurement of Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A) and Strongly Agree (SA). Open and

closed-ended questions were also used. The questionnaire had three sections. The first section contained questions on the bio-data of the respondents; the second questions contained questions on the elements of operational strategies that enhance MCH service delivery; and the third section contained information on the dependent variable that is enhancement of MCH service delivery.

### **3.5.1 Pilot Study**

A pilot study is conducted when a questionnaire is given to few people with a goal of pre-testing the questions (Babbie, 2014). The total number of respondents for the pilot study should be between 9% -10% of the sample population (Gall & Borg, 2006). Therefore, a pilot test was conducted by issuing questionnaires to approximately 10 employees [about 10 percent of the sample as described by (Gall & Borg, 2006)] randomly selected staff from County and sub county hospitals in Kitui County.

### **3.6 Data Analysis and Presentation**

The study used descriptive analysis which includes means, frequencies, and percentages) while data analysis was carried out using SPSS. The data collected was further analyzed using correlation and regression analysis to describe the type and nature of association between the dependent variable (enhancement of MCH service delivery) and the independent variables (capacity building, resource mobilization, community awareness & sectoral integration). The below structural equation model was adopted. The model does not have a constant because it dealt with structural variables which are structural in nature.

$$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where; Y= Enhancement of Maternal and Child Healthcare Service Delivery

X<sub>1</sub> - Capacity Building

X<sub>2</sub> - Resource Mobilization

X<sub>3</sub> - Community Awareness

X<sub>4</sub> - Sectoral Integration

$\beta_1, \beta_2, \beta_3, \beta_4$  are the coefficients for respective variables

$\epsilon$  = error term (value representing how observed data differs from the actual population data)

### **3.6.1 Validity of the Instruments**

Validity refers to the degree to which evidence and experts support the interpretations of test scores entailed by proposed uses of tests. This is using a particular instrument to represent a specific domain of indicators. The instrument which was used in this study was validated by having the questionnaire pre-tested, examined and approved by the researcher including conducting sampling adequacy. Bryman and Bell (2013) suggested that the validity of the instrument is asking the right questions framed from the least ambiguous way and based on study objectives. Pilot test was conducted. A pilot test, according to Kothari (2008), is the replica and rehearsal of the main study and it brings to light the weaknesses (if any) of the questionnaires and also of the sampling techniques.

### **3.6.2 Reliability of the Instruments**

Reliability refers to the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subject (Bryman, 2013). Cronbach alpha, which is a measure of internal consistency, was used to test the internal reliability of the measurement instrument. The higher the score, the more reliable the generated scale is. Bryman and Bell (2013) indicated that a Cronbach's alpha of 0.7 is an acceptable reliability. Based on the feedback from the pilot test, the questionnaire will be modified and a final one developed. In this study, a Cronbach's Alpha of 0.7 was considered acceptable reliability.

### **3.7 Ethical Considerations**

Ethical issues related to the study were addressed by maintaining high level accuracy to avoid misleading information. The information collected would not be used for any other purposes other than drawing the conclusions of the study. The information on particular participating hospitals including names and age or educational levels was not disclosed to protect their identities. All personal details were limited to general information. The effort of other researchers was acknowledged and their work quoted.



## CHAPTER FOUR

### 4.0 DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF THE RESEARCH FINDINGS

#### 4.1 Introduction

This chapter presents findings and analysis of data obtained to establish the operational strategies adopted and enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County. The data is analyzed and presented in the form of tables.

#### 4.2 Pilot Test Analysis

In this study, reliability analysis was done using Cronbach's Alpha to measure internal consistency of the data variables. Alpha refers to a threshold value in judging whether a test statistic is statistically significant. A Cronbach's Alpha of 0.7 or higher was considered acceptable reliability according to Bryman and Bell (2013). The findings are as shown in Table 4.1.

**Table 4.1: Scale Reliability Coefficients**

| <b>Constructs</b>              | <b>Alpha Value</b> | <b>No of items</b> | <b>Comments</b> |
|--------------------------------|--------------------|--------------------|-----------------|
| Capacity Building of the Staff | 0.868              | 5                  | Reliable        |
| Resource Mobilization          | 0.806              | 5                  | Reliable        |
| Community Awareness            | 0.738              | 5                  | Reliable        |
| Sectoral Integration           | 0.881              | 5                  | Reliable        |
| Enhancement of MCH             | 0.722              | 5                  | Reliable        |

**Source: Field Data (2019)**

From the results in Table 4.1 above, all the variables were reliable since their Cronbach Alpha value was greater than 0.7 in which the sectoral integration had the highest Cronbach Alpha value of 0.881 and community awareness had the lowest Cronbach Alpha value of 0.738. As per Malhotra (2015), if all the variables are reliable then the research instrument is reliable and therefore no amendments required.

### 4.3 Response Rate

As shown in Table 4.2, the questionnaires that the researcher administered were 180 out of which only 161 fully filled questionnaires were returned.

**Table 4.2: Response Rate**

| <b>Response</b>           | <b>Frequency</b> | <b>Response Rate</b> |
|---------------------------|------------------|----------------------|
| Returned Questionnaires   | 161              | 89.4%                |
| Unreturned Questionnaires | 19               | 10.6%                |
| <b>Total</b>              | <b>180</b>       | <b>100.00</b>        |

**Source: Field Data (2019)**

From the returned questionnaires, 89.4% represented the response rate which was considered excellent for analyzing the study findings (Sekaran, 2003). According to kothari (2014) a response rate of 80% or higher is considered significant for statistical analysis.

### 4.4 Demographic Characteristics

Both frequency and percentage was one of the statistical measures used in analysis to describe the sample in terms of their demographic characteristics such as educational qualifications, and location of sub-county, and level of experience in MCH clinic. Although this was not core to the study purpose, it aided the study to contextualize the findings and formulate appropriate recommendations.

#### 4.4.1 Distribution of Participants by Level of Education

The education level attained by the sampled respondents is important in that it plays a vital role in the operational strategies adopted and enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County. The results are indicated in Table 4.3 below.

**Table 4.3: Distribution of Respondents by Education Level**

| <b>Educational Qualification</b> | <b>Frequency</b> | <b>Percentage</b> |
|----------------------------------|------------------|-------------------|
| No Formal Education              | -                | -                 |
| Primary Education level          | 41               | 25.21             |
| Secondary Education level        | 62               | 38.24             |
| Undergraduate level              | 41               | 25.63             |
| Post Graduate level              | 17               | 10.92             |
| <b>Total</b>                     | <b>161</b>       | <b>100</b>        |

**Source: Field Data (2019)**

Table 4.3 above indicated 38.2 percent and 25.6 percent of the respondents having secondary and undergraduate education as their highest level of academic qualification respectively. 10.9 percent of the respondents had postgraduate education and 25.2 percent accounted for respondents with primary education. In this study, the findings clearly show majority of the respondents having basic education. Further, there were no respondents under staff working in MCH clinics who were identified as having no formal education and therefore could not read or write. The results also demonstrated that the participants had the required literacy level to participate in this study. Besides, the results demonstrate that the Machakos County and sub county hospitals employ qualified personnel.

#### **4.4.2 Location of Sub county hospital**

The study sought to determine the location where the hospital is situated. The information was necessary because it would help ascertain the extent responses would be relied upon for valid conclusions based on locality and also on referral cases. Results are shown in Table 4.4 below.

**Table 4.4: Location of Sub county hospital**

| <b>Hospital</b>             | <b>Sub-County Location</b> | <b>Frequency</b> | <b>Percentage</b> |
|-----------------------------|----------------------------|------------------|-------------------|
| Machakos County Referral    | Machakos                   | 68               | 42.24             |
| Mwala Sub-county Hospital   | Mwala                      | 60               | 37.26             |
| Masinga Sub-county Hospital | Masinga                    | 33               | 20.5              |
| <b>Total</b>                |                            | <b>161</b>       | <b>100.0</b>      |

**Source: Field Data (2019)**

From the findings, most of the respondents that is 42.24 percent had been located in Machakos County whereas approximately 37.3 percent had been situated in Mwala Sub County. About 20.5 percent were located in Masinga Sub County. Further, the non-response was distributed as follows: 3 (Machakos County referral), 9 (Mwala hospital) and 7 (Masinga hospital). This study finding established that almost 80 percent of the respondents had been engaged in MCH service delivery not far from the County referral facility and therefore could access the facility with minimal time wastage. From the results also there was county's initiative on emergency cases which tried to solve this problem where ambulance services had been employed in every health facility across the county and also used for referral cases.

#### **4.4.3 Period of Existence in Work Station**

The study sought to determine the length of stay or existence of the sampled target population or participants in the health facilities identified under this study. This information was necessary as it was meant to help ascertain the extent their responses would be relied upon for valid conclusions based on experience. Results are shown in Table 4.5 below.

**Table 4.5: Length of Experience or Stay at Work Station**

| <b>Working During</b> | <b>Frequency</b> | <b>Percentage</b> |
|-----------------------|------------------|-------------------|
| Below 5 years         | 39               | 24.37             |
| 5 - 15 years          | 57               | 35.29             |
| 16 - 25 years         | 22               | 13.87             |
| Above 25 years        | 43               | 26.47             |
| <b>Total</b>          | <b>161</b>       | <b>100.0</b>      |

**Source: Field Data (2019)**

The findings of the study indicated that the respondents had varied work experiences as demonstrated in Table 4.5 above. It emerged that most of the respondents that is 35.3 percent had been in the health facility for a period of 5 - 15 years whereas approximately 26.5 percent had been in the facility for a period of above twenty five years. About 24.4 percent and 13.9 percent were less than five years old and 16 - 25 years respectively. The results showed that 60 percent of respondents had been engaged in this section less than a span of 15 years an indicator that majority employees of Machakos County hospitals had experience to offer better health services.

#### **4.5 Descriptive Statistics**

Descriptive analysis included an assessment of the operational strategies adopted and enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County. Descriptive measures, that is measures of central tendency as stated earlier were adopted; Mean measures the highly typical value in a set of values. The standard deviation shows how far from the mean the distribution is. The presentation in this section was based on the objectives of the study.

##### **4.5.1 Capacity Building and Enhancement of MCH**

To establish how the capacity building influences enhancement of MCH service delivery in the hospitals, respondents were asked to rate five statements using five-point Likert scale items as shown in Table 4.6 below. The results were interpreted using mean scores, standard deviation and variance as presented in table 4.6 below.

**Table 4.6: Capacity Building**

| <b>Capacity Building</b>  | <b>Mean</b>  | <b>Standard Deviation</b> | <b>Variance</b> |
|---|--------------|---------------------------|-----------------|
| We have sufficiently skilled employees in this facility.  | 3.685        | 1.022                     | 1.044           |
| The hospital deliberately and consistently organizes for trainings for its staff.   | 3.832        | 1.005                     | 1.010           |
| The hospital has under developed training systems that negatively impact the quality of healthcare services offered.                                    | 3.866        | 1.109                     | 1.230           |
| The hospital well conducts the impartation of skills, knowledge and abilities through the use of new technologies.                                      | 3.727        | 1.446                     | 2.091           |
| The facility recruits rightly qualified staff so as to enhance the quality of maternal and child healthcare service delivery and knowledge impartation. | 3.815        | 1.173                     | 1.376           |
| <b>Overall</b>  | <b>3.785</b> | <b>1.151</b>              | <b>1.350</b>    |

From table 4.6 above, the findings indicated a higher mean of 3.866 to show that the hospital has underdeveloped training systems that negatively impact the quality of healthcare services offered. Despite this, the hospitals have sufficiently skilled employees. The standard deviation of 1.0 which is the lowest indicates that the hospital deliberately and consistently organizes for trainings for its staff. The findings of this study have thus revealed that capacity building has well imparted to the employees skills, knowledge and abilities to handle different categories of people who come to their facilities seeking for better healthcare.

#### **4.5.2 Resource Mobilization and Enhancement of MCH**

The study sought to establish how the resource mobilization influences MCH enhancement. The responses were rated on a Likert scale and the results are as presented in table 4.7 below.

**Table 4.7: Resource Mobilization**

| <b>Resource Mobilization</b>  | <b>Mean</b>  | <b>Standard Deviation</b> | <b>Variance</b> |
|---|--------------|---------------------------|-----------------|
| Type of financing adopted by the MCH clinic has greatly influenced the quality of healthcare services offered in the institution                          | 3.933        | 1.164                     | 1.355           |
| The current health financing structure denies the hospital enough resources to enhance its maternal and child healthcare services                         | 3.891        | 1.017                     | 1.034           |
| Increased utilization of services within the facility is as a result of financial barriers suffered by most of the clients it serves                      | 4.029        | 1.171                     | 1.371           |
| Increased utilization of the public maternal healthcare services in the facility is mostly not matched with an equivalent increase in financial resources | 4.004        | 0.930                     | 0.865           |
| The facility suffers from a lack of sufficient financial resources that results to it being understaffed and suffer drug stock-outs                       | 3.845        | 1.135                     | 1.288           |
| <b>Overall</b>  | <b>3.940</b> | <b>1.08</b>               | <b>1.183</b>    |

The study results from table 4.7 above indicated that there is increased utilization of services within the health facility which is as a result of financial barriers suffered by most of the clients it serves with the highest mean of 4.029. This has resulted from increased utilization of public maternal healthcare services not being matched with an equivalent increase in financial resources as shown by standard deviation of 0.930.

The study also established that the facility suffers from a lack of sufficient financial resources that results to it being understaffed and suffers drug stock-outs as indicated by a mean of 3.845. This could have resulted due to mismanagement of allocated finances and lack of prioritizing the service provision.

To answer the question on how the hospital raises its finances, respondents were also asked to give options on the various sources from where the activities of the hospital are financed. Table 4.8 illustrates the summary of the answers provided by the respondents. The answers are as shown below.

**Table 4.8: Sources of Finance**

| <b>Sources</b>                 | <b>Frequency</b> | <b>Percentage</b> |
|--------------------------------|------------------|-------------------|
| Out-of-pocket financing        | 6                | 4.92              |
| Pre-payment (Tax)              | 36               | 29.51             |
| Pre-payment (Health Insurance) | 65               | 52.46             |
| Others                         | 16               | 13.11             |
| <b>Total</b>                   | <b>123</b>       | <b>100</b>        |

**Source: Field Data (2019)**

From table 4.8 above, only 123 participants responded to this question. The summary of the answers provided by the respondents on sources of funds reveals that most facilities got their sources of funds from health insurance followed by prepayment (tax) at 29.5 percent. This revealed that the most viable source (health insurance) was as a result of universal health coverage program popularized across the county and country level.

#### **4.5.3 Community Awareness and Enhancement of MCH**

The respondents were asked to establish how the community awareness influences MCH enhancement in their health facility. The responses were rated on a Likert scale and the results are as presented in table 4.9 below.



**Table 4.9: Community Awareness**

| <b>Community Awareness</b>   | <b>Mean</b>  | <b>Standard Deviation</b> | <b>Variance</b> |
|--|--------------|---------------------------|-----------------|
| Community-based participatory interventions are implemented through community health education and mobilization.                           | 3.496        | 1.176                     | 1.383           |
| Women of child bearing age in the community are sensitized through health promotion unit in the county.                                    | 3.256        | 1.398                     | 1.954           |
| There are extra home visits and support for breastfeeding and community outreaches which results in high costs in the campaigns            | 3.563        | 1.227                     | 1.506           |
| There are neonatal care practices, promotion and practices of clean delivery and referral of complications.                                | 3.172        | 1.219                     | 1.486           |
| The facility through frequency of campaigns has impacted positively towards enhancement of maternal and child healthcare service delivery. | 3.429        | 1.202                     | 1.445           |
| <b>Overall</b>   | <b>3.383</b> | <b>1.244</b>              | <b>1.555</b>    |

From the table 4.9 above, the results indicated that there are extra home visits and support for breastfeeding and community outreaches which results in high costs in the campaigns leading to a mean of 3.563. This concurred with the study conducted by Lassi, Kumar and Bhutta (2016), on community-based care to improve maternal, newborn and child health which found that there were a range of approaches to creation of public awareness, such as through CHWs, traditional birth attendants (TBAs), health campaigns, school-based health promotion, home-based care, and even community franchise–operated clinics. This revealed that the hospital as well sensitizes their employees on creating awareness to the people across the county as pertains to healthcare service delivery.

From the results, standard deviation of 1.176 indicated that community-based participatory interventions are implemented through community health education and mobilization. This showed that there was close link between the hospital and the people of Machakos meaning that health services had been brought near to the people across the county and thus being able to mobilize them for quality healthcare.

#### 4.5.4 Sectoral Integration and Enhancement of MCH

The study sought to establish how the sectoral integration influences MCH enhancement. The responses were rated on a Likert scale and the results are as presented in table 4.10 below.

**Table 4.10: Sectoral Integration**

| <b>Sectoral Integration</b>  | <b>Mean</b>  | <b>Standard Deviation</b> | <b>Variance</b> |
|--|--------------|---------------------------|-----------------|
| The hospital has identified the roles and functions of all parties involved and interested in MCH service delivery | 3.650        | 1.110                     | 1.232           |
| There is strengthened sectoral coordination structure as well as data base of partners and their roles             | 4.022        | 1.010                     | 1.020           |
| There is a developed and harmonized coordinated framework for community level interventions                        | 3.021        | 1.210                     | 1.464           |
| There is focal point person at sector level and review meetings  | 4.010        | 1.130                     | 1.277           |
| The hospital has a common system for supervision across all stakeholders/sectors                                   | 3.725        | 1.031                     | 1.063           |
| <b>Overall</b>   | <b>3.686</b> | <b>1.098</b>              | <b>1.514</b>    |

The study results from table 4.10 above indicated that the hospital has identified the roles and functions of all parties involved and interested in MCH service delivery. A mean of 4.022 indicated that there was a strengthened sectoral coordination structure, database of partners and their roles. Also there was a focal point person at sector level and reviewed meetings. This concurred with the findings of Okech (2016) which suggested that under integration, institutions need to identify the roles and functions of all parties involved and interested to help them get their program up and running.

The hospital has thus accomplished this by investigating the influence of sectoral integration on enhancement of MCH service delivery. The hospital has managed this by having a common system for supervision across all stakeholders which is at the Machakos County referral hospital under the department of health services. This has been shown by a mean of 1.0 which indicated that the hospital integration process was open to all its stakeholders and other sectors which impacted on quality healthcare services.

#### 4.5.5 Enhancement of Maternal and Child Healthcare

The respondents were asked to give answers regarding enhancement of MCH service delivery program in their health facility. The study results on enhancement of MCH are shown in table 4.11 below.

**Table 4.11: Enhancement of MCH**

| <b>Enhancement of MCH</b>  | <b>Mean</b>  | <b>Standard Deviation</b> | <b>Variance</b> |
|--|--------------|---------------------------|-----------------|
| The Maternal and Child Health Service, supported by county government provides a responsive and accountable service for the child, mother and family through effective governance and management | 3.307        | 1.393                     | 1.940           |
| The Maternal and Child Health Service provides universal access to its services for children residing in Machakos county from birth to school age and their families                             | 3.573        | 1.223                     | 1.496           |
| The Maternal and Child Health Service delivers a quality and safe service thus reduced maternal deaths.  | 3.477        | 1.241                     | 1.540           |
| The Maternal and Child Healthcare Service builds partnerships with families and communities, collaborates and integrates with other services and organizations                                   | 3.487        | 1.300                     | 1.690           |
| The enhancement of maternal and child healthcare service delivery has led to quality healthcare services within the county   | 3.327        | 1.341                     | 1.798           |
| <b>Overall</b>   | <b>3.434</b> | <b>1.300</b>              | <b>1.693</b>    |

From table 4.11 above, the highest mean of 3.573 and the standard deviation of 1.223 indicated that the MCH facility provides universal access to its services for children residing in Machakos County from birth to school age and safe service.

Machakos County therefore being one of the outcomes of devolution and being selected as one of the counties for PHC integration has continued to offer quality healthcare services through universal healthcare. It has made the services affordable to almost all the people across the county. This determination has made the county to realize the attainment of the Sustainable Development Goals health being one of them. These results therefore indicated close relationship between operational strategies and enhancement of MCH service delivery.

From the results, as indicated by mean of 3.307 and standard deviation of 1.393, the respondents agreed that the Maternal and Child Health Service, supported by county government provided a responsive and accountable service for the child, mother and family through effective governance and management. This finding implied that enhancement of MCH service delivery has led to quality healthcare services in hospitals within the county of Machakos.

#### 4.6 Correlation Analysis

In this study, correlation analysis of the latent variables was conducted and correlation coefficients obtained. This aids in assessment of the influence of all study variables on enhancement of MCH as well as amongst themselves. The correlation coefficient (r) value, measures the strength and direction of the relationship between two continuous or ratio/scale variables. The correlation of the Observed Index Matrix (OIM) was carried out where 0 = no relationship, 0 - 0.3= weak relationship, 0.4 – 0.6= moderate relationship, 0.7 – 0.9= strong relationship and 1.0 = unitary/perfect relationship and results presented in table 4.12 below.

**Table 4.12: Correlations Matrix**

| <b>Variables</b>      | <b>Capacity Building</b> | <b>Resource Mobilization</b> | <b>Community awareness</b> | <b>Sectoral integration</b> | <b>Enhanced MCH</b> |
|-----------------------|--------------------------|------------------------------|----------------------------|-----------------------------|---------------------|
| Capacity Building     | 1.000                    |                              |                            |                             |                     |
| Resource Mobilization | 0.4846                   | 1.000                        |                            |                             |                     |
| Community awareness   | 0.4499                   | 0.3451                       | 1.000                      |                             |                     |
| Sectoral integration  | 0.8606                   | 0.4889                       | 0.4288                     | 1.000                       |                     |
| Enhanced MCH          | 0.4754                   | 0.5589                       | 0.3288                     | 0.3354                      | 1.000               |

From the findings in Table 4.12 above, all variables had relationship in their respective pairs. The study results established that there was strong correlation between capacity building and sectoral integration which was 0.8606. This study results implied that the hospitals in Machakos County have developed their employees and ensured integration of all other sectors like education, agriculture in their implementation process to better their health service delivery which led to the variables being highly correlated. The resource mobilization had weak correlation with community awareness. Despite allocation of

healthcare resources, Machakos healthcare facilities have not been able to identify the available resources and invest in quality health service. People have not been fully sensitized on how to utilize the available resources provided by the county especially MCH programs at the hospital which has led to weak correlation between the variables.

#### 4.7 Regression of Structural Variables and Model Fitness

Structural Equation Model (SEM) is an extrapolation of the general linear model and allows researchers to test more than one regression equation simultaneously. SEM characterizes the links between the concepts or the unobservable variables as well as defining latent factors that are either directly or indirectly causing modifications in the values of other latent factors in the prescribed model (Byrne, 2013). The model thus does not have a constant. It does not also include an error term. SEM allows researcher to examine the indirect relationships between variables, an approach missing in reviewed studies. A set of structural models were designed as part of the analysis. The study analyzed the unobserved variables as presented through research questions.

##### 4.7.1 Model Fitness

All the structural factors were subjected to a modeling technique and the results are shown as indicated in table 4.13 below.

**Table 4.13: Goodness of Model Fitness**

| Fit Statistic              | Description                             | Objective 1 | Objective2 | Objective3 | Objective4 |
|----------------------------|---|-------------|------------|------------|------------|
| <b>Baseline Comparison</b> |   |             |            |            |            |
| CFI                        | Comparative Fit Index                   | -           | 16080.273  | 15620.524  | 21234.215  |
| TLI                        | Tucker-Lewis index                      | -           | 16337.221  | 15877.472  | 21577.969  |
| <b>Size of Residuals</b>   |   |             |            |            |            |
| SRMR                       | Standardized Root Mean Squared Residual | 0.150       | 0.208      | 0.258      | 0.272      |
| CD                         | Coefficient of Determination( $R^2$ )   | 0.883       | 0.975      | 0.992      | 0.998      |

From the goodness of fit of the model in table 4.13 above; the findings indicated that all variables fitted the data well given that the overall p value of 0.000 implied the variables had

a joint significance in explaining enhanced MCH for both models. This was also confirmed by other criteria for model fitness such as Root mean squared error of approximation and R squared which was always above 95 percent except research question one which is nevertheless above 85 percent and falls within an acceptable range of above three quarters. From the fit statistics, the study also concludes that estimation of the model or the four research questions could proceed and that estimates are not biased.

#### 4.7.2 Relationship between Operational Strategies and Enhancement of MCH

In the main objective, the study tested the relationship(s) to establish the extent and significance of operational strategies adopted on enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County. The study findings are as shown in table 4.14 below.

**Table 4.14: Standardized Structural Model**

| <b>Number of Observations = 161</b> |                                   |                |                                  |               |
|-------------------------------------|-----------------------------------|----------------|----------------------------------|---------------|
| <b>Estimation Method = ml</b>       |                                   |                |                                  |               |
| <b>Log likelihood = -10518.107</b>  |                                   |                |                                  |               |
| <b>Enhanced MCH</b>                 | <b>Coefficients</b>               | <b>P Value</b> | <b>Confidence Interval (95%)</b> |               |
| <b>Capacity Building</b>            | <b>0.1415**</b><br><b>(1.87)</b>  | <b>0.062</b>   | <b>0.0072</b>                    | <b>0.2902</b> |
| <b>Resource Mobilization</b>        | <b>0.1507**</b><br><b>(2.13)</b>  | <b>0.033</b>   | <b>0.0119</b>                    | <b>0.2895</b> |
| <b>Community Awareness</b>          | <b>0.9220**</b><br><b>(35.60)</b> | <b>0.000</b>   | <b>0.8713</b>                    | <b>0.9728</b> |
| <b>Sectoral Integration</b>         | <b>0.3213**</b><br><b>(25.11)</b> | <b>0.000</b>   | <b>0.1511</b>                    | <b>0.4199</b> |

Endogenous Variables (CB1 CB2 CB3 CB4 CB5, RM1 RM2 RM3 RM4 RM5, CA1 CA2 CA3 CA4 CA5, SI1 SI2 SI3 SI4 SI5)

Latent: Enhanced MCH (EMCH1 EMCH2 EMCH3 EMCH4 EMCH5)

Exogenous Variables

Latent: Capacity Building, Resource Mobilization, Community Awareness, Sectoral Integration

**\*\*Significance level of 5 percent**

**#Values in the parentheses show *t* statistics**

The following was the structural equation model which doesn't include an error term because it was estimated.

$$EMCH = 0.1415CB + 0.1507RM + 0.9220CA + 0.3213SI$$

From table 4.14 above, the study findings established that the four variables considered in the study (capacity building, resource mobilization, community awareness and sectoral integration) had a positive relationship towards enhancement of MCH service delivery. This implied that all the variables influenced enhancement of MCH service delivery in devolved units in Machakos County. From the results, community awareness was found to have greatest influence on enhancement of MCH service delivery in devolved healthcare units in Machakos County ( $\beta_3=0.9220$ ;  $P=0.000<0.05$ ) implying that a unit increase in community awareness led to a significant rise on MCH enhancement by 0.922 points holding other factors constant. These findings suggest that the hospitals have well laid structures which have enabled it to make its people aware of the services offered in the hospitals. CHW's have been trained and made aware of the importance of volunteering in case of emergencies in their communities and also educating them on the best service delivery. Hospitals across the county have also well organized trainings where people are sensitized on the importance of accessing quality healthcare services offered in the hospitals

Capacity building on the other hand was found to have the least influence on enhancement of MCH service delivery in devolved healthcare units in Machakos County ( $\beta_1=0.1415$ ;  $P=0.062<0.05$ ) meaning it had a positive insignificant influence on enhancement of MCH service delivery. This implied that for a unit rise in capacity building of staff, enhanced MCH increased insignificantly by 0.1415 points holding other factors constant. These findings suggest that the hospitals have not fully utilized the resources they have in their counties. The hospitals have failed to prioritize healthcare services where patients are treated and left to buy medication for their ailments. Also the employees in these hospitals have not been fully empowered to handle healthcare services with the required equipment. The hospitals therefore, should put extra resources in empowering its staff to motivate them in delivering quality healthcare services.

## CHAPTER FIVE

### 5.0 DISCUSSIONS

#### 5.1 Introduction

This chapter presents comprehensive discussions of the study findings obtained in the previous chapter. It later makes broad conclusions upon which key policy recommendations are drawn. The study was guided by four objectives and the discussion is put under these objectives.

#### 5.2 Capacity Building and Enhancement of MCH

In this objective, the study sought to establish how the capacity building influences enhancement of MCH. From the descriptive analysis, all the observed factors of capacity building established that capacity building enhances enhancement of MCH service delivery in devolved healthcare units in Machakos County. The health facilities have well imparted to the employees skills, knowledge and abilities to handle different categories of people who come to their facilities seeking for better healthcare.

From the model estimates, capacity building of staff and enhanced MCH service delivery were found to have a positive insignificant relationship. These findings indicate that even though the hospitals have trained its staff using the available resources, they have however, failed to offer quality services. This is attributed by failure on the part of the hospital to identify the resources available and utilize them to build the capacity of the workers. Therefore, the hospitals across the county should build its workers capacity to ensure efficient and quality healthcare service delivery. These study findings concurred with the study results obtained by Korir (2015) who undertook a study on Monitoring and Evaluating Capacity Building Activities where it was established that by building capacity among staff as well as local community, the oversight of MCH progress was facilitated. The study went ahead to conclude that capacity building leads to prediction of risks/uncertainties that might arise and the development of solutions earlier to respond to any changes when providing MCH services.



### **5.3 Resource Mobilization and Enhancement of MCH**

The results regarding resource mobilization implied positive influence on enhancement of MCH service delivery. The study findings established that the resource mobilization significantly influenced enhancement of MCH service delivery in devolved healthcare units in Machakos County. The results indicate that most health facilities across the county got their sources of funds from health insurance which could be as a result of universal health coverage program popularized across the county.

From the literature, the resources may be in every community but the challenge for health programs is to identify these resources and use them effectively to meet community health needs. From the structural equation modeling technique, the results revealed resource mobilization and MCH enhancement to have a positive and significant. The hospitals across the county aims at achieving better health outcomes through increased investment and adequate local capacity where it has provided services by employing people within the county. These findings are in agreement with the results obtained by LaFond and Lisanne (2003) who conducted a study on Strategies for Mobilizing Domestic Resources and Investments for Structural transformation and whose analytical findings indicated that, in order to support and grow programs that address priority health issues such as preventable maternal and child deaths, HIV/AIDS, and communicable disease, it is critical that the health sector benefit from greater overall domestic resource mobilization.

Further Alkema, et al. (2016) established that the key issues to consider is whether there is money allocated to health in the first place; ensuring that newly allocated funding to health is released and spent; and ensuring sustained investments. The researcher established that desired economic transformation must be accompanied by sufficient mobilization of domestic and external resources.

### **5.4 Community Awareness and Enhancement of MCH**

With regard to community awareness, it emerged that it influences enhancement of MCH service delivery in devolved healthcare in Machakos County. It was clear that community-driven development is increasingly being promoted as a means of strengthening state-community synergies. From the findings, it was established that community awareness had positive influence on the county health facilities.

MCH service delivery is important because health initiatives affect people in their everyday life. Increase in community awareness led to a significant rise in MCH enhancement. These findings suggest that the health facilities across the county have embraced community awareness and they are thus able to offer affordable and healthcare services to all irrespective of distance. However, it was also found that there is no clear framework of education on MCH program across communities in the county though agreed widely that communities should take active part in improving their own health outcomes in which CHW's education plays a vital role. This finding was supported by the findings of Das-Gupta, Grandvoionnett and Romani, (2004) in their study on State-Community Synergies in Community-Driven Development that, it is critical to strengthen community's role in the process of enhancing MCH services, particularly in organizing campaigns for creating awareness as this may help in increasing accountability for care provided at the community level.

Further, the support of the findings is linked to findings by Okech (2016) on functional health literacy and understanding of medications at discharge. Okech found that implementation of community-based participatory interventions through community health education and mobilization strengthens and broadens the scope of health programs such as the MCH program.

### **5.5 Sectoral Integration and Enhancement of MCH**

The study sought to establish how the sectoral integration influences MCH enhancement. From the findings, it was established that there was positive relationship between sectoral integration and enhancement of MCH service delivery. These findings suggest that the hospitals have identified relevant stakeholders together with their roles in support of universal healthcare. Champions have been mobilized to overcome barriers resulting as the health program is developed and rolled out.

From the results, sectoral integration and MCH enhancement were found to have a positive and significant relationship. The findings revealed that the hospital has got a focal point person at sector level and review meetings. This has aided in follow up on resources allocation and the programmes being developed in the county which are of benefit to the people of Machakos specifically healthcare service delivery. Donor agencies have worked together with the county government in ensuring better and quality health services for example the ambulance services. The findings concurred with the study results obtained by

Okech (2016) who investigated Devolution of Public Healthcare Services in Kenya and its Implication on Universal Health Coverage. Their analytical findings showed that there is a close relationship for programme initiation and growth under integration. Okech further concluded that institutions should identify complete list of relevant shareholders with regard to support offered in an innovation. Similarly, these institutions need to leverage existing sectoral partnership arrangements to aid them get their project up and running. Further, the study findings are supported by Korir (2015) who indicated that lack of interaction between researchers and community policymakers are the main barriers to quality healthcare provision.

## **CHAPTER SIX**

### **6.0 CONCLUSION AND RECOMMENDATIONS**

#### **6.1. Introduction**

This chapter presents the conclusions of the study findings in relation to the objectives, literature reviewed and major variables identified as enhancing MCH service delivery. It later makes comprehensive policy recommendations, practice recommendations and academia recommendations which are based on the discussion of the findings focusing on the relationship between operational strategies and enhancing MCH service delivery.

#### **6.2 Conclusion**

This study was conducted with understanding that operational strategies are essential in enhancing MCH service delivery. The aim of this study was to establish the operational strategies adopted and enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County.

The specific objectives were: to determine how capacity building mother child care strategy influence enhancement of Maternal Child Healthcare Service Delivery in Machakos County; to establish how resource mobilization strategy influence enhancement of Maternal Child Healthcare Service Delivery in Machakos County; to investigate the influence of Community awareness strategy on enhancement of Maternal Child Healthcare Service Delivery in Machakos County and lastly, to establish how sectoral integration strategy influence enhancement of Maternal Child Healthcare Service Delivery in Machakos County. Structural equation modelling was adopted in establishing the variables relationship.

From the study findings, capacity building was shown to have a statistical insignificance on enhancing MCH services in Machakos County. It is evident that capacity building helps in achieving organizational set goals and ensuring better social and economic outcomes. Capacity building therefore requires careful planning to target the right people, build the right skills at the right time over time. Effective capacity building as well will benefit the health institution and local stakeholders by inclusively generating processes that strengthen trust, build commitment and good relationships to the people across and outside the county of Machakos.

Mobilization of domestic resources is increasingly important for sustaining investments in health, education, infrastructure, and other key sectors. From the findings, resource mobilization and MCH enhancement were found to have a positive and significant relationship that led to enhancement of Maternal Child Healthcare Service Delivery in Machakos County. The health facilities in Machakos County have identified different sources of financing from where the activities of the hospitals are financed health insurance being most viable source which is as a result of universal health coverage program across the county.

The study regarding community awareness concluded that community mobilization and the empowerment of individuals and communities create demand for quality services that respond to their needs. The empirical results obtained demonstrated that community awareness was significant on enhancement of Maternal Child Healthcare Service Delivery in Machakos County. It is thus evident that family oriented and community-oriented services support self-care (antenatal/intrapartum/postnatal family-community care), including the adoption of improved care practices and appropriate care seeking for illness.

From the study findings it was also established that sectoral integration had a positive and significant influence on enhancement of Maternal Child Healthcare Service Delivery in Machakos County. This was evident by the hospitals in Machakos County through the department of health services having strengthened sectoral co-ordination structure as well as data base of partners and their roles. From the reviewed literature, sectoral integration under MCH innovations therefore brings together different parties who have shared interest in service delivery.

### **6.3 Recommendations**

The aim of this study was to establish the operational strategies adopted and enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County. The study makes comprehensive policy, practice and academia recommendations based on the discussion of the findings.

#### **6.3.1 Policy Recommendations**

From the study findings, capacity building was shown to have a statistical significance in enhancing MCH services in Machakos County. It is therefore evident that capacity building

plays a vital role in ensuring that individuals acquire the right knowledge, skills and experience. The activities involve encouraging employees to develop their capabilities and building their networks through organization trainings. The study therefore recommends for increase and strengthening of capacity building activities so as to focus on: increased understanding of shareholders about why the innovation is being progressed; growing skills to undertake and sustain the key activities of the innovation (such as, staff skills to utilize new information technology, or information sharing processes between partners); and growing understanding of data gathering and analysis, to support monitoring and continuous improvement.

The findings of resource mobilization and MCH enhancement were also found to have a positive and significant relationship that led to enhancement of Maternal Child Healthcare Service Delivery in Machakos County. Therefore, the study suggests that the county government through its legislative power should increase domestic resource mobilization through say having tax administration reform; county economic growth; and other income generating activities. This will enhance or enable it to some extent or fully support and grow programs such as MCH that address priority health issues.

The empirical results obtained demonstrated that community awareness was significant on enhancement of Maternal Child Healthcare Service Delivery in Machakos County. It is thus evident that family oriented and community-oriented services support self-care and adoption of improved care practices as well as appropriate care seeking for illness. The study recommends that there is need of building permanent community structures and increased training of the local communities across the county to strengthening links with the wider health system to creating modalities for engaging community-based workers and those they serve for improved quality of care.

Further, the study suggests and recommends to the county government of Machakos to identify and make use of a range of approaches to creation of public awareness, such as through CHWs, traditional birth attendants (TBAs), health campaigns, school-based health promotion, home-based care, and even community franchise-operated clinics.

Sectoral integration for MCH innovations as already put forward in the literature; draws together all parties involved and interested in service delivery. Based on study findings, the study suggests that the County Government of Machakos should thus strengthen coordination

structure; data base of partners together with their roles, coverage, programmes and resources; develop and harmonize coordinated framework for community level interventions; common system for supervision; focal point person and review meetings.

### **6.3.2 Practice Recommendations**

The study has clearly demonstrated that healthcare institutions across the globe have kept developing initiatives geared towards improving accessibility to maternal healthcare services so as to meet the population demand for quality health services. The study also established that health institutions through the devolved health care have not fully operationalized their activities. The study therefore recommends the following to the health institutions:

In particular, the study suggests introduction of programmes or packages which are proven to be effective, for example to have; Community-based birth preparedness package; Community-based new-born care package; Community-based infant and young child package. The community-based partners may further aid pregnant women and mothers of children under 2 years (considered “at-risk community members”) to develop their general health knowledge as well as practices and ensure they are fully connected to the services of the hospital.

Under sectoral integration and based on the study findings, the study suggests that health institutions need to identify all parties involved and interested, their roles and functions in MCH service delivery. This will help strengthen the existing partnership and build their arrangements in enhancing service delivery.

Institutions should also include all parties involved in decision making to help support the overall implementation and sustainability of the MCH innovation. This will help to identify persons and organizations interested thereby mobilizing them to overcome barriers towards delivery of quality and timely MCH services.

Based on the study findings researcher recommends that the health facilities try to empower its employees through giving them better pay, allowances inclusive, proper working environment in terms of equipment and motivating workers in advancement of their academic qualifications. This will motivate them especially when giving back to the society.

### **6.3.3 Academia Recommendations**

This study mainly concentrated in analysing the operational strategies adopted in enhancing of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County. The study used primary data collected from across selected healthcare units located in Machakos County. The study did not consider other healthcare facilities especially those operating lower cadres such as health centres and dispensaries. Thus, there is a need for a comprehensive study focusing at these facilities across the region.

A similar study is recommended considering other counties not necessarily Machakos County for comparisons. Other key factors necessary in determining enhancement of MCH service delivery should be brought forward in future studies such as environmental conditions, culture, political climate that is, for example political goodwill among others.

For comparison, the researcher recommends more studies estimating the impact or influence of operational strategies using different modelling criteria apart from structural approach.



## REFERENCES

- Alkema, L., Chou, D., Hogan, D., Zhang, S., Moller, A., Gemmill, A., & Say, L. (2016). Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group. *The Lancet*, 387(10017), 462-474.
- Baker, C., Mulaki, A., & Dutta, A (2014). Devolution of Healthcare in Kenya: Assessing County Health System Readiness in Kenya. A Review of Selected Health Inputs, *Washington DC: Health Policy Project, Futures Group*.
- Baker, K., Rochester, L., & Nieuwboer, A. (2007). The immediate effect of attentional, auditory and a combined cue strategy on gait during single and dual tasks in Parkinson's disease. *Archives of physical medicine and rehabilitation*, 88(12), 1593-1600.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Berman, A. L. (2018). Risk factors proximate to suicide and suicide risk assessment in the context of denied suicide ideation. *Suicide and Life-Threatening Behavior*, 48(3), 340-352.
- Blencowe, H., Cousens S., Jassir F., Say L., Chou D., & Mathers, C. (2016). National, Regional and worldwide estimates of stillbirth rates in 2015, with trends from 2000: a systematic analysis. *Lancet Glob Health*. 4(2):e98-e108. doi: 10.1016/S2214-109X(15)00275-2.
- Bossert, T. & Beauvais, J. (2002). Decentralization and Health Systems in Ghana, Zambia, Uganda and Philippines: A Comparative Analysis of Decision Space. *Health Policy and Planning* 17.1: 14–31.

- Brenner, D. W. (1990). Empirical potential for hydrocarbons for use in simulating the chemical vapor deposition of diamond films. *Physical review B*, 42(15), 9458.
- Bryman, A. (2013). Introduction: 'Inside' accounts and social research in organizations. In *Doing Research in Organizations (RLE: Organizations)* (pp. 11-30). Routledge.
- Bryman, A., & Bell, E. (2013). Företagsekonomiska forskningsmetoder. 2. uppl. *Stockholm: Liber*.
- Conde-Agudelo A., Belizan J., & Lammers, C. (2004). Maternal-perinatal morbidity and mortality associated with adolescent pregnancy in Latin America: Cross-sectional study. *American Journal of Obstetrics and Gynecology*. 192:342–349.
- Darmstadt, G., Bhutta Z., Cousens, S., Adam, T., Walker, N., & Bernis, L. (2005). Neonatal Survival Steering Team. Evidence-based, cost-effective interventions: how many newborn babies can we save? *Lancet*; 365 (9463):977-88.
- Das-Gupta, M., Grandvoinet & Romani, M. (2004). State-Community Synergies in Community-Driven Development. *Journal of Development Studies*, 40(3), pp.27-58.
- Davis, E. C., Arana, E. T., Creel, J. S., Ibarra, S. C., Norman, R. A., & Kash, B. A. (2018). The role of community engagement in building sustainable health-care delivery interventions for Kenya. *European Journal of Training and Development*, 42(1/2), 35-47.
- Dawson, P., Pradhan, Y., Houston, R., Karki, S., Poudel, D. & Hodgins, S. (2008). From research to national expansion: 20 years' experience of community based management of childhood pneumonia in Nepal. *Bulletin of the World Health Organization*, 86(5), 339-341.

- Dean, S. V., Imam, A. M., Lassi, Z. S. & Bhutta, Z. A. (2011). Systematic Review of Preconception Risks and Interventions. *Karachi, Pakistan: Aga Khan University*. [http://globalresearchnurses.tghn.org/site\\_media/media/articles/Preconception\\_Report.pdf](http://globalresearchnurses.tghn.org/site_media/media/articles/Preconception_Report.pdf). [Reference list]
- Duby, Z., Hartmann, M., Mahaka, I., Munaiwa, O., Nabukeera, J., Vilakazi, N. & Van der Straten, A. (2016). Lost in Translation: Language, Terminology, and Understanding of Penile–Anal Intercourse in an HIV Prevention Trial in South Africa, Uganda, and Zimbabwe. *The Journal of Sex Research*, 53(9), 1096-1106.
- Dulock, H. L. (1993). Research design: Descriptive research. *Journal of Pediatric Oncology Nursing*, 10(4), 154-157.
- Fleizser, A., Semenic, S., Ritchie, J., Richer, M. & Denis, J. (2015). The sustainability of healthcare innovations: a concept analysis. *Journal of Advanced Nursing*. 71(7): 1484-98.
- Gall, M. D., Borg, W. R., & Gall, J. P. (2006). The methods of quantitative and qualitative research in education sciences and psychology. *Trans. Nasr AR, Abolghasemi M, Bagheri KH, Pakseresht MJ, Khosravi Z, Shahani Yeilagh M. 2nd ed. Tehran: Samt Publications*.
- Howard-Grabman, L., Seoane G., & Davenport, C. (2002). Mother Care, Save the Children: The Warmi Project: a participatory approach to improve maternal and neonatal health: An implementer's manual. Westport: *John Snow International, Mothercare Project, Save the Children*.
- Inkoom, D. & Gyapong, A. (2016). Decentralization in Africa: Local Government and Health Care in Ghana, Malawi and Tanzania, in C. Silva (ed.), *Governing Urban Africa, London: Palgrave Macmillan*.
- Khan M., & Loureiro, M. (2017). Introduction: Interrogating Decentralization in Africa.

- Kilonzo, S., Kamaara, E., & Magak, K. (2017). Improving access to maternal health care through devolution in western Kenya.
- Kimani, A. (2016). Critical Strategic Factors for Implementation of a Harmonised East African Community Custom Union (doctoral dissertation, school of business, University of Nairobi).
- Korir, M. C. (2015). *The Role of Communication in Maternal and Child Healthcare Outcomes: A Case of Machakos County, Kenya* (Doctoral dissertation, University of Nairobi).
- Kothari, C. R. (2004). Research methodology: Methods and techniques. New Age International.
- Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners*. Sage Publications Limited.
- LaFond, A. & Lisanne, B. (2003). A Guide to Monitoring and Evaluation of Capacity-Building Interventions in the Health Sector in Developing Countries. *MEASURE Evaluation Manual Series, No. 7 Carolina Population Center, University of North Carolina at Chapel Hill*.
- Lassi, Z. S., Kumar, R., & Bhutta, Z. A. (2016). Community-based care to improve maternal, newborn, and child Health. *Disease Control Priorities*, 2, 263-84.
- Lockett A., & Wild, A. (2014). Bringing history (back) into the resource-based view. *Business History*, 56(3), 372-390.
- Maxfield, M. G., & Babbie, E. R. (2014). *Research methods for criminal justice and criminology*. Cengage Learning.
- McChesney, R. W. (2013). Digital disconnect: How capitalism is turning the Internet against democracy. New Press.

- McCollum, R., Taegtmeier, M., Otiso, L., Mireku, M., Muturi, N., Martineau, T., & Theobald, S. (2019). Healthcare equity analysis: applying the Tanahashi model of health service coverage to community health systems following devolution in Kenya. *International journal for equity in health*, 18(1), 65.
- Mehrotra, S. (2006). Governance and Basic Social Services: Ensuring Accountability in Service Delivery through Deep Democratic Decentralization. *Journal of International Development* 18: 263–83.
- Michuki, C. M. (2015). Demand for Maternal Health Services: An Analysis of Contraceptives Uptake in Kenya. *Unpublished MSc Thesis, University of Nairobi, Kenya*.
- Milat, A., King, L., Bauman, A. & Redman, S. (2013). The Concept of scalability: increasing the scale and potential adoption of health promotion interventions into policy and practice. *Health Promotion* 28(3): 285–298.
- Mugenda, O. M. & Mugenda, A. G. (2003). Research methods. *Quantitative and qualitative approaches*, 46-48.
- Ndavi, P., Ogola, S., Kizito, P., & Johnson, K. (2009). Decentralizing Kenya's Health Management System: An Evaluation. *Kenya Working Papers No. 1. Calverton, MD: Macro International Inc.*
- Nyambura, W. A. (2016). *Determinants of Demand for Healthcare Service in Private Hospitals in Kenya* (Doctoral dissertation, School of Economics in Partial Fulfillment of the Requirements for the Award of Master of Science Degree in Health Economics, University of Nairobi).
- O'Harlaithe, M., Grede, N., de Pee, S. & Bloem, M. (2014). Economic and Social Factors are some of the Most Common Barriers Preventing Women from Accessing Maternal and Newborn Child Health (MNCH) and Prevention of Mother-to-Child Transmission Services: *A Literature Review*.

- Okech, T. C. (2016). Devolution and Universal Health Coverage in Kenya: Situational Analysis of Health Financing, Infrastructure and Personnel.
- Patton, G., Coffey, C., Sawyer, S., Viner, R., Haller, D., Bose, K., Vos, T., Ferguson, J. & Mathers, C. (2009). Global patterns of mortality in young people: a systematic analysis of population health data. *Lancet*, 374:881–892.
- Ribot, J. C., & Oyono, P. R. (2006). Introduction: decentralization and livelihoods in Africa. *Africa Development*, 31(2), 1-18.
- Robinson, M. (2007). Does Decentralization Improve Equity and Efficiency in Public Service Delivery Provision? *IDS Bulletin* 38.1: 7–17, <http://bulletin.ids.ac.uk/idsbo/article/view/887> (accessed 11 January 2017).
- Say, L., Chou, D., Gemmill, A., Tunçalp, Ö., Moller, A. & Daniels, J. et al. (2016); Global Causes of Maternal Death: A WHO Systematic Analysis. *Lancet Global Health*.2(6): e323-e333.
- Scholes, K., Johnson, G. & Whittington, R. (2002). Exploring corporate strategy. Financial Times Prentice Hall.
- Singh, N. (2008). Decentralization and public delivery of health care services in India. *Health Affairs*, 27(4), 991-1001.
- Slymaker, T., Christiansen K. & Hemming, I. (2005). Community-based approaches and service delivery: Issues and options in difficult environments and partnerships. *Overseas Development Institute*. Available at: [www.odi.org.uk/resources/docs/3822.pdf](http://www.odi.org.uk/resources/docs/3822.pdf)
- Stoddart, G. L., & Evans, R. G. (2017). Producing health, consuming health care. In why are Some People Healthy and Others Not? (pp. 27-64). Routledge.

- Uneke, C. J., Ndukwe, C. D., Ezeoha, A. A., Urochukwu, H. C., & Ezeonu, C. T. (2014). Improving maternal and child healthcare programme using community-participatory interventions in Ebonyi State Nigeria. *International journal of health policy and management*, 3(5), 283.
- UNICEF, (2015). Levels and Trends in Child Mortality. Report 2015. The Inter-agency Group for Child Mortality Estimation (UN IGME). UNICEF, WHO, The World Bank, United Nations Population Division. New York, USA.
- United Nations, (2015). Global Strategy for Women's, Children's and Adolescents' Health, 2016-2030. New York.
- United Nations, (2018). The Sustainable Development Goals Report 2018. Department of Economic and Social Affairs.
- Uprichard, E., & Dawney, L. (2019). Data diffraction: Challenging data integration in mixed methods research. *Journal of Mixed Methods Research*, 13(1), 19-32.
- Wavomba, P., & Sikolia, S. (2015). Research in the Quality of Service Delivery in Public Hospitals, Kenya. *Journal of Pharmacy and Biological Sciences*.
- World Bank, (2012). Devolution without Disruption: Pathways to a Successful New Kenya. Nairobi, Kenya: World Bank and Australian AID.
- World Health Organization, (2011). Evaluating the quality of care for severe pregnancy complications: the WHO near-miss approach for maternal health.
- World Health Organization, (2017). Everybody's business. Strengthening health systems to improve health outcomes: *WHO's framework for action*.
- World Health Organization, (2018). Key World Facts. <http://www.who.int/news-room/fact-sheets/detail/maternal-mortality>.

World Health Organization, (2014). The global health sector strategy on HIV.

Yuliani, E. L. (2004). Decentralization, deconcentrating and devolution: what do they mean?  
Center for international forestry research (CIFOR).



## APPENDICES

### APPENDIX I

#### LETTER OF TRANSMITTAL

Dear Sir/Madam

#### **RE: DATA COLLECTION**

I am a post graduate student at the South Eastern Kenya University pursuing Master Degree in Business Administration (Strategic Management Option). As partial fulfillment of requirement for the course, I am conducting a research on *Operational Strategies and Enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County*.

I would highly appreciate if you assist me fill the provided questionnaire. The information collected will be treated with utmost confidentiality and will be used only for academic purposes.

I look forward to your prompt response. Thank you in advance.

Yours sincerely

.....

**Theracia Mwende Kavindu**

**D61/MAC/20726/2016**

## APPENDIX II

### UNIVERSITY INTRODUCTORY LETTER



**SOUTH EASTERN KENYA UNIVERSITY**  
**OFFICE OF THE DIRECTOR**  
**BOARD OF POST GRADUATE STUDIES**

P.O. BOX 170-90200  
KITUL KENYA  
Email: [info@seku.ac.ke](mailto:info@seku.ac.ke)

TEL. 020-4213859 (KITUL)  
Email: [directorbps@seku.ac.ke](mailto:directorbps@seku.ac.ke)

Our Ref: D61/MAC/20726/2016

DATE: 4<sup>th</sup> March, 2019

Kavindu Theresia Mwende  
Re g. No. D61/MAC/20726/20156  
Masters of Business Administration  
C/O Dean, School of Business and Economics

Dear Mwende

**RE: PERMISSION TO PROCEED FOR DATA COLLECTION**

This is to acknowledge receipt of your Master in Business Administration Proposal document entitled: *"Operational Strategies and Enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County"*.

Following a successful presentation of your Masters Proposal, the School of Business and Economics Board of Examination in conjunction with the Directorate, Board of Postgraduate Studies (BPS) have approved that you proceed on and carry out research data collection in accordance with your approved proposal.

- During the research work, you will be closely supervised by Dr. Susan Wamitu. You should ensure that you liaise with the supervisor at all times. In addition, you are required to fill in a Progress Report (*SEKU/ARSA/BPS/F-02*) which can be downloaded from the University Website.

The Board of Postgraduate Studies wishes you well and a successful research data collection exercise as a critical stage in your Master of Business Administration.

Prof. Felix Ngunzo Kioli  
Director, Board of Postgraduate Studies

Copy to: Deputy Vice Chancellor, Academic, Research and Students Affairs (Note on File)  
Dean, School of Business and Economics  
Chairman, Department of Business and Entrepreneurship  
Director, Machakos Campus  
Dr. Susan Wamitu  
BPS Office - To file



## APPENDIX III

### NACOSTI RESEARCH AUTHORIZATION



#### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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

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

Ref: No. **NACOSTI/P/19/22848/29890**

Date: **9<sup>th</sup> May 2019**

Theracia Mwendu Kavindu  
South Eastern Kenya University  
P.O. Box 170-90200  
**KITUI.**

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “*Operational strategies and enhancement of maternal and child healthcare service delivery in devolved healthcare units in Machakos County.*” I am pleased to inform you that you have been authorized to undertake research in **Machakos County** for the period ending **9<sup>th</sup> May, 2020.**

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

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

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

Copy to:

The County Commissioner  
Machakos County.

The County Director of Education  
Machakos County.

APPENDIX IV

NACOSTI RESEARCH LICENSE



**APPENDIX V**

**QUESTIONNAIRE**

Kindly answer the following questions as accurately as possible. Information given will be treated in total confidence. Where alternatives are given, tick the correct answer in the blank spaces as appropriate as possible.

**SECTION A: PERSONAL PROFILE**

1. Level of education

- Primary School
- Secondary School Education
- College/University Education
- Post Graduate Level

2. Which sub county is this hospital located? .....

3. For how long have you worked in the current MCH clinic?

- Below 5 years
- 5 - 15 years
- 16 - 25 years
- Above 25 years

**SECTION B: CAPACITY BUILDING OF STAFF**

4. To what extent do you agree with the following statements regarding capacity building of staff in MCH clinic? Use a scale of 1 to 5 where 5 is to strongly agree, 4-agree, 3-undecided, 2-disagree and 1 is to strongly disagree

|   | <b>Statement</b>   | <b>5</b> | <b>4</b> | <b>3</b> | <b>2</b> | <b>1</b> |
|---|--|----------|----------|----------|----------|----------|
| 1 | We have sufficiently skilled employees in this facility.   |          |          |          |          |          |
| 2 | The hospital deliberately and consistently organizes for trainings for its staff.                                    |          |          |          |          |          |
| 3 | The hospital has under developed training systems that negatively impact the quality of healthcare services offered. |          |          |          |          |          |
| 4 | The hospital well conducts the impartation of skills,  |          |          |          |          |          |

|   |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
|   | knowledge and abilities through the use of new technologies.  |  |  |  |  |  |
| 5 | The facility recruits rightly qualified staff so as to enhance the quality of maternal and child healthcare service delivery and knowledge impartation. |  |  |  |  |  |

### SECTION C: RESOURCE MOBILIZATION

5. To what extent do you agree with the following statements regarding the resource mobilization in the MCH Clinic? (Tick on the spaces provided.)

(a) The type of financing adopted by the MCH clinic has greatly influenced the quality of healthcare services offered in the institution.

- (i) 81% - 100%      [   ]
- (ii) 61% - 80%      [   ]
- (iii) 41% - 60%     [   ]
- (iv) 21% - 40%     [   ]
- (v) 0% - 20%        [   ]

(b) The current health financing structure denies the hospital enough resources to enhance its maternal and child healthcare services.

- (i) Strongly Agree    [   ]
- (ii) Agree             [   ]
- (iii) Undecided        [   ]
- (iv) Disagree          [   ]
- (v) Strongly disagree [   ]

(c) Increased utilization of services within the facility is as a result of financial barriers suffered by most of the clients it serves.

- (i) 81% - 100%      [   ]
- (ii) 61% - 80%      [   ]
- (iii) 41% - 60%     [   ]
- (iv) 21% - 40%     [   ]
- (v) 0% - 20%        [   ]

(d) The facility suffers from a lack of sufficient financial resources that results to it being understaffed and suffer drug stock-outs.

- (i) Strongly Agree    [   ]

- (ii) Agree [ ]
- (iii) Undecided [ ]
- (iv) Disagree [ ]
- (v) Strongly disagree [ ]

(e) The activities of the hospital are financed from different sources. Kindly tick the resource applicable to your hospital.

- (i) Out-of-pocket financing [ ]
- (ii) Pre-payment (Tax) [ ]
- (iii) Pre-payment (Health Insurance) [ ]
- (iv) Others (Specify) .....[ ]

**SECTION D: COMMUNITY AWARENESS**

6. To what extent do you agree with the following statements regarding community awareness and MCH program? Use a scale of 1 to 5 where 5 is to strongly agree, 4-agree, 3-undecided, 2-disagree and 1 is to strongly disagree

|   | <b>Statement</b>   | <b>5</b> | <b>4</b> | <b>3</b> | <b>2</b> | <b>1</b> |
|---|--|----------|----------|----------|----------|----------|
| 1 | Community-based participatory interventions are implemented through community health education and mobilization.                           |          |          |          |          |          |
| 2 | Women of child bearing age in the community are sensitized through health promotion unit in the county.                                    |          |          |          |          |          |
| 3 | There are extra home visits and support for breastfeeding and community outreaches which results in high costs in the campaigns.           |          |          |          |          |          |
| 4 | There are neonatal care practices, promotion and practices of clean delivery and referral of complications.                                |          |          |          |          |          |
| 5 | The facility through frequency of campaigns has impacted positively towards enhancement of maternal and child healthcare service delivery. |          |          |          |          |          |

## SECTION E: SECTORAL INTEGRATION

7. To what extent to you agree with the following statements regarding Sectoral Integration and Maternal Child Healthcare Service Delivery? (Tick on the spaces provided.)

(a) The hospital has identified the roles and functions of all parties involved and interested in MCH service delivery.

- (i) 81% - 100% [ ]
- (ii) 61% - 80% [ ]
- (iii) 41% - 60% [ ]
- (iv) 21% - 40% [ ]
- (v) 0% - 20% [ ]

(b) There is strengthened sectoral coordination structure as well as data base of partners and their roles.

- (i) Strongly Agree [ ]
- (ii) Agree [ ]
- (iii) Undecided [ ]
- (iv) Disagree [ ]
- (v) Strongly Disagree [ ]

(c) There is a developed and harmonized coordinated framework for community level interventions.

- (i) 81% - 100% [ ]
- (ii) 61% - 80% [ ]
- (iii) 41% - 60% [ ]
- (iv) 21% - 40% [ ]
- (v) 0% - 20% [ ]

(d) There is focal point person at sector level and review meetings.

- (i) Strongly Agree [ ]
- (ii) Agree [ ]
- (iii) Undecided [ ]
- (iv) Disagree [ ]
- (v) Strongly Disagree [ ]

(e) The hospital has a common system for supervision across all stakeholders/sectors.

- (i) 81% - 100% [ ]



- (ii) 61% - 80% [ ]
- (iii) 41% - 60% [ ]
- (iv) 21% - 40% [ ]
- (v) 0% - 20% [ ]

**SECTION F: ENHANCEMENT OF MATERNAL AND CHILD HEALTHCARE**

8. To what extent do you agree with the following statements regarding enhancement of MCH service delivery program? Use a scale of 1 to 5 where 5 is to strongly agree, 4-agree, 3-undecided, 2-disagree and 1 is to strongly disagree.

|   | <b>Statement</b>  | <b>5</b> | <b>4</b> | <b>3</b> | <b>2</b> | <b>1</b> |
|---|---|----------|----------|----------|----------|----------|
| 1 | The Maternal and Child Health Service, supported by county government provides a responsive and accountable service for the child, mother and family through effective governance and management. |          |          |          |          |          |
| 2 | The Maternal and Child Health Service provides universal access to its services for children residing in Machakos county from birth to school age and their families.                             |          |          |          |          |          |
| 3 | The Maternal and Child Health Service delivers a quality and safe service thus reduced maternal deaths.   |          |          |          |          |          |
| 4 | The Maternal and Child Healthcare Service builds partnerships with families and communities, collaborates and integrates with other services and organizations.                                   |          |          |          |          |          |
| 5 | The enhancement of maternal and child healthcare service delivery has led to quality healthcare services within the county.   |          |          |          |          |          |

**END**

**THANK YOU FOR YOUR TIME AND CO-OPERATION**

## APPENDIX VI

### TIME SCHEDULE

| Task/ Activities                                   | 2018 |     |     |      |           |     | 2019 |     |         |     |      | Remarks |
|--|------|-----|-----|------|-----------|-----|------|-----|---------|-----|------|---------|
|  | Jun  | Jul | Aug | Sept | Oct - Nov | Dec | Jan  | Feb | Mar-Apr | May | June |         |
| Generating Research Ideas                          |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Literature Search and Reading                      |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Concept Note Writing and Submission                |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Literature Harmonization                           |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Drafting Proposal                                  |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Revising the Proposal Draft                        |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Submission, Booking and Presentation               |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Instrument Pre-Testing and Data collection         |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Analysis/Report Writing/Presentation & Corrections |      |     |     |      |           |     |      |     |         |     |      | Done    |
| Submission of Final Report                         |      |     |     |      |           |     |      |     |         |     |      | Done    |

## APPENDIX VII

### BUDGET

---

| <b>Activity</b>                       | <b>Cost in Kshs.</b> |
|---------------------------------------|----------------------|
| Internet and cyber charges            | 3,000.00             |
| Printing and photocopying             | 6,000.00             |
| Stationery and Binding                | 6,000.00             |
| Travel Allowances and data collection | 25,000.00            |
| Telephone charges                     | 2,000.00             |
| Miscellaneous expenses                | 3,000.00             |
| <b>Total</b>                          | <b>45,000.00</b>     |

---

## APPENDIX VIII

### LIST OF COUNTY REFERRAL AND SUBCOUNTY HOSPITALS

#### LIST OF COUNTY REFERRAL AND SUBCOUNTY HOSPITALS

---

**Health Facility**

---

Machakos County Referral  
Mwala Sub County  
Kathiani Sub County  
Matuu Sub County  
Kangundo Sub County  
Athiriver Sub County  
Matungulu Sub County  
Yatta Sub County  
Masinga Sub County

---



*[Handwritten signature]*

*Source: Machakos County Integrated Development Plan, 2018 – 2022*