MONITORING AND EVALUATION PRACTICES ON THE IMPLEMENTATION OF MATERNAL HEALTHCARE PROJECT: THE CASE OF LINDA MAMA MATERNITY PROJECT IN NYANDARUA COUNTY, KENYA

BY

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DECLARATION

This Research Thesis is my original work and has not been presented for examination in any University.

Signature…… …… Date……**16/11/2022**……

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REG NO: L50/36390/2020

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

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DEDICATION

This project is a dedication to my loving family and friends who inspired me and pushed me to do my best. Receive my gratitudes for your unending encoragemnet and support.

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ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
CDC	Centre for Disease Control and Prevention
DHIS	District Health Information Systems
GoK	Government of Kenya
KNBS	Kenya National Bureau of Statistics
HIS	Health Information Systems
M&E	Monitoring and Evaluation
MHPs	Maternal Healthcare Projects
MIS	Management Information System
MMR	Maternal Mortality Rate
MOH	Ministry of Health
NMR	Neonatal Mortality Rates
NHIF	National Hospital Insurance Fund
PNC	Postnatal Care
PMSS	Pregnancy Mortality Surveillance System
SDGs	Sustainable Development Goals
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WHO	World Health Organization

ABSTRACT

The study sought to examine the impact of monitoring and evaluation practices on implementation of Linda Mama Maternity Healthcare Project in Nyandarua County. The study specifically sought to scrutinize the effect of Health Information Systems Stakeholder Participation; Client Satisfaction Survey; and Utilization of Monitoring and Evaluation findings on implementation of Linda Mama Maternity Project. The study was guided by the Realistic Evaluation Theory and Stakeholder Theory. The study utilized mixed method research design and its sampling techniques were Stratified and simple random sampling which selected 234 healthcare staff from a target population of 569 healthcare staff in public hospitals in Nyandarua County. Purposive sampling was used to select Nurse Managers in Charge of Maternity Services as key informants. Data was collected from hospital staff using questionnaires; interviews were held with 6 Nurse Managers and FGDs conducted with 32 mothers. The SPSS software (version 23) was utilised in the analysis of collected data which generated descriptive statistics and conduct regression analysis. Thematic analysis was used to analyze qualitative data. The study established that M&E Practices account for 61.8% variation in Implementation of Linda Mama Maternity Project. Health Information Systems has a positive and significant effect on Implementation of Linda Mama Maternity Project (β_1=0.542; p=0.000); Stakeholder Participation has a positive and significant effect on Implementation of Linda Mama Maternity Project (β_2=0.594; p=0.001); Client Satisfaction Surveys have a positive significant effect on Implementation of Linda Mama Maternity Project (β_3=0.431; p=0.000); and Utilization of M&E information has a positive and significant effect on Implementation of Linda Mama Maternity Project (β_4=0.567; p=0.000). This study found out that Health Information Systems provides data that used is used to determine if women have access to all essential maternal services before, during and after delivery. The system also provides data on adequacy of hospital staff and maternal facilities for planning purposes to ensure that public health facilities in Nyandarua County have sufficient facilities and staff in proportion to the number of mothers seeking maternal services. The study found out that only 2.9% of hospital staff was involved in designing M&E plan; 67.5% of the hospital staff and 84.4% of mothers were involved at the data collection phase of M&E. Participation of stakeholders in monitoring enhances reliability and validity of M&E data and the quality of maternal health care services. However, limited participation of NHIF in the joint semi-annual M&E meeting has resulted insufficient reimbursement of expenses to hospitals. This study also found out that 85.2% of mothers participated in the client satisfaction surveys on a quarterly basis to provide data that is used to determine if quarterly targets are met and taking corrective action to ensure the Project is on track to facilitating mothers access to all essential maternal services. Linda Mama Maternal Healthcare project M&E data is utilized for developing solutions to challenges facing public hospitals in provision of maternity services; evaluating effectiveness of Linda Mama Project interventions; enhancing accountability and as a learning experience. However, staff shortages; high workload on the nurses and shortage of facilities has limited level 2 hospitals from providing caesarean section deliveries and ultrasound services. Therefore this study recommends that: the joint stakeholder M&E meetings to be held on a quarterly basis to facilitate periodic tracking of mothers access to maternal services particularly PNC; County Government and management of public hospitals coordinates with NHIF to enhance their participation in the joint stakeholder M&E meeting; NHIF provides timely and sufficient reimbursements to hospitals; the County Government of Nyandarua expedites employment of more nurses and procurement of ultrasound machines and construction of theatres in all Level 2 hospitals.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Monitoring and Evaluation is an essential component of the project management cycles that plays a vital role to the fruitful application of projects. Monitoring and evaluation ensures that resources are used as intended; project interventions address the problems they proposed to solve (Chepkemoi & Otieno, 2020); guarantees that the results of a project can be measured providing enhancing accountability and provides information required to make decisions by the project team and policy makers (Karanja & Yusuf, 2018; Gatimu *et al.,* 2021).Information provided through monitoring and evaluation, assists the project managing team to make a determination on whether the project is being implemented within activity schedules and budgeted expenditure; progress made towards attainment of project goals/objectives; and whether there is need for corrective action; determine why targets are or are not being achieved; facilitate early identification of problems in the project and subsequent development of solutions to ensure that projects remains on track towards realization of project goals.

Monitoring and evaluation is critical for decision making as it provides solid empirical evidence on the extent to which particular project interventions are working and what interventions are not working and why. This information enables project managers to take corrective action to ensure that project objectives are achieved; improve the quality of the project and acts as a learning experience for future projects (Chepkemoi & Otieno, 2020). M&E information enhances accountability of the project management team to stakeholders and donors through regular and continuous demonstration that projects expenditures, expected outcomes, targets and results are being achieved as planned and through provision of evidence to validate the success realized.

Monitoring and evaluation provides periodic information regarding progress and targets realized under maternal healthcare programmes enabling the government to make a determination on the extent to which maternal healthcare interventions have enabled mother to access Antenatal Care services (ANC); hospital-based delivery and all Postnatal Care services (PNC). M&E also provides information on the number of women accessing skilled maternal healthcare services in hospitals and the number of maternal and antenatal deaths. This enables the government to make a timely determination on whether maternal healthcare service interventions are working or not

and why and take corrective action to ensure that more women are utilizing facility based delivery, have access to all maternal services and maternal and mortality rates are reduced as envisioned.

According to the World Health Organizations M&E practices such as use of Health Information Systems (HIS) provide information on targets and indicators of inputs of the health system such as infrastructure, facilities, equipment, medical supplies, costs, human and financial resources (WHO, 2018). This provides accurate data on needs and usage for effective management of maternal projects through procurement of adequate supplies, employment of adequate healthcare staff and provision of adequate maternal facilities. Stakeholder participation M&E practices on the other hand provides valid and reliable information on maternal healthcare projects as it provides an accurate picture from mothers and maternal healthcare staff on ground on how they are being impacted by the project and how the project could be improved (Napier *et al.*, 2020). Therefore, information provided through monitoring and evaluation if utilized by the implementing agencies is critical to improving the quality of service delivery provided under maternal healthcare projects.

With more than 300, 000 maternal deaths and 2.5 million neonatal deaths, access to quality maternal healthcare remained to be one of the greatest challenges to public health for decades (WHO, 2022). Governments across the globe are therefore continuously faced with demands to monitor access to quality maternal healthcare services as an essential component in improving the effectiveness of maternal healthcare projects (Gatimu *et al.*, 2021). To facilitate monitoring of maternal healthcare projects, targets and timelines have been developed under development blueprints such as the Sustainable Development Goals (SDGs). SDGs target 3.1 aims at reducing maternal and neonatal deaths lower than 70 deaths per 100,000 live births; 12% per 1000 live births neonatal mortality; and a 75% reduction in mortality rates by 2030 (United Nations, 2015). These targets provide the standard against which countries can make a comparison and determine the progress made and performance of their interventions aimed at reducing the death of new-borns and their mothers.

World Health Organization monitors the progress made towards reducing maternal mortality rates under SDG3.1 by generating data on the maternal and neonatal mortality ratios; conducting

research on the same across different countries to develop evidenced based strategies for ending preventable MMR; and developing clinical guidelines/standards for improving maternal healthcare projects (WHO, 2022). In 2011 the World Health Organization developed indicators that for monitoring and evaluating maternal healthcare projects. These indicators include: ANC coverage which must cover at least four times during pregnancy; skilled attendant at birth in a healthcare facility setting; PNC for new-borns and their mothers within 2 days of birth; maternal mortality ratio; and under five mortality ratio (WHO.2011). Countries use these indicators to monitor and evaluate the performance of maternal healthcare projects.

The Centre for Disease Control & Prevention (CDC) is the main government agency that is responsible for monitoring and evaluating maternal health care services in the USA. This is a health information management system that collects information on the causes and risks that may result in deaths as a result of pregnancy related complications; reviews and analyses deaths records of women during pregnancy or within 1 year after giving birth as a result of complications associated with pregnancy; and calculate mortality ratio related to pregnancy. The USA has seen a significant reduction in MMRs in 2017 to 17deaths per 100,000 live births (Collier & Molina, 2019; CDC, 2022). This rate is below the 2030 target under SDGs however rates vary across the races with Hispanic black women having the highest rates of 41.7 per 100,000 live births (MacDorman *et al.,* 2017).

Clinical audits, clients' feedback surveys and participatory monitoring approaches have been used to monitor accessibility to maternal healthcare services and improve the quality of services in India, Bangladesh, Pakistan and Nepal (Mian *et al.,* 2017). Clinical audits are used to critically analyze the quality of maternal healthcare services given to mothers including the type of services provided, resources used and outcomes. Evaluation of the impact of the clinical audits has revealed that maternal audits have enhanced service delivery, increased utilization of skilled maternal services and patient satisfaction. Quality scorecards surveys used to obtain feedback from beneficiaries has seen an improvement in the quality of maternal services (Mian *et al.,* 2017). Whilst participatory monitoring was used in monitoring, the beneficiaries did not play an active role in the M&E process as their role was limited to being informed about maternal healthcare projects and providing information on the extent of their satisfaction with services. The increased levels of awareness among mothers led to increased utilization of skilled maternal services. With the exception of few cases in Bangladesh, there was no significant impact on

mortality ratio. Therefore active participation of beneficiaries in M&E of projects and feedback from beneficiaries is critical for the success of maternal healthcare projects.

Sub Saharan countries require robust M&E practices if maternal healthcare projects are to be successful in reducing maternal and neonatal deaths. The problem of access to quality maternal healthcare is more pronounced in Africa with MMR of 542 deaths per 100 000 births and a lifetime risk of 1 death in 37 women giving birth (WHO, 2019). For instance, Nigeria ranks second in the world with the highest MMR and accounts for 20% of the Worlds maternal deaths with an estimated Maternity Mortality Ration of 800 deaths per 100, 000 births (WHO, 2019). Despite having the highest MMR, Nigeria lacks an integrated Management Information System (MIS) that can be used to monitor access to maternal healthcare services and the progress in reducing MMRs and NMRs. According to Sageer *et al.,* (2019), monitoring and evaluation of maternal deaths in the country relies on isolated research reports developed by single health facilities that cannot be generalized to the whole country as they are not representative. As a result the data collected is incomplete and unreliable and cannot be used to make sound policies to reduce maternal and new-borns deaths or improve the quality of maternal healthcare,

The United Nations Development Programme, Centre for Disease Control and the Global Fund have supported the Zimbabwe ministry of health in developing and implementing a modern District Health Information System (DHIS) through funding IT infrastructure and training of healthcare staff. The DHIS primarily integrates all reporting systems and collects timely, complete and accurate data on the progress and performance of maternal healthcare projects on a weekly basis and inputs required in provision of maternal services. This has facilitated better identification of the maternal healthcare needs of the country; activities that need to be implemented to enhance quality delivery and assessment of these activities. The quality data generated by the system has significantly improved analysis of health projects monitoring and evaluation leading to informed timely decision making and delivery of quality maternal healthcare services (UNDP, 2015).

As result the skyrocketing numbers of new-born deaths have reduced from 24 to 12 deaths for every 1,000 live births and maternal deaths have reduced from 555 to 463 for every 100,000 live births.

Participatory M&E in Uganda involving multi-sectorial group of stakeholders and community mobilization and empowerment has been successful in enhancing effectiveness of the Equitable Systems project. A study by Kananura *et al.*, (2017) has revealed that stakeholder participation in the design phase was instrumental in identifying problems plaguing the maternal healthcare system such as failure of healthcare staff to adhere to standard guidelines; inadequate fuel for ambulances; lack of disposal pits; substandard care for low-weight new-borns; and inability to provide empirical data for making decisions and developing feasible solutions to the problems. As a result stakeholders took action to address the issues. The administration built disposal pits; the health officer in charge of the district provided adequate fuel; and maternal healthcare workers underwent refresher training on caring for new-borns. This enhanced delivery of quality maternal care services in Uganda.

The Kenyan government is committed to fast tracking the progress and achievements realized towards reduction of maternal and neonatal in line with SDGs targets. This has been achieved through the development of the Linda Mama Free Maternal Healthcare Project in 2013. The rationale behind the abolishment was the elimination of financial barriers to accessing maternity health services in public hospitals. This would in turn encourage women to utilize skilled maternal health care service providers in public health facilities hence ensuring safe deliveries and consequently the reduction of maternal and neonatal deaths (GoK, 2016). The service entitlements under the Linda Mama Free Maternal Health Care Project include: ANC, maternity deliveries, PNC and ambulance costs for emergency referral cases. Hospitals are paid through reimbursement based on the quantity of health service provided (GoK, 2016).

M&E is critical in the successful implementation of the Linda maternal healthcare projects. To facilitate monitoring and evaluation of the Linda Mama Maternity Healthcare project, the Ministry of Health has developed a robust Health Information System monitoring and evaluation Framework that generates monthly, quarterly and annual reports on the service utilization covering number of Antenatal Clinic visits; Number of outpatient visits; number of inpatient bed stays; number and mode of delivery; and number of Postnatal care visits. In addition to this, client satisfaction surveys are conducted annually and a joint monitoring and evaluation by all stakeholders is conducted semi-annually. M&E information helps to determine the extent to which mothers are accessing all the maternal healthcare services as intended and the extent to which elimination of financial barriers had enhanced accessibility to maternity health services.

Monitoring and evaluation provides information on the number of maternal and neonatal deaths enabling the government to make a determination on whether maternal healthcare project has contributed to reduction of new-born and maternal deaths. This information provides empirical data on whether free maternal healthcare project interventions are working or not working and why enabling the government to make improvements ensuring that more women are accessing quality maternal healthcare services.

Nyandarua County is among the few counties with high levels of access to healthcare services. According to the County Integrated Development plan 2018-2022, 96.7 % of the pregnant mothers are in a position to access the first ANC; 58% of pregnant mothers can access the fourth ANC; and only 3.3% do not seek ANC. Further 86.1% of the mothers deliver in health facilities and only 12.8% deliver at home. Availability of this information may be an indication of M&E systems that collect and report information on performance of maternal healthcare services. However the extent to which M&E practices affect the implementation of maternal health projects in Nyandarua County is unknown. Based on this backdrop, this study examined the influence of M&E practices and utilization of information provided by monitoring and evaluation on the implementation of Linda Mama Maternity Healthcare Project in Nyandarua County.

1.2 Statement of the Problem

The government of Kenya commitment to monitoring maternal healthcare project as demonstrated through the development of a Health Information System to monitor ANC, delivery and PNC (Gok, 2016). This is meant to ensure Linda Mama project resources are used as intended; project interventions address problems facing maternal care services; guarantees that the results of a project can be measured; and provide information for making decisions by the project team and policy makers to improve the quality of the project. However this system is mainly focused on generating statics on the number of ANC visits, facility based delivery and PNC visits with little focus on inputs of the maternal health services required to provide accurate data on needs and usage for procurement of adequate supplies, employment of adequate healthcare staff and provision of adequate maternal facilities. Consequently there has been an increase in hospital based deliveries without corresponding increase in essential supplies; hospital facilities and healthcare staff. This has resulted in stock outs of essential supplies in the

hospital, increased workload on healthcare staff and overwhelmed healthcare staff (Gitobu *et al.,* 2018; Tama *et al.,* 2018; Langat *et al.,* 2019). This has profoundly compromise the quality of service in public hospitals.

Even though M&E should ensure that Linda Mama project resources are used as intended and interventions address what they initially intended to do, this is not the case. Service entitlements under the project cater for ANC services, delivery and PNC, however in reality it only covers delivery services only (Tama *et al.,* 2018) forcing mothers to incur out of pocket expenses to access other essential maternal services. Further slow and low reimbursement rates in the project have led to continued levying of service charges (Pyone *et al.,* 2017; Appleford, 2018; Tama *et al.,* 2018) contrary to the vision of the project. Effective M & E practices have clear means of reporting M&E information and using this information for making decisions. Therefore continued levy of service charges and inability of the project to cover all services points out to ineffectiveness of the M&E process or failure to use M&E information improve maternal projects.

Studies have revealed that M&E practices positively influence implementation and performance of maternal health projects (Nalianya & Luketero, 2017; Kananura *et al.,* 2017; Sifunjo, 2019; Gatimu *et al.,* 2021; Kiplangat, 2021). Nalianya & Luketero, (2017) evaluated influence of information systems and stakeholder on performance of NGO based maternal health project while this study seeks to evaluate a government project and the effects of utilization of M&E information on implementation of maternal healthcare projects in addition to information system and stakeholder participation. Gatimu *et al.,* (2021) and Kiplangat, (2021) examined how M&E plans and stakeholder participation influence performance of maternal health programmes. In addition to stakeholder participation, this study also evaluates the effects of Health information Management systems (HIS), client satisfaction surveys and utilization of M&E information. Sifunjo (2019) and Kananura *et al.,* (2017) focused on participatory M&E practices only while this study focuses on effects of Health Information Systems, Client Satisfaction surveys and utilization of M&E information on implementation of maternal projects.

Availability of information on access to maternal healthcare in Nyandarua County is an indication of a monitoring and evaluation system that provides information on maternal healthcare services. However information on the contribution M&E practices such as Health

Information Systems, client satisfaction surveys and stakeholders' participation in Linda Mama healthcare project is unavailable; and use if M&E information for purposes of improving the quality of maternal healthcare services is not known. This study therefore examined the influence of M&E practices and utilization of information provided by M&E on implementation of Linda Mama Maternity Healthcare Project in Nyandarua County.

1.3 Purpose of the Study

The purpose of the study was to examine the influence of monitoring and evaluation practices on the implementation of Linda Mama Maternity Healthcare Project in Nyandarua County.

1.4 Objectives of the Study

This study was based on the following objectives:

i. To find out the influence of Health Information Systems on the implementation of Linda Mama Maternity Healthcare Project.
ii. To establish the influence of Stakeholder Participation on the implementation of Linda Mama Maternity Healthcare Project.
iii. To examine the influence of Client Satisfaction Survey on implementation of Linda Mama Maternity Healthcare Project.
iv. To examine the influence of Utilization of monitoring and evaluation findings on the implementation of Linda Mama Maternity Healthcare Project.

1.5 Research Questions

This study sought to answer these questions:

i. How does Health Information Systems influence implementation of Linda Mama Maternity Healthcare Project?
ii. How does Stakeholder Participation influence implementation of Linda Mama Maternity Healthcare Project?
iii. What is the influence Client Satisfaction Survey on the implementation of Linda Mama Maternity Healthcare Project?
iv. What is the influence of Utilization of monitoring and evaluation findings influence implementation of Linda Mama Maternity Healthcare Project?

1.6 Research Hypothesis

i. Health Information Systems significantly influence implementation of Linda Mama Maternity Healthcare Project.
ii. Stakeholder Participation significantly influences implementation of Linda Mama Maternity Healthcare Project.
iii. Client Satisfaction Survey significantly influence the implementation of Linda Mama Maternity Healthcare Project
iv. Utilization of monitoring and evaluation findings significantly influence implementation of Linda Mama Maternity Healthcare Project

1.7 Significance of the Study

This study provides insights to the Ministry of Health, Nyandarua County Government Health department and the management of public hospitals on whether M&E practices adopted under the Linda Mama Maternity Health Project have ensured resources are put into the intended uses; project interventions have addressed problems of accessibility maternal health services; the M&E plans measure the progress and outcomes of the project; and provided information required in making decisions to improve the quality of Linda Mama Maternity project both at the at the project and policy levels. This may serve as a basis of evaluating effectiveness of M&E practices and systems; making a determination as to whether they are working or not; and recommendations may inform measures that can be instituted more M&E practices and quality of maternal healthcare services in public hospitals.

Stakeholders such as healthcare workers and mothers may also expect to benefit from this study. Recommendations of this study may be useful in enhancing meaningful participation of healthcare staff in M&E and in enhancing the quality of maternal healthcare services in public hospitals.

It is also expected that the study may be beneficial to academic scholars conducting research on monitoring and evaluation through the provision of literature that will act as an empirical source of reference for future studies in addition to suggesting areas for further research.

1.8 Assumptions of the Study

The following were the assumptions that the study was based on: the Health Information Systems provides information on use of ANC, hospital-based delivery and PNC as indicated under Linda Mama Implementation Guidelines; Client satisfaction surveys are conducted annually as indicated in the Linda Mama Implementation Guidelines; Stakeholders are jointly participate in monitoring Linda Mama Maternal health project; and Respondents provided correct responses.

1.9 Delimitations of the Study

There is a wide variety of M&E practices that influence implementation of maternal healthcare project, however this study was limited to monitoring and evaluation practices employed under the Linda Mama Maternity Healthcare Project. This study was conducted mothers of reproductive age (15-49 years) who utilized public facilities in Nyandarua County and healthcare staff directly involved in the providing maternal services in public facilities in Nyandarua County. According to the Nyandarua County Integrated Development Plan 2018-2022, there is 1 level -4 hospital; 1 level-3 hospital, 8 level-2 hospital and 55 level one hospitals. This study was conducted in level 2, 3 and 4 hospitals.

1.10 Limitations of the Study

M&E plays an instrumental in the successful implementation of maternal healthcare projects. However M&E practices are not the only aspects that influence implementation of the maternal healthcare project. Other intervening variables such as transportation costs, residence of beneficiaries, education levels among women and awareness of the Linda Mama HealthCare project influence the project. This study was cognizant of these factors and took them into consideration when discussing the findings.

Education levels among the target beneficiaries (mothers) varied with some mothers being illiterate while others have secondary and university education. This affected communication during collection of data using FGD. To counter this challenge, the researcher used English and Kiswahili and Kikuyu languages to ensure full participation of the all mothers.

Due to the busy schedule of the hospital staff attending to mothers, there were challenges on part of the respondents finding sufficient time for completing the questionnaires. The researcher

distributed the questionnaires to respondents in their respective health facilities and the respondents were given time to fill them at their convenience. The questionnaires were collected later upon completion for analysis.

1.11 Definition of Significant Terms

Evaluation – this refers to periodic assessment of outcomes and impact of the Linda Mama Maternity Health Project on the mothers.

Client Satisfaction Surveys – refers to questionnaires that are used to determine the extent to which mothers are satisfied with services provided by under the Linda Mama Maternity Health Project in public hospitals.

Health Information Systems- refers to a management Information Systems that generates information on the utilization of Linda Mama Maternity Health Project services using indicators such as number of Antenatal Clinic visits; Number of facility-based deliveries and number of Postnatal care visits

Implementation of Projects- refers to the successful implementation of Linda Mama Maternity Health Project as indicated by increased number of facility based deliveries; access to all ANC and PNC services entitled under the project; reduced number of maternal and neonatal deaths; timely and adequate reimbursements to hospitals and adequate maternal facilities, healthcare staff and medical supplies.

Maternal Mortality Rates - refers to the percentage of women who die as a result of complications related to pregnancy or delivery.

Monitoring- refers to the process of continuously collecting data on pre-determined indicators for purposes of assessing implementation Linda Mama Maternity Health Project in relation to project timelines, budgets, progress and achievements realized in facilitating access to skilled maternal healthcare services and reducing new-borns and maternal deaths.

Neonatal Mortality rates – refers to the number of new-borns who die during delivery or as a result of birth related complications.

Stakeholder Participation- refers to the participation of healthcare staff and mothers **in** monitoring and evaluating the Linda Mama Maternity Health Project.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on the Health Information Systems; stakeholder participation; Client satisfaction surveys; and utilization of M&E information and their influence on project implementation. It also provides the theoretical framework, the conceptual framework and the knowledge/research gaps.

2.2 Project Implementation

Project implementation refers to the execution of the activities in the project implementation work plan. A work plan provides a detailed description of the outcomes to be realized under the project; activities to be undertaken to realize the objectives; allocation of resources required to implement the activities; establishment of mechanisms monitoring progress and evaluating project impact using key performance indicators. Project implementation therefore entails putting the work plan into action to realize the project objective and goals. It also involves continuously monitoring performance to ensure that project remains within the expected scope and budget; and addressing unforeseen risks that may derail realization of the project objectives. Successful implementation of a project is reflected in the realization of the project goals and objectives (Hyttinen, 2017).

Implementation of the Linda Mama Maternal Healthcare project sought to reduce maternal and neonatal deaths through facilitating increased accessibility and utilization of quality facility based delivery. This was facilitated through abolition maternity fee which encouraged women to utilize skilled maternal health care service. Access to skilled delivery was meant to ensure mother have access to all antenatal care services, safe deliveries and all postnatal care services reducing new-born and maternal deaths (GoK, 2016). Successful implementation of Linda Mama Maternity Health Project leads to increased utilization of facility based delivery; access to all ANC and PNC services entitled under the project; reduced number of maternal and neonatal

deaths; timely and adequate reimbursements to hospitals to cover all the services entitlements under the project and adequate maternal facilities, healthcare staff and medical supplies.

Achievement of these outcomes requires adequate and skilled healthcare staff to provide quality maternal healthcare services; and health facilities are equipped with the essential and adequate equipment required to handle deliveries such as maternity wards, coach for delivery coach, ultra sound, incubators, delivery theatre and ambulance. The government also needs to ensure timely and adequate re-imbursement of hospitals to cater for maternal expenses including the costs of prenatal, delivery, emergency and antenatal maternal services. This ensures that the health facilities are able to provide quality maternal services, handle any complications arising thereof and have adequate facilities to attend pregnant mothers (Tama *et al.,* 2018).

Studies have revealed that implementation of Linda Mama Maternity Healthcare project is faced with shortage of resources which may compromise the quality of maternal healthcare services. A case study evaluating the *Linda Mama* Maternity project in Bungoma County by Pyone *et al.,* (2017) has revealed that effective planning at the facility level has been hindered by frequent delays in reimbursement and disbursing sufficient funds. The insufficiency of funds led to situations where the reimbursements only covered delivery fee while overlooking antenatal and prenatal care which are essential in the reduction of maternal and neonatal deaths. The study further revealed that revealed a discrepancy in the reimbursement rates where the amount disbursed as reimbursement is not commensurate to deliveries in health facilities. As a result there were instances where health workers were asking women for payments for maternity care. In some hospitals mothers who have delivered are discharged 6hours after delivery and are required to pay for basic services due to delays in reimbursement (Oketch *et al.,* 2020; Tama *et al.,* 2018). This situation may profoundly compromise the quality of healthcare services.

The influx of mother seeking maternal healthcare services following abolition of maternity fee without a commensurate increase in healthcare staff may affect the quality of maternal services. Studies by Pyone *et al.,* (2017) have shown that implementation of free maternity services had doubled the workload in public health facilities without a proportionate increase in maternal staff. This has made it difficult for healthcare staff to effectively supervise several mothers in a ward at once. When health workers are overstretched with work, they are not able to give adequate attention while attending to mothers as they are overwhelmed by the high number of

patients; experience work burnouts and are demotivated as a result, the quality of maternal services offered in public health has deteriorated.

Studies have also revealed that the healthcare sector in Kenya is facing a shortage of delivery facilities in public hospitals which are not properly and adequately equipped to handle free maternal healthcare project. Following the implementation of free maternity, hospitals have witnessed overcrowding in wards, forcing some mothers to be discharge early to create room for others or while other mother give birth on the floor due to insufficiency of beds (Tama *et al.*, 2018). A spot check by the Healthy Nation across various public health facilities in the country has revealed that is some facilities, due to the influx of hospital deliveries, up to three mother share a single bed. Some of the mother to sit to create space for their children to sleep which poses a risk to mother who have undergone the caesarean section (Oketch *et al.,* 2020).

2.3Empirical Literature Review

This section reviews literature based on the objectives:

2.3.1 Health Information Systems and the Implementation of Linda Mama Maternity Healthcare Project

Effective monitoring and evaluation of maternal healthcare projects requires a system that provides accurate and timely data on the progress and performance of projects to all stakeholders for planning, monitoring health projects, reviewing health projects; for purposes of quality assurance and overall improvement of health system projects. A health Information System is a type of Management Information System (MIS) collects process and disseminates information that is critical to the effective and efficient management of health projects (UNDP, 2021).

According to WHO, an effective Health Information Systems should provide information on targets and indicators of determinants of health including genetic, environmental, socio-economic and behavioural factors; targets and indicators of inputs of the health system such as infrastructure, facilities, equipment, medical supplies, costs, human and financial resources; targets and indicators of performance including access, use and quality of services and ability of the system to respond to patients needs; and targets and indicators of health results including morbidity and mortality (WHO, 2018).

These systems provide information on the progress and performance of health interventions that is critical for purposes of decision making to enhance service quality; development of sound health policies and strategies; and provide accurate data on needs and usage for effective management of maternal projects through procurement of adequate supplies, employment of adequate healthcare staff and provision of adequate maternal. However majority of developing countries Health Information Systems are usually fragmented which in most cases are established for purposes of meeting donor requirements (UNDP, 2021).

The Health Information systems provide relevant information for purposes of monitoring maternal healthcare interventions and outcomes. The Linda Mama Health Information System monitoring and evaluation Framework generates monthly, quarterly and annual reports on the service utilization covering number of Antenatal Clinic visits; Number of outpatient visits; number of inpatient bed stays; number and mode of delivery; and number of Postnatal care visits (GoK, 2016). This information helps to determine the extent to which mothers are accessing all the maternal healthcare services as intended and the number of mothers utilizing facility based delivery services. This information provides empirical data on whether free maternal healthcare project interventions are working or not working in enhancing utilization of facility based delivery and access to maternal healthcare services before, during and after delivery and why. This information the government to take corrective action to ensure that more women are utilizing facility based delivery, have access to all maternal services; and put in place measures to improve the quality of maternal healthcare services in hospitals.

Numerous studies have underscored the critical role played by information systems in providing reliable M&E data that is instrumental in enhancing the performance of projects. A study by Nalianya and Luketero (2017) established a correlation co-efficient of 0.533 between adoption of MIS and performance of MHPs. A regression analysis revealed an increase in MIS by 1 unit resulted in rise in performance of maternal projects by 0.282 units. Similarly Phir (2015) established a correlation co-efficient of 0.473 between project MIS and the project performance of Virtual University for Cancer Control Network project and the Multinational Project respectively. Afomachukwu (2021) established a strong correlation between M&E management information systems and the performance of Literacy Projects in Nigeria. A correlation analysis established that M&E Information Management System had strong correlation coefficient of

0.301 with performance of projects. This implies that use of MIS has a positive and significant effect on project implementation.

In an evaluation of M&E influence on Virtual University projects, Phiri (2015) established that Information Systems play critical roles in project management through capturing data, analyzing data and generating reports. Findings of the study showed that information retrieved from the Information Systems database was used to generate reports on the trends and progress of different projects. This information was used to develop new strategies for purposes of improving project performance. However the study established that database for the Multinational Project was complicated and required the services of consultant to operate and (Phiri, (2015).

When MIS is complicated the ability of project staff to use it in monitoring and evaluation is limited. The staff may take a lot of time to understand and operate the staff causing delays when decision making relies on this information. This in turn affects service provision. Effectiveness of the Health Information Systems is largely dependent on the user's understanding of information generated by the system. Therefore if the user cannot understand or operate the system the information generated may not have an impact on the project. Therefore there is need to invest is simple MIS that generate quality data for M&E and can easily be understood and operated by staff. Additionally staff may need training on the MIS to enhance their understanding of the system and how to use it.

In a study on M & E plans influence on performance of NGOs maternal healthcare projects, Nalianya and Luketero (2017) found out that low level of adoption of Management Information Systems among NGOs implementing Maternal Healthcare Projects (MHPs) had caused delays in decision making. The study found out that none of the three NGOs (CREADIS, ACE Africa and Save the Children had a Management Information System in place. Two of the NGOs used hard paper questionnaires in collecting data on the MHPs while only one of the NGOs used tablets and smartphones. As a result time was wasted in collecting data, doing data entry, verifying and analyzing data which delayed availability of information for decision making. Even though the NGOs used advanced data analysis software that provided an accurate analysis of data, the efficiency and accuracy cannot be matched to that of MIS. The study further reveled that

information was mainly stored in office cabinets and PCs which put the information at risk compared to when the information is stored in MIS.

The significant role of MIS on the implementation of projects is underscored by a study by Afomachukwu (2021) which established that M&E management information systems positively influenced the implementation of Reading and Numeracy Activities Project in Nigeria. The study found out that 100% of the respondents confirmed the availability of a MIS that was used for capturing data ranging from baseline surveys; progress of the projects and performance of the projects. This information was captured in the MIS database and was used for purposes of monitoring the project. According to the study, the system generated information on project trends on the progress of the project. This information was utilized to develop new strategies for enhancing project performance.

2.3.2 Stakeholder Participation M & E and the implementation of Projects

Stakeholder involvement entails engaging stakeholders especially the targeted beneficiaries of the project to generate reliable information on the progress and impact of the project and use of this information by all stakeholders to collectively make decisions that will enhance project performance (Waithera & Wanyoike, 2015). Meaningful engagement of stakeholders in monitoring and evaluation provides valid and reliable information on the progress and impact of the project as it provides an accurate picture on progress and effect of the project as it is on the ground. Stakeholders such as targeted beneficiaries offer the right information on how they are being impacted by the project and know how the project could be improved. This information can be used to make decisions that will improve the performance of the projects and ensure successfully implementation of the project.

Stakeholder involvement enhances accountability in project execution. Through participation in M $ E, the stakeholders are able to observe how the project is progressing; access information on the success and failures of the project; provide their own analysis of the progress and make recommendations. This enables the stakeholders to hold project implementers to account (Napier *et al.,* 2020).

Involvement of beneficiaries in monitoring projects empowers the beneficiaries and enhances sustainability of the project. By participating in monitoring and evaluating the projects, capacities of stakeholders are built and their ability to monitor and evaluate projects on their own

is developed and enhanced. Further, active engagement develops their decision making skills and enhances their abilities to take action to ensure that projects are on track towards realizing the set goals, objectives and targets (Napier *et al.,* 2020).

The impact of stakeholder participation on project implementation is to a large extent determined by their level of participation. There are four levels of stakeholder involvement in monitoring projects. The lowest level of participation is the passive participation where stakeholders' role is only to provide information requested for purposes of M &E. The second level of participation is involvement where information is sought from stakeholders; stakeholders have an interest in how this information is used and the feedback used as an input in decision making. The third level of participation is active involvement where stakeholders actively participate in making decisions on information to be collected and the methods to be use collect and analyze data. The fourth level of participation is empowerment where stakeholders participate in the selection of indicators for assessing progress and impact of projects and can hold staff to account. Stakeholders have the power of final decision making on what can be done to enhance the project performance based on the outcomes of the process (Napier *et al.,* 2020).

The third and fourth levels of participation are ideal in ensuring stakeholders' participation has an impact on the implementation of the project. These levels ensure that stakeholders fully participate in designing M&E systems; monitoring project; and in collection, analysis of information on the project and subsequent use of this information to enhance the quality of the project. However in most cases the first and second levels of participation are the commonly used approaches in monitoring and evaluation.

Variations have been observed in stakeholder participation based on the technicality of the M&E process with studies showing low levels of participation in technical aspects of M&E and high levels in non-technical activities. Afomachukwu (2021) examined how staff involvement in M&E influenced project performance in Nigeria. The study found out that 94% of the Reading and Numeracy Activities Project staff was actively involved in data collection at different stages of the project while only 31% of the staff were involved in regular data cleaning, quality checks, periodic data analysis and reporting. Even though involvement of project staff in the M&E process is learning experience that enhances their understanding of the M&E process, limiting

their participation to data collection impedes their ability to make important contributions to the project.

Similar findings were established by a study on M&E plan influence performance of NGOs maternal projects. A study by Nalianya and Luketero (2017) found out that participation in M&E among the MHPs was high in non-technical areas of the project such as data collection and information provision on the performance of the project. According to the study, only 16% of the stakeholders were involved in technical aspects involving data analysis, report writing and information dissemination due to perceived lack of technical knowhow on M&E by stakeholders. M&E officers were reluctant to involve stakeholder in the technical aspects of M&E as thus would compromise the quality of data. As a result the established that stakeholder participation had a strong negative correlation of -0.489 with the performance of Maternal Healthcare Projects (MHPs). A regression analysis established that an increase in stakeholder involvement by 1 unit participation would result in a decrease in performance of MHPs by 0.297 units. Hence failure to fully involve stakeholders had reduced project performance.

The effective way of facilitating stakeholder involvement in monitoring of projects is through consultation and participation in the design and development. However full participation of staff and beneficiaries in designing M&E plans is limited by their knowledge and understanding of monitoring and evaluation. In most cases majority of the staff and beneficiaries lack this knowledge and require capacity building training to equip them with M&E skills. Capacity building requires significant resources which may not be available especially in developing countries most of which are cash-strapped.

Low levels of participation by stakeholders can be attributed to the lack of technical knowhow on M&E process. Tengan and Aigbavboa (2017) attribute minimal stakeholder involvement in monitoring of projects to their lack of technical knowhow of the process. The study examined stakeholder involvement in monitoring of construction projects in Ghana, revealed that there was low levels of participation by stakeholders in monitoring the projects. According to the study, professional consultants and contractors were the main parties that participated monitoring the projects especially during construction while the beneficiary communities were left out. The study attributes this to little or lack little of knowledge and understanding of construction.

Therefore monitoring by professional consultant was considered adequate for the success of the project (Tengan & Aigbavboa, 2017).

Whilst the local community lacked technical understanding of the project, participation of all stakeholders is crucial to facilitating accountability, sustainability and project. Tengan and Aigbavboa (2017) observe that as a result of minimal stakeholder participation, the local government experienced numerous challenges including lapses in procurement lapses, bad payment schedules, delayed project delivery, client's dissatisfaction, and corrupt practices. Therefore stakeholder participation is critical for successful project implementation.

The importance of stakeholder participation has been emphasized by Mkutano and Sang (2018) in their assessment of management practices on NGOs projects in Nairobi. The study has revealed that there was improved project performance as a result of effective utilization of project management practices stakeholder participation and monitoring and evaluation. A correlation analysis established that stakeholders' participation had a significant and positive influence on performance of NGO projects as indicated by a correlation co-efficient of 0.800. A regression analysis established that a rise in stakeholder involvement by I unit rise improved projects performance by 0.308 units. This implies participation of stakeholder in monitoring significantly influences performance of projects.

A study by Kananura *et al.,* (2017) has revealed that stakeholder immersion had a significant effect in the success of maternal projects in Uganda. The study revealed that during the design phase of the maternal projects, stakeholder participation in M&E was instrumental in identifying problems facing maternal healthcare problems, developing feasible solutions and activities that would be implemented. During the implementation phase, participatory monitoring and evaluation approaches were critical in identifying problems plaguing the maternal healthcare system such as failure of healthcare staff to adhere to standard guidelines; inadequate fuel for ambulances; lack of disposal pits; substandard care for low-weight new-borns; and inability to provide empirical data for making decisions and developing feasible solutions to the problems. As a result stakeholders took action to address the issues. The administration built disposal pits; the health officer in charge of the district provided adequate fuel; and maternal healthcare workers underwent refresher training on caring for new-borns. This enhanced delivery of quality maternal care services in Uganda.

Sifunjo (2019) evaluated influence of participatory M&E practices on implementation of maternal projects within Kajiado County. The study established that participatory M&E approaches such as participatory project identification and stakeholder participation positively influence implementation of maternal healthcare projects. Gatimu *et al.,* (2021) established that stakeholder participation had a correlation co-efficient of 0.838. A regression analysis revealed that a unit rise in stakeholder involvement in monitoring of projects resulted in enhanced performance of maternal projects by 0.838. This implies that the participation of stakeholders in monitoring projects has a positive influence on maternal project performance.

While some studies have linked stakeholder participation to effective implementation of projects, other studies have revealed that stakeholder involvement causes delays in decision making and project timelines. When a lot of stakeholders are involved in decision making, lot of time is taken before a consensus is reached on what decisions to adopt by the different stakeholders. Further a lot of time is consumed in trying to understand M&E activities and processes by stakeholders with limited knowledge of M&E activities (Mugo & Oleche, 2015). Such delays consume a lot of project timelines and may affect implementation of activities within the set project timelines.

2.3.3 Client Satisfaction Survey M&E and the Implementation of Projects

Client satisfaction is a crucial part of project quality management which ensures that project interventions satisfy the targeted beneficiaries of a project. Surveys are critical in providing data on the level of beneficiaries satisfaction with services provided under the project and the beneficiaries' perspective on the impact of the project of their lives. This information is critical in measuring the outcomes and impact of the project from the beneficiaries' perspective (Pinto & Trailer, 2015). Information provide through client satisfaction surveys reveals the gap between the internally perceived quality of service given by the project and the customers perceived quality of service received. This enables project managers to put in place measures to ensure that the gap is bridged and clients receive quality service.

Client Satisfaction Surveys are used by the ministry of health to determine the extent to which mothers are satisfied with services provided by under the Linda Mama Maternity Health Project. To measure satisfaction levels with services offered under the Linda Mama health project client satisfaction surveys were initially undertaken semi-annually in the early phases of the project and annually in the later phases of the project (GoK, 2016). In their evaluation of project success and

efficiency, Serradora and Turnerb (2014) found that time is critical in the assessment of the project. Periodic surveys are instrumental in capturing key milestones in the project giving the project implementers an opportunity to take corrective action for the next phase of the project rather than wait for the time when the projects comes to an end. This ensures that the project progress is on track to achieving goals and objectives. Serradora and Turnerb (2014) opine that successful implementation of a project is best judged by the project beneficiaries. According to them in addition to conventional outcomes that seek to provide statics on the targets achieved, it is crucial to determine the extent to which key stakeholders whom the project interventions targeted are satisfied with services.

In this regard, surveys are also instrumental in helping the maternal healthcare service providers in determining whether or not the Linda Mama Healthcare project is meeting mothers' expectations. The survey also establishes reasons as to why the project is not meeting the mothers' expectations enabling service providers to identify problems with the services. Additionally the surveys accord mothers an opportunity to give their feedback/suggestions on how they would like the quality of service under the project to be improved which enhances the quality of maternal services. Enhanced quality of maternal healthcare project is instrumental in reducing cases of maternal and neonatal deaths as envisioned by the project.

Pinto and Trailer (2015) argue that a project is considered to be successful to the extent that it satisfies the clients' requirements and expectations. According to them successful business or organizations are the ones that have established a cordial with clients based on their ability to provide services to the satisfaction of their clients. In the increasingly competitive global market it is critical that organizations utilize customer-based project success measures along with other conventionally measures such as adherence to budgets and project schedules. This provides a comprehensive evaluation of efficiency and success of project in comparison to focusing on statistics alone.

Kujala & Ahola (2015) opine that collection of information related to customer satisfaction is instrumental to the financial performance of a project. Kujala & Ahola (2015) established that higher levels of customer satisfaction are correlated with enhanced financial performance as they lead to customer retention and willingness to pay for a higher value of products and services provided. However their study faults use of customer satisfaction surveys as they tend to rely on

statistics. This approach is highly extractive rather than participatory and does not provide in-depth qualitative information that explains the changes realized due to the implementation of the project and to establish the causes of these changes.

Routine collection and utilization of data on patient satisfaction is critical for quality improvement by healthcare institutions. Through collection of this data, the hospital management to establish factors that are likely to compromise the quality of healthcare services and put in place measures to enhance the quality of services. In a study of the factors affecting patient satisfaction with outpatient services in Busia County, Mwangi (2015) established that patient satisfaction surveys are critical in determining factors that affect quality of services in healthcare setting such as waiting time, technical competence of staff, adequacy of consultation duration, doctors respect and compassion for patients and observance of patients privacy. This information provides the basis for hospital management to ensuring quality health care services are offered in hospitals. However Busia District hospital lacked a system for evaluating patient's satisfaction on a regular basis. As a result the hospital was unable to determine the patients satisfaction with services offered. Lack of mechanisms for determining level of patient satisfaction may result in poor quality health services.

Similar observations are made by Nyarango (2015) who argues that client satisfaction surveys are critical in determining dimensions of healthcare service quality that affect patient satisfaction with services offered. In his study on the correlation between healthcare quality and client Nyarango (2015), the dimensions of healthcare quality: reliability, responsiveness, assurance and empathy significantly influenced client satisfaction with healthcare services. The study established the dimensions of healthcare services account for 62.3% variation in levels of clients' satisfaction. Therefore, conducting client satisfaction surveys are critical maternal service providers and the government aspects of healthcare quality that can be improved to enhance mothers/client satisfaction with services offered under Linda Mama healthcare project.

2.3.4 Application of Monitoring and Evaluation findings and Implementation of Projects

The application of monitoring and evaluation findings is instrumental to project implementation as it provides relevant and reliable information on the extent to which the projects goals, targets, outputs and outcomes are being realized or not. This information if utilized in decision making

can enhance quality of project services significantly; increase utilization of services offered by beneficiaries; and enhance achievement of the project goals (Napier *et al.*, 2020).

The main purpose of monitoring and evaluating projects is not simply the continuous generation of information on the progress and performance of the project but to avail this information to the decision makers in a timely manner to enable utilize this information/feedback to better manage projects and programmes ((Kusek & Rist, 2017). Therefore the mere collection of M&E information without a corresponding utilization of the same information to better project outcomes renders the M&E process useless. The process is only useful when the information it available for the intended use in a timely fashion so that it can be used to enhance project performance.

According to the World Bank, M&E information can be put into different uses. These include: demonstration of accountability to project beneficiaries and other key stakeholders; provision of evidence to justify budget requests; making a determination on whether project interventions were worthwhile based on evidence on what interventions works and what interventions do not work and why; provision of evidence to ensure optimal resource allocation based on what interventions work; identification of performance problems in a project and the corrections needed to address the problems; used to support evidenced based decision making and strategic planning; act as a learning experience for implementation of future projects; documenting milestones made in the project; and to gain support from stakeholders on the project through a participatory stakeholders engagement (Kusek & Rist, 2017).

Utilization of information provided through customer satisfaction survey is critical in enhancing the performance of Linda Mama Healthcare project. Information provided by the surveys helps to determine the reasons why mothers are satisfied or not satisfied with maternal services. This information is critical in decision making at project and policy level through development of feasible solutions to address the problem such as delayed reimbursements, inadequate facilities and healthcare staff. Solving the problems addresses inefficiencies in the project leading to high levels of satisfaction. High levels of satisfaction increase utilization of skilled maternal services as envisioned under the project. Satisfied mother may further spread word on the quality services received effectively increasing number of mothers using skilled maternal services. However, failure to use this information leads to persistence of the problems causing dissatisfaction and

reduce utilization of the project services. Persistence of problems such as shortage of maternal wards, shortage of attending nurses, delayed in reimbursement may cause mothers to seek alternatives which reduce utilization of the services and puts the health of mothers and newborns at risk.

Similarly utilization of information is provided by the Health Information Systems central to the successful implementation of the Linda Mama project. Information provided by the HIS helps to determine whether mothers are accessing or not accessing all ANC, facility based delivery and PNC services as envisaged in the project. When used this information is useful in putting in place measures to ensure that mothers are able to access all these services which effectively reduces maternal and neonatal mortality rates. ANC ensures that the unborn child and the mother are in good health and any complications arising as a result of the pregnancy are detected early and treated immediately. Use of a skilled birth attendant on the other hand ensures that both normal and complicated deliveries are managed competently and the baby is delivered safely. Postnatal care on the other hand ensures detection of possible complications that arise after delivery and subsequent proper management of the complications significantly reducing death risk (Orangi et al., 2021).

Using information generated through monitoring of projects is crucial in ensuring the success of future projects. A study conducted by Santosh (2017) o has shown that information provided through monitoring and evaluation acts as a learning experience that can be used to enhance the success of projects in future. Findings of the study revealed that M&E information can be used to develop a data bank that can serve as a reference to enhance the selection and designing of future projects as well as the projects being implemented currently (Santosh, 2017). M&E provide information on the success and failures of the project which serves as a learning experience and if applied to future projects can enhance success of the projects.

2.4 Theoretical Framework

The study was grounded on theoretical frameworks discussed below:

2.4.1 Realistic Evaluation Theory

The realistic evaluation theory was developed by Pawson and Tilley in 1997. The theory is based on the tenets that projects work under certain conditions hence project experts should identify

why and how projects work under different context. This information is helpful in making decisions on which projects to implement and how to adapt or replicate them to different circumstances. According to the theory to ensure effective evaluation of a project, there is need to develop a framework for identifying areas of intervention that make a project to be effective or not and the context where the project interventions can be applied. The theory is suitable for evaluating new project initiatives or programmes that seem to work but where, how and for whom is not known (Pawson & Tilley, 1997).

The theory provided a framework for predicting the outcome of projects and developing M&E indicators for determining the extent to which project interventions are working or not. Therefore the Realistic Evaluation Theory provided the criterion for assessing suitable M&E practices that are effective; to what extent the practices are working in terms of providing information that can be used to measure results of a project and make decisions for enhanced project outcomes; and under which circumstances the practices are working. Effective M & E practices should provide information that can be used to determine whether or not the project interventions are working and information that can be used for decision making to enhance the implementation of the project for better outcomes. To provide this information, M&E practices should have clear and measurable objectives; well-thought-out indicators for all the activities in the project; inputs required to implement activities and corresponding outputs/ outcomes and impact of the project activities; data collection systems with capabilities of monitoring progress of the project; baseline information and the means for comparing achievements against pre-determined targets; and mechanisms for utilization of information generated by M&E in decision-making.

This theory provided the criteria for evaluating effectiveness of M&E practices employed under Linda Mama Project in terms of provision of information on the extent to which the project is enhancing mothers' access to maternal healthcare services and if this information is used to improve maternal healthcare services. The theory provides the basis for determining if the data generated by the Health Information System on number of Antenatal Clinic visits; Number of outpatient visits; number of inpatient bed stays; number and mode of delivery; and number of Post-natal care visits; if feedback from mothers obtained through client satisfaction surveys; and input from healthcare staff helps to determine the extent to which the free maternal project has enhanced mothers accessibility to all the maternal healthcare services as intended. It also helps to determine of M&E practices provides information on the extent to which the project has

contributed to reduction of maternal and neonatal deaths. The M&E information also provided empirical data on whether free maternal healthcare project interventions are working or not working and why enabling the government to make improvements ensuring that more women are accessing quality maternal healthcare services.

2.4.2 Stakeholder Theory

The stakeholder theory was developed by Dr. Edward Freeman (1984) in his book "*Strategic Management: A Stakeholder Approach*" as theory that provides ethical guidelines for businesses. The theory put emphasis on the relationship between businesses or organization and those who have a stake in it (stakeholders). Stakeholders include customers, employees, suppliers, investors, the government, media and above all community where the businesses operate. Freeman (1994) postulates that the business has a greater responsibility towards these stakeholders as organization would cease to exist without the support of these stakeholders. Therefore, when making decisions, organizations must take into consideration stakeholders' interests that may influence implementation of their programmes or projects.

The stakeholder theory explains the rationale for participation of stakeholder in monitoring the Linda Mama Maternal healthcare Project. Feedback from mothers who are beneficiaries helps the government to determine if the mothers are satisfied with the quality of maternal services and the areas that that they need to improve to enhance quality of services in public hospitals. Input from healthcare staff that provide maternal healthcare services helps the county government to determine if there are adequate maternal healthcare facilities such as delivery wards, delivery beds, theatre rooms and medicines; if there are adequate healthcare staff such as nurses and midwifes; and if the hospital receive timely and adequate reimbursed on time by NHIF to cater for the maternal healthcare services. Input from the NHIF helps to ensure timely and adequate reimbursement of funds to the hospital. Hence input obtained from these stakeholders in the monitoring the Linda Mama project is crucial to its success. Effective practices require that the design of M&E plans should be intertwined participatory exercise to ensure that all stakeholders are involved in the process. Thus it is imperative that their input is taken into consideration when monitoring Linda Mama Maternal healthcare Project.

2.4 Conceptual Framework

This study examined the influence of monitoring and evaluation practices on the implementation of Linda Mama Maternity Healthcare Project. The independent variables are the monitoring and evaluation practices mainly: Health Information Systems; Stakeholder Participation; Client Satisfaction Surveys; and Utilization of M&E findings. Implementation of Linda Mama Maternity Healthcare Project is the dependent variable as shown in Figure 2.1.

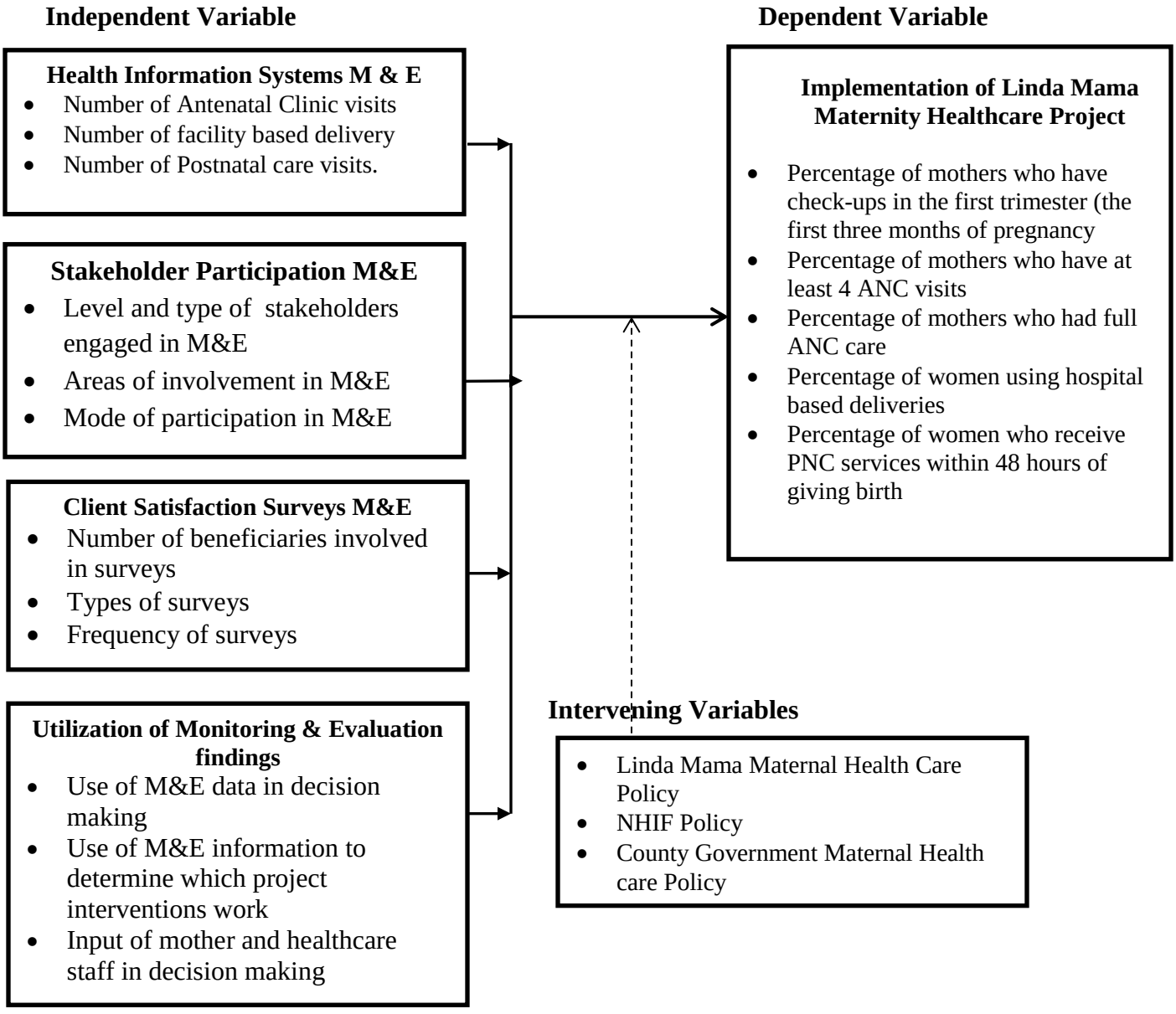

Figure 2.1: Conceptual Framework

M&E practices utilized under the Linda Mama Maternity Healthcare project provide a framework for determining the progress and achievements realized in respect to the projects goals and objectives. The Health Information systems provides data on mothers accessibility to all antenatal services; the number of women utilizing facility based deliveries and the number of women accessing postnatal care.

Stakeholder participation on the other hand provides empirical evidence from the beneficiaries and health workers perspective on the extent to which maternal healthcare project interventions are working in facilitating access to safe and skilled facility based delivery and the impact of these interventions on reduction of maternal and neonatal deaths.

Client satisfaction surveys on the other measures mothers satisfaction with maternal services. Utilization of this information by providers of maternal healthcare services and the government at project and policy levels leads to improved quality of maternal services and enhance project performance. This is reflected in the increased utilization of facility based deliveries, access to all maternal healthcare services as provided under the project (ANC, delivery and PNC); timely and adequate reimbursements to cover the costs of maternal services; adequate maternal facilities, healthcare workers and medical supplies to ensure mother receive quality healthcare services.

However the ability of M&E practices to enhance successful implementation of the Linda Mama Maternity Project is mediated by government policies which provide the legal basis for implementing the free maternal healthcare project and provisions of the Linda Mama Maternal Healthcare and the County Government Maternal policies which determine the benefits that mother are entitled; and the NHIF policy which determines the reimbursements packages to be paid to hospital for provision of maternal services and the time for reimbursement.

2.5 Knowledge Gaps

Table 2.1 below indicates the knowledge gaps filled by this study:

Table 2.1: Knowledge Gaps

Author	Focus of the Study	Findings of the Study	Research Gaps	Improvement of the study
Nalianya & Luketero, (2017).	M&E and the performance of NGO maternal projects	M&E plans, nature of information systems, human resource capacity, and stakeholder participation had a fair and strong correlation with performance of maternal projects.	-This study evaluated NGO based maternal health project -The study evaluated influence of information systems and stakeholder involvement on performance of maternal projects.	- The current study evaluated Linda Mama health project a government project - Apart from information systems & stakeholder participation, the current study examined the effects of utilization of M&E information on implementation of maternal healthcare projects.
Gatimu *et al.,* (2021)	M&E Practices and Performance of County Maternal Projects	Engagement of stakeholders in monitoring of projects influence performance of Maternal Projects in Kenya.	-This study looked at the influence of M&E planning, stakeholder input and data management on performance of County health programmes.	-In addition to stakeholder participation in monitoring, the current study also evaluated the effects of Health information Management systems (HIS), client satisfaction surveys and utilization of M&E information on implementation of Linda Mama Project.
Sifunjo (2019)	Influence of participatory monitoring practices on implementation of maternal projects within Kajiado County	Participatory M&E approaches: participatory project identification & stakeholder participation positively influence implementation of maternal projects.	-This study focused on participatory M&E practices only -The scope of this study was broad as it focused on different maternal projects	- In addition to participation of stakeholders in monitoring, the current study focused on effects of Health Information Systems, Client Satisfaction surveys and utilization of M&E information on implementing Linda Mama Project. - The current study only focused on Linda Mama Maternity Healthcare project.

Kananura *et al.,* (2017)	Participatory monitoring approaches that influence maternal projects.	Stakeholder participation was instrumental in identifying problems plaguing the maternal healthcare system; providing empirical data for making decisions and developing feasible solutions to address the issues which enhanced the delivery of maternal healthcare services	-This study focused on participatory M&E practices only -The study was carried out in Uganda hence findings may not be applicable to Kenya due to contextual differences in healthcare systems	-The current study focused on effects of Health Information Systems, Client Satisfaction surveys and utilization of M&E information on implementation of maternal projects. -The current study was conducted in Nyandarua County, Kenya
Kiplangat, (2021)	M&E and performance of NGO maternal projects	Monitoring plans , capacity of human resources, nature of information systems and participation of stakeholders participation positively influence performance of maternal projects	- This study evaluated NGO based maternal health project -This study sought to determine the influence of monitoring plans, human resources, information systems and participation of stakeholders on performance of NGO maternal projects..	-The current study evaluated Linda Mama health project a government project -In addition to information systems & stakeholder participation, the current study evaluated the effects of utilization of M&E information, client satisfaction surveys on implementation of maternal health projects
Tengan & Aigbavboa , (2017)	Level of stakeholder engagement in monitoring construction projects in Ghana	There were low levels of stakeholder engagement due to lack of technical knowledge on construction projects resulting in numerous challenges in project delivery	-This study evaluated a construction project -This study looked at the effect of level of shareholder engagement and involvement on projects	- The current study evaluated maternity healthcare project -In addition to stakeholder contribution, this study also determined the influence of HIS and utilization of M&E information.
Chepkemoi & Otieno, (2020)	M&E systems and performance of infrastructural projects	Baseline surveys, budgetary allocation, capacity building & performance reviews strongly influence performance of infrastructural projects	-This study evaluated infrastructural projects -This study examined influence of baseline surveys, budgetary allocation, capacity building & performance reviews.	-The current study l evaluated maternal healthcare projects - The current study examined influence of M&E practices on project implementation.
Afomachukwu, (2021)	Effect of Monitoring Systems on Projects exceution	There is a positive correlation between M&E plans and Information Management systems with project performance	-This study evaluated effect of M&E plans and information management system	- The current study focused on stakeholder participation, client satisfaction surveys and utilization of M&E

				information in addition to information management systems
Mkutano & Sang (2018)	Management practices and performance of NGO projects	M&E planning and stakeholder participation in monitoring had a significant effect on project performance	-The study evaluated influence of stakeholder participation M&E and M&E planning	- The current study evaluated HIS, client satisfaction surveys and utilization of M&E information in addition to stakeholder participation M&E.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section of the project describes the methodology utilized in the study. The topics covered in this section include the research design of the study, target population, instrumentation,

sampling, validity and reliability of instruments, pilot study, procedures of analyzing data, ethical deliberations and operational meaning of variables.

3.2 Research Design

A research design is an outline of the procedures to be used in collecting and analyzing to answer research questions through collection of empirical data (Prabhat & Mishra, 2015). This study utilized a descriptive research design. A descriptive research design provides a comprehensive description of the phenomena under study as it is without manipulating the variables. This approach uses a sample of the population to collect data whose findings are generalized to the whole population. The design incorporates both quantitative data and qualitative approaches in collection, analysis, interpretation and reporting of data ensuring that research findings are described comprehensively (Creswell & Clark, 2018).

The descriptive research design was suitable for the study as it sought to provide a quantitative and qualitative information description of the effects monitoring projects on implementation of Linda Mama Maternity Project as it in public hospitals in Nyandarua. The researcher utilised quantitative approaches to collect data from the respondents. Since data was collected from a representative sample, it was generalized to the target population of beneficiaries and healthcare staff in Nyandarua County; collection of data on the percentage and number of women accessing maternity healthcare services and mortality and neonatal rates. Use of qualitative approach on the other hand provided in-depth description through narrative explanations of how monitoring and evaluation practice affect implementation of Linda Mama Maternity Health Project.

Further this approach enhanced the validity of the research findings through a method known as triangulation. Triangulation involves utilizing three methods of data collection which include Interviews, Focus Group Discussions and Questionnaires. The researcher used the information from the three techniques of data collection to test the validity of the collected data.

3.3 Target Population

Target population is the complete group of persons, objects/items or events with shared noticeable physiognomies which led to generalization of the study findings (Prabhat & Mishra, 2015). The target population for this study included mothers of reproductive age (15-49 years) who utilize maternal services in community amenities in Nyandarua County and healthcare staff

directly involved in the providing maternal services in public facilities in Nyandarua County. According to the Nyandarua County Integrated Development Plan 2018-2022, there is one level 4 hospital; 1 level 3 hospital, 8 level 2 hospital and 55 level one hospitals. This study was conducted in level 2, 3 and 4 hospitals. There were 569 healthcare staff involved in provision of maternal healthcare services as presented in Table 3.1:

Table 3.1: Target Population

Staff Cadres/Specialization	Frequency	Percentage (%)
Medical Officers	13	2.3
Specialists (Surgeon, gynecologist, anesthetist pediatrician& Physician)	8	1.4
Nurse Managers in Charge of Maternity Services	10	1.8
Attending Nurses	400	70.3
Laboratory Technicians	55	9.7
Clinical Officers	55	9.7
Pharmacists	21	3.7
Medical Social Workers	7	1.2
Total	**569**	**100**

3.4 Sampling size and Procedure

3.4.1 Sample Size

A sample refers to a subset of the target population that is chosen for purposes of conducting a study and drawing conclusions in regard to that population (Prabhat & Mishra, 2015). The sample size for this study was calculated using Yamane formula:

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

Where: n=sample size

N= sample population

e=Marginal error

Given: N= 569 and e= 0.05

With a confidence level is 95%, the sample of health workers is determined as follows:

$n=569 /1+569(0.05)^2 = 234$

Therefore the sample of for health workers was 234. The sample size for mothers who participated in this study was determined by information saturation during Focus Group discussions. Information saturation refers to the point where qualitative interviews no longer adds new information but only produces previously discovered data. Information saturation for this study occurred during the first four (4) FGDs. Therefore 4 FGDs consisting of 8 mothers per FGDs were held exclusively with mothers looking for motherly services in community infirmaries in Nyandarua County. Therefore the sample size for mothers was 32. The sample size for this study was therefore 266 as shown in Table 3.2

Table 3.2: Sample Size

Staff Cadres	Target	Sample Size	Percentage (%)
Medical Officers	13	5	1.9
Specialists (Surgeon, gynecologist, anesthetist pediatrician& Physician)	8	3	1.1
Nurse Managers in Charge of Maternity Services	10	4	1.5
Attending Nurses	400	165	62.0
Laboratory Technicians	55	23	8.6
Clinical Officers	55	23	8.6
Pharmacists	21	9	3.4
Medical Social Workers	7	2	0.8
Mothers	32	32	12.0
Total	**601**	**266**	**100%**

3.4.2 Sampling Procedures

Stratified and simple random sampling techniques were used in identification of healthcare professionals involved in the study. In this case healthcare professionals were stratified based on their healthcare facility. A sampling frame of healthcare staff was obtained from each of the public hospitals and random sampling was used for selecting a proportional number of staff from each hospital to make up the sample of 234 healthcare staff. This ensured that all the categories of healthcare professionals were represented in the sample. Mothers were selected randomly as they came to seek maternal services in the hospitals to participate in FGDs. Purposive sampling

technique was used to identify and select key informants (Nurse Managers in Charge of Maternity Services in each of the hospital)

3.5 Data Collection Instruments

Data was collected from hospital staff using questionnaires; from Nurse Managers in charge using interview guides; and from mothers seeking maternal healthcare services using Focus Group discussions. Due to their busy schedule, self-administered structured questionnaires were used for hospital staff. The questions had categories of answers from the staff easily selected reducing time and effort they would use to complete filling the questionnaire. This resulted in higher response and more accurate quantifiable data that was easily coded and analysed.

Interviews were conducted with key informants: Nurse Managers in Charge of Maternity Services. This facilitated collection of in-depth qualitative information on how project monitoring practices affect implementation of Linda Mama Maternal Health Project. The researcher did not secure an interview with the County Executive Committee Member (CEC) for health.

Focus Group Discussions were used for collecting data on the subjective experience of mothers of the Linda Mama Maternal Healthcare project; the extent of the participation in M&E process as stakeholders; and participation in client satisfaction surveys. The inclusion criterion was expectant and lactating mothers seeking maternal services in public facilities in Nyandarua County. The mothers were randomly selected as they come to seek maternal services.

3.5.1 Pilot Testing of Instruments

Pre-testing of the research instruments was undertaken among 10% of the sample. Therefore 23 questionnaires were administered to healthcare staff and interviews conducted with 1 nurse manager in one of the Level 1 hospitals in Nyandarua County prior to the actual study. Outcome of the pilot was used for refining the research questions before they were administered to the hospital staff and mothers in Level 2, 3 and 4 hospitals. The results of the pilot study showed that HIS provide data on mothers access to all essential maternal services before, during and after delivery; the system also provides data the maternal facilities and staff in public hospitals; hospital staff and mothers were involved in collection of M&E data; stakeholders M&E meetings were held twice a years; hospital client satisfaction surveys were conducted 4 times a year; and

M&E data was used in making decision to enhance outcome of Linda Mama Maternity Project. . Similar findings were obtained in the final study hence there was consistence in findings.

3.5.2 Validity of Study Tools

Validity is the extent to which research results represents the actual phenomena being studied (Bolarinwa, 2015). To enhance the validity of instruments, skilful judgment was used to assess the content of the questions in the instruments to determine if they address all pertinent aspects of variables under study. The tools were developed with supervisions of research experts in the university who studied the research tool items for clarity, readability and comprehensiveness to determine if they actually measured the variables under study. Opinion was also sought from experts in maternal healthcare to determine if concepts have been measured correctly. The researcher refined the research questions using the inputs from the experts to ensure only items which capture the intended objectives are included in the final questionnaire.

3.5.3 Reliability of the Research Tools

Reliability is the extent to which an instrument yields consistent results after recurrent trials (Bolarinwa, 2015). Cronbach Alpha method was utilized to determine the reliability of the data collection research tools. The method determines the internal consistency of a research instrument using multiple scale responses which are similar to a Likert scale. The Statistics Reliability Analysis Function of the SPSS was used to calculate the co-efficient. Instruments were deemed to be reliable as they produce reliability coefficients of 0.7 and above (Creswell, 2017) as indicated in Table 3.3:

Table 3.1: Reliability Statistics

Item	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
Health Information Systems	.741	.768	6
Stakeholder Participation	.821	.840	10

Client Satisfaction Surveys	.818	.828	8
Utilization of M&E Information	.812	.824	8
Implementation of Linda Mama	.724	.746	6

3.6 Data Collection Procedures

Drop and pick method of questionnaire administration was used due to the busy schedule, of healthcare staff. The researcher dropped the questionnaires in each of the public hospitals for filling and gave the staff adequate time for filling the questionnaires which were picked later on for analysis afterwards after completion. To conduct interviews with key informants: Nurse Managers in Charge of Maternity Services in each of the hospital appointments were sort in advance and interviews conducted on the booked days. The researcher recorded the interviews using a smartphone which was later transcribed for analysis. Focus Group Discussions were conducted within the hospitals with mothers seeking maternal healthcare services. The mothers were randomly selected as they came to seek maternal services.

3.7 Data Analysis Techniques

Filled questionnaires were collected and checked for errors and completeness and edited in before analysis was conducted. The questionnaires were summarized and coded to aid in data analysis. The researcher used descriptive and inferential statistics to conduct the analysis of data. The SPSS tool was used to run the analysis which led to the generation of descriptive statistics such as frequencies, percentage, arithmetic means and standard deviations. The standard deviations indicated how weak or strong the data is from the mean.

Inferential statistics were used in assessing the relationship between M&E practices and the implementation of Linda Mama Maternity Healthcare Project. Multiple regression was used to test the significance of the relationship between M&E practices and the implementation of Linda Mama Maternity Healthcare Project as follows:

$$Y= \alpha +\beta_1 X_{1+} \beta_2 X_2 + \beta_3 X_3+ \beta_4 X_4 +e$$

Where:

Y=dependant variable (implementation of Linda Mama Maternity Healthcare Project)

α = intercept points/Constant

X_1=Health Information Systems

X_2=Stakeholder Participation

X_3=Client Satisfaction Surveys

X_4=Utilization of M&E Information.

$\beta_1, \beta_2, \beta_3$ = the slope of the independent variable

e= error term

Thematic analysis was used to analyze qualitative data. Emerging patterns and themes were identified in qualitative data in accordance with objectives of the study. Qualitative data was presented in verbatim quotations and descriptive form.

3.8 Ethical Considerations

The researcher adhered to all ethical guidelines. Research permit was obtained from NACOSTI prior to undertaking of the study. Verbal consent was sought from respondents before their participation in the study. Information given by respondents was treated with maximum confidentiality. This information was only used for purposes of conducting this research. Further, research participants were not obliged to indicate their names or job numbers. The respondents were made aware of their freewill to continue or withdraw from the study at any point if they feel that their rights were aggrieved.

3.9 Operational Definition of Variables

Table 3.3: Operational Definition of Variables

Variable	**Type of Variable**	**Indicators**	**Type of Analysis**	**Scale of Measurement**
Health Information Systems	Independent	-Number of Antenatal Clinic visits -Number of facility based delivery -Number of Postnatal care visit -Data on healthcare staff and maternal facilities	Descriptive & inferential Analysis	Nominal Ordinal

Stakeholder Participation	Independent	-Number of women participating in M&E -Number of healthcare staff participating in M&E - Areas of involvement in M&E -Mode of participation in M&E	Descriptive & inferential Analysis	Nominal Ordinal
Client Satisfaction Surveys	Independent	- Number of beneficiaries involved in surveys -Number of surveys conducted - Types of surveys conducted	Descriptive & inferential Analysis	Nominal Ordinal
Utilization of M&E Information		- Number of women whose feedback was considered in decision making -Decisions made using M&E data for decision making -Information dissemination on maternal healthcare -Number of healthcare staff whose feedback was considered in decision making	Descriptive & inferential Analysis	Nominal Ordinal
Implementation of Linda Mama Maternal Healthcare Project	Dependent	-Percentage of mothers with check-ups in the first trimester -Percentage of mothers with 4 ANC visits -Percentage of women using hospital based deliveries -Percentage of women who receive -PNC services within 48 hours of giving birth -Number of Maternal & neonatal deaths	Descriptive & inferential Analysis	Nominal Ordinal

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the research findings of the study based on the examination of the influence of monitoring and evaluation practices on the implementation of Linda Mama Maternity Healthcare Project in Nyandarua County.

4.2 Response Rate

Table 4.1 indicates the response rate based on the data collections instruments that were administered to Hospital staff, Mother seeking maternal healthcare services; and Nurse Managers and those that were successfully filled and returned:

Table 4.1: Response Return Rate

Category	Administered	Returned	Response Rate (%)
Hospital Staff Questionnaires	224	200	89.3
FGD with Mothers	32	32	100.0
Interviews with Nurse Managers	10	6	60.0
Total	**266**	**238**	**89.5%**

A total of 224 questionnaires were administered to hospital staff in 10 public hospitals in Nyandarua County out of which 200 questionnaires were filled and returned giving a response rate of 89.3%. The high response rate can be attributed to the use of structured questionnaires with predetermined category of answers from which the hospital staff easily selected responses. All the Fours (4) FGDs were successfully conducted with the target of 32 mothers seeking maternal healthcare services giving 100% response rate. Mothers seeking maternal services were easily available at the hospital and were willing to participate in the FGD hence the high response rate. The study sought to interview 10 nurse managers but only managed to secure interviews with 6 nurse managers giving 60% response rate. This can be attributed to their busy schedule. However, the researcher did not secure interview with County CEC who was busy and just settling in the new office following recent appointments. Chief Officers and directors in the county were also not available as they were yet to be appointed. This gives an overall response rate of 89.5% as indicated in in Table 4.1 above. Mugenda and Mugenda (2009) observe that a response rate of 70% and above is considered to be excellent. Therefore the response rate of 89.5% was sufficient for analysis of data and also drawing conclusions for the study.

4.3 Research Participants Demographic Information

This segment provides information about the research participants which includes their gender, age, education level, and work experience as detailed in the subsections below:

4.3.1 Distribution of Hospital Staff by Gender

The gender of the hospital staff helps to establish if the social construction of gender roles of provision of maternal healthcare services was reserved for women is still observed in the medical profession. Table 4.2 provides information of the gender of the hospital staff involved in providing maternal healthcare services:

Table 4.2: Distribution of Hospital Staff by Gender

Gender	**Refugee Pupils**		**Nurse Managers**	
	Frequency	**Percentage (%)**	**Frequency**	**Percentage (%)**
Male	79	39.5%	4	66.7
Female	121	60.5%	2	33.3
Total	**200**	**100%**	**6**	**100%**

Table 4.2 indicates that 39.5% of the hospital staffs were male while 60.5% were female. This implied that there were more females hospital staff involved in the provision of maternity healthcare services in Nyandarua County compared to male staff. Similarly there were more female nurse managers in charge of maternity services (66.7%) compared to 33.3% of male nurse managers. Traditionally the role of birth attendant was allocated to women. The social construction of gender roles is mirrored in the gender distribution of hospital staff where there are more female staff involved in the provision of maternal healthcare services compared to male staff. However, with time these gender construction has been broken and men are pursuing careers in nursing and other areas of reproductive health such as gynecologists hence the lesser number of male hospital staff providing maternal services.

4.3.3 Highest Level of Education Attained by Hospital Staff

Education level of the hospital staff helps to determine if the staff has the necessary professional qualifications required to provide maternal healthcare services to women in public hospitals. Table 4.3 provides information of the highest level of education attained by the hospital staff involved in providing maternal healthcare services:

Table 4.3: Highest Level of Education Attained by Hospital Staff

Education Level	Frequency	Percentage (%)
Masters	12	5.8
Bachelor's Degree	116	56.3
Diploma	78	37.9
Total	**206**	**100%**

Table 4.3 shows that majority of the hospital staff 56.3% had a degree level of education; followed by those who had a diploma at 37.9%; and those who had masters at 5.8%. Hospital staff involved in providing maternal healthcare services had a minimum of diploma which implies that all the staff had attended the Kenya Medical Training College. The education level of the healthcare staff affects the delivery of maternal healthcare services. Therefore hospital staff in public hospitals staff in Nyandarua County have attained the required qualifications for providing maternal healthcare services.

4.3.4 Hospital Staff Work Experience

The work experience of the hospital staff is an indication of their practical involvement in providing maternal healthcare services since the launch of free maternity health policy in 2017 hence their ability to provide reliable information on the M&E practices and the implementation of the Linda Mama Maternal Healthcare Project. Table 4.4 provides information of the staff work experience:

Table 4.4: Hospital Staff Work Experience

Years	Frequency	Percentage (%)
Below 5 years	45	21.8
6-10 years	86	41.7

11-15 years	63	30.6
16 years and above	12	5.8
Total	**206**	**100%**

Findings in Table 4.4 indicates that 21.8% had a less than 5 years' work experience; 41.5% had a work experience of 6-10 years; 30.8% had a work experience of 11-15 years; and 5.9% had a work experience of 16 years and above. Therefore majority of the hospital staff had spent a considerable period of time in provision of maternal healthcare services. The staff also had been involved in providing maternal healthcare services since Linda Mama Free Maternal Health Care Project was initiated 5 years ago in 2017. The considerably long experience in provision of maternal services gives the practical experience on implementation of maternal healthcare services under Linda Mama Maternity Healthcare Project hence their ability to provide reliable information on the M&E practices under the project and their contribution to the successful implementation of project.

4.4 Use of Health Information Systems in Monitoring Linda Mama Maternal Project

The first objective of this study was to find out the influence of Health Information Systems on the implementation of Linda Mama Maternity Healthcare Project. Hospital staff were required to indicate extent of their agreement with statements on information provided by the system and how this influences implementation of the maternity healthcare project using a scale of 1-5 where (5-Strongly Agree; 4-Agree; 3-Neutral; 2-Disagree; and 1-Strongly Disagree). Interviews were also held with nurse managers in charge of maternal services in hospitals in Nyandarua County. Table 4.5 indicates findings on Health Information Systems:

Table 4.5: Health Information Systems

Statement	Minimum	Maximum	Mean	Std. Dev.
The Health Information System provides accurate data that is used to monitor the number of women accessing antenatal services, hospital-based delivery & postnatal services	1	5	4.787	.788

The Health Information System provides on the number of mothers utilizing facility based delivery services	1	5	4.024	.719
The Health Information Systems provides data on the number of maternal healthcare facilities	1	5	4.863	.699
Data on the number of maternity healthcare facilities helps to determine adequacy of facilities and plan accordingly to ensure there are sufficient facilities	2	5	4.835	.683
The Health Information Systems provides data on the number of number of healthcare staff involved in providing maternity services	1	5	4.780	.900
Data on the number of healthcare staff is used to determine adequacy of healthcare staff involved in providing maternity services and plan accordingly to ensure that there are adequate staff	1	5	4.701	.921
Aggregate Mean & Standard Deviation			**4.665**	**0.785**

Hospital staff in public hospitals in Nyandarua County strongly agreed that the Health Information Systems provides information that is used to monitor and evaluate the implementation of Linda Mama Maternal Healthcare Project as shown by an aggregate mean of 4.665 in Table 4.5. The staff strongly agreed that Health Information System provides: accurate data that is used to monitor the number of women accessing antenatal services, hospital-based delivery & postnatal services (Mean=4.787; Std. Dev. =0.788); and data on the number of mothers utilizing facility based delivery services (Mean=4.024; Std. Dev. =0.719). The staff also strongly agreed that the system provides data on the number of maternal healthcare facilities (Mean=4.863; Std. Dev. =0.699) which is used to determine adequacy of facilities and plan accordingly to ensure there are sufficient facilities (Mean=4.835; Std. Dev. =0.683); and data on the number of number of healthcare staff involved in providing maternity services (Mean=4.780; Std. Dev. =0.900) which is used to determine adequacy of healthcare staff involved in providing maternity services and plan accordingly to ensure that there are adequate staff (Mean=4.701; Std. Dev. =0.921).

This implies that the HIS provides data that is used to make a determination on the extent to which the free maternity healthcare project interventions have enhanced women's access to all

maternal healthcare services and quality of services envisioned under the Linda Mama Maternal Healthcare Project. According to the United Nations Development Program (2021), HIS provide information on the progress and performance of health interventions that is critical for purposes of decision making to enhance service quality; development of sound health policies and strategies; and provide accurate data on needs and usage for effective management of maternal projects through procurement of adequate supplies, employment of adequate healthcare staff and provision of adequate maternal facilities. These findings are discussed in the subsequent sub-sections:

4.4.1 Data on Access to All Maternal Healthcare Services

According to the *Linda Mama Implementation Manual*, information on ANC visits; hospital deliveries and ANC visits provides empirical data that is used to determine whether free maternal healthcare project interventions are working or not working in terms of enhancing utilization of facility based delivery and access to maternal healthcare services before, during and after delivery (GoK, 2016). This information enables the government to take corrective action to ensure that more women are utilizing facility based delivery, have access to all maternal services as envisioned.

Interviews with nurse managers in charge of maternal services revealed prior to the adoption of HIS records on maternal services were fragmented due to lack of a central database on all the systems. However with introduction of the system it has become easy to record, track and monitor the number of mothers who come for check-ups in the first trimester of their pregnancy; who complete the 4 ANC visits; deliver in the hospital and access PNC services. According to the nurse the hospital has digitized their records where mothers are assigned unique numbers which are used to record every visit made to the hospital and the services that they access every time they visit the hospital. The data is also backed up manually records and in the women hospital/maternal books. These records enable the hospital to keep track of the services provided and the number of women accessing these services. Thus the statistics derived from this data provide data on the number of women who have accessed ANC services; delivered in the hospital; and PNC services.

4.4.2 Data on Hospital Staff and Maternal Facilities

Information on hospital staff and maternal facilities is used to determine adequacy of facilities and hospital staff involved in provision of maternal health care services. This information enables the county government to plan accordingly to enhance quality of maternal healthcare services by ensuring that there are sufficient facilities and staff in proportion to the number of women seeking maternal healthcare services.

Interviews with the nurse managers revealed that the system has been instrumental in planning especially following the implementation of free maternal services that saw an influx of mothers seeking maternal health care services. According to one of the nurses, the system captures accurate and up to date information on the maternal health facilities such as maternity wards, beds, ultra sound machine, theatre room and incubators. This data is used to determine availability of these facilities in the health facilities and their adequacy through a comparison with the number of mothers seeking maternal services. Based on this comparison, the management can make a decision on the maternal services that they can provide such as normal deliveries or caesarian sections and those that require referrals based on the available facilities; the number of mothers that they can attend to based on the capacity of their respective facilities; and for planning purposes to ensure that hospital has adequate wards and beds for purpose of delivery.

Similar observations were made by another nurse manager who observed that the system provides information on the number of attending nurses and the number of mothers seeking maternal healthcare services in their respective health facilities. The nurse manager observes that the system keeps records on the numbers of staff in the hospital which is used to determine the ratio of attending nurses: mothers seeking maternal health services and the various categories of staff proving maternal healthcare services such as doctors, clinical officers, nurses and surgeons. This information is instrumental in determining the workload on the nurses based on the number of mothers that a nurse attends to at any given time and plan accordingly to ensure there are adequate nurses and other staff for quality services.

According to the Realistic Evaluation Theory (Pawson & Tilley, 1997), effective M & E practices should provide information that can be used to determine whether or not the project interventions are working and information that can be used for decision making to enhance the

implementation of the project for better outcomes. Thus Health Information Systems is an effective M&E tool as it enables the government to get information that is used to determine if women have been able to access all the maternal healthcare services before, during and after delivery as well as adequacy of maternal facilities and staff involved in providing maternal healthcare services. This enables the government to improve outcomes of the project by putting measures that will enhance women access to essential maternal services and enhance quality of services by ensuring there are adequate staff to attend to women seeking services and adequate facilities for providing maternal healthcare services.

Contrary to UNDP observations which show that Health Information Systems are usually fragmented (UNDP, 2021), HIS have enabled public hospitals in Nyandarua County to monitor data on access to maternal healthcare services; hospital staff and facilities involved in providing maternal healthcare services. According to Phiri (2015), information retrieved from the Information Systems database generates reports on the trends and progress of different projects. This information is used to develop new strategies for purposes of improving project performance. Similar findings were also established a correlation analysis by Nalianya and Luketero (2017) which established a strong and positive correlation between adoption of management information systems and implementation of maternal healthcare projects. The study further also established that utilization of information management system enhances performance. Phir (2015) and Afomachukwu (2021) also established a strong correlation between M&E management information systems and the performance of Projects. This implies that use of MIS has a positive and significant effect on project implementation. Thus, information from the HIS is critical in the successful implementation of the Linda Mama Maternal Project.

4.5 Stakeholder Participation in Monitoring of Linda Mama Maternal Project

The next objective of the study was to establish the influence of Stakeholder Participation on the implementation of Linda Mama Maternity Healthcare Project. Hospital staff were therefore required to indicate the different stages of M&E process that they were involved in; stakeholders that were involved in the process and the influence of the participation on implementation of Linda Mama Maternal Project using a Likert Scale. Interviews were also held with nurse

managers and FGDs to determine their level of involvement in the M&E process. These findings are presented in the following subsections:

4.5.2 Stakeholder Involvement in Monitoring and Evaluation

Table 4.6 indicated the hospital staff perspective on their involvement in monitoring and evaluation:

Table 4.7: Hospital Staff Involvement in Monitoring and Evaluation

Participation	**YES**		**NO**	
	Frequency	**(%)**	**Frequency**	**(%)**
Hospital Staff involvement in M&E	137	66.5	69	33.5%
Involvement in design of monitoring and Evaluation Plans	6	2.9%	200	97.1%
Involvement in developing indicators for monitoring the project	6	2.9%	200	97.1%
Involvement in collection of data	139	67.5%	67	32.5%
Involvement in Making decision on how to use M&E data	6	2.9%	**200**	**97.1**%

Table 4.6 indicates that 66.5% of the hospital staff were involved in the monitoring of the Linda Mama Maternal Healthcare Project; 67.5% of the hospital staff were involved in collection of data on the progress and achievement of the project; and only 2.9% were involved in designing the M&E plan, developing indicators and deciding how to use data collecting from the M&E process. Even though hospital staff were involved in monitoring the project, they were not involved in all the stages of monitoring the Linda Mama Maternity Project. Majority were involved at the stage of data collection.

Mothers seeking maternal health care services are key stakeholders in the Linda Mama Project. Therefore, this study also established their level of involvement in the monitoring of the project through the discussions held during the FGD as indicated in Table 4.8:

Table 4.8: Mothers Involvement in Monitoring and Evaluation

Participation	**YES**	**NO**

	Frequency	(%)	Frequency	(%)
Mothers Involved in M&E process	27	84.4%	5	15.6%
Involvement in collection of data	27	84.4%	5	15.6%

Table 4.8 indicates 84.4 of the mothers were involved in monitoring of the Linda Mama Maternity Project, however they were only involved at the stage of data collection. Interviews with one of the nurse managers revealed that it is only staff at the management level that were involved in making decision on the approaches that are used in monitoring of the Linda Mama Maternity Project and utilization of the collected data. Another nurse manager observed that it is not practically possible to include the large number of staff involved in providing maternal services in all the aspects of the monitoring process. These sentiments were echoed by another nurse who observed that the busy environment of the maternity wards caused by influx of mothers at the hospital following the implementation of free maternity services does not allow the staff to be involved throughout the process. Therefore some aspects are better left to the management. Additionally the researcher observed that mothers had no knowledge of the monitoring process during the FGD. Therefore involving the mothers in other stages of the M&E process apart from providing feedback may not add value to implementation of the project. This explains low levels of participation in the design of the M&E plan and high participation in data collection stages of the process.

The impact of stakeholder participation on project implementation is to a large extent determined by their level of participation. Napier et al., (2020), observes that involvement of stakeholder in providing information to be used purposes of M &E is a passive form of participation that has no impact on the implementation of project. This form of participation is only effective feedback from stakeholders is used as an input in decision making. Effective participation requires that stakeholder be involved in making decisions on the approaches to be used for monitoring and use of the collected data for making decisions to enhance performance of the project. However in practically, stakeholders are involved in data collection and the technical aspects of designing the M&E plan are left for experts in the field.

A study by Afomachukwu (2021) found out that 94% project staff was actively involved in data collection at different stages of the project while only 31% of the staff were involved technical aspects of monitoring. Similarly Nalianya and Luketero (2017) found out that participation of stakeholders in M&E of maternal healthcare project among the MHPs was high in non-technical areas of the project such as data collection and information provision on the performance of the project. Only 16% of the stakeholders were involved in technical aspects involving of designing the M&E plan and data analysis and report writing. Tengan and Aigbavboa (2017) attribute minimal stakeholder involvement in monitoring of projects to their lack of technical knowhow of the process. Lack of technical knowhow on M&E by stakeholders may compromise the quality of M&E data.

While it is desirable that stakeholders are involved in all the stages of the monitoring process, this may not be practical as the process is highly technical and technical aspects of the process require experts in the field. Mugo and Oleche (2015) observe that involving a lot of stakeholders in the monitoring may cause delays in decision making. Such delays consume a lot of project timelines and may affect implementation of activities within the set project timelines. However according to the Stakeholder Theory when making decisions it is critical that input from stakeholders is taken into consideration stakeholders as their interests may influence implementation of the projects. Therefore while it may not be possible to involve stakeholders in all the stages of the monitoring Linda Mama Project, it is important that input from stakeholder is taken into consideration.

4.5.3 Influence of Stakeholder Participation in Monitoring on Implementation of Linda Mama Maternal Healthcare Project

Table 4.9 indicates findings on the influence of stakeholder participation in monitoring on Implementation of Linda Mama Maternal Healthcare Project:

Table 4.9: Stakeholder Participation & Implementation of Linda Mama Maternity Project

Statement	Minimum	Maximum	Mean	Std. Dev.
Participation of stakeholder in monitoring projects enhances the reliability and validity of information	1	5	4.781	.901

Involvement of beneficiaries and healthcare staff in design of projects helps in identifying issues plaguing the maternal healthcare system and development of feasible solutions	1	5	4.473	.761
Participation of healthcare staff in designing M&E plans ensures use of appropriate indicators to monitor the progress and performance of projects	1	5	4.113	1.315
Beneficiaries of the Linda Mama Maternal Healthcare Project are in a better position to provide information on how they are being impacted by the project and know how the project could be improved	2	5	4.918	.566
Involvement of healthcare staff in making decisions on utilization of information collected through monitoring of projects is critical in enhancing the quality of maternal services delivered	2	5	4.127	.544
Involving the NHIF ensures timely and adequate reimbursement of funds to cater for the maternal health care services	2	5	4.795	.759
Involvement of the County government ensures that adequate maternal facilities and healthcare staff providing maternal healthcare staff	2	5	4.701	.898
Aggregate Mean & Standard Deviation			**4.558**	**0.821**

Hospital staff in public hospitals in Nyandarua County strongly agreed that stakeholder participation in monitoring influences the implementation of Linda Mama Maternal Healthcare Project as shown by an aggregate mean of 4.558 in Table 4.9. Findings in Table 4.8 indicates that participation of stakeholders in monitoring projects is influences implementation of Linda Mama Maternal Healthcare Project by enhancing the reliability and validity of monitoring and evaluation data; enhancing the quality of maternal health care services; and facilitating timely and sufficient reimbursement of funds to hospitals to cater for all maternal healthcare services. These findings are discussed in the subsequent subsections:

4.5.4 Reliability and Validity of M&E Data

The hospital staff strongly agreed that participation of stakeholder in monitoring projects enhances the reliability and validity of information (Mean=4.781; Std. Dev. =0.901);

participation of healthcare staff in designing M&E plans ensures use of appropriate indicators to monitor the progress and performance of projects (Mean=4.113; Std. Dev. =1.315); and beneficiaries of the Linda Mama Maternal Healthcare Project are in a better position to provide information on how they are being impacted by the project and know how the project could be improved (Mean=4.918; Std. Dev. =0.566).

According to one of the nurse managers, mothers are able to paint an accurate picture of the impact of the Linda Mama project in terms of how they are accessing maternal services as it is on the ground at the local level. Similarly another nurse argued that that nurses and doctors are directly involved in providing services and are therefore better placed to provide information on the sufficiency of maternal facilities such as beds and wards and staff involved in providing maternal services in their respective health facilities.

4.5.5 Improvement of Quality of Maternal Healthcare Services

The hospital staff strongly agreed that involvement of healthcare staff in design of projects helps in identifying issues plaguing the maternal healthcare system and development of feasible solutions (Mean=4.473; Std. Dev. =0.761); involvement of healthcare staff in making decisions on utilization of information collected through monitoring of projects is critical in enhancing the quality of maternal services delivered (Mean=4.127; Std. Dev. =0.544); and involvement of the County government ensures that adequate maternal facilities and healthcare staff providing maternal healthcare staff (Mean=4.701; Std. Dev. 0=0.898).

Interviews with one of the nurse manager revealed that they are required to provide information of the maternal facilities in their respective hospitals to the County Government and facilities that are missing. Another nurse observed that she provides the Medical Superintendent with data on the staff in the maternity wing and any shortages that may be available who coordinates with the County government for planning purposes and possibly employment of the staff that are lacking in the hospital.

Input from healthcare staff that provide maternal healthcare services helps the county government to determine if there are adequate maternal healthcare facilities such as delivery wards, delivery beds, theatre rooms and medicines; and if there are adequate healthcare staff such as nurses and midwifes. This information is used to make decision on the additional facilities required in the hospitals and additional staff that need to be employed to ensure that the

hospitals have sufficient facilities and staff to provide quality maternal healthcare services to mothers. However, interviews with the nurse managers revealed that slow response on part of the county government, there were still staff shortages causing high workload on the nurses and shortage of facilities limiting some of the level 2 hospitals from providing caesarean section deliveries and ultrasound services.

Similarly studies have shown participatory monitoring and evaluation practices enhance the success of maternal projects. Astudy by Kananura *et al.,* (2017) revealed that stakeholder involvement in M&E was instrumental in identifying problems facing maternal healthcare problems, developing feasible solutions and activities that would be implemented to address the problems. Sifunjo (2019) established that participatory M&E approaches positively influence implementation of maternal healthcare projects. According to studies by Mkutano and Sang (2018) and Gatimu *et al.,* (2021) stakeholders' participation in monitoring had a significant and positive influence on performance of projects and increased stakeholder participation in projects results in improved projects. Thus involving hospital staff and beneficiaries in monitoring of Linda Mama maternal may significantly enhance success of the project.

4.5.6 Timely and Adequate Reimbursement of Funds for Maternal Healthcare Services

The hospital staff strongly agreed that involving the NHIF ensures timely and adequate reimbursement of funds to cater for the maternal health care services (Mean=4.795; Std. Dev. =0.759). This is critical in determining if the hospitals receive timely and adequate reimbursed on time by NHIF to cater for the maternal healthcare services. Involving NHIF ensures coordination with the hospitals management for timely and adequate reimbursement of funds to the hospital. This ensures that mother can access all the service packages that they are entitled whenever it is need. However interviews with one of the nurses in charge of maternity services at level 4 hospital in Nyandarua County revealed that joint monitoring involving key stakeholders is conducted semi-annually, NHIF hardly participates in the process. Consequently the hospitals are sometimes reimbursed smaller amounts that do not commensurate to the expenses incurred in providing maternal healthcare services; at times the payments do not correspond to the high number of deliveries. This affects ability of the hospitals to cater for all the services entitlements under the Linda Mama service package. In most cases, it is often antenatal visits and delivery

services that are catered for. As a result some mothers are forced to forfeit PNC services or pay out of their pocket.

4.6 Use of Client Satisfaction Survey for Monitoring Linda Mama Maternity Project

The third objective of this study was to examine the influence of Client Satisfaction Survey on implementation of Linda Mama Maternity Healthcare Project. FGDs were therefore held with mothers to get their perspective on the surveys. The researchers identified themes that emerged during the discussions based on mother involvement in client satisfaction survey; frequency of participating in the satisfaction survey; and the information sought by the client satisfaction survey. The Hospital staff on the other hand was required to indicate the extent to which client satisfaction surveys has enhanced implementation of Linda Mama Project on a Likert scale. These findings are presented in the following subsections:

4.6.1 Mothers Participation in Client Satisfaction Surveys

Table 4.10 indicates the number of mothers who were involved in the client satisfaction survey:

Table 4.10: Mother Participation in Client Satisfaction Survey

Participation	Frequency	(%)
Participation in client Satisfaction Survey	27	84.4%
Did not Participate in client Satisfaction Survey	5	15.6%
Total	**32**	**100%**

Table 4.10 indicates that out of the 32 mothers that participated in the Focus Group Discussion, 84.4% indicated that they had participated in client satisfaction surveys in their respective hospitals. It is only 15.6% who indicated that they did not participate in client satisfaction surveys. Therefore majority of the mothers participated in the client satisfaction surveys. According to the Stakeholder Theory project feedback from project beneficiaries is critical as it affects project implementation and therefore effective M&E practices should be an intertwined participatory exercise in which project beneficiaries are involved. Serradora and Turnerb (2014) observe that successful implementation of a project is best judged by the project beneficiaries. In addition to conventional outcomes that seek to provide statics on the targets achieved, it is crucial to determine the extent to which key stakeholders whom the project interventions targeted are satisfied with services. Therefore participation of mothers in the surveys provide the

best way to determine if Linda Mama Project interventions are working in terms of accessing all the maternal service packages under the project and access to quality maternal services in public hospitals.

4.6.2 Frequency of Mothers Participation in Client Satisfaction Surveys

Table 4.11 indicates the frequency of Mothers Participation in Client Satisfaction Survey:

Table 4.11: Frequency of Mothers Participation in Client Satisfaction Surveys

Frequency of Participation	Frequency	(%)
Participated once in a year	2	7.4%
Participated twice in a year	2	7.4%
Participated 4 times in a year	23	85.2%
Total	**27**	**100%**

Table 4.11 indicates that out of the 27 mothers who participated in the survey, 85.2% of participated in the survey 4 times in a year; 7.4% participated in the surveys twice a year; and 7.4% participated in the surveys once a year. Therefore majority of the mothers participated in the surveys 4 times a year. This translates to quarterly surveys. Interviews with the nurse managers indicated that the surveys are conducted on quarterly basis. Serradora and Turnerb (2014) observe that the frequency of client satisfaction is fundamental on the success of the project. Periodic surveys are instrumental in capturing key milestones in the project giving the project implementers an opportunity to take corrective action for the next phase of the project rather than wait for the time when the projects comes to an end. This ensures that the project progress is on track to achieving goals and objectives. Thus the quarterly clients satisfaction surveys enables the management of public hospitals and the Nyandarua County government to determine if the quarterly targets on mothers access to ANC, delivery and PNC services are being realized. This enables the government to take action to ensure that mothers are able to access all the service packages before, during and after delivery.

4.6.3 Information sought by Client Satisfaction Survey from Mothers

Table 4.12 indicates the Information sought by Client Satisfaction Survey from Mothers

Table 4.12: Information sought by Client Satisfaction Survey from Mothers

Information Sought	YES		NO	
	Frequency	(%)	Frequency	(%)
Survey sought information on satisfaction with services provided by doctors and nurses	27	100%	-	-
Survey sought information on the waiting time before a nurse can attend to mothers	25	92.6%	2	7.4%
Survey sought information on whether facilities such as beds are shared and if the wards are crowded	27	100%	-	-
Survey sought information on whether they were able to find medicine at the pharmacy	26	96.3%	1	3.7%
Survey sought suggestions on what can be done to improve services in the hospitals	24	88.8%	3	11.1%

Table 4.13 indicates that all the mothers (100%) who participated in the survey indicated that the client satisfaction surveys sought to measure their satisfaction with maternal services offered and adequacy of maternal services in their respective schools; 92.6% indicated that the surveys sought to determine the waiting time; 96.3% indicated that the surveys sought to determine availability of medicine in the pharmacies; and 88.8% indicated that the surveys sought their suggestions on the actions that can be taken to enhance the quality of maternal services. Therefore client satisfaction surveys conducted in public hospital in Nyandarua County sought to evaluate satisfaction with maternal healthcare services; Adequacy of maternal facilities; Mothers waiting time; Availability of medicine in the hospitals and the action that can be taken to enhance quality of maternal services in public hospitals.

4.6.7 Influence of Client Satisfaction Surveys the Implementation of Linda Mama Maternity Healthcare project

Table 4.13 indicates hospital staff perspective on the influence of client satisfaction surveys on the implementation of Linda Mama Maternity Healthcare project

Table 4.13: Influence of Client Satisfaction Surveys on the Implementation of Linda Mama Maternity Healthcare project

Statement	Minimum	Maximum	Mean	Std. Dev.
Client satisfaction surveys provides data on the extent to which beneficiaries are satisfied with services provided	1.00	5.00	4.716	.774
Client satisfaction survey establish reasons as to why Linda Mama Maternity Healthcare project is not meeting the mothers' expectations	1.00	5.00	4.465	.744
Client satisfaction surveys provide data on the impact of Linda Mama Maternity project on maternity healthcare from the beneficiaries' perspective	1.00	5.00	4.472	.982
Information provided through client satisfaction surveys enables the hospital management to bridge the gap between the hospitals perceived quality of service and the mothers perceived quality of service received	1.00	5.00	4.524	.746
Periodic surveys are instrumental in capturing key milestones in the project giving the project implementers an opportunity to take corrective action ensuring that project is on track to achieving goals and objectives.	1.00	5.00	4.496	.862
Client satisfaction surveys are critical in determining dimensions of maternal healthcare service quality that affect patient satisfaction with services offered	1.00	5.00	4.618	.975
Aggregate Mean & Standard Deviation			**4.548**	**0.847**

The hospital staff strongly agreed that Client Satisfaction Surveys conducted among mothers in public hospital in Nyandarua County provide information that is critical to the implementation of Linda Mama Maternal Healthcare Project as indicated by a mean of 4.548 in Table 4.13.

Findings in Table 4.13 indicate that client satisfaction surveys provide information that is used to improve the quality of maternal healthcare services. The staff strongly agreed that client satisfaction surveys provides data on the extent to which beneficiaries are satisfied with services provided (Mean=4.716; Std. Dev. =0.774); enables the hospital management to bridge the gap between the hospitals perceived quality of service and the mothers perceived quality of service (Mean=4.524; Std. Dev. =0.746); by establishing reasons as to why Linda Mama Maternity

Healthcare project is not meeting the mothers' expectations (Mean=4.465; Std. Dev. =0.744); and the dimensions of maternal healthcare service quality that affect patient satisfaction with services offered (Mean=4.618; Std. Dev. =0.975).

This implies that the surveys help the county government of Nyandarua and the management of public hospitals to determine if mothers are satisfied with services provided in the hospitals or not; reasons for lack of the satisfaction with the services; and the specific aspects of maternal healthcare services that the mothers are satisfied with or not. Mothers indicated that client satisfaction surveys in public hospitals in Nyandarua County evaluate if mothers are satisfied with maternal healthcare services provided in public hospitals; Adequacy of maternal facilities; Mothers waiting time; Availability of medicine in the hospitals and the action that can be taken to enhance quality of maternal services in public hospitals (Table 4.13). These aspects measured by the surveys provide information that enables the management of the hospitals and the county government to take action to enhance the quality of maternal healthcare services. However, interviews with the nurse managers revealed that slow response on part of the county government, there were still staff shortages causing high workload on the nurses and shortage of facilities limiting some of the level 2 hospitals from providing caesarean section deliveries and ultrasound services.

Mwangi (2015) observes that patient satisfaction surveys are critical in determining factors that affect quality of services in healthcare setting such as waiting time, technical competence of staff, adequacy of consultation duration, doctors' respect and compassion for patients and observance of patients' privacy. This information provides the basis for hospital management to ensuring quality health care services are offered in hospitals. Nyarango (2015) on the other hand established that dimensions of healthcare quality significantly influence client satisfaction as they account for 62.3% variation in levels of clients' satisfaction. Therefore, conducting client satisfaction surveys are critical maternal service providers and the government aspects of healthcare quality that can be improved to enhance mothers/client satisfaction with services offered under Linda Mama healthcare project.

The findings also indicate that client satisfaction survey ensure that project is on track to achieving goals and objectives. The hospital staff agreed that periodic surveys are instrumental in capturing key milestones in the project giving the project implementers an opportunity to take

corrective action ensuring that project is on track to achieving goals and objectives (Mean=4.496; Std. Dev. =0.862). The quarterly surveys provide periodic information on mothers access to ANC, delivery and PNC services enabling the hospital management and the county government to determine the number of mothers accessing maternal services against the quarterly targets. Serradora and Turnerb (2014) observe that the enables project implementers take corrective action for the next phase of the project rather than wait for the time when the projects comes to an end. Thus the quarterly surveys are instrumental in taking corrective action to ensure the Linda Mama Project is on track to realizing the targets of mothers access to maternal services before, during and after delivery.

Further client satisfaction surveys are used for measuring the impact of the project on the targeted beneficiaries. The staff agreed that client satisfaction surveys enhance the validity of M&E information by providing data on the impact of Linda Mama Maternity Healthcare project on maternity healthcare from the beneficiaries' perspective (Mean=4.472; Std. Dev. =0.982). The summative monitoring data collected in each quarter and the annual evaluations provide data on the number of mothers using facility based deliveries and the impact of these services in reduction of maternal and neonatal deaths. This helps to evaluate if the project has contributed to the reduction of maternal and neonatal deaths as envisioned in the project and to achieve the SDGs target which aims at reducing maternal and neonatal deaths (United Nations, 2015). If the targets have not been achieved; reasons for failure are established and measures are put in place to ensure that the project is on track to realize the targets.

4.7 Utilization of Monitoring and Evaluation Findings

The fourth objective of this study was to examine the influence of utilization of monitoring and evaluation findings on the implementation of Linda Mama Maternity Healthcare Project. Hospital staff was therefore required to provide information on how monitoring and evaluation is used. These findings are presented below in Table 4.14:

Table 4.14: Utilization of Monitoring and Evaluation Findings

Statement	Minimum	Maximum	Mean	Std. Dev.
Information provided through monitoring and evaluation is used by the government and hospital management to develop feasible solutions that address the problem that cause	1.00	5.00	4.816	.646

dissatisfaction among mothers and enhance quality of maternal services				
Information obtained through monitoring and evaluation is used to assess the value Linda Mama Healthcare project through provision of evidence on what interventions works and what interventions do not work	1.00	5.00	4.642	.764
Information on project interventions facilitate optimal resource allocation based on what interventions work	1.00	5.00	4.651	.618
Information provided through monitoring is used to enhance accountability to project beneficiaries & other key stakeholders through provision of evidence on the success of Linda Mama Maternity Project	1.00	5.00	4.583	.863
Monitoring and evaluation information provides acts as a learning experience for effective implementation of future maternal healthcare projects	1.00	5.00	4.753	.681
Aggregate Mean & Standard Deviation			**4.689**	**0.714**

Hospital staff in public health facilities in Nyandarua County strongly agreed that information obtained from monitoring and evaluation of Linda Mama Maternal Healthcare project is used to enhance implementation of the project as shown by an aggregate mean of 4.689 in Table 4.14. This implies that the data sets are closely clustered around the mean. Findings is Table 4.14 indicates that M&E information on the Linda Mama Maternity Project is utilized for developing feasible solutions to challenges facing public hospitals in provision of maternity services; evaluate effectiveness of Linda Mama Project Interventions; enhance accountability and as a learning experience for effective implementation of future healthcare projects. The findings are discussed in the subsequent subsections:

4.7.1 Developing Solutions to Challenges of Providing Maternal Healthcare Services

Table 4.14 indicates the hospital staff strongly agreed that information provided through monitoring and evaluation is used by the government and hospital management to develop feasible solutions that address the problem that cause dissatisfaction among mothers and enhance quality of maternal services (Mean=4.816; Std. Dev. =0.646). This implies that M&E information is used to enhance quality of maternal healthcare services by identifying aspects that

cause dissatisfaction among mothers and taking action to address these aspects. One of the nurse managers observed that M&E information is used for planning purposes to ensure that hospital has adequate wards and beds for purpose of delivery and adequate staff to provide quality maternal healthcare services. Another nurse observed that the issues identified in the survey and the suggestions made by the mothers are taken into consideration during the semi-annual joint monitoring involving key stakeholders.

However it emerged that there was a slow response on part of the county government in providing adequate facilities and staff in the hospitals as observed by some of the nurses. As a result the workload is quite high in public hospitals in Nyandarua County. This has caused delays in attending to mothers with a waiting time of between 15-30 minutes before a nurse can attend to them and at times they have to share the nurses where a single nurse attends to two mothers simultaneously. Even through all the hospitals have maternal wards and beds required for normal deliveries, theatre rooms for caesarean section deliveries, incubators for babies born before their due date and ultra sound machines are only available in level 3 and 4 hospitals and few level 2 hospitals. These facilities are missing in most of the level 2 hospitals where majority of the mothers seek maternal healthcare care services. This limits mother's access to caesarean deliveries, scanning and premature deliveries at the local level where they can easily access maternal services.

4.7.2 Assessing Effectiveness of Linda Mama Maternity Healthcare Project

Table 4.14 indicates the hospital staff agreed that information obtained through monitoring and evaluation is used to assess the value Linda Mama Healthcare project through provision of evidence on what interventions works and what interventions do not work (Mean=4.642; Std. Dev. =0.764); and for optimal resource allocation based on what interventions work (Mean=4.651; Std. Dev. =0.618). Interviews with one of the nurse managers revealed that the Health Information Systems provide information on the number of women accessing ANC services; number of hospital deliveries; and the number of women accessing PNC services. This information is used to determine if women are accessing all the maternal healthcare services as envisioned under the Linda Mama project service package. Another nurse manager observed that M&E provides information that is used to determine the maternal and neonatal deaths in the facilities which helps the county and national government to determine if the project has

contributed to reduction in the deaths of newborns and their mothers from pregnancy and birth related complications. Similar observations were made by another nurse manager who observed that they do a yearly comparative analysis if there in increase or decrease in the number of facility based deliveries and neonatal and maternal deaths to evaluate the impact of the project.

4.7.3 Enhancing Accountability

Table 4.14 indicates the hospital staff strongly agreed that information provided through monitoring is used to enhance accountability to project beneficiaries & other key stakeholders through provision of evidence on the success of Linda Mama Maternity Project (Mean=4.583; Std. Dev. =0.863). According to interviews with the nurse managers, the Linda Mama Project operates on a system of reimbursement where the hospitals are reimbursed by NHIF based on the number of deliveries made; number of ANC and PNC visits; and the type of delivery (normal or caesarian). The reimbursement rates are provided in the implementation manual. This reduces cases of fraudulent claims as the reimbursements have to backed by data obtained through the monitoring process. Another nurse manager observed that data provided through the M&E process provides statistics on hospital deliveries and number of women receiving maternal services that used to justify expenses incurred by public hospitals.

4.7.4 Provide a Learning Experience for Implementation of Future Healthcare projects

Table 4.14 indicates the hospital staff strongly agreed that monitoring and evaluation information acts as a learning experience for effective implementation of future maternal healthcare projects (Mean=4.753; Std. Dev. =0.681). M&E information provides information that helps to determine if project interventions under the Linda Mama are working and if not enabling the hospital and the county government to take corrective action to rectify the situation and ensure that the project enhances women's access to ANC and PNC services and use of facility based delivery. This information provides data that can be used as the basis for implementing the project in subsequent years or lessons for implementing related projects like reproductive health programs.

According to the Realistic Evaluation Theory (Pawson & Tilley, 1997) M&E practices are only effective to the extent that they provide information that can be used for decision making to enhance the implementation of the project for better outcomes. Kusek and Rist (2017) on the other hand observe that more than more than continuous generation of information on the progress and performance of the project M&E practices should avail this information to the

decision makers in a timely manner to enable utilize this information/feedback to better manage projects and programmes. Thus utilization of M&E information under Linda Mama Maternity Project may contribute to the successful implementation of the project.

4.8: Implementation of Linda Mama Maternity Healthcare Project

This study also examined implementation of the Linda Mama Maternity Project based ability of public hospitals in Nyandarua County to provide all the maternal services that mothers are entitled to envisioned in the project. Mothers were therefore asked to indicate services that they have been able to access to in their respective hospitals as indicated in Table 4.15:

Table 4.15: Mothers Access to Maternal Healthcare Services

Maternal Services	YES		NO	
	Frequency	%	Frequency	%
Access to check-ups in the first trimester of pregnancy	28	87.5%	4	12. 5%
Completed all the Four (4) ANC visits	31	96.8%	0	3.2%
Access and utilized facility based delivery services	32	100%	0	-
Accessed PNC services within 48 hours of giving birth	22	68.8%	10	31.2%

Table 4.15 indicates that out of the 32 mothers who participated in this study, 87.5% were able to access check-ups in the first trimester of their pregnancy; 96.8% completed all the four ANC visits; all the mothers (100%) accessed and utilized facility based delivery services; and 68.8% accessed PNC services within 488 hours of giving birth. This shows that majority of women in Nyandarua County are able to access ANC services and utilize facility based deliveries. However access to PNC services reduces.

According to Orangi *et al.,* (2021), access to ANC services ensures that the unborn child and the mother are in good health and any complications arising as a result of the pregnancy are detected early and treated immediately. Use of a skilled birth attendant on the other hand ensures that both normal and complicated deliveries are managed competently and the baby is delivered safely. Postnatal care on the other hand ensures detection of possible complications that arise after delivery and subsequent proper management of the complications significantly reducing death risk. Thus mothers access to these services before, during and after delivery in public hospitals in

Nyandarua County may significantly contributed to reduction in maternal and neonatal mortality rates. Therefore there is need to follow up on women access to PNC services.

According to the County Integrated Development plan 2018-2022, 96.7 % of the pregnant mothers are in a position to access the first ANC; 58% of pregnant mothers can access the fourth ANC; and only 3.3% do not seek ANC. Further 86.1% of the mothers deliver in health facilities and only 12.8% deliver at home. This shows that mothers access to ANC services and facility delivery has increased. Thus access to all the 4 ANC services has increased by 38.8% from 2018 and facility based deliveries has increased by 13.9% from 2018.

4.9 Regression Analysis

The study utilised multiple regression analysis to determine the strength of the relationship between M&E Practices and Implementation of Linda Mama Maternity Healthcare Project as demonstrated in the subsequent subsections:

4.9.1 Model Summary

A model summary which determines the proportion of the variability of the dependent variable was used to explain the regression line. The model summary was used to determine the extent to which Health Information Systems; Stakeholder Participation; Client Satisfaction Surveys; and Utilization of Monitoring and Evaluation Findings influence implementation of Linda Mama Maternal Healthcare project as shown in Table 4.15:

Table 4.15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819[a]	.618	.611	.57827

a. Predictors: (Constant), Health Information Systems, Stakeholder Participation, Client Satisfaction Surveys,Utilization of Monitoring and Evaluation Findings

Results of coefficient of determination in Table 4.15 indicate that the value of R square is 0.618 which is adjusted to 0.611. This represents proportion of variance in Implementation of Linda Mama Maternity Healthcare Project as explained by the independent variables. This implies that Health Information Systems; Stakeholder Participation; Client Satisfaction Surveys; and

Utilization of Monitoring and Evaluation Findings account for 61.8% variation in Implementation of Linda Mama Maternity Healthcare Project. The remaining 38.2% is accounted for by other factors such as awareness of the project among mothers and adequacy of maternal facilities and hospital staff.

4.9.2 Analysis of Variance

One way analysis of variance (ANOVA) was used to determine if the regression model was statistically significant using a 0.05 significance level as shown in Table 4.16:

Table 4.16: Regression of the ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	62.781	4	15.695	46.936	.000[b]
	Residual	95.972	196	.334		
	Total	**158.753**	**200**			

a. Dependent Variable: Implementation of Linda Mama Maternity Project

b. Predictors: (Constant), Health Information Systems, Stakeholder Participation, Client Satisfaction Surveys, Utilization of M&E Findings

Table 4.16 indicates that significance of the regression model is 0.000 which is less than 0.05 and the F value is 46.936. Therefore, the effects of the independent variables are statistically significant. This implies that Health Information Systems, Stakeholder Participation, Client Satisfaction Surveys, Utilization of M&E Findings have a significant effect on Implementation of Linda Mama Maternity Project

4.9.3 The Co-Efficient of Correlation

The co-efficient of correlation are used to determine the significance of the correlation the independent and the dependent variable. This was used to determine the significance of the relationship between M&E practices and Implementation of Linda Mama Maternity Project as indicated in Table 4.17:

Table 4.17: Coefficients of Correlation

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	3.596	1.361		2.172	.000
	Health Information Systems	.542	.086	.324	5.156	.000
	Stakeholder Participation	.594	.161	302	3.689	.000
	Client Satisfaction Survey	.431	.102	.190	3.403	.000
	Utilization of M&E Findings	.567	.147	.371	3.847	.000

a. Dependent Variable: Implementation of Linda Mama Maternity Project

The following regression equation is derived from the co-efficient of correlation in Table 4.17:

Implementation of Linda Mama Maternity Project = 3.596+0.542*Health Information Systems +0.594*Stakeholder Participation +0.431*Client Satisfaction Survey +0.567* + Utilization of M&E Findings +e

Therefore:

$Y= 3.596+0.542X_1+0.594X_2+0.431X_3+0.567X_4+e$

The regression equation above demonstrates the Co-efficient of correlation of the regression equation. When all the independent variables are constant at zero, Implementation of Linda Mama Maternity Project =3.596. A unit increase in use of Health Information Systems in monitoring while holding Stakeholder Participation; Client Satisfaction Survey and Utilization of M&E Findings constant leads to an increase in Implementation of Linda Mama Maternity Project by 0.542 ($p=0.000<0.05$). A unit increase in Stakeholder Participation while holding Health Information Systems; Client Satisfaction Survey and Utilization of M&E Findings constant leads to an increase in Implementation of Linda Mama Maternity Project by 0.594 ($p=0.000<0.05$). A unit increase in Utilization of M&E Findings while holding Health Information Systems; Stakeholder Participation; and Client Satisfaction Surveys constant leads to an increase in Implementation of Linda Mama Maternity Project by 0.567($p=0.000<0.05$).

4.9.4 Hypothesis Testing

Given that β_1=0.542 and the p-value of 0.000 is less than 0.05, Hypothesis 1: Health Information Systems significantly influences implementation of Linda Mama Maternity Project is accepted

Given that β_2=0.594 and the p-value of 0.000 is less than 0.05, the Hypothesis 2: Stakeholder Participation significantly influences implementation of Linda Mama Maternity Project is accepted.

Given that β_3=0.431 and the p-value of 0.000 is less than 0.05, the Hypothesis 3: Client Satisfaction Survey significantly influences the implementation of Linda Mama Maternity Project is accepted.

Given that β_4=0.567 and the p-value of 0.000 is less than 0.05, Hypothesis 4: Utilization of monitoring and evaluation findings significantly influences implementation of Linda Mama Maternity Project is accepted

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section provides a summary of the study findings, their discussions which are presented as per the four objectives of the study. In addition, the chapter draws conclusions from the findings, provides recommendations to both policy and areas for further studies.

5.2 Summary of the Findings

A summary of these findings as per the research objectives are presented in the subsequent subsections:

5.2.1 Influence of Health Information Systems on 1mplementation of Linda Mama Maternity Healthcare Project.

This study found out that Health Information Systems provides data that makes it easy to track and monitor the number of mothers who come for check-ups in the first trimester of their pregnancy; number of mothers who complete all the 4 ANC visits; number of mothers who use facility based deliveries and number of mothers who access PNC services in public hospitals in Nyandarua County. This data is used to monitor mothers' access all essential maternal services and improve outcomes of the Linda Mama Maternal Project Project by putting measures that will enhance women access to all essential maternal healthcare services before, during and after delivery.

The system captures accurate and up to date information on the maternal health facilities such as maternity wards, beds, ultra sound machine, theatre room and incubators. This data is used to determine availability of maternal facilities in the hospitals and their adequacy through a comparison with the number of mothers seeking maternal services. Based on this comparison, the management makes a decision on the maternal services that they can provide such as normal deliveries or caesarian sections and those that require referrals based on the available facilities; the number of mothers that they can attend to based on the capacity of their respective facilities; and for planning purposes to ensure that hospital has adequate wards and beds for purpose of delivery.

The system provides information on the number of attending nurses and the number of mothers seeking maternal healthcare services in their respective health facilities. This data is used to determine the ratio of attending nurses against mothers seeking maternal health services and the various categories of staff proving maternal healthcare services such as doctors, clinical officers, nurses and surgeons. This information is instrumental in determining the workload on the nurses based on the number of mothers that a nurse attends to at any given time and plan accordingly to ensure there are adequate nurses and other staff for quality services.

5.2.2 Influence of Stakeholder Participation on Implementation of Linda Mama Maternity Healthcare Project

This study found out that even though hospital staff and the mothers in Nyandarua County public hospitals were involved monitoring the Linda Mama Maternity Project, they were only involved

at the data collection phase. 66.5% of the hospital staff were involved in the monitoring of the Linda Mama Maternal Project and 67.5% of the hospital staff were involved in collection of data on the progress and achievement of the project; and only 2.9% were involved in designing the M&E plan, developing indicators and deciding how to use data collecting from the M&E process. Similarly 84.4% of mothers seeking maternal health care services in public hospitals in Nyandarua County were involved in monitoring of the Linda Mama Maternity Project; however they were only involved at the stage of data collection. Hospital staff and mothers were only involved at the data collection stage due to practical difficulties of involving them in the technical aspects of monitoring. The low levels of participation in the technical aspects of designing the M&E plan and high participation in data collection stages of the process can be attributed to difficulty in including large number of staff in all the aspects of the monitoring process; the busy environment of the maternity wards caused by influx of mothers seeking maternal services in the hospitals; and mothers lack of knowledge of the monitoring process.

The study also found out that participation of mothers and hospital staff in monitoring of Linda Mama Maternity Project enhances reliability and validity of M&E data. Mothers who are beneficiaries of the project able in a better position to paint an accurate picture of the impact of the Linda Mama project in terms of how they are accessing maternal services as it is on the ground at the local level. Similarly nurses and doctors are directly involved in providing services and are therefore better placed to provide information on the sufficiency of maternal facilities such as beds and wards and staff involved in provision of maternal services in their respective health facilities.

Participation of healthcare staff is instrumental in enhancing quality of maternal healthcare services through the identification of issues plaguing the maternal healthcare system and development of feasible solutions to the challenges. Input from healthcare staff that provide maternal healthcare services helps the county government to determine if there are adequate maternal healthcare facilities such as delivery wards, delivery beds, theatre rooms and medicines; and if there are adequate healthcare staff such as nurses and midwifes. This information is used to make decision on the additional facilities required in the hospitals and additional staff that need to be employed to ensure that the hospitals have sufficient facilities and staff to provide quality maternal healthcare services to mothers. However, due to slow response on part of the

county government, there were still staff shortages causing high workload on the nurses and shortage of facilities limiting some of the level 2 hospitals from providing caesarean section deliveries and ultrasound services.

Involvement of NHIF is instrumental in ensuring coordination with the hospitals management for timely and adequate reimbursement of funds to the hospital to cater for all maternal healthcare services. Even though joint monitoring involving key stakeholders is conducted semi-annually, NHIF hardly participates in the process resulting reimbursement of smaller amounts that do not commensurate to the expenses incurred in providing maternal healthcare services; at times the payments do not correspond to the high number of deliveries. This affects ability of the hospitals to cater for all the services entitlements under the Linda Mama service package. In most cases, it is often antenatal visits and delivery services that are catered for. As a result some mothers are forced to forfeit PNC services or pay out of their pocket.

5.2.3 Influence of Client Satisfaction Survey on Implementation of Linda Mama Maternity Healthcare Project

This study found out that 84.4% of mother seeking maternal healthcare services participated in client satisfaction surveys in their respective hospitals; 85.2% of participated in the survey 4 times in a year; 7.4% participated in the surveys twice a year; and 7.4% participated in the surveys once a year. Therefore the surveys are conducted on quarterly basis. The quarterly clients satisfaction surveys enables the management of public hospitals and the Nyandarua County government to determine if the quarterly targets on mothers access to ANC, delivery and PNC services are being realized. This enables the government to take action to ensure that mothers are able to access all the service packages before, during and after delivery.

Client Satisfaction Surveys conducted among mother in public hospital in Nyandarua County provide information that is critical to the implementation of Linda Mama Maternal Healthcare Project. All the mothers (100%) indicated that the client satisfaction surveys sought to measure their satisfaction with maternal services offered and adequacy of maternal services in their respective schools; 92.6% indicated that the surveys sought to determine the waiting time; 96.3% indicated that the surveys sought to determine availability of medicine in the pharmacies; and 88.8% indicated that the surveys sought their suggestions on the actions that can be taken to enhance the quality of maternal services. This information enables the county government of

Nyandarua and the management of public hospitals to determine if mothers are satisfied with services provided in the hospitals or not; reasons for lack of the satisfaction with the services; and the specific aspects of maternal healthcare services that the mothers are satisfied with or not and take action to enhance the quality of maternal healthcare services.

The quarterly surveys provide periodic information on mothers' access to ANC, delivery and PNC services. This enables the hospital management and the county government to determine the number of mothers accessing maternal services against the quarterly targets and take corrective action to ensure the Linda Mama Project is on track to realizing the targets of mothers' access to maternal services before, during and after delivery. Further client satisfaction surveys are used for measuring the impact of the project on the targeted beneficiaries. The summative monitoring data collected in each quarter and the annual evaluations provide data on the number of mothers using facility based deliveries and the impact of these services in reduction of maternal and neonatal deaths. This helps to evaluate if the project has contributed to the reduction of maternal and neonatal deaths as envisioned in the Linda Mama Maternity Project and in-line with SDGs target which aims at reducing maternal and neonatal deaths.

5.2.4 Influence of Utilization of monitoring and evaluation findings on the implementation of Linda Mama Maternity Healthcare Project

This study found out that input obtained from mothers and hospital staff is taken during the semi-annual joint monitoring involving key stakeholders for planning purposes to ensure that hospital has adequate wards and beds for purpose of delivery and adequate staff to provide quality maternal healthcare services. However slow response on part of the county government in employing more staff had caused high workload in public hospitals in Nyandarua County resulting in delays in attending to mothers with a waiting time of between 15-30 minutes. Even through all the hospitals have maternal wards and beds required for normal deliveries, theatre rooms for caesarean section deliveries, incubators and ultra sound machines are only available in level 3 and 4 hospitals and few level 2 hospitals. These facilities are missing in most of the level 2 hospitals where majority of the mothers seek maternal healthcare care services. This limits mother's access to caesarean deliveries, scanning and premature deliveries at the local level where they can easily access maternal services.

Information obtained through monitoring and evaluation is used to assess the effectiveness of Linda Mama Healthcare Project interventions. This information is used to determine if women are accessing all the maternal healthcare services as envisioned under the Linda Mama project service package and undertake yearly comparative analysis helps to determine if there has been an increase or decrease in the number of facility based deliveries and neonatal and maternal deaths. This helps the county and national government to evaluate if the project has contributed to reduction in the deaths of newborns and their mothers from pregnancy and birth related complications.

Further information provided through monitoring is used to enhance accountability of the Linda Mama Maternity Project. M&E provides the data on the number of deliveries made; number of ANC and PNC visits; and the type of delivery (normal or caesarian) which is used for purposes of claiming reimbursement from NHIF reducing cases of fraudulent claims. Data provide through monitoring is used as the basis or lesson for implementing the project in subsequent years or lessons for implementing related health projects like reproductive health programs.

5.2.5 Implementation of Linda Mama Maternity Healthcare Project

This study established that the Linda Mama Maternity Project had enabled public hospitals in Nyandarua County to provide maternal services that mothers are entitled to as envisioned in the project. 87.5% of the mothers were able to access check-ups in the first trimester of their pregnancy; 96.8% completed all the four ANC visits; all the mothers (100%) accessed and utilized facility based delivery services; and 68.8% accessed PNC services within 488 hours of giving birth. This shows that majority of women in Nyandarua County are able to access ANC services and utilize facility based deliveries. However the number of women accessing PNC services is smaller compared to accessing ANC services and facility based deliveries.

Access to ANC services ensures that the unborn child and the mother are in good health and any complications arising as a result of the pregnancy are detected early and treated immediately. Use of a skilled birth attendant on the other hand ensures that both normal and complicated deliveries are managed competently and the baby is delivered safely. Postnatal care on the other hand ensures detection of possible complications that arise after delivery and subsequent proper management of the complications significantly reducing death risk. Thus it is imperative that the hospitals follow up to ensure that mothers are able to access PNC services as envisioned under

the project. Compared to statistics provided by the Nyandarua County Integrated Development plan 2018-2022, access to all the 4 ANC services has increased by 38.8% from 2018 and facility based deliveries has increased by 13.9% from 2018.

5.3 Conclusions of the Study

The Health Information Systems provides data that used to determine if women have access to all essential maternal healthcare services before, during and after delivery. The system also provides data on hospital staff and maternal facilities which is used to determine adequacy of facilities and hospital staff involved in provision of maternal health care services. This facilitates planning to enhance quality of maternal healthcare services by ensuring that there are sufficient facilities and staff in proportion to the number of women seeking maternal healthcare services.

There were low levels of participation in the technical aspects of designing the M&E plan and high participation in data collection stages of the monitoring process by hospital staff and mothers. This can be attributed to difficulty in including large number of staff in all the aspects of the monitoring process; the busy environment of the maternity wards caused by influx of mothers seeking maternal services in the hospitals; and mothers lack of knowledge of the monitoring process.

Participation of stakeholders in monitoring projects influences implementation of Linda Mama Maternal Healthcare Project by enhancing the reliability and validity of monitoring and evaluation data and enhancing the quality of maternal health care services. Even though joint monitoring involving key stakeholders is conducted semi-annually, limited participation of NHIF has resulted insufficient reimbursement of expenses to the hospital that do not commensurate to the high number of hospital deliveries. This has limited the hospitals from providing all essential services that mothers are entitled to under the Linda Mama service package.

Mothers seeking maternal healthcare services in public hospitals in Nyandarua County are involved in client satisfaction survey on a quarterly basis. Information obtained from the quarterly surveys enables the hospital management and the county government to determine the number of mothers accessing maternal services against the quarterly targets; if the mother are satisfied or dissatisfied with the services and why; and take corrective action to ensure the Linda Mama Project is on track to realizing the targets of mothers' access to maternal services before, during and after delivery.

Information obtained from monitoring and evaluation of Linda Mama Maternal Healthcare project is is utilized for developing feasible solutions to challenges facing public hospitals in provision of maternity services; evaluating effectiveness of Linda Mama Project interventions; enhance accountability and as a learning experience for effective implementation of future healthcare projects. However, slow response on part of the county government, has resulted staff shortages causing high workload on the nurses and shortage of facilities limiting some of the level 2 hospitals from providing caesarean section deliveries and ultrasound services.

The Linda Mama Maternity Project had enabled public hospitals in Nyandarua County to provide ANC services, facility based delivery and PNC services that mothers are entitled to as envisioned in the project. The number of mothers accessing all 4 ANC services and facility based deliveries has increased significantly from 2018. However the number of women accessing PNC services is smaller compared to accessing ANC services and facility based deliveries.

5.4 Recommendations of the Study

This study makes the following recommendations:

5.4.1 Policy Recommendations

1. The Linda Mama Maternity Policy is to be revised to allow the joint stakeholder monitoring and evaluation meetings to be held on a quarterly basis to facilitate periodic decision-making and implementation of measures that will enhance mothers' access to maternal services, particularly PNC services. This study has shown that the number of women accessing PNC services is smaller compared to accessing ANC services and facility-based deliveries.

5.4.2 Practical Recommendations

2. The County Government and the management of public hospitals coordinate with the National Hospital Insurance Fund to ensure their active participation in the semi-annual joint stakeholder monitoring and evaluation meeting.
3. The National Hospital Insurance Funds provide timely and sufficient reimbursements to hospitals to cater for all the maternal services envisioned in the Linda Mama Maternity Project.

4. The County Government of Nyandarua expedites the employment of more nurses and doctors to ensure that there is sufficient staff for providing maternal healthcare services.
5. The Nyandarua County Government to fast-track procurement of ultrasound machines and construction of theatres in all Level 2 hospitals to enable mothers to access scanning services and caesarian delivery services at the local level.

5.4.3 Recommendations for the Discipline of Project Planning

6. The project management team should ensure that monitoring and evaluation practices are infused with a participatory approach in which all stakeholders are involved.
7. The project management team should ensure that monitoring and evaluation practices provide timely information that can be used for decision-making to enhance the implementation of the project for better outcomes.

5.4.4 Research and Methodology

8. There is a need to study the monitoring and evaluation practices and their influence on the implementation of maternal healthcare projects in private hospitals.
9. There is a need to conduct a study to evaluate the impact of the Linda Mama Maternity project on the reduction of neonatal and maternal deaths.
10. There is a need to undertake a study on the factors that influence the implementation of the Linda Mama Maternity Project.

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APPENDICES

Appendix I: Letter of Transmittal

Dear Sir/Madam,

RE: ASSISTANCE IN FILLING THE QUESTIONNAIRE

My name is Eunice Njuguna. I am undertaking a master's degree in Project Planning and Management at the University of Nairobi.

As part of the requirements for the conferment of the master's degree, I am carrying out a study on **Influence of Monitoring and Evaluation Practices on the Implementation of Linda Mama Maternal Healthcare Project in Nyandarua County, Kenya**.

I therefore request your assistance in filling the questionnaire attached inhere. Information that you provide will be used for research purposes only. You are NOT required to indicate your name anywhere on the questionnaire. Participation in this study is on voluntary basis with no financial benefits. As such you may withdraw at any point if you feel aggrieved. By agreeing to assist in completing the questionnaire you are consenting to your participation in the study.

Your assistance is highly valued.

Contact 0705 549 459 for clarifications.

Thank You

Appendix II: Questionnaire for Healthcare Staff

Instructions: Kindly complete the questionnaire by ticking appropriately in the spaces provided.

SECTION A: BACKGROUND INFORMATION

1. Hospital _____
2. What is your gender?

   Male [ ]

   Female [ ]
3. What is the highest level of education that you have attained?

   Certificate [ ]

   Diploma [ ]

   Degree [ ]

   Post graduate [ ]

   Other [ ] Specify ……
4. How many years that you have worked in this hospital?

Less than 5 years ( )

6-10 years ( )

11- 15 years ( )

16 years and above ( )

SECTION B: Health Information Systems and project implementation of Linda Mama Maternal Healthcare Project

5. Below are statements on the influence of Health Information systems on the Implementation of Linda Mama Maternal Healthcare Project. Indicate the extent to which you agree with the statements where SA = Strongly Agree, A = Agree N=Neutral D= Disagree and SA = Strongly Disagree

Statement	**SA**	**A**	**N**	**D**	**SD**
The Health Information System provides accurate data that is used to monitor the number of women accessing antenatal services, hospital-based delivery & postnatal services which helps to determine the extent to which mothers are accessing all the maternal healthcare services as intended by the project					
The Health Information System provides on the number of mothers utilizing facility based delivery services which helps to determine if the Linda Mama Maternity Project has increased utilization of skilled maternal services					
The Health Information Systems provides data on the number of maternal healthcare facilities such as beds, maternity wards					
Data on the number of maternity healthcare facilities helps to determine adequacy of facilities and plan accordingly to ensure there are sufficient facilities					
The Health Information Systems provides data on the number of number of healthcare staff involved in providing maternity services					
Data on the number of healthcare staff is used to determine adequacy of healthcare staff involved in providing maternity services and plan accordingly to ensure that there are adequate staff					

SECTION C: Stakeholder Participation and implementation of Linda Mama Maternal Healthcare Project

1. Indicate areas your level/area of involvement and stakeholders involved in monitoring and evaluation of Linda Mama Maternal Healthcare Project. Indicate the extent to which you agree with the statements where SA = Strongly Agree, A = Agree N=Neutral D= Disagree and SA = Strongly Disagree

Area of Participation	**YES**	**NO**
Design of monitoring and Evaluation Plans		
Developing indicators for monitoring the project		
Collection of data on the progress and achievement of the project		
Making decision on how to use data collected from monitoring and evaluation		
Stakeholders	**YES**	**NO**
Mothers seeking maternal healthcare services		
Healthcare staff proving maternal health care services		
NHIF		
County Government of Nyandarua		

2. Below are statements on influence of stakeholder involvement in monitoring Linda Mama Maternal Healthcare Project. Indicate your level of agreement with these statements:

Statement	**SA**	**A**	**N**	**D**	**SD**
Participation of stakeholder in monitoring projects enhances the reliability and validity of information as it provides an accurate picture of the progress and impact of the project as it is on the ground					
Active participation of healthcare staff and project beneficiaries in all levels of monitoring and evaluation provides valuable input in decision making					
Involvement of beneficiaries and healthcare staff in design of projects helps in identifying issues plaguing the maternal healthcare system and development of feasible solutions					

Participation of healthcare staff in designing M&E plans ensures use of appropriate indicators ton monitor the progress and performance of Linda Mama Maternal Healthcare Project					
Beneficiaries of the Linda Mama Maternal Healthcare Project are in a better position to provide information on how they are being impacted by the project and know how the project could be improved					
Involvement of healthcare staff in making decisions on utilization of information collected through monitoring of projects is critical in enhancing the quality of maternal services delivered					
Involving the NHIF ensures timely and adequate reimbursement of funds to cater for the maternal health care services					
Involvement of the County government ensures that adequate maternal facilities and healthcare staff providing maternal healthcare staff					

SECTION D: Client Satisfaction Surveys and implementation of Linda Mama Maternal Healthcare Project

3. Indicate the frequency of conducting client satisfaction surveys under the Linda Mama Maternity Healthcare project

   Annually ( )

   Bi-Annually ( )

   Quarterly ()

4. Below are statements on the influence of client satisfaction surveys on the implementation of Linda Mama Maternity Healthcare project. Indicate your level of agreement with these statements. Indicate the extent to which you agree with the statements where SA = Strongly Agree, A = Agree N=Neutral D= Disagree and SA = Strongly Disagree

Statement	**SA**	**A**	**N**	**D**	**SD**

Client satisfaction surveys provide data on the extent to which beneficiaries are satisfied with services provided under the Linda Mama Maternity Healthcare project					
Client satisfaction survey establish reasons as to why Linda Mama Maternity Healthcare project is not meeting the mothers' expectations enabling service providers to put in place measures that enhance quality of maternal services					
Client satisfaction surveys enhance the validity of M&E information by providing data on the impact of Linda Mama Maternity Healthcare project on maternity healthcare from the beneficiaries' perspective					
Information provide through client satisfaction surveys enables the hospital management to bridge the gap between the hospitals perceived quality of service and the mothers perceived quality of service received to the satisfaction of mothers					
Periodic surveys are instrumental in capturing key milestones in the project giving the project implementers an opportunity to take corrective action ensuring that project is on track to achieving goals and objectives.					
Client satisfaction surveys provide help to determine factors that affect quality of services enabling the hospital management to establish factors that are likely to compromise the quality of healthcare services and put in place measures to enhance the quality of services					
Client satisfaction surveys are critical in determining dimensions of maternal healthcare service quality that affect patient satisfaction with services offered					

SECTION C: Utilization of M&E information and implementation of Linda Mama Maternal Healthcare Project

5. Is the feedback provided by healthcare staff through monitoring and evaluation used to make decisions that improve quality of maternal services? YES ( ) NO ( )
6. If YES provide examples where healthcare staff has been used to enhance quality of maternal healthcare services

.....

7. Indicate your level of agreement with statements on utilization of information collected through monitoring of Linda Mama Maternity Project. Indicate the extent to which you

agree with the statements where SA = Strongly Agree, A = Agree N=Neutral D= Disagree and SA = Strongly Disagree

Statement	**SA**	**A**	**N**	**D**	**SD**
Information provided through monitoring and evaluation is used by the government and hospital management to develop feasible solutions that address the problem that cause dissatisfaction among mothers and enhance quality of maternal services					
Information obtained through monitoring and evaluation is used to assess the value Linda Mama Healthcare project through provision of evidence on what interventions works and what interventions do not work					
Information on project interventions facilitate optimal resource allocation based on what interventions work					
Information provided through monitoring is used to enhance accountability to project beneficiaries & other key stakeholders through provision of evidence on the success of Linda Mama Maternity Project					
Monitoring and evaluation information provides acts as a learning experience for effective implementation of future maternal healthcare projects					

Appendix III: Focus Group Discussion Guide for Mothers

1. What is the value of involving mothers in the monitoring and evaluation of Linda Mama Maternity Healthcare project?
2. Have you been involve in monitoring and evaluation of the Linda Mama Maternity Healthcare project?
3. At what level were you involved in monitoring Linda Mama Maternity Healthcare project?

i) Designing of monitoring and Evaluation Plans

ii) Developing indicators to monitor and evaluate the project

iii) Providing information on the progress and achievement of the project

4. Was the feedback provided in the process used to enhance the quality of maternal healthcare services?
5. Have you participated in any client satisfaction survey seeking to determine the extent to which mothers are satisfied with maternal healthcare services?
6. How many times have you been involved in the survey?
7. What information on maternal healthcare services were the surveys seeking
8. Do implementers of the Linda Mama Maternal healthcare project take into consideration the opinion of mothers in developing solutions to the challenges experienced under the project?
9. What notable changes that you have observed in the maternal healthcare services at your hospital since the implementation of the Linda Mama Maternal healthcare project?
10. Indicate the services that you have received under the Linda Mama Maternal Healthcare Project:

Item	**YES**	**NO**
Check-ups in the first trimester of their pregnancy		
Four (4) ANC visits		
Access and utilization of facility based delivery services		
PNC services within 48 hours of giving birth		

Appendix IV: Interview Schedule for Nurse Managers and CEC Member for Health

1. The Linda Mama Maternal Healthcare project utilizes Information Management Systems to generate data on the number of antenatal care services; number of hospital based facility; and the number of postnatal care services. How useful is this information in the implementation of the project?
2. In what ways has the information provided by the Health information systems enhanced the performance of the Linda Mama Maternity Healthcare project?

3. Provide information on the following aspects of maternal healthcare in your county or facility based on information provided the Health information Systems

Item	2019	2020	2021
Number/Percentage of mothers with check-ups in the first trimester of their pregnancy			
Number/Percentage of mothers with 4 ANC visits			
Number/percentage of Maternal & neonatal deaths Number/percentage of mother accessing and utilizing facility based delivery services			
Number/Percentage of women who receive PNC services within 48 hours of giving birth			
Number of maternal mortality rates			
Number of neonatal mortality rates			

4. Stakeholder participation is widely recognized as a best practice in project implementation. What is the level of participation by stakeholders in monitoring Linda Mama Maternity Healthcare project?
5. Which stakeholders participate in monitoring Linda Mama Maternity Healthcare project?
6. What are the modes/ways of participation in monitoring?
7. At what stage of the monitoring process are stakeholders involved?
8. The Linda Mama Maternity Healthcare project guidelines proposed to conduct client satisfaction surveys bi-annually in the early phases of the project and annually in the later phases of the project. To what extent has this been implemented?
9. What is the value client satisfaction survey on the implementation Linda Mama Maternity Healthcare project?

10. Is the feedback obtained from these surveys used in decision making to enhance quality of maternal services? Explain
11. The value of monitoring and evaluation lies in utilization of information to enhance the quality of projects. To what extent is the information derived through monitoring used to enhance quality of maternal services?
12. What are some of the notable improvements that have been realized as a result of using information from the monitoring and evaluation process.

Appendix V: Research Permit