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

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Strategy

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

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Abstract

Purpose: Operational strategies are very critical if an organization is to achieve its objectives. By developing them, organizations could examine and implement effective and efficient systems for using resources, personnel and the work process. This study was geared towards establishing Operational Strategies and Enhancement of Maternal and Child Healthcare Service Delivery in Devolved Healthcare Units in Machakos County.

Methodology: This study adopted a descriptive research design and the study targeted 600 employees working in Machakos County Referral and Sub county hospitals. Two sampling techniques were used; purposive sampling on the county referral hospital and simple random sampling on the sub county hospitals where the sample size was obtained by calculating 30% of the target population to obtain 180 respondents. Data collection was carried out through administration of questionnaires. Data was analyzed using descriptive and inferential statistics using the Statistical Package for Social Sciences (SPSS) version 24.0 and findings tabulated and presented in form of tables.

Findings: Descriptive statistics and regression analysis indicated that there was a positive relationship between operational strategies and enhancement of MCH services in devolved healthcare units. The findings of this study were in tandem with those of the previous studies reviewed. The study concluded that operational strategies influence enhancement of MCH service delivery in devolved healthcare units in Machakos County.

Unique Contribution to Policy, Practice and Academia: The study recommended that the health administrators and other stakeholders should adopt operational strategies that enhance MCH service delivery in health facilities across the county.

Keywords: *Operational Strategies, Maternal and Child Healthcare, Devolved Healthcare Units, Community Health Workers, Traditional Birth Attendants.*

1.0 INTRODUCTION

1.1 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 have 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 and eclampsia); complications from delivery and also unsafe abortion (Say *et al.* 2016; United Nations, 2015; UNICEF, 2015).

1.1.1 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.

1.1.2 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 & 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 (Scholes, Johnson & Whittington, 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). If well implemented, these and other operational strategies could strengthen and thus improve utilization of healthcare services.

1.1.3 Machakos County and Maternal/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.

1.2 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. 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 services are available in dispensaries, health centers and hospitals across the county. Universal healthcare has also led to people accessing free health service under universal health coverage. 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.

1.3 Objectives of the Study

The main objective 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.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

This study was guided by three models/theories; Health Service Utilization Model, Social Learning Theory and Resource Based View Theory.

2.1.1 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).

2.1.2 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.

This 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 and also understand their medications at discharge. This theory therefore can guide a research in establishing influence of community awareness on enhancing MCH service delivery in devolved healthcare units in Machakos County.

2.1.3 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 & 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.

2.2 Empirical Review

2.2.1 Capacity Building and Enhancement of MCH 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.

2.2.2 Community Awareness and Enhancement of MCH Service Delivery

Community-driven development is increasingly being promoted as a means of strengthening state-community synergies (Das-Gupta, Grandvoinet & 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, Grandvoinet 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. The community-based partners may 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 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. 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.

3.0 RESEARCH METHODOLOGY

The study adopted descriptive research design. Target population of this study included the employees of Machakos County health facilities. There is one county referral facility & eight sub county facilities mentioned below to give a total target population of 600 employees.

Table 1: Target Population

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	107
Mwala Sub County	-	1	1	1	43	29	22	97
Matuu Sub County	-	1	1	1	17	24	17	61
Kathiani Sub County	-	1	1	1	41	28	21	93
Kangundo Sub County	-	1	1	1	23	25	18	69
Athiriver Sub County	-	-	1	1	8	15	9	34
Yatta Sub County	-	-	1	1	14	16	15	47
Matungulu Sub County	-	-	1	1	12	15	18	47
Masinga Sub County	-	-	1	1	9	22	12	45
TOTAL	1	5	9	11	213	204	157	600

Source: County Health Sector Strategic Plan (2017 - 2022)

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. It consisted of both managerial and non-managerial cadres. 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 while simple random sampling was conducted to obtain a total of 180 study participants (arrived at by calculating 30% of the target population).

Table 2: Sample Size Distribution

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

Source: County Health Sector Strategic Plan (2017 - 2022)

A standardized questionnaire was developed to capture various variables investigated in this study (Mugenda & Mugenda, 2003). The researcher used questionnaires in this study because helpful in gathering unique information in maintaining participants' privacy and easy to administer and analyze once data is obtained. The questionnaire was divided into three sections. The first section contained questions on the bio-data of the respondents; the second section 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. It contained open ended and closed-ended questions.

Ten employees were piloted from the County and Sub County hospitals in Kitui County which neighbours Machakos to establish the reliability of the test instruments. 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 and the independent variables. The structural equation model was adopted. It does not have a constant since it dealt with structural variables which are structural in nature.

$$Y = \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

4.0 RESULTS AND DISCUSSION

The findings of this study were summarized and discussed as follows:

4.1 Pilot Test Analysis

The researcher prepared and administered questionnaires to ten (10) employees who were randomly selected from the Kitui County and Sub County hospitals. Cronbach's Alpha which is threshold value in judging whether a test statistic is statistically significant was used to measure internal consistency of the data variables. A Cronbach's Alpha of 0.7 or higher was considered acceptable reliability according to Bryman and Bell (2013). The findings were as shown in Table 3 below.

Table 3: Scale Reliability Coefficients

Constructs	Alpha Value	No of items	Comments
Capacity Building of the Staff	0.868	5	Reliable
Community Awareness	0.738	5	Reliable
Enhancement of MCH	0.722	5	Reliable

Source: Field Data (2019)

4.2 Response Rate

The study population consisted of managerial and non-managerial employees from the county referral and sub county hospitals in Machakos County. The targeted population was 600 employees. The study sampled 180 employees as study respondents. Only 161 fully filled questionnaires were returned translating to 89.4% as shown in table 4 below.

Table 4: Response Rate

Response	Frequency	Response Rate
Returned Questionnaires	161	89.4%
Unreturned Questionnaires	19	10.6%
Total	180	100.00

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.

4.3 Participants Level of Education

The education level attained by the sampled respondents was important in that it plays a vital role in the operational strategies adopted and enhancement of MCH Service Delivery in Devolved Healthcare Units in Machakos County. The results are indicated in Table 5 below.

Table 5: Respondents' Education Level

Educational Qualification	Frequency	Percentage (%)
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
Total	161	100

Source: Field Data (2019)

Table 5 above indicated 38.2% and 25.6% of the respondents having secondary and undergraduate education as their highest level of academic qualification respectively. 10.9% of the respondents had postgraduate education and 25.2% accounted for respondents with primary education. In this study, the findings clearly show majority of the respondents having basic education. No respondents under staff working in MCH clinics who were identified as having no formal education and therefore could not read or write an indicator 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 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 6 below.

Table 6: Respondent' Length of Experience or Stay at Work Station

Working During	Frequency	Percentage (%)
Below 5 years	39	24.37
5 - 15 years	57	35.29
16 - 25 years	22	13.87
Above 25 years	43	26.47
Total	161	100.0

Source: Field Data (2019)

The findings of the study indicated that the respondents had varied work experiences as demonstrated in Table 6. It emerged that most of the respondents that is 35.3% had been in the health facility for a period of 5 - 15 years whereas 26.47% had been in the facility for a period of above 25 years. About 24.4% and 13.9% were less than 5 years old and 16 - 25 years respectively. The results show that 60% 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 Analysis

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 8 below. The results were interpreted using mean scores, standard deviation and variance as presented in table 7 below.

Table 7: Capacity Building

Capacity Building	Mean	Standard Deviation	Variance
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
Overall	3.785	1.151	1.350

From table 7 above, the findings indicated a higher mean of 3.866 showed the hospital had underdeveloped training systems that negatively impact the quality of healthcare services offered despite it having sufficiently skilled employees. The standard deviation of 1.0 indicated that the hospital deliberately and consistently organized for staff trainings. These findings revealed that capacity building imparted to the employees skills, knowledge and abilities to handle people who came to their facilities seeking for better healthcare.

4.5.2 Community Awareness and Enhancement of MCH

The respondents were asked to establish how the community awareness influences MCH enhancement in their health facility. The study results are as presented in table 8 below.

Table 8: Community Awareness

Community Awareness	Mean	Standard Deviation	Variance
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
Overall	3.383	1.244	1.555

From the table 8 above, the results indicated that there were extra home visits and support for breastfeeding and community outreaches which resulted 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. This revealed that the hospitals as well sensitize their employees on healthcare service delivery. Standard deviation of 1.176 indicated that community-based participatory interventions were implemented through community health education and mobilization an indicator that health services had been brought near to the people.

4.5.3 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 are shown in table 9 below.

Table 9: Enhancement of MCH

Enhancement of MCH	Mean	Standard Deviation	Variance
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
Overall	3.434	1.300	1.693

From table 9 above, the highest mean of 3.573 and the standard deviation of 1.223 indicated that the MCH facility provided 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 indicate 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 MCH Service, supported by county government provides 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 had led to quality healthcare services in hospitals within the county of Machakos.

4.6 Correlation Analysis

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 14 below.

Table 10: Correlations Matrix

Variables	Capacity Building	Community Awareness	Enhanced MCH
Capacity Building	1.000		
Community Awareness	0.4499	1.000	
Enhanced MCH	0.4754	0.3288	1.000

From the findings in Table 10 above, all variables had relationship in their respective pairs. The study results established that there was correlation between capacity building and community awareness which was 0.4499. This implied that the hospitals had developed their employees and ensured integration of all other sectors like education, agriculture in their implementation process to better their health service.

4.7 Regression Analysis of Structural Variables and Model Fitness

4.7.1 Model Fitness

All the structural factors were subjected to a modeling technique and the results are shown as indicated in table 11 below.

Table 11: Goodness of Model Fitness

Fit Statistic	Description	Objective 1	Objective2
Baseline Comparison			
CFI	Comparative Fit Index	-	15620.524
TLI	Tucker-Lewis index	-	15877.472
Size of Residuals			
SRMR	Standardized Root Mean Squared Residual	0.150	0.258
CD	Coefficient of Determination(R ²)	0.883	0.992

From the goodness of fit of the model in table 11 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 above 95% except objective one which was nevertheless above 85 % and fell within an acceptable range of above three quarters. From the fit statistics, the study also concluded that estimation of the model or the two research questions could proceed and that estimates were not biased.

4.7.2 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 MCH Service Delivery in Devolved Healthcare Units in Machakos County. The study findings are shown in table 12 below.

Table 12: Standardized Structural Model

Number of Observations = 161				
Estimation Method = ml				
Log likelihood = -10518.107				
Enhanced MCH	Coefficients	P Value	Confidence Interval (95%)	
Capacity Building	0.1415** (1.87)	0.062	0.0072	0.2902
Community Awareness	0.9220** (35.60)	0.000	0.8713	0.9728

Endogenous Variables (CB1 CB2 CB3 CB4 CB5, CA1 CA2 CA3 CA4 CA5)

Latent: Enhanced MCH (EMCH1 EMCH2 EMCH3 EMCH4 EMCH5)

Exogenous Variables
 Latent : **Capacity Building, Community Awareness**

****Significance level of 5 percent**

#Values in the parentheses show t statistics

The following was the structural equation model. It does not have an error term mainly because it was an estimated model.

$$EMCH = 0.1415CB + 0.9220CA$$

From table 12 above, the study findings established that the two variables considered in the study had a positive relationship towards enhancement of MCH service delivery. From the results, community awareness was found to have greatest influence on enhancement of MCH service delivery in devolved healthcare units in Machakos County ($\beta_2=0.9220$; $P=0.000<0.05$) 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 had well laid structures which enabled them to make its people aware of the services offered in the hospitals. CHW's had 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 had also well organized trainings where people were 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 had not fully utilized the resources they had in their counties. The hospitals had failed to prioritize healthcare services where patients are treated and left to buy medication for their ailments. Also the employees in these hospitals had 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. A constant was not included in this model because it dealt with structural variables which are structural in nature. Also the error term was not included in the structural model since this model is estimated and had insignificant influence on the MCH enhancement when other factors are held constant.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study was conducted with an understanding that operational strategies were essential in enhancing MCH service delivery. The aim of this study was to establish the operational strategies adopted and enhancement of MCH Service Delivery in Devolved Healthcare Units in Machakos County. The findings of this study revealed that all operational strategies measured had positive correlation with enhancement of MCH service delivery in devolved units in Machakos County. However, capacity building had an insignificant influence on MCH service delivery. These findings indicated that even though the hospitals had trained its staff using the available resources, they had however, failed to offer quality services. This was 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. Most of the health facilities

across the county got their sources of funds from health insurance which was as a result of universal health coverage program popularized across the county.

The hospitals across the county aimed at achieving better health outcomes through increased investment and adequate local capacity where it provided services by employing people within the county. The findings on community awareness suggested that the health facilities across the county had embraced community awareness and they were thus able to offer affordable and healthcare services to all irrespective of distance. However, there was 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, Grandvoinnett 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.

5.2 Conclusions

From the study findings, capacity building was shown to have a statistical insignificance on enhancing MCH services in Machakos County. It was evident that capacity building helped in achieving organizational set goals and ensuring better social and economic outcomes. It therefore required careful planning to target the right people, build the right skills at the right time over time. Effective capacity building would benefit the health institution and local stakeholders by 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. The study results 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 MCH Service Delivery in Machakos County.

5.3 Recommendations

This study makes comprehensive policy, practice and academia recommendations based on the discussion of the findings.

5.3.1 Policy Recommendations

The study 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 and growing understanding of data gathering and analysis, to support monitoring and continuous improvement.

The study also recommends building of permanent community structures and increased training of the local communities across the county to strengthen 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.

5.3.2 Practice Recommendations

The study established that health institutions through the devolved health care have not fully operationalized their activities. It therefore suggests introduction of programmes or packages which are proven to be effective in order to develop general health knowledge as well as practices and ensure people are fully connected to the services of the hospital. Health facilities should 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 so as to motivate them in their work.

5.3.3 Academia Recommendations

This study used primary data collected from across selected healthcare units located in Machakos County an indicator that it 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., Blencowe, D., Hogan, D., Zhang, S., Moller, A. B., 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. (2014). 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.
- 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.
- Das-Gupta, M., Grandvoinnett H., & Romani M. (2004). State-Community Synergies in Community-Driven Development. *Journal of Development Studies*, 40(3), pp.27-58.
- Dean, D. H., & Lang, J. M. (2008). Comparing three signals of service quality. *Journal of Services Marketing*, 23, 23-34.
- Fahy, J. (2000). "The resource-based view of the firm: some stumbling-blocks on the road to understanding sustainable competitive advantage", *Journal of European Industrial Training*, Vol 24 Issue 2/3/4, pp. 94 – 104.
- 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.
- Government of Kenya, (2011). *The Kenya Health Sector Integrity Study Report*. Government Printers.
- Kenya Demographic and Health Survey, (2012). *Key indicators Kenya National Bureau of Statistics Nairobi, Kenya*.
- Kilonzo, S., Kamaara, E., & Magak, K. (2017). Improving access to maternal health care through devolution in western Kenya.
- Korir, A. (2017). *International journal of cancer* 140 (4), 788-797, 2017.
- 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).
- Lassi, Z., Kumar, R., & Bhutta, Z. (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.
- Mangala, D., (2015). Influence of stakeholders in strategic plan implementation at G4S Kenya limited. *Unpublished Master thesis of the University of Nairobi*.
- Michuki, C. M. (2015). Demand for Maternal Health Services: An Analysis of Contraceptives Uptake in Kenya. *Unpublished MSc Thesis, University of Nairobi, Kenya*.
- MOH (2012). Ministry of Public Health & Sanitation and Ministry of Medical Services (MOH). Kenya Health Policy 2012-2030.
- MOH, (2015). Ministry of Health, Kenya. Kenya Health Policy Forum. Improving Health Outcomes and services for Kenyans: Financing for Universal Health Coverage. <http://www-wds.worldbank.org/>
- Mugenda, O. M., & Mugenda, A. G. (2003). Research methods. *Quantitative and qualitative approaches*, 46-48.

- Okech, T. C. (2016). Devolution and Universal Health Coverage in Kenya: Situational Analysis of Health Financing, Infrastructure and Personnel.
- Polsa, P., Spence, K., & Soneye, A. (2011). Comparing the perceived quality of private and public health services in Nigeria. *Research gate*.
- 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.
- Singh, R. G., & Shah, K. (2011). Customers' Preference for Selecting Private Hospital: A Study in Manipur, Vol. 2. No. 2 – 2011 41.
- 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
- UNDP, (2009). *Human development report 2009*. United Nations Development Programme: New York.
- 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.
- Wanyoike, M. W. (2016). Educational Reforms and Value-creating education in post-colonial Kenya: A Historical Perspective in: *International Conference on Value-Creating Education and Sustainable Development*. University of Nairobi, 2016.
- Wavomba, P., & Sikolia, S. (2015). Research in the Quality of Service Delivery in Public Hospitals, Kenya. *Journal of Pharmacy and Biological Sciences*.
- Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management Journal*, 5, 171- 180.
- Wiesbaden, B. (2014). 'Organisational Resource Management of the firm'. *Strategic Management Journal*.
- World Health Organization. (2010). Evaluating the quality of care for severe pregnancy complications: the WHO near-miss approach for maternal health.