

Performance of Prevention of Mother to Child Transmission Projects: Evidence from Hospitals in Nyeri County, Kenya

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Abstract In Nyeri County, 9.12% of people living with HIV are children (Kenya County Profile Book, 2014). The mortality rate among HIV-infected children is also high, with 13% of all child deaths resulting from AIDS-related complications. Both the government and private partners have come up with a prevention strategy, though faced with numerous challenges and success stories. The study therefore sought to investigate the performance of Prevention of Mother-to-Child Transmission (PMTCT) projects in Kenya, with a particular focus on Nyeri County. The specific objectives were to investigate how managerial skills, community participation, monitoring and evaluation, and funding affect the performance of PMTCT projects in Nyeri County. The target population consisted of all 22 hospitals in Nyeri County offering PMTCT projects. The respondents were the 184 employees, who included nurses, clinicians, nutritionists, and peer educators. We used stratified random sampling for the sampling process. We selected a sample of 30% from each stratum. The study adopted both descriptive and explanatory research designs. Questionnaires had open-ended and closed-ended questions. We analyzed the quantitative data using descriptive statistics and multiple regression analysis. We also used SPSS version 20 for Windows for data analysis. The findings indicated that managerial skills influenced the performance of PMTCT projects to a very large extent. The success of a project hinges on the relevant management's ability to achieve its main objectives within the stipulated cost, highlighting the crucial role of managerial skills in PMTCT project performance. Funding, monitoring, and evaluation also influenced the performance of PMTCT projects, but only to a large extent. However, we found that community participation had the weakest but most positive influence on the PMTCT project's performance. Therefore, the researcher recommended regular training for managers and other employees involved in PMTCT projects to enhance their productivity, and to initiate community participation during the project's planning phase. Failure to recognize the existence of community members at the initial stages of the project leads to various problems at the advanced stages of project implementation, the worst being rejection at the handover stage. The researcher also recommends the extension of a two-year contract among employees working in PMTCT projects, as this will help reduce the cost of re-training new employees, and the employees who are part of internal evaluators will also be able to easily identify gaps that would have led to poor project performance.

Keywords: managerial skills, community participation, monitoring and evaluation systems, funding, project performance, pmtct projects

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1. Introduction

Project performance is a continuous evaluation of a project's efficiency and effectiveness, which includes comparing the project's actual output or results to its intended outcome. Richard [1] asserts that project performance encompasses three key components: financial performance, product market performance, and stakeholder return performance. Financial performance encompasses profits, return on assets, and return on investment, while product market performance includes

sales, market shares, and stakeholder return performance. According to Cater [2], project performance entails recording activities to establish organizational goals, monitoring progress towards goal realization, and making adjustments to achieve those goals. Therefore, we can use performance to predict the likely completion cost of a project. The purpose of project performance is to compare the actual output with the planned output. Managers use S-curve theory to understand the significance of tracking an ongoing project's progress and growth at a specific phase. The S-curve is intended to represent resource utilization over the proposed project duration.

Prevention of Mother-to-Child Transmission (PMTCT)

projects focus on expectant mothers who test HIV positive during an antenatal clinic or when a woman of known positive HIV status becomes expectant, and end when a baby tests negative during the last antibody test at eighteen months or if an infant dies before reaching eighteen months. According to the United Nations program on HIV/AIDS [3], 95% of HIV infections are in developing countries, with two-thirds of them in sub-Saharan Africa. There is 90% of all maternal-fetal transmission. The disease has a significant impact on social and economic development. Poverty is increasing in many Sub-Saharan African countries as households lose one or more breadwinners to AIDs. Both public and private companies are reeling from the impact of HIV-related sickness and deaths among their workforce. Therefore, we urge the Sub-Saharan countries to implement a comprehensive package of strategies for prevention and care, which includes access to affordable condoms, prompt treatment of sexually transmitted infection (STI), access to voluntary HIV counseling and testing (VVCT) centers, prevention of mother-to-child transmission, promotion of advice and support to reduce HIV infection among intravenous drug users, sexual health education in schools and communities, and improving access to care and treatment, including sustainable access to affordable supplies of medicine. In Uganda, for example, the prevalence of HIV has increased from 6.4% in 2006 to 7.2% in 2012. This is equivalent to 1.4 million people living with the virus, 190,000 of whom are children [4]. AIDS-related illnesses claimed the lives of 62,000 individuals in 2012. In Tanzania, 1.6 million people were living with HIV in 2012. Reports showed an average of 400 new infections per day and 83,528 deaths in 2011. Wealthiest households, particularly wealthy women, report a high prevalence compared to poorer and rural households.

In Kenya, HIV/AIDS emerged as a major cause of mortality in the late 1970s and early 1980s, placing significant strain on both the health care system and the economy. As a result, different projects have been put in place to try to curb the menace. The Kenya Demographic Health Survey [5] reported that an estimated 1.7 million Kenyans are living with the virus. Women aged 15–49 years, which is the child-bearing age, have a higher prevalence than their male counterparts of the same age, with prevalences of 8 percent and 4.3 percent, respectively. Young women are therefore more vulnerable to HIV infection compared to men, hence the risk of transmission to their babies. Kenya has the 4th highest HIV prevalence in the world, with 1.6 million people infected [6]. South Africa, Nigeria, and India rank higher with 5.6 million, 3.3 million, and 2.4 million infected individuals, respectively. Of the 1.6 million infected individuals, 191,840 are children under the age of fifteen. In 2013, the disease claimed the lives of 101,560 Kenyans: 12,940 of these were children, 50,530 were women, and 38,090 were men.

According to the 2012 National STI Control Program report (NASCOP), 18,300 adults and 2,100 children were living with HIV in Nyeri County. The number of new infections reported in 2011 was 1,200 and 170 cases among adults and children, respectively. Children accounted for 12% of the new cases reported that year. In Nyeri County, the mortality rate was also high, with 600

adults and 120 children dying as a result of HIV-related complications. Mothers and children had low PMTCT coverage, with only 61% of PMTCT mothers and 59% of PMTCT children receiving coverage or follow-up.

Therefore, the design of MTCT projects aims to prevent mother-to-child transmission of HIV, which primarily happens during pregnancy, labor, delivery, and breastfeeding, with mixed feeding posing the greatest risk. The government has prioritized other modes of transmission such as transfusion with infected blood, unprotected sexual intercourse with an infected person, and sharing of sharp objects, especially needles, among drug users, but has not given much attention to mother-to-child transmission (MTCT). As a result, the number of reported new cases has increased, and UNICEF [7] estimates that 200,000 children in Kenya are living with the virus. This is against the realization of Millennium Development Goal (MDG) number six, which is to combat HIV/AIDS, malaria, and other diseases.

Statement of the Problem

HIV/ AIDS has been ranked among the top six killer diseases in the world alongside malaria, polio, hepatitis, influenza and tuberculosis and it is a one daunting challenge facing our nation. One of the best opportunities for progress against HIV/AIDS lies in preventing mother to child transmission. The government has come up with strategies and ideas like establishing PMTCT projects as one of the bold and radical intervention to address mother to child transmission. Despite the existence of these projects for the past one decade, the rate of MTCT is still high. In Kenya, an estimated 815,630 women are living with the virus and out of these 79, 000 were pregnant [8]. Although the prevalence of HIV had dropped from 13 percent in 2000 to 6.3 percent in 2009 [9], the number of new infections among children is still high with approximately 12,940 new infections among children being reported [10]. This translates to 1 out of 6 babies born by HIV positive mother becoming infected either during pregnancy, labour, delivery or through breast milk. In Nyeri County, HIV prevalence is higher among women (6.3 percent) as compared to men (2.3 percent), therefore increasing the chances of mother to child transmission. In Nyeri County, 18,900 adults and 1,897 children are living with the virus, thus 9 per cent of total population living with the virus in Nyeri County are children [11]. During the same year, 13% of deaths among children was as a result of AIDs related complication. This is against the realization of Millennium Development Goal number four which is to reduce child mortality therefore threatening the social, demographic, economic and political stability of our great nation. The risk of transmission becomes higher during breast feeding since 90 percent of babies acquire the virus through breast milk and only 32 per cent of mothers do exclusive breastfeeding for the first six months when a child is born. Kenya AIDS Responses progress Report [12] showed that PMTCT coverage is at 70.6%. This shows a gap that is reflected on performance of PMTCT projects.

The role of PMTCT projects is not only to provide medicines to prevent transmission but also to provide counseling on proper nutrition, reproductive health, and positive behavior change among others. It is unfortunate

that most research work on HIV/Aids has focused on transmission among heterosexuals, commercial sex workers and drug users especially those using injectables and little has been done on MTCT. The study therefore aimed to investigate the performance of Prevention of Mother To Child Transmission Projects in Kenya with a particular focus on Nyeri County.

Research Objectives

- i. To establish the effect of managerial skills on performance of PMTCT projects in Nyeri County.
- ii. To investigate the effect of community participation on the performance of PMTCT projects in Nyeri County.
- iii. To investigate the effect of monitoring and evaluation systems on the performance of PMTCT projects in Nyeri County.
- iv. To establish the effect of funding on the performance of PMTCT projects in Nyeri County.

2. Literature Review

Theoretical Review

Expectancy theory

Expectancy theory was proposed by Victor Vroom in 1964. This theory is based on the hypothesis that behavior is adjusted in the organization based on anticipated satisfaction of valued goals. Individuals will modify behavior in such a way which is most likely to lead them to attain these goals. The theory underlies the concept of performance management as it is believed that performance is influenced by the expectations concerning future events [13]. Vroom realized that performance is based on individuals' factors such as personality, skills, knowledge, experience and abilities. Expectancy theory is based upon these three beliefs: valence, expectancy and instrumentality. Valence refers to the emotional orientations people hold with respect to outcome (performance). Management should therefore discover what employees' value. Employees and / or stakeholders also have different levels of expectations and different levels of confidence about what they are capable of achieving. Management should therefore discover what training, resources or supervision implementers need to achieve desired goals. In summary expectancy theory applies to a situation whereby someone does something because they expect a certain outcome and the outcome achieved will always be compared to that of others. This theory was important in the study of performance of Prevention of Mother to Child Transmission Projects because it looked at performance as an outcome as dictated positively or negatively by the type of managerial skills, degree of community participation, type of monitoring and evaluation and the aspect of funding.

Theory of Constraints

The Theory of Constraints is a methodology for identifying at least one limiting factor that stands in the way of achieving a goal, then systematically improving the constraint until it is no longer a limiting factor. Dr. Eliyahu Goldratt developed the Theory of Constraints in 1928, positing that every complex process comprises

multiple interconnected activities, each acting as a constraint on the entire system. The constraint theory seeks to provide precise and sustained focus on improving the constraint until it is no longer a limiting factor. It adopts the common idiom "a chain is no stronger than its weakest link." This means that processes, organizations, projects, e.t.c. are vulnerable because the weakest person or part can always damage or break them, or at least adversely affect the outcome [14]. The theory further defines a constraint as anything that prevents the organization or institution from making progress towards its goal(s), and it can be either internal or external to the system. There are various types of internal and external constraints, including physical (inputs), policy, paradigm, and market.

Constraints dictate organizational performance, according to Goldratt. He notes that every system, no matter how well it performs, has at least one constraint that limits its performance—this is the system's "weakest link." Only one constraint can be present in the system at a time, leaving other areas unconstrained until they become the weakest link. We can apply this theory to investigate the performance of mother-to-child prevention projects in Kenya. The presence or absence of any one factor may have an adverse effect on the performance of mother-to-child transmission prevention projects. It is therefore the responsibility of all involved stakeholders to identify such factors and come up with solutions for overcoming the constraint in order to achieve desired goals and outcomes.

Empirical Studies

Few studies had explored performance-based financing for PMTCT Projects. Spensley et al. [15] initiated a pilot performance-based financing scheme in collaboration with private and faith-based health facilities in Cote d'Ivoire, a country in West Africa which had the highest prevalence of HIV. The finding showed that the country did not have a national framework for performance-based financing at that time. The project-initiated indicators to evaluate finance n they were successful. The researchers therefore recommended inclusion of reliable monitoring and evaluation systems that would routinely collect process data. This study however did not show whether or not there was a direct relationship between PMTCT Project performance and financing/ funding.

Doherty et al. [16] in a study on improving the coverage of the Prevention of Mother to Child Transmission program through a participatory quality improvement intervention in South Africa noted that despite many years of implementation, Prevention of Mother to Child Transmission in many resource poor settings had failed to reach HIV positive mothers. The research highlighted poor coverage of program indicators and recommended clear identification of key indicators and data collection tools so as to enable managers collect relevant data hence better gauging of performance.

In review of uptake of Prevention of Mother to Child Transmission services by people living with HIV in Nairobi, Kenya by Njuguna [17], the research body presented the findings in three thematic areas: policy framework, health systems and service delivery. The researcher concluded that at community level, awareness of PMTCT policy was minimal with a few members

reporting total ignorance of the policy. The recommendation was that outreach clinics be established so as to reach as many areas as they could. This report did not explain whether or not the community was involved in policy making process, at which stage of formulation and what implication it would have on performance of PMTCT projects.

Hassan et, al [18] assessed dynamics and constraints of Early Infant Diagnosis (EID) of HIV in rural Kenya where research explored service providers and care providers knowledge, attitude and perceptions of the EID process using observations and in-depth interviews. A cohort design was used to determine uptake and dropout of HIV Exposed Infants (HEI) eligible for EID of HIV. Research findings showed that 65% dropped before reaching the age of eighteen months and that service providers had poor knowledge and training of EID. Lack of social support was also a challenge identified in the study. The researchers recommended alignment of EID within PMTCT Projects hence integration with routine Mother and Child Health Clinic (MCH) activities. Rustagi et, al. [19] reviewed on high and low performance: The role of facility level factors in Cote d' Ivoire, Kenya and Mozambique. The study aimed at identifying health facility characteristics associated with high PMTCT performance in the three Sub Saharan countries and concluded that staffing levels, on site Cd4 testing and patient volume were associated with high performance of PMTCT Project. However, the key gaps identified included evaluation and implementation of health education.

3. Methodology

The study applied a descriptive and explanatory research designs and it conducted a field survey in all PMTCT projects. The target population was all the twenty-two hospitals offering PMTCT projects in Nyeri County. The respondents were one hundred and eighty-four employees who included nurses, clinicians, peer educators and nutritionists working in PMTCT projects in Nyeri County. Stratified random sampling was employed to select a sample from the respondents who include nurses, clinicians, peer educators and nutritionists. This method was appropriate because the researcher was able to control the sample size in the strata. According to Borg and Gall [12] a representative sample is one that is at least 30% of the accessible population. Questionnaires were used for collecting data from the respondents. The questionnaire included both open ended and closed ended questions. Closed ended questions enabled respondents to be limited to stated alternatives while open ended questions permitted free responses from respondents. To test for content validity, experts were given the questionnaires and provided opinion / rating on how well the wording of each question tapped into measuring performance of PMTCT projects. The researcher used Cronbach's' alpha to determine the reliability of the instrument. A Cronbach's alpha of 0.8 and above is taken as acceptable reliable according to Cronbach [20]. In this study, SPSS output for Cronbach's alpha was 0.805, hence it was acceptable reliable. Data analysis was by use of

descriptive methods such as frequency distribution, percentages and mean for quantitative data. Multiple regression was also used.

4. Findings and Discussion

The researcher distributed 91 self-administered questionnaires to the sampled respondents; 71 questionnaires were returned but one was rejected for incomplete information leaving 70 questionnaires for analysis. This translated to 76.9% of the targeted population. The response rate was not as high as the researcher had targeted because some employees were on their annual leave, some were sick while others were attending conferences away from their respective places of work and therefore the researcher was not able to administer questionnaires to them

Effect of Managerial Skills on the Performance of PMTCT Projects

The researcher sought to address the effect of managerial skills on the performance of PMTCT projects. Values were taken to show the project managers qualification, ability to follow plans/guidelines, effect of managerial training and influence of the organization structure on PMTCT projects. A likert scale of 5 - 1 was given; 5 being strongly agree and 1 being strongly disagree was used to describe the best situation on the performance of PMTCT projects. The researcher used mean score and standard deviation to analyze their responses. The interpretation of the scores is that if the score of the mean for a particular factor is below 2, the respondents disagreed with the statement, if the score of the mean for a particular factor was between 2 and 3, the respondents were neutral and if the score of the mean for a particular factor was above 3, the respondents agreed with the response. A higher value denotes a convergent or positive response while a lower value denotes a divergent or negative opinion. Their responses are highlighted below.

Table 1. Effect of Managerial Skills on the Performance of PMTCT Projects (n=70)

Ratings	Mean	S.D	Interpretation
All PMTCT Project managers are well qualified	4.03	1.285	Agree
PMTCT Project managers follow plans/guidelines strictly	4.16	.773	Agree
Project management training by PMTCT managers lead to better PMTCT performance	4.11	1.071	Agree
Organization structure is Key in PMTCT projects	4.04	.859	Agree

Average mean=4.085

Source: Research data (2015).

The respondents agreed that all the factors listed on managerial skills had an effect on the performance of PMTCT projects. The respondents agreed that PMTCT Project managers follow plans/guidelines strictly (M=4.16, S.D=0.773). The findings that project management training by PMTCT managers lead to better PMTCT performance concur with findings of Rosacker et al [21] who stated that a project is successful if its main objectives are achieved within the stipulated time and cost.

Organization structure was also found to be key in PMTCT projects (M=4.04, S. D=0.859) and all PMTCT Project managers were well qualified to handle the projects (M=4.03, S.D=1.285). These results concurred with Bhatti's findings who emphasized on the importance of adequate training and made a conclusion that majority of projects fail due to lack of adequate managerial skills and qualifications.

Table 2. Effect of Community Participation on the Performance of PMTCT Projects (n=70)

Ratings	Mean	S.D	Interpretation
Active community participation influence performance of PMTCT project	4.41	.670	Agree
Identifying needs of PMTCT clients leads to achieving project success and hence better performance	4.26	.863	Agree
Assigning both individual and collective action greatly influence performance of PMTCT project	4.01	.970	Agree
Not mobilizing resources in advance has negative impact on performance of PMTCT project	4.37	.935	Agree

Average mean=4.263

Source : Research data (2015)

The respondents agreed that active community participation influence the performance of PMTCT project not mobilizing resources in advance has negative impact on performance of PMTCT project (M=4.37, S. D=0.935). also identifying needs of PMTCT clients leads to achieving project success and hence better performance (M=4.26, S. D=0.863) and assigning both individual and collective action greatly influence performance of PMTCT project (M=4.01, S.D=0.970).

The respondents felt that the presence of internal evaluators affected the performance of PMTCT projects to a large extent and thus monitoring and evaluation greatly influence the performance of PMTCT projects. This finding concurs with the findings of operations evaluation department of the world bank who argued that one way of satisfying stakeholder concern and promoting transparency is through involving project stakeholders in monitoring and evaluation. Almost all the respondents agreed that presence of internal evaluators will greatly influence to a large extent the performance of PMTCT projects.

Table 3. Extent to which Monitoring and Evaluation affects the Performance of PMTCT Projects (n=70)

Ratings	Mean	S.D	Interpretation
Monitoring and evaluation greatly influence performance of PMTCT projects	4.07	1.121	Large extent
Internal evaluators have effect on performance of PMTCT projects	4.17	0.851	Large extent
External evaluators have affected performance of PMTCT projects	3.93	.937	Large extent

Average mean=4.057

Source: Research data (2015)

Project performance to a very large extent is influenced by availability of funds, and the strictness to follow budgets that had been prepared during the planning phase. Failure to do so the managers might misuse or mismanage the funds that were meant for the PMTCT projects. The findings concur with finding by Rosacker [21] who noted

that it is key for managers to utilize resources available as per the recommendations in order to meet project objectives. However, managers should aim at minimizing the cost of running the project while maximizing the benefits to its beneficiaries.

Table 4. Extent to which Funding affects the Performance of PMTCT Projects (n=70)

Ratings	Mean	S.D	Interpretation
Availability of funds have an effect on performance of PMTCT projects	3.59	.551	Large extent
Financiers are bothered by utilization of funds	3.41	.691	Large extent
Budgets are followed as planned during the entire project cycle	3.23	.854	Large extent

Average mean=3.41

Source: Research data (2015)

Table 5. Project Performance (n=70)

Ratings	Mean	S.D	Interpretation
Client satisfaction	4.37	.820	Large extent
Employee satisfaction	3.94	.796	Large extent
Project partners satisfaction	3.81	1.158	Large extent

Average mean=4.04

Source: Research data (2015)

The results from the respondents on overall the performance of PMTCT projects showed that PMTCT clients were satisfied with the performance of PMTCT projects by a large extent. These findings underscore the effectiveness and positive impact of PMTCT initiatives in meeting the expectations and needs of stakeholders involved in the projects.

Regression Analysis

A linear regression model was used to find out if there was a relationship between the dependent variable and independent variables.

Table 6. Regression Analysis between Independent and Dependent Factors

Model	R	R Square	Adjusted R square	Std. Error of the Estimate	
1	.653 ^a	.427	.410	.486	
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	33.522	4	7.904	10.657	.001 ^a
Residual	85.304	65	.636		
Total	118.826	69			
Un-standardized Coefficients					
Model	B	Std. Error	t	Sig.	
(Constant)	0.021	0.108	0.194	0.552	
Managerial skills	0.542	0.069	7.855	0.000	
Community participation	0.302	0.072	4.194	0.000	
Monitoring and evaluation	0.163	0.051	3.196	0.012	
Funding	0.089	0.082	1.085	0.126	

Dependent Variable: Performance of Prevention of Mother to Child Transmission Projects

Source: Research data (2015).

The results indicates that the coefficient of correlation R=0.653 shows a moderate strength of relationships between independent variables and the dependent variable. Coefficient of determination ($R^2=0.427$) 42.7% of the corresponding variation in performance of prevention of

mother to child transmission projects can be explained by managerial skills. The rest 57.3% can be explained by other factors that are not in the model. The coefficient of determination, adjusted $R^2=0.410$ provides an adjustment to R^2 statistics such that an independent variable that has a correlation to Y increases adjusted R^2 and any variable without a strong correlation will make adjusted R^2 decrease. Analysis of variance was carried out to test the significance of the regression model in predicting the dependent variable (performance of PMTCT projects). The findings indicate the F ratio as 10.657 and 0.001 as the significance. This means there was not much difference in mean between dependent and independent variables. These variables statistically significantly predicted the dependent variable. All four variables added statistically significantly to the prediction, $p < .05$.

The coefficients of the model as generated from the regression analysis: The beta coefficients indicated the relative importance of each independent variable in influencing the dependent variable. From the proposed model, it's clear that performance of PMTCT projects largely depends on managerial skills (beta = .542) is the most important factor, others are community participation (beta = .302) and monitoring and evaluation (beta = .163). Thus, the regression equation looked as follows:

$$Y = 0.021 + 0.542X_1 + 0.302X_2 + 0.163X_3 + 0.089X_4$$

$$R^2 = 0.427$$

$$\text{Adjusted } R^2 = 0.410$$

Where Y = Project Performance

X_1 = Managerial Skills

X_2 = Community Participation

X_3 = Monitoring and Evaluation

X_4 = Funding

The findings from the above regression model showed a strong relationship between managerial skills and project performance. It concurs with findings of Rosacker et al [21] who stated that a project is successful if its main objectives are achieved within the stipulated time and cost by the relevant management. This results also concurred with Bhatti's findings who emphasized on the importance of adequate training and made a conclusion that majority of projects fail due to lack of adequate managerial skills and qualifications. This finding aligns with prior studies emphasizing the importance of strong management for successful implementation and delivery of healthcare interventions [22,23]. For instance, Gupta et al. [22] found that effective leadership and management were essential components of high-performing health facilities delivering HIV services in Kenya. Similarly, Mbindyo et al. [23] identified strategic management practices as key predictors of success in maternal and child health programs in rural Kenya.

Community participation was also found to be having a positive relationship with PMTCT project performance. The strength of this relationship would have been stronger if the community was encouraged to participate in the planning phase rather than at the implementation phase. The findings concur with Brunsting et al. [24] who stated that there is a need for a two-way dialogue between the project managers and stakeholders so as to shape and/or build consensus among all those involved. The findings however do not concur with [25]. The findings who concluded that failure to recognize the existence of

community members at the initial stages of any project would lead to various problems at the advanced stages of project implementation, the worse being rejection at the handing over stage. Community engagement has been consistently linked to better health outcomes and program sustainability across various contexts [26,27], including PMTCT initiatives [28]. Kok et al. [26] conducted a systematic review demonstrating the benefits of community involvement in improving access to and utilization of healthcare services. In line with this evidence, Wamoyi et al. [28] highlighted the significance of community support and partnership in enhancing the uptake of PMTCT services in Tanzania.

Monitoring and evaluation were seen to have a positive influence on performance of PMTCT projects. The respondents felt that the presence of internal evaluators affected the performance of PMTCT projects to a large extent and thus monitoring and evaluation greatly influence the performance of PMTCT projects. This finding concurs with the findings of operations evaluation department of the world bank who argued that one way of satisfying stakeholder concern and promoting transparency is through involving project stakeholders in monitoring and evaluation. Almost all the respondents agreed that presence of internal evaluators will greatly influence to a large extent the performance of PMTCT projects. Regular monitoring and evaluation enable organizations to identify challenges early, track progress towards set goals, learn from their experiences, and make informed decisions regarding resource allocation [29]. Bonnel and Leatt [29] argued that robust monitoring and evaluation frameworks could enhance accountability, transparency, and learning within global health programming efforts. Additionally, they contribute to ensuring efficient use of resources and promoting sustainable development objectives.

Funding on the other hand was also seen to have a positive relationship with PMTCT Project performance. This could be explained by the fact that both the government and the donors worked hand in hand and hence sustainability of the PMTCT projects in case the donor decided to pull out. This finding however concurred with many findings from other researchers. Nyamu [30] for example concluded that if funds availability on any project is very key and if not delivered timely and / or if there are mis- appropriation of funds, the final outcome of the project will be affected. It is therefore important to avail funds promptly and stick to initial budgets so as to enhance better performance. While adequate financial resources are crucial for implementing and maintaining PMTCT interventions, it seems other factors might play more prominent roles in determining project success based on this particular dataset. It is important to note that previous research has reported mixed results concerning the association between funding and PMTCT effectiveness [31]. Gourlay et al. [31] noted that insufficient or misaligned financing was one of several barriers impeding scale-up of PMTCT services in sub-Saharan Africa. Conversely, Dovlo [32] suggested that increased investments alone may not guarantee desired improvements if underlying systemic issues remain unaddressed.

5. Conclusion

It was apparent that capacity strengthening of the PMTCT health management team, health facility staff, and community health workers (CHWs) to increase the scope of their skills and knowledge in delivering health services and to improve access to these services can do a long way in improving the performance of PMTCT projects. There is need for the stakeholders to avail resources that enhance the skills and knowledge at the management, service delivery and consumer level. There is need also for project managers to follow plans and guidelines and training PMTCT managers on time management, risks, schedules and costs can lead to better PMTCT project performance. Establishment and support of health structures and organization structure can sustain the gains of PMTCT and go beyond the project life thereby achieving the objectives of reduced child and maternity morbidity and mortality.

It was evident that the community members were involved in PMTCT but mainly in the implementation stage. However, for successful replication of evidence-based interventions to occur, comprehensive process evaluations are needed to expose the community to specific interventions achieve desired PMTCT outcomes right from the planning process. Total and active involvement of the community in PMTCT services can help analyze the complex interplay of facilitators and barriers to PMTCT service uptake in each context, thus helping to inform selection of locally relevant community-based interventions. Many interventions might have focused on individuals, often ignoring how people's / community behaviors are embedded within the ever-widening social structures. Involving the community can lead to a greater understanding of the path health-seeking behaviour can lead to greater appreciation or the need for broader normative and structural change. Therefore, active community participation at all stages of the project life cycle, mobilization of resources and needs identification of the PMTCT clients can lead to achieving project success and hence better performance and also assigning both individual and collective action greatly influence performance of PMTCT project.

The study revealed that it was indeed important to have a monitoring and evaluation plan that show the indicators and result framework. The plan should show the activities supported and the outputs, consequences and impacts of these indicators towards health. Monitoring and evaluation should be done on an agreed regular basis and the reports prepared and submitted to relevant authority for collective action. Routine PMTCT monitoring information could be used to evaluate the program impacts. The presence of both internal and external evaluators affects the performance of PMTCT projects. It is important for facilities to strengthen their PMTCT monitoring and evaluation programs mainly through technical assistance, training health care staff on the PMTCT guidelines including finalizing data collection tools and registers as well as revising PMTCT and maternal, neonatal, and child health integrated program indicators.

It was palpable that PMTCT projects obtained their funds from both donors and government; however, funding was noted to be inefficient to cover all gaps. Such

funds went into funding research that identified key PMTCT interventions program, new interventions and development of new technologies, funding of pilot projects to evaluate innovative and cost-effective methodologies and comprehensive provision of PMTCT to promote women's health and empower women to access services. therefore, availability of funds and having budgets during the entire project cycle can improve the performance of PMTCT projects.

6. Recommendations

The researcher recommends more training among all PMTCT managers and all other employees working in these projects so as to improve their input and output in PMTCT projects. The training should incorporate aspects such as time management and risk management. This will make it easy for managers and employees to identify any threat(s) early enough and control/ block the risk if it is within their control. For risk(s) that are beyond managers' control, the training will aid manager to be able to act accordingly in order to minimize the impact of such a risk hence better performance of PMTCT projects.

The researcher also recommends active community participation be encouraged at the planning phase so that the members can own up the project. If community members are allowed to participate during the planning phase of any project, it is most likely that the participants will associate more with the project being implemented hence create a sense of ownership. It is also very unlikely for such a project to collapse. This is because community members are vital resources that any project has, and they will always help generate solutions in case of challenges within the project.

It was also noted that most of the respondents who were employees working in PMTCT projects in Nyeri County had worked for less than two years. The researcher recommends that employees to be given more time to work in the PMTCT projects without termination of contracts which are normally given for two year. This will help the employees who form part of the internal evaluators be able to audit their quality of work over a longer period of time. That way they will be able to easily identify gaps that affected the quality of services that they offer. Finally, the researcher recommends timely availability of finances by financiers who include the government and the donors. By not providing the finances promptly, the project is bound to fail or take a longer period of time than expected.

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