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DETERMINANTS AND PERFORMANCE OF MATERNAL HEALTH  
PROGRAMMES IN KENYAN COUNTY GOVERNMENTS**

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## MONITORING AND EVALUATION, BEHAVIOURAL DETERMINANTS AND PERFORMANCE OF MATERNAL HEALTH PROGRAMMES IN KENYAN COUNTY GOVERNMENTS

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### Abstract

Inefficiency in monitoring and evaluation which is one of the key stages in management has contributed significantly to operations failure in government institutions and programmes. Despite the Kenya government's effort to promote county maternal health programmes through legal frameworks such as the county integrated monitoring and evaluation practices tool, and while there is empirical evidence that monitoring and evaluation practices contributes to enhanced performance, actual performance of county health sector across Kenya remains poor. The purpose of the study was to establish the influence of behavioral determinants on the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan County Governments. The study used the pragmatism paradigm. The study adopted a mixed research design. The study targeted 388 hospitals from nine counties. The unit of analysis was 1165 respondents, including employees from level 4 and 5 hospitals (Nurses, Clinical officers, Medical officers, Nutritionists, Pharmacists, Health Records, Laboratory technologists, Counsellors, Medical superintendents, Hospital administrators, Nursing services managers and maternal child health (MCH) in charge), County Health Management Team members, County governors/deputy governor, County Executive Members for Health, Health County Chief Officers, County delivery unit members. The research instruments that were used for data collection are: a self-administered structured questionnaire and interview guides. Descriptive and inferential data analysis techniques were used in this study. The study found that there was a strong correlation between the performance of county maternal health programmes and behavioral determinants ( $r=0.821$ ,  $p=0.001<0.05$ ). The research found that after introduction of behavioural determinants in model 3, there was a rise in the R square by 0.066. This showed that there is a significant influence of behavioural determinants on the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan county governments as is described by the 6.6% variation. The study therefore concluded that there was a significant influence of behavioural determinants on the relationship between

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**monitoring and evaluation practices and performance of maternal health programmes in Kenyan county governments. The research concluded that monitoring and evaluation system is not a political strategy to audit employee performance. Further, the study concluded that excessively high workloads cause mental and physical stress, resulting to poor performance and reduced productivity among staff. The research recommended that the Ministry of Health should review staffing needs in County Maternal Health Programmes to help them cope with the increasing numbers of people seeking skilled delivery services. The study also recommends that more formal and refresher trainings should be included in the programs to help professionals develop their skills.**

**Keywords:** County maternal health programmes, Integrated monitoring and evaluation practices, Behavioral determinants, Key stakeholders, In-service training

## Introduction

Monitoring and evaluation practices guarantee that project outcomes may be quantified at the impact, outcome, output, process, and input levels, establishing a framework for accountability and supporting in program and policy decision-making. Monitoring and evaluation (M&E) is a continuous function of management for assessing whether there is an expected result achievement progress in a bid of spotting the challenges facing the execution as well as highlighting if there exist any unexpected impacts from the plan of the investment, program or project and its activities. Monitoring and evaluation practices are viewed as part of design programs by the International Fund for Agricultural Development (IFAD) (2017) because they ensure logical reporting; the procedure that connects result and demonstration accountability, it quantifies effectiveness and efficiency, ensures effective distribution of resources, stimulates continuous learning, and improves decision making. A monitoring and evaluation plan incorporate several accepted best practices in monitoring and evaluation system. Practices means grouping numerous tasks comprising planning and coordination, capacity development, surveillance, data demand that could contribute viably to decision making and learning about project, this results to the sustainability of the project (Scheirer, 2017). The study determined the moderating influence of behavioral determinants on the link between monitoring and evaluation and performance of maternal health programmes in Kenyan County Governments.

The World Health Organization (WHO) focuses its global health efforts on

children's and women's health through the implementation of county maternal health programs. As a result of the report, up to 1,000 women die daily, amounting to 358,000 women dying per year, either while pregnant or while giving birth, due to inaccessible health care or inadequacy in interventions/lack of proper maternal child health (MCH) program structure, poor infrastructural development for the available maternal child health (MCH) programs, and even a lack of basic operational facilities (WHO, 2017). A report by the World Bank (2014) describes that, across the world, skilled health care programmes during childbirth are only available to 60% of women, and less than 40% of expectant mothers have a postnatal visit. On the other hand, unintended pregnancies are 76 million yearly, unsafe abortions reach 22 million and this is the group that contributes to 13 % of all maternal deaths. In most developing countries, the accesses to services in family planning remain a challenge despite the potential of family planning to prevent some related deaths. Meeting the contraceptive needs would greatly reduce unintended pregnancies by up to two-thirds; this would translate to more than 1.5 million maternal and newborn lives. Thus, 505,000 maternal fatalities will be prevented (United Nations Population Fund (UNFPA), 2015).

A study by Donaldson and Lipsey (2014) have indicated that factors like resources availability, the management processes, politics, technology and many more have a significant influence in the implementation of maternal child health (MCH) programmes as well as other health programmes. Across Africa, county maternal health programmes success is still a complicated issue. Take an example of Angola, poor implementation of county maternal health

programmes has been systemic and a progressive problem leading to decrease in the level of health in early 21st century (WHO, 2017). United Nations Children's Emergency Fund (UNICEF) (2016) states that Angola has one of the greatest rates of maternal death globally. The approximate maternal mortality ratio (MMR) at the civil war end was between 1,281-1,500 maternal deaths to 100,000 live births. This approximation was taken in the late 1990s and, in 2002 as reported by UNICEF representing the MMR state in the country at the closure of the War. In 2008-2010, the approximation value reduced to 610 deaths per 100,000 live births. Even though this is an improvement, it is very minimal when compared to Sweden which has an MMR estimate of 5 deaths to 100,000 live births. According to United States Agency for International Development (USAID) (2011), the MMR of the nation has shown reduction since the end of the civil war in 2002. This has been attributed to the government's efforts in implementing the various maternal child health (MCH) programmes. However, the MMR indicator is still one of the highest ones in the world.

The introduction of the county maternal health programmes forced the Burundi government to borrow extra funds from the World bank to the tune of \$23.6 million in 2008/2009 to expand the maternal child health (MCH) programme started in 2006, train extra 310 nurses and 34 doctors in Kenyan universities between 2005 to 2010, acquire cheap but highly suited technology from China and Japan, increase its road network, electricity and clean water infrastructure to the maternal child health (MCH) centres/clinics by 37% between 2005 and 2011 and have radios and television programmes that sensitized mothers not

to deliver in their homes. These were among the factors that have greatly influenced the implementation of maternal child health (MCH) programmes to the tune of 41% from 2005 to 2013 and the country has so far seen a reduction in maternal deaths and infant mortality rates reduced by 46.12% between the said years (UNICEF, 2016). These have been the general trends in east Africa.

The government of Kenya faced a number of challenges when it launched free maternal child health (MCH) programs in 2007. These challenges were not limited to politics. The opposition politicians were opposed because it was perceived to benefit the government's reelection chances (Government of Kenya (GOK), 2016). Politics has only been a small factor in determining and giving the direction for maternal child health (MCH) programmes implementation in the country. The giant factor for influence has been availability of financial resources. The Kenyan budget has been constrained between development programmes, education and repayment of debts.

County maternal health programme (CMHP) is fruitful when it effectively achieves its objectives while utilizing limited resources, resulting in competence. Thus, the concept of county maternal health programs performance is a set indicator that provides data on the degree of goal achievement as well as outcomes; it should also be active, necessitating ruling as well as clarification; as demonstrated by the use of a causal model that explains how current actions may influence projected outcomes. The understanding of performance may differ from one person to the next depending on their

involvement in the performance of county maternal health programs assessment in comparison to an outside one. The performance concept is essential in understanding its fundamental features at every level of accountability, as well as reporting government institution level success. It is also necessary to be able to quantify the outcomes. County maternal health program performance evaluation is more efficient when it is planned to encompass many aspects and is structured in a way that supports directors in understanding the inter-linkages and strategy reflection (Richard, Devinney, Yip & Johnson, 2016).

### **Statement of the Problem**

Maternal health is an important and central human right, as well as a critical component of long-term development. Maternal health programmes (MHPs) implementation has been hampered by poor infrastructures, insufficient funding from the central government and sponsors, a lack of sufficient skilled personnel to deal with expectant mothers' situations and their children, poorly informed clients, particularly those in rural areas, about the importance of maternal health services, the level of technology employed in these maternal child health (MCH) units, and poorly developed infrastructure such as laboratories and hospitals. Monitoring and evaluation systems have contributed to the global improvement of maternal health by recording and assessing the many difficulties that mostly concern low-income countries. Inefficiency in monitoring and evaluation is one of the key management stages that have considerably led to government operations failure (Epstein, 2018). This is due to an emphasis on monitoring

the implementation process and progress toward meeting the goals of the project.

Despite the Kenyan government's efforts to promote maternal health programs, results remain poor. Failure in monitoring and evaluation activities calls into question Kenya Vision 2030's plans for a healthy population contributing to the country's development. Furthermore, Kenya's poor performance comes as the country strives for global universal health coverage by 2030. The Kenya Vision 2030 social pillar aimed to invest in people to improve the quality of life for all Kenyans by focusing on a wide range of human and social welfare initiatives and programs, with health as a key sector. One of the current government's four main areas of focus under the "Big4 Agenda" is universal health coverage, which aims to scale up health services in Kenya, including county maternal health services. County maternal health has also gained support at the national and county levels, particularly through the "Beyond Zero" campaign initiative, which aimed to eliminate preventable deaths among women and children through policy prioritization, resource allocation, and improved service delivery. The campaign aimed to leverage existing health and community systems by enlisting contributions from the private and public sectors, as well as development partners, catalyzing innovation and speeding up stakeholder actions and political leaders, and promoting leadership and accountability at the family, community, and national levels for the full implementation of Kenya's maternal, Human Immunodeficiency Virus (HIV), and child health policies.

According to the 2008-09 Kenya demographic and health survey (KDHS), 47 percent of pregnant women receive the recommended four antenatal care (ANC) visits. Sixty percent of women in urban areas have at least four ANC visits, compared to 44 percent of rural women. According to the report, most women received antenatal care late in their pregnancy; only 15% of pregnant women received antenatal care during their first trimester; the average month of first visit is month number 5.7 (Afulani, Buback, Essandoh, Kinyua, Kirumbi & Cohen, 2019). Despite high ANC attendance in Kenya, hospital deliveries remain low, with only 43% of all live births occurring in a modern health facility in the five years preceding the KDHS (2008-09). Kenya's 2009 national reproductive health strategy aimed to reduce the maternal mortality ratio (MMR) to at least 147 deaths per 100,000 live births by 2015, as well as to increase the percentage of women using skilled care in delivery to 90 percent. When compared to the 2008 Kenya demographic and health survey-maternal mortality Ratio (KDHS-MMR) of 488 deaths per 100,000 live births, the target has yet to be met.

Prior to the implementation of maternal health programs in Kenya, approximately 20% of deliveries occurred in health facilities, with only 7% of newborns being resuscitated by skilled health personnel trained in neonatal resuscitation and 22% being born in health facilities equipped with resuscitation equipment (KDHS, 2016). The Kenyan government pledged in the bill of rights to provide equitable, affordable, and high-quality health care to all Kenyans in the 2010 constitution. At this early stage, counties are encountering a number of challenges in developing and implementing monitoring and evaluation systems. The draft

monitoring and evaluation policy and draft monitoring and evaluation framework, both of which are critical to formalizing the existing monitoring and evaluation mechanisms, have yet to be finalized. Monitoring and evaluation units aren't yet operational in some counties, and even where they are, they may be lacking in critical skills and capacity. Monitoring and evaluation reports are not well coordinated in counties where monitoring and evaluation units have been established, resulting in the use of disparate monitoring and evaluation concepts and definitions. County maternal health programs continue to suffer as a result of the aforementioned challenges. In Kenya, 510 girls and women die during childbirth or from other pregnancy-related causes for every 100,000 live births. The global maternal mortality ratio is to be reduced to less than 70 per 100,000 live births between 2016 and 2030 as part of the Sustainable Development Goals.

Various studies have been done in relation to monitoring and evaluation practices. Likalama (2017) established the effect of monitoring and evaluation on financial performance: a survey of selected private schools in Botswana. The study used both primary and secondary data. Descriptive analysis was employed to analyse qualitative data. Pearson correlation coefficients were constructed to test the relationship between the dependent and independent variable. The findings were presented in the form of frequency distribution tables. The findings of this study indicated that monitoring and evaluation ( $r=0.776$ ,  $p=0.000$ ) had a significant relationship with financial performance. The study however does not look at County maternal health programmes.

Barasa (2014) established the influence of capacity building for monitoring and evaluation on project completion in Kenya: a case of constituency development fund projects in Kakamega County, Kenya. The study was centred on main tools of monitoring and evaluation which were: strategic plan, logical framework, budget, and stakeholders' analysis. Data was collected by questionnaires; document analysis, checklists and scheduled interviews. A total of 120 respondents were targeted out of which 106 respondents availed the data. Data was analysed both descriptively and inferentially, using SPSS and Microsoft office suite. The results showed significant correlation between monitoring and evaluation tools and project completion. The study concluded that there is need to incorporate these tools in project management. The study however focused on the aspect of project completion.

These reviewed studies did not specifically focus on monitoring and evaluation practices and performance of county maternal health programmes and moderating influence of behavioral determinants. Therefore, this study aimed at contributing to the understanding of the moderating influence of behavioral determinants on the relationship between monitoring and evaluation practices and performance of county maternal health programmes: the case of County Maternal Health Programmes in Kenya.

### **Research hypothesis**

**H<sub>0</sub>:** Behavioral determinants do not have a significant moderating effect on the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan County Governments.

### **Theoretical Foundation**

The study was founded on the contingency theory of leadership, projected by Austrian psychologist Fred Edward Fiedler in his seminal 1964 article, A Contingency Model of Leadership Effectiveness. During his research into group leader effectiveness, he determined that one's capacity to lead was dependent on their situational control and leadership style. Contingency theory's central assumption is that the environment in which an organization operates dictates the optimal method to organize it. Dess and Beard (1984) argued that contingency theories are a class of behavioral theory that contend that there is no one best way of leading and that a leadership style that is effective in some situations may not be successful in others. As a result, leaders who are very effective in one place and time may become ineffective when transferred to another environment or when the conditions surrounding them change. This helps to explain why some leaders who look to have the "Midas touch" for a while suddenly appear to lose control and make disastrous decisions.

The theory assumes that the leader's ability to lead is contingent upon various situational factors, including the leader's preferred style, the capabilities and behaviors of followers and also various other situational factors. The contingency theory takes a broader view that includes contingent factors about leader capability and also includes other variables within the situation. Eisenhardt and Martin (2020) stated that one of the major implications of the contingency theory for managers is that it provides them with far greater discretion. Whether you have a top-down or a flat organizational structure, your



managers are a linchpin of implementing decisions and ensuring that your employees remain committed to specific goals. Because the contingency theory gives managers a wide range of ways to react to problems, it also gives them significant discretion in their decision-making (Gupta, 2016).

The nature of the interplay and interdependence between various organizational components /sub systems, have a compound influence in the overall achievement of organizational goal of quality delivery of service to the beneficiaries. In the context of this study contingency theory guided the components of monitoring and evaluation which are contingent and contribute towards project performance. Within the other sub systems there is those mandated with project development, allocation of resources, selection and recruitment of M & E staff and managing of project information. Understanding projects from the interdependency perspective help organization leader's knowhow to plan better, how to obtain and allocate resource, as well manage information generated from various subsystems for decision making.

### **Monitoring and Evaluation Practices**

Monitoring and evaluation procedures allow firms to incorporate crucial parts of a project, such as cost, time, and human resource consequences; they are essential for successful projects and should not be disregarded from the start (Khan, 2016). As a result, it's vital to make sure that management and donor agencies both understand and are committed to executing monitoring and evaluation suggestions (Dyason, 2015). It is vital for project implementers to comprehend the monitoring and assessment approaches' methodology and thinking (Ober, 2017). It's also crucial

that the project's implementers take ownership of the procedures they're using, are committed to them, and believe they have a stake in convincing other stakeholders of the project's worth and long-term advantages.

Monitoring and evaluation practices enables project management to implement important aspects of a project which include cost, time as well as human resource implications, they are very vital for successful projects and should not be overlooked at the beginning of the process (Khan, 2013). Therefore, it is important to ensure that management along with the donor agencies apprehend and are overly focused to these overheads and are committed to implement the recommendations arising from monitoring and evaluation (Dyason, 2010). It is imperative that the project implementers recognize the methods and the thinking that is based on monitoring and evaluation techniques used. Also, it is important that the implementers of the project are able to accept responsibility for the used processes, are dedicated to them, and feel vested to convince other stakeholders of their support along with their benefits in the long run.

Building monitoring and evaluation techniques in health programs can guide on difficulties such as insufficient capacity-building programs and weak accountability systems. Donors in Sri Lanka use their own systems rather than systems of the government to ensure accountability by enhancing local demand for evaluation with utilization focus and addressing issues of skills, procedures, methodology and data systems (Velayuthan, 2010). The existing challenges to monitoring and evaluation in Southern Asia include: lack of

mechanisms to assess the skill gaps among personnel functioning in the monitoring and evaluation area, with experts being currently hired on a project basis; incompetence among organizations and personnel; scarcity of staff; lack of quality evaluations; Further, there is lack of meaningful authentication of monitored data leading to reliance on survey-based and also poor data analysis within line ministries (Santosh, 2012).

For an monitoring and evaluation system to be effective it is good practice that some planning should go into it. This assertion is supported by Ofori (2016) who observes that an monitoring and evaluation plan that is adequately documented encourages project stakeholders what to do in terms of monitoring and evaluation activities before implementation of a project begins. Therefore details of how monitoring and evaluation will work within a project should be documented at the earliest possible time. There is need to provide greater detail which should be captured in an monitoring and evaluation plan. For monitoring and evaluation practice to enhance tracking project accountability there is need to feed project information into it so as to help in tracking of project progress. This viewpoint is supported by Santosh (2012), who asserts that monitoring information should be fed into the project monitoring and evaluation process in order to create a data bank that can be used to improve the selection and design of future projects in addition to improving the project. In line with this observation, the study sought to investigate in monitoring and evaluation information was fed into the monitoring and evaluation process in order to track project transactions and enhance improvements.

Monitoring and evaluation practice is critical during project execution, management, and as a tool for project sustainability. This is consistent with Khan (2016), who claims that if project implementation is to improve performance, monitoring and evaluation practices must be at the center of project implementation. Evaluation in the light of monitoring and evaluation practices has shifted from the study of input and output, as well as their related causality processes, to the assessment of outcome, impact, and/or long-term results. Therefore it is imperative that developmental practitioners embrace monitoring and evaluation practices in all facets of project cycle so as to ensure better performance as well as sustainability

In Africa, the main challenge for monitoring and evaluation is that the promotion of transparency and indeed surveillance is directly at the heart of challenging political hegemonies contrary to the advocacy of the theory of social change regarding inclusivity. Freedom to present findings in a public domain may be censored or fully prohibited (Hancock, Veguilla, Lu, Zhong, Butler, Sun & Brammer, 2016). This tends to weaken surveillance, a key ingredient of monitoring and evaluation. Such practices do definitely impact on the relationship that monitoring and evaluation has with project outcome and sustainability. For measurement and data, Benin's monitoring and evaluation process relies on the national statistics system (Ocharo, Rambo & Ojwang, 2020). It faces limits such as a lack of data updating capacity, limited access to data to be collected and processed, and information gathering limitations.

Monitoring and evaluation in health programmes if conducted by government

agencies without the antecedent verification and authentication may have results that lack credibility contrary to the theory of change that advocates for checking on implementation for quality, to help distinguish between implementation failures and theory failures. Monitoring and evaluation in Burundi is embedded in the Vision 2025 development framework with improved practices emerging in the terrain of localized monitoring and in the synergies that are being established between different institutional structures in Burundi's government (Velayuthan, 2015). Integrated monitoring and evaluation in Kenya is comparatively recent, although project and programmed-based monitoring and evaluation has featured in the country since the 1980s but capacity and infrastructural challenges exist in the process of projects execution. Kenya's 2010 constitution introduced monitoring and evaluation evolved governance structures and provides an opportunity for strengthening the country's monitoring and evaluation practices as well as posing a risk for its continued existence especially as regards devolved units flaccid' accountability mechanisms (John & Khilesh, 2018).

Uganda's monitoring and evaluation is inexplicably intertwined with the need to demonstrate government performance of health programmes and receptiveness to citizens' demands as an indicator of good governance. Monitoring and evaluation in Uganda is undertaken by a unit in the office of the prime minister (OPM) with a small but growing arm of evaluative practice by civil society, including national and international Non-governmental organizations (NGOs) working side by side with the government. Low demand for monitoring and evaluation products to inform

decision-making is also a challenge as well as evolving a culture of managers using monitoring and evaluation data to improve performance. The incentive framework to drive monitoring and evaluation practices in public service systems is also still weak (Crawford & Bryce, 2013). Limited use is attributed to poor information propagation and the inability of the institution to build capacity for the timely generation and dissemination of information.

Ensuring effective implementation of the monitoring and evaluation practices in health programmes requires attention to practical issues right from the point of conceptualization. There should be close monitoring by the government and the donors through agreed project planning and supervision mechanisms. The monitoring and evaluation programme plan would need to be elaborated and reflected in the project implementation plan or manual (PIP/PIM), with provisions made for updating annually or more frequently if necessary (Reuben & Arévalo, 2015). It is imperative to note that project implementers focus attention on projects during the implementation cycle as opposed to doing so right from the commencement of the project at the conceptualization stage.

### **Moderating Effect of Behavioral Determinants of Performance of County Maternal Programmes**

Organization administration has a major role of manipulating the staff conduct at the place of work. It is the leaders' responsibility of setting the team members direction. In most situations, it's viewed that staff do not have a feeling of working when their bosses are very strict. This calls for team support all the time as well as guidance and assistance in the operations on daily

basis in a bid of assisting them in skills acquisition and knowledge upgrading. People's views toward liking or hating things are influenced by attitude, which is thought to be important in the acceptance, execution, and success of revolutionary technology. Employees must have a positive attitude toward Information technology (IT) adoption in order for Information technology (IT) - based systems to succeed. Staff attitude is typically characterized as a long-term inclination to respond in a certain way to numerous facets of life, such as people, events, and objects. New technology acceptance is highly influenced by attitude. On this basis, general attitude possessed by the staff intends to utilize the Information technology (IT) system, that eventually leads to actual use of the system (Nitithamyong & Skibniewski, 2015).

In health officials, on- job experience as well as official training are commanding the rise of the evaluators in training and development opportunities selections in county maternal health programmes that comprise of: the public and private sector, institution of higher education, professional bodies, assignment of jobs as well as programmes for mentoring. Monitoring and evaluation conducted by those who are not trained and having no knowledgeable will take a lot of time and will be expensive as well as producing irrelevant results. The system users particularly health information system (HIS) weren't capable thus training is required. The study respondents included the managers of the program as well as those of the health who weren't monitoring and evaluation professionals and thus having little or no monitoring and evaluation knowledge. These required capacity building that will be a chance for taking on specific responsibilities of

monitoring and evaluation . Raja (2016) revealed that organizational support level for systems of performance by the staff and desire of backing the members of the team to attain their goals are aspects which may be utilized in assessing the attitude of an individual in regard to their job. In this study, employees' support level on the performance contract (PC) system was utilized in assessing the attitude of the executor. However, the staffs' support level on performance systems of an organization was recognized as the assessor of the work attitude of an individual.

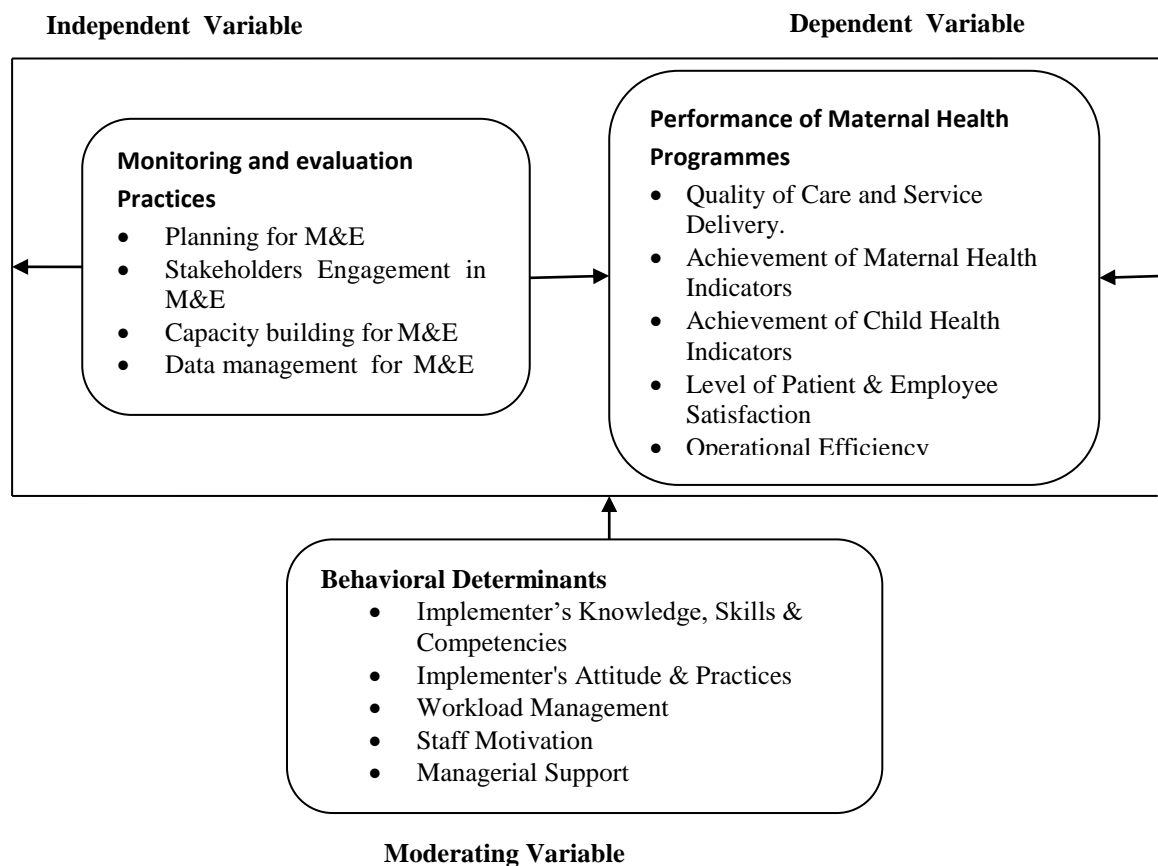
Gee (2017) revealed that the period that staff takes in meeting personal goals in health officials may be utilized as an indicator of attitude towards job of an individual. The period taken in achieving the performance contract (PC) obligations by employees in government ministries was also used in this study to measure employees' attitudes towards the performance contract (PC) system. Monitoring and evaluation staff needs the expertise of comprehending the frameworks of monitoring and evaluation , identification as well as performance indicators development, quarterly reports undertaking, evaluation conduction, structures of work breakdown development, performance appraisals undertaking, report writing as well as monitoring and evaluation practices auditing. Proudlock (2016) as well revealed that the impact evaluation whole process and above all the analysis and results interpretation may be highly enhanced by intended beneficiaries' participation. According to Oyugi (2016), integrating local citizens in project monitoring will improve the degree of satisfaction for project recipients. For the staff to be happy as

well as positive at job, they need a comfortable where the laws are applied fairly to each staff. The staff should be

motivated to obey the chain of command as well as adherence to ethical issues.

### Conceptual Framework

The link between independent variables, dependent variables and moderating variables is depicted in Figure 1.



**Figure 1: Conceptual Model**

### Research Methodology

#### Research Paradigm

The choice of paradigm has an impact on how knowledge is examined and perceived, and it establishes the research's goal, motivation, and expectations (Creswell & Creswell, 2017). The study used the pragmatism paradigm. Pragmatism has frequently been identified as the appropriate paradigm for doing mixed methods

research. For pragmatists, knowledge and understanding are believed to emerge from acts, situations, and outcomes rather than antecedent conditions in which applications of what works and solutions to problems are a focus (Patton, 2015). In this example, a pragmatic approach to understanding the problem was adopted. Abduction reasoning, which employs both induction and deduction thinking, is a pragmatic approach that allows qualitative and

quantitative methodologies to be used in the same study (Creswell & Garrett, 2015). The paradigm has the advantage of being flexible in its investigative techniques because it allows the use of both qualitative and quantitative techniques of gathering information.

### Research Design

The study adopted a mixed method research design which enables a study develop a more complete understanding of a phenomenon from complementary data sources. The collection of designs was useful in enhancing accuracy since it allowed triangulation for comparing and contrasting quantitative and qualitative findings for corroboration and validation. Quantitative data was used to provide the study to work with a large sample of the population that gave the statistical power to look at influence and empirical associations among the variables.

### Target Population

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

Where; n is the sample size

N is the population size and

e is the margin of error.

$$N = 1165$$

$$e = 0.05$$

$$n = \frac{1165}{1+1165(0.05)^2}$$
$$= 282$$

The study selected the respondents using stratified proportionate random sampling technique. Stratified random sampling is unbiased sampling method of grouping heterogeneous population into homogenous subsets then making a selection within the individual subset to

The study targeted 388 hospitals from nine counties. The unit of analysis was 1165 respondents, including employees from level 4 and 5 hospitals (Nurses, Clinical officers, Medical officers, Nutritionists, Pharmacists, Health Records, Laboratory technologists, Counsellors, Medical superintendents, Hospital administrators, Nursing services managers and maternal child health (MCH) in charge), County Health Management Team members, County governors/deputy governor, County Chief Officers for Health, County Executive Members for Health, County delivery unit members and Maternal health Non-governmental organizations (NGOs).

### Sample Size and Sampling Procedure

The sample size of 282 was calculated using a simplified formula (Yamane, 1967). As shown in the formula, this formula was used to calculate the sample size.

ensure representativeness. The goal of stratified random sampling was to achieve the desired representation from various sub-groups in the population. In stratified random sampling subjects are selected in such a way that the existing sub-groups in the population

are more or less represented in the sample (Mohajan, 2018). The study used simple random sampling to pick the respondents in each stratum.

### **Research Instruments**

In this study primary data was used. The research instruments that were used for data collection are: a self-administered structured questionnaire and interview guides. A self-administered questionnaire was used to collect quantitative data. The interview guides and observation checklist was used to collect qualitative data.

Pilot testing was done to pretest the quality of research tools in their ability to measure study concepts. During pilot testing, 28 questionnaires were administered to staff in the Ministry of Health headquarters in Kenya and selected counties at random representing 10% sample size. The results of the pilot test formed the basis for refining questionnaire items before administering the questionnaire on the study population. Burns and Burns (2015) suggest that the role of pretesting is to gain knowledge on how the questionnaire would be interpreted by the respondents. Pretesting is important for testing the appropriateness of measures, in order to gain insight as to whether the same questions were answered consistently in the same way.

### **Validity of Research Instruments**

There are three main types of validity and these are: construct validity; criterion validity; and content validity. To achieve construct validity a number of measures were done. One of the measures was to have the questionnaire evaluated by my supervisors on the appropriateness and meaning. The other measures involved obtaining opinion from a panel of experts in the field of

study to ascertain as to whether constructs are being measured correctly. Factor analysis utilizing principal component analysis (PCA) was used to improve construct validity or suitability of indicators, and those that were deemed to be unsuitable were excluded from further statistical analysis. The factor loading for each item also indicated whether or not the constructs were distinct from one another (Thong & Olsen, 2017). A panel of specialists also assessed the items in the instruments for appropriateness and clarity in terms of content validity. Expert advice, including that of my supervisors, as well as findings from pilot testing, were used to revise the research instrument items as needed in terms of meaning, alteration, or elimination of questions (Bowden, Fox-Rushby & Nyandieka, 2017).

### **Reliability of Research Instruments**

Reliability was enhanced by use of split half method on the questionnaire. The reliability of the instrument was tested to determine the usefulness of the questionnaires to the current study. Burns and Burns (2015) suggest that reliability testing is necessary for new questionnaires because their dependability has not been established in earlier studies. The split half approach was used to examine reliability by splitting items from the same construct into two sets and obtaining two sets from the same questionnaire. During piloting, however, the full instrument was given to a population that was identical to that in the research area. Consultations with research professionals and supervisors were used to ensure the authenticity of the qualitative instruments. Only one administration of the questionnaire to responders is required when using the split half

method for reliability. The findings of the administered questionnaire test were divided into two groups using an even and odd approach. For each respondent, total scores for each half of the scores were determined. The Cronbach's Alpha coefficient was calculated by calculating the correlation between even and odd test outcomes. The Cronbach Alpha reliability coefficient is a number that ranges from 0 to 1. According to Creswell (2017) reliability of 0.7 and above is considered sufficient. The instruments was considered reliable if the Cronbach Alpha reliability coefficient is 0.7 and above.

### Data Collection Procedures

The researcher sought letter of authorization letter from the hospitals for the collection of data after getting University letter of introduction. In improving the rate of response, the ethical issues were put into consideration in this study. The researcher explained to the respondents the study significance. The primary data was collected using the questionnaire and interview. The research assistants used drop and pick later method of questionnaire administration. Other questionnaires were filled in the presence of research assistants to avoid loss of questionnaires. The Medical officers, Clinical Officers, Nurses, Trained Community health workers, County Health Management Team (CHMT) and County Delivery Unit officers working in the region were interviewed by the researcher assisted by well-trained research assistants.

### Data Analysis Techniques

This study utilized the descriptive and inferential statistics. Qualitative data was analyzed within specified themes using descriptive narratives. Metrics of central

tendencies and measures of dispersion were used to descriptively assess quantitative data. The measure of central tendency was the arithmetic mean while standard deviation was the measure of dispersion for data obtained from interval scales and ratio scales. The standard deviation determined how strong or weak data is from the measure of central tendency which is arithmetic mean. Stepwise regression was conducted for the hypothesis to measure the strength of the associations between the moderating, independent and dependent variables. The hypothesis that behavioral determinants do not have a significant moderating effect on the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan County Governments was tested by use of three regression models as advanced by Baron and Kenny (1986).

### Step one: Influence of Monitoring and evaluation on Performance of maternal health programmes in Kenyan County Governments

In the first model, M&E practices influence on performance of maternal health programmes in Kenyan County Governments was tested, with the equation adopted as

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y= Performance of County Maternal Health Prog

$X_1$  = Planning for M&E

$X_2$  = Stakeholders engagement in M&E

$X_3$  = Capacity building for M&E

$X_4$  = Data management for M&E

$\varepsilon$ =Error term

### Step two: Influence of Behavioral Determinants on Performance of maternal health programmes in



### Kenyan County Governments

In the second model, behavioral Determinants influence on performance of maternal health programmes in Kenyan County Governments was tested. The mathematical model used for

testing the null hypothesis was as follows:

Performance of maternal health programmes = f (Behavioral determinants)

$$Y=f(X_5, \epsilon)$$

$$Y= \beta_0 + \beta_5 X_5 + \epsilon$$

Y= Performance of maternal health programmes

$\beta_0$ =constant

$\beta_5$ = Beta coefficients

$X_5$ = Behavioral determinants

$\epsilon$ =Error Term

### Step three: Influence of Moderated Monitoring and evaluation by Behavioral Determinants on Performance of maternal health programmes in Kenyan County

### Governments

In the third model, behavioural determinants was introduced to the model with the equation adopted as

$$Y= (\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4) * X_5 + \epsilon$$

Where: Y = Performance of County Maternal Health Programmes in Kenya

a = Constant

$\beta$  = Coefficient

$X_1$  = Planning for M&E

$X_2$  = Stakeholders engagement in M&E

$X_3$  = Capacity building for M&E

$X_4$  = Data management for M&E

$X_5$ = Behavioral determinants

From the models, the percentage change in  $R^2$  between the models was used to test whether there is a moderating influence of Behavioural Determinants. According to Coryell et al. (2016), if the difference between  $R^2$  (Magnitude of moderation) in Model 1 and Model 2 is between 0 to 0.02 implies a very weak moderating effect, 0.02 to 0.04 implies

weak moderating effect, 0.04 to 0.05 implies strong moderation and above 0.05 implies very strong influence of behavioural determinants on the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan County Governments. This also aligns to

Baron and Kenny (1986) recommendation.

implementer's knowledge, skills & competencies, implementer's attitude & practices, workload management, staff motivation, and managerial support. The composite mean and standard deviation of these factors are shown in Table 1.

**Findings and Discussions**

**Descriptive statistics**

The overall behavioral determinants were measured in terms of

**Table 1: Means and Standard Deviations of Behavioral Determinants**

| <b>Variable Dimension/Indicator</b>            | <b>Sub-composite Mean (M)</b> | <b>Sub-composite Std. Dev.</b> |
|--|-------------------------------|--------------------------------|
| Implementer's knowledge, skills & competencies | 3.297                         | 0.737                          |
| Implementer's attitude & practices             | 3.978                         | 0.830                          |
| Workload management                            | 4.161                         | 0.864                          |
| Staff motivation                               | 3.935                         | 0.682                          |
| Managerial support                             | 3.771                         | 0.823                          |
| <b>Composite mean and standard deviation</b>   | <b>3.828</b>                  | <b>0.787</b>                   |

Outcomes in Table 1 indicate that the overall or composite mean of behavioral determinants was 3.828. The most dominant indicator was workload management (M=4.161) whereby the study findings revealed that teamwork was always exercised in the maternal health department, and complaints were handled constructively in the department. Excessively high workloads, on the other hand, generate mental and physical stress, resulting in low performance and productivity among employees, staff is overworked and have no time to concentrate on monitoring and evaluation activities, and there is not enough qualified staff to do the required work. Because the sub composite standard deviation was 0.864 points higher than the composite standard deviation of 0.787, opinions on this dimension differed.

improves organizational performance, and monitoring and evaluation system is not a political strategy to audit employee performance. However, some of the respondents seemed to think that the older employees do not understand or are not supportive of monitoring and evaluation practices, monitoring and evaluation is not very important compared to curative and preventive health interventions, and that monitoring and evaluation is a waste of county government resources. The sub composite standard deviation was 0.830, which was higher than the composite standard deviation of 0.787, indicating that opinions differed.

Implementer's attitude & practices (M=3.978) was also found to influence performance of the county maternal health program. This was shown by their thought that monitoring and evaluation

The dimension, staff motivation (M=3.935) was achieved. It was evident as promotions and remuneration were based on performance and merit, and the staff being highly likely to recommend someone to this organization. However, staff was not committed to improving the health status of the patients, was not always punctual arriving at work on time and leaving on time, and was not

rewarded or recognized for good work performed. Because the sub composite standard deviation was 0.682 less than the composite standard deviation of 0.787, opinions on this dimension converged.

Managerial support (M=3.771) was not achieved. This could be seen since there was insufficient support from top management in the department. However, adapting to change was easy in the county maternal health program, the management sought input from employees on major decisions, the supervisor was open to constructive criticism, and the changes suggested by employees were usually implemented. Because the sub composite standard deviation was 0.823 higher than the composite standard deviation of 0.787, opinions on this dimension differed.

The dimension, implementer's knowledge, skills & competencies (M=3.297) was not achieved. It was evident since the staff did not have good knowledge of using a computer. However, using an monitoring and evaluation system was not difficult, the staff had the interpersonal and technical skills needed to work effectively, the monitoring and evaluation staff had the necessary skills and competencies, and the maternal child health (MCH) program was well aligned with the Kenya health strategic priorities and the sustainable development goals. Because the sub composite standard deviation was 0.737 less than the composite standard deviation of 0.787, opinions on this dimension converged.

From the interviews, the County governors were required to indicate how the organizational structure plays part in the implementation of monitoring and evaluation system in the county. They indicated through adequate supply of

materials, ensuring all structures are well put up, providing funds, providing syllabus, by proper communication on roles need from every stakeholder, and supporting monitoring and evaluation activities where data –based decision making happens.

The County Executive Members for Health also indicated how organizational culture play part in the implementation of monitoring and evaluation system in this county. They stated that by making sure all supplies are available whenever in need, by making sure that there are no shortages in supplies, by making sure there is enough resource and supplies whenever needed, proper organizational systems ensures better M & E processes, and ensuring smooth run up of activities.

The County Chief Officers for Health were also required to indicate the communications structure and how it plays part in the implementation of monitoring and evaluation in the county. They indicated by making sure that all stakeholders work together as one, through channel communication or through hierarchy, outreach programs in M& E, and ensuring that there is a staff in charge of the program.

The County delivery unit members were asked how human resources availability or lack of play part in the implementation of monitoring and evaluation in the county. They indicated that it leads to low implementation, and some have old staff that is hard to train. Moreover, they indicated that there is political goodwill. They further indicated that maternal data is critical and should be taken with seriousness and reported on time, ensuring all gaps and indicators are met and gaps filed hence doing so, good and quality goals and objectives achieved, early reporting of maternal health data for good decision making,

getting enough qualified staff, developing systems in each hospital, conducting frequent trainings, and seeking for goodwill from politicians, strengthen monitoring and evaluation activities. They added that to improve performance of maternal health programs in this county, the resource supply should be increased, and there should also be improved training and supplies. One County delivery unit member stated:

*“When HR professionals help cultivate better healthcare providers can better coordinate positive impact on the population, according to Human Resources For Health.”*

$$Y = (\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4) * X_5 + \epsilon$$

Where: Y = Performance of County Maternal Health Programmes in Kenya

a = Constant

$\beta$  = Coefficient

X<sub>1</sub> = Planning for M&E

X<sub>2</sub> = Stakeholders engagement in M&E

X<sub>3</sub> = Capacity building for M&E

X<sub>4</sub> = Data management for M&E

X<sub>5</sub> = Behavioral determinants

The moderating role of behavioral variables on the connection between monitoring and evaluation methods and performance of maternal health programmes in Kenyan County Governments was investigated using a stepwise regression technique using three models.

Step one: Influence of monitoring and evaluation on performance of maternal

### Inferential statistics

The hypothesis stated, “Behavioral determinants do not significantly moderate the link between monitoring and evaluation practices and performance of county maternal health programmes (CMHPs) in Kenya”. The goal is to see how independent variables change when a moderating variable is added to the equation. The model was described as follows:

health programmes in Kenyan County Governments.

In step one, the independent variable, monitoring and evaluation practices was regressed on performance of maternal health programmes in Kenyan County Governments. The results are presented in Table 2.

**Table 2: Combined Monitoring and evaluation and Performance of maternal health programmes in Kenyan County Governments**

| <b>Model Summary</b>  |                                |                             |                   |                            |         |          |
|---|--------------------------------|-----------------------------|-------------------|----------------------------|---------|----------|
| Model   | R                              | R Square                    | Adjusted R Square | Std. Error of the Estimate |         |          |
| 1   | 0.849                          | 0.721                       | 0.714             | 1.490                      |         |          |
| <b>ANOVA</b>  |                                |                             |                   |                            |         |          |
| Model   |                                | Sum of Squares              | Df                | Mean Square                | F       | Sig.     |
|   | Regression                     | 921.983                     | 4                 | 230.496                    | 101.895 | 1.02E-42 |
| 1   | Residual                       | 357.41                      | 158               | 2.262                      |         |          |
|   | Total                          | 1279.393                    | 162               |                            |         |          |
| <b>Regression Coefficients</b>  |                                |                             |                   |                            |         |          |
| Model   |                                | Unstandardized Coefficients |                   | Standardized Coefficients  | t       | Sig.     |
|   |                                | B                           | Std. Error        | Beta                       |         |          |
| 1   | (Constant)                     | 1.267                       | 0.182             |                            | 6.962   | .001     |
|   | Planning for M&E               | 0.889                       | 0.143             | 0.859                      | 6.217   | .014     |
|   | Stakeholder engagement for M&E | 0.895                       | 0.245             | 0.838                      | 3.653   | .013     |
|   | Capacity building for M&E      | 0.802                       | 0.212             | 0.796                      | 3.783   | .007     |
|   | Data Management for M&E        | 0.911                       | 0.265             | 0.855                      | 3.438   | .016     |
| <b>Predictors:</b> (constant), Planning for M&E, Stakeholder Engagement for M&E, Capacity Building for M&E, Data Management for M&E |                                |                             |                   |                            |         |          |
| <b>Dependent Variable:</b> Performance of County Maternal Health Programmes   |                                |                             |                   |                            |         |          |

Table 2 shows that  $r=0.849$ . This indicates that combined monitoring and evaluation practices have a strong link with performance of maternal health programmes in Kenyan County Governments.  $R^2 = 0.721$  indicating that combined monitoring and evaluation explain 72.1% of the variations in the performance of maternal health programmes in Kenyan County Governments. The results on test of significance also indicate that; planning for monitoring and evaluation ( $\beta=0.859$ ,  $p<0.014$ ), stakeholders engagement in monitoring and evaluation ( $\beta=0.838$ ,  $p<0.013$ ), capacity building for

monitoring and evaluation ( $\beta=0.796$ ,  $p=0.007$ ), data management for monitoring and evaluation ( $\beta=0.855$ ,  $p=0.016$ ) were all-significant at  $p<0.05$  and 95% confidence level. This result means that combined monitoring and evaluation explain 72.1% of the variations in the performance of maternal health programmes in Kenyan County Governments.

Step Two: Influence of Behavioral Determinants on Performance of County maternal health programmes (MHP)

The null hypothesis was tested using the following mathematical model:

Performance of county maternal health programmes (CMHP) = f (behavioral determinants)

$$Y = \beta_0 + \beta_5 X_5 + \epsilon$$

Y = Performance of maternal health programmes

$\beta_0$  = constant

$\beta_5$  = Beta coefficients

$X_5$  = Behavioral determinants

$\epsilon$  = Error Term

Data was analyzed and the regression outcomes for the influence of behavioral determinants on performance of maternal health programmes in Kenyan County Governments are presented in Table 3.

**Table 3: Relationship between Behavioral Determinants and Performance of maternal health programmes**

| <b>Model Summary</b>   |                         |                             |                   |                            |                 |       |
|--|-------------------------|-----------------------------|-------------------|----------------------------|-----------------|-------|
| Model  | R                       | R Square                    | Adjusted R Square | Std. Error of the Estimate |                 |       |
| 1  | 0.843                   | 0.710                       | 0.708             | 1.349                      |                 |       |
| <b>ANOVA</b>   |                         |                             |                   |                            |                 |       |
| Model  |                         | Sum of Squares              | Df                | Mean Square                | F               | Sig.  |
|  | Regression              | 716.922                     | 1                 | 716.922                    | 393.9054.08E-45 |       |
| 1  | Residual                | 293.026                     | 161               | 1.820                      |                 |       |
|  | Total                   | 1009.948                    | 162               |                            |                 |       |
| <b>Regression Coefficients</b>   |                         |                             |                   |                            |                 |       |
| Model  |                         | Unstandardized Coefficients |                   | Standardized Coefficients  | t               | Sig.  |
|  |                         | B                           | Std. Error        | Beta                       |                 |       |
| 1  | (Constant)              | 0.723                       | 0.228             |                            | 3.171           | 0.002 |
|  | Behavioral Determinants | 0.895                       | 0.354             | 0.843                      | 2.528           | 0.012 |
| <b>Predictors:</b> (constant), Behavioral Determinants                             |                         |                             |                   |                            |                 |       |
| <b>Dependent Variable:</b> Performance of county maternal health programmes (CMHP) |                         |                             |                   |                            |                 |       |

Table 3 displays that  $r=0.843$ . This shows that behavioral determinants have a strong link with performance of maternal health programmes in Kenyan

County Governments.  $R^2 = 0.710$  demonstrating that behavioral determinants explains 73% of the alterations in the performance of maternal health programmes in Kenyan County Governments.

The overall F statistics, ( $F = 393.905$ ,  $p < 4.08E-45 < 0.05$ ), indicated that there was a statistically significant link between behavioral determinants and performance of maternal health programmes in Kenyan County Governments. The null hypothesis was thus rejected and it was resolved that behavioral determinants significantly influences performance of maternal

health programmes in Kenyan County Governments.

Step three: Influence of Combined Monitoring and evaluation and Behavioral Determinants on Performance of maternal health programmes in Kenyan County Governments

In step two the influence of the moderator (behavioral determinants) was introduced into the model between monitoring and evaluation practices and outcomes of county maternal health programmes (CMHP) in Kenya. The results are presented in Table 4.

**Table 4: Combined Monitoring and evaluation, Behavioral Determinants and Performance of county maternal health programmes**

| <b>Model Summary</b>           |                |                             |                           |             |          |         |
|--------------------------------|----------------|-----------------------------|---------------------------|-------------|----------|---------|
| Model                          | R              | R Square                    | Adjusted R Square         | Std. Error  | F        | p-value |
| 1                              | 0.880          | 0.775                       | 0.769                     | 1.264       | 216.342  | .000    |
| 2                              | 0.917          | 0.841                       | 0.836                     | 0.591       | 260.874  | .000    |
| Model                          | Sum of Squares |                             | Df                        | Mean Square | F        | Sig     |
| Regression                     | 883.217        | 4                           | 220.804                   | 135.684     | 4.88E-50 |         |
| 1 Residual                     | 257.12         | 158                         | 1.627                     |             |          |         |
| Total                          | 1140.337       | 162                         |                           |             |          |         |
| <b>ANOVA</b>                   |                |                             |                           |             |          |         |
| Model                          | Sum of Squares |                             | Df                        | Mean Square | F        | Sig     |
| Regression                     | 298.81         | 5                           | 59.762                    | 166.595     | 6.91E-61 |         |
| 2 Residual                     | 56.32          | 157                         | 0.359                     |             |          |         |
| Total                          | 355.13         | 162                         |                           |             |          |         |
| <b>Regression Coefficients</b> |                |                             |                           |             |          |         |
|                                |                | Unstandardized Coefficients | Standardized Coefficients | t           | Sig      |         |
|                                |                | B                           | Std. Error                | Beta        |          |         |

|   |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|
| (Constant)  | 1.323 | 0.217 |       | 6.097 | 0.000 |
| Planning for monitoring and evaluation behavioral determinants (M&E)*               | 0.894 | 0.249 | 0.763 | 3.590 | 0.001 |
| Stakeholders Engagement in monitoring and evaluation (M&E)* behavioral determinants | 0.917 | 0.381 | 0.892 | 2.407 | 0.023 |
| Capacity Building for monitoring and evaluation (M&E)* behavioral determinants      | 0.896 | 0.359 | 0.737 | 2.496 | 0.019 |
| Data Management for monitoring and evaluation (M&E)* behavioral determinants        | 0.946 | 0.334 | 0.824 | 2.832 | 0.008 |

The outcomes in Table 4 indicate that after introduction of behavioral determinants into the link, and the collaboration term in model 3 rose the R square by 0.066. This denotes that the collaboration between behavioral determinants and combined monitoring and evaluation practices describes 6.6% variations in performance of county maternal health programmes (CMHP). F was at  $F(5, 157) = 166.595, p < 6.91E-61 < 0.05$  and thus the difference in the model 1 and model 3 shows that behavioral determinants moderates the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan county governments. This is justified by steps advanced by Baron and Kenny (1986).

The null hypothesis was therefore rejected, and it was resolved that behavioral determinants significantly moderate the relationship between monitoring and evaluation and performance of maternal health

programmes in Kenyan County Governments.

### Conclusions and Recommendations

The study sought to establish the influence of behavioral determinants on the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan County Governments. The study found that there was a strong correlation between the performance of county maternal health programmes and behavioral determinants ( $r = 0.821, p = 0.001 < 0.05$ ). Moreover,  $R^2 = 0.710$  indicated that behavioral determinants explains 73% of the variations in the performance of maternal health programmes in Kenyan County Governments. Further, the overall F statistics, ( $F = 393.905, p < 4.08E-45 < 0.05$ ), noted that there was a statistically significant relationship between behavioral determinants and performance of maternal health programmes in Kenyan County Governments. The null hypothesis was



thus rejected, and it was concluded that behavioral determinants significantly influences performance of County Maternal Health Programmes in Kenya. Therefore, the study concluded that behavioral determinants have a statistically significant influence on performance of County Maternal Health Programmes in Kenya. The research concluded that monitoring and evaluation system is not a political strategy to audit employee performance. Further, the study concluded that excessively high workloads cause mental and physical stress, resulting to poor performance and reduced productivity among staff. The study also concluded that there is a significant influence of behavioural determinants on the relationship between monitoring and evaluation practices and performance of maternal health programmes in Kenyan county governments. Further, the study concluded that excessively high workloads cause mental and physical stress, resulting to poor performance and reduced productivity among staff.

The study found that the staff had the interpersonal and technical skills needed to work effectively, the monitoring and evaluation staff had the necessary skills and competencies, and the maternal child health (MCH) program was well aligned with the Kenya health strategic priorities and the sustainable development goals. As a result, the research recommended the Ministry of Health should review staffing needs in County Maternal Health Programmes to help them cope with the increasing numbers of people seeking skilled delivery services. The study also recommends that more formal and refresher trainings should be included in the programs to help professionals develop their skills.

The government through the Ministry of Health should come up with clear guidelines on how to regulate and monitor free maternity and the “Beyond Zero” initiatives and how the interventions can be integrated and reported in the already existing health care system.

The mixed research approach in this study was guided by a pragmatism paradigm. This allowed the study to weigh the advantages and disadvantages of two methodologies. The study purpose and specific objectives in monitoring and assessment techniques and performance of County Maternal Health programs, which incorporate both social and scientific features, were the focus of the research. This methodology is recommended because it allows the researcher to use research procedures to characterize research phenomena in both social and natural environments.

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