International Journal of Technology and Management



Decision Factors and the Utilization Of Monitoring and Evaluation Findings in Programs Implementation: A Case of the Ugandan Malaria Control Program

IJOTM
ISSN 2518-8623
DOI: 10.67610/ijotm.5.2.006
Volume 5. Issue II
pp. 1-10, December 2020
ijotm.utamu.ac.ug
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Abstract

Utilization-focused evaluation is based on the principle that an evaluation should be adjudicated by its utility. Therefore, no matter how technically sound and methodologically elegant, an evaluation is not truly good unless its findings are used. This study was therefore set out to ascertain the decision factors affecting utilization of Monitoring and Evaluation findings in the implementation of Malaria Control Programs in Uganda. In addressing this aim, a survey design in which questionnaires were administered to 120 employees from Monitoring and Evaluation departments of the six organizations that were implementing Malaria Control Programs in the Ugandan district of Mukono. The quantitative data collected was analyzed at descriptive and inferential levels.

Results showed that the level of receptiveness (β = -.085, $p > 0.005$) and consideration for information needs (β = -.251, $p > 0.005$) had no significant influence on utilization of M&E results in the implementation of the Malaria Control Programs. It, however, found decision characteristics as the decision factor having a positive significant effect on the level of use of M&E findings in the implementation of the Malaria Control Programs (β = .696, $p < 0.001$). The study concluded that decision characteristics were pertinent decision aspects which if not well-addressed limits use of Monitoring and Evaluation findings in the implementation of Malaria Control Program activities.

It was thus recommended that stakeholders need to be exclusively identified and thereafter involved in making decisions for the successful implementation of Malaria Control Programs.

Key words: *Monitoring and Evaluation, Decision Factors, Implementation, Utilization, Malaria Control Programs*

Introduction

In almost all societies across the world, malaria still trends as a global health problem with its infection rates just as the related mortality rates remaining virtually unchanged since 2015 (World Health Organization, 2019). Evidence from the World Malaria Report in 2018 indicates that countries across regions currently remain off-track regarding efforts geared towards achieving the 90% reduction in the rates on malaria case incidence and mortality as a goal by 2030 (World Health Organization, 2018; WHO, 2015). In Africa, malaria remains a major public health challenge, with an estimated 85% of the global population affected (World Health Organization, 2009) costing its countries an estimated US$ 12 billion each year and at a household level approximately 25% of household income about malaria treatment (RBM, 2006).

The good news whose thanks should not be compromised is that the appropriate use of the monitoring and evaluation results is critical in promoting robustness in the implementation of the Malaria Control Programs geared towards prevention and therefore prevention of malaria in populations (Williams, 2010). This is majorly because useful lessons to guide improvement and corrective actions are borne of findings from the monitoring and evaluation of the Malaria Eradication Interventions all through the implementation (Najera, 2011).

Quite unfortunate is that in the African region, the utilization of monitoring and evaluation results remains scanty as monitoring and evaluation remains relatively a new practice, to the extent that almost all countries are described as being in a monitoring and evaluation formative stage (Porter, 2013). Several countries have however shown positive initiatives about adopting best reforms and practices in public sector administration of which monitoring and evaluation is inclusive (Porter and Goldman, 2013) but the utilization of its findings remains poor with personnel characterized with gaps in skills and capacity of which more of the several experts referring to work outside Africa (Zogo, 2015). The region remains characterized by poorly developed M&E processes to monitor its development initiatives, without a result that they cannot monitor development programs or initiatives amongst which are the Malaria Control Programs (Porter and Goldman, 2013). This explains why Africa accounted for the highest number of malaria-related mortalities 94% in 2018 globally (World Health Organization, 2019).

Several issues, however, remain unresolved, amongst which is the lack of a learning culture but most importantly the demand for decision factors for monitoring and evaluation results (Schacter, 2000). This is tin light of the fact that proper understanding of such factors influencing the use of results from the monitoring and evaluation function guide program performance improvement efforts (Carvil and Sohail, 2007).

In Uganda where significant successes are evidenced that malaria cases have reduced by up to 1.5 million but is still ranked as the 3rd highest with the global burden of malaria cases (5%) (Severe Malaria Observatory, 2017). The country remains highly malaria-endemic, with 63% of the population exposed to high transmission levels and 25% exposed to moderate transmission levels, while 12% live in areas with low or unstable malaria transmissions that are epidemic-prone (MOH, 2005). Scanty empirical studies concerning the decision factors that influence the utilization of monitoring and evaluation findings exist which was the interest of this study with evidence from the implementation of Malaria Control Programs in Mukono District.

Literature Review

Some studies report decision factors such as decision characteristics as having a profound influence on the level of use of results got from the Monitoring and Evaluation activities. For example, a study prior done by Mulgan (2000) found the promotion of accountability as forming the largest part of decisions during the implementation of M&E findings. Mulgan pointed out that M&E reports promoted accountability, which in turn improved performance and that such accountability cannot be done without proper use of results contained in M&E reports. In support Hauge (2010) reported that decisions that targeted the provision of information relevant for decision-making were important and animate into results utilization. Contextual

gaps existed as none of the reviewed studies were done in Mukono district where the Malaria Control Programs had been implemented.

About Commitment or receptiveness, an earlier study by Mayne (2000) argued that government's commitment to sharpening its citizen focus in designing, delivering, evaluating and reporting on government activities, had a direct role in finding the best use of evaluation results. In support Molander, Nilson and Schick (2002) found that receptiveness, while implementing result-based monitoring is fundamental in ensuring that results are put to good use. There was however need for further empirical investigations which were lacking in the former reviewed study.

Studies that are peculiar to information needs like one by Mackay (2007) established that the utilization of M&E information was central to the performance and sustainability of an M&E system, and depended on the nature and strength of demand for M&E information. The author urged that the utility of the results from evaluations required that commissioners and evaluators undertake the evaluation to use its results. In support, Rist, Boily and Martin, (2011) found that knowing the information needed for proper implementation of a particular program was paramount in pushing for better utilization of the evaluation results, and specifically if the evaluation is undertaken at a time when the results can meaningfully inform decision-making processes and are accessible. Both studies reviewed were only arguments without empirical backing which warranted further investigations.

In other related studies, Otieno (2012) found that the majority of the respondents who are involved in project decision-making, redesign, improvement, advocacy for additional resources, program intervention and project control were more involved in utilization of the monitoring and evaluation results. However, the low involvement of project members in project control, after the offset of the implementing agency, contributed to the immense negative impact of the current low degree of sustainability of the project performance. In another study by Kusek and Rist (2004) however, there was a need to introduce incentives to encourage the use of performance information. Knowledge gaps, however, exist as the latter study failed to relate information needs to level of use of the results from the M & E activities done in interventions.

Thomas (2010) established that the external demand for specific information on outcomes and impacts played a key role in promoting measurement of those aspects of development work, and in keeping the system in use and honest on the overall. In support, the AusAID (2000) report indicated that feedback information during project implementation from local project staff, and the opportunity for beneficiaries to influence appropriate revisions to project activities contributed to the quality of monitoring information, and therefore its use in future projects.

Hunter (2009) found that baseline data and needs assessments provided the information that was needed against which to assess improvements caused by project implementation over time. The author noted that with the needed information established, baseline study results were necessarily used for most activities when the needed information is already available. In agreement of the foregoing result, Rogito (2010) reported that interventions that were implemented without the baseline study information faced serious challenges in effectively tracking progress on indicators than those that had baseline information. Rogito, therefore, noted that the best practice is that baselines need to be planned and done a year earlier, to get full information on the project, and such information is key to being usable in future evaluations. Contextual gaps, however, existed as none of the reviewed studies was peculiar to the Ugandan context.

Methodology

Study design and setting

A cross-sectional study design was adopted in implementing this quantitative research study whose aim was to identify the decisions that influence the level utilization of monitoring and evaluation results in the implementation of Malaria Control Programs in the central Ugandan district of Mukono. The primary method was a quantitative survey of the decision factors and the utilization of monitoring and evaluation findings amongst the six organizations that were implementing MCPs in Mukono District. To complement

the survey, Key Informant Interviews (KII) were also conducted. KIIs helped the research team clarify complex phenomena like behaviors and motivations that emerged during the survey. The descriptive survey was used to establish association between variables at a given point in time without attempting to change their behavior or conditions. This method was preferred because it allows for prudent comparison of the research findings.

Sample size

A total of 171 staff members who were by them working in the monitoring and evaluation departments that belonged to 6 organizations implementing the Malaria Control Programs were targeted (Mukono DPP, 2010-2015). Through a statistical formula sample determination strategy as earlier advanced by Yammane (1967), a random sample of 120 personnel was recruited into the study.

Data Analysis

The quantitative data collected was first entered into the Statistical Package for Social Scientists (SPSS) Version 20.0. The data was then analyzed at a descriptive level in which Means and Standard deviations were processed to depict the level of the different factors. At inferential level, Pearson Correlation Coefficient was processed to show the relationship and thereafter a Multiple Regression Model was fitted to show the influence. The Multiple Regression Model was written as;

$$Y = b_0 + b_1x_1 + b_2x_2 + \cdots b_nx_n + \varepsilon$$

Where;

b_i = Decision Factors (Independent Variables)

Y = M&E Results utilization level (Dependent Variable)

b_0 = Intercept

ε = Error Term

In the Model fitted the decision factors whose *p*- value was less than 5% as a level of significance at 95% confidence level were considered influencing factors.

Results and Discussion

Table 1: *Descriptive results regarding the decision Factors in relation to M&E Activities*

Decision Features	Mean	Std. Deviation
We are always involved in the decisions to and of undertaking M&E activities in this organization	4.34	0.79
The decisions made about the monitoring and evaluation function in this organization are highly executable.	3.69	0.79
The decisions made with respect the monitoring and evaluation in this organization provides an opportunity for the empowerment of all players.	3.54	0.98
The decisions within this organization positively impact on other organizations and stakeholders	3.39	0.62
The decisions made about the monitoring and evaluation function of the programs implemented are highly replicable	4.61	0.49
Sub-Mean & Standard Deviation	**3.91**	**0.73**
Receptiveness	**Mean**	**Std. Deviation**

The organization is committed to supporting the functioning of monitoring and evaluation of the MCP	3.64	1.28
The staff in the organization alongside those the implementation team always demonstrate a commitment to undertaking the monitoring and evaluation of MCP	4.09	1.00
The management of this organization and that implementing MCP are highly welcoming to a monitoring and evaluation function	4.71	0.45
I would accept almost any type of assignment concerning the monitoring and evaluation of the programs to keep working under the projects of this organization	3.95	0.50
I have a good understanding of where the Malaria Control program implementation is going	3.79	0.98
Sub Mean & Standard Deviation	**4.04**	**0.84**
Information needs	**Mean**	**Std. Deviation**
The monitoring and evaluation exercises are highly based on the information needs of the MCP stakeholders	4.00	0.55
The information captured during the monitoring and evaluation exercise normally meets the expected uses of the results	4.57	0.74
The Monitoring and evaluation function normally provide the rightful information for learning about best practices in MCP implementation	3.68	0.56
The information provided following an M&E exercise is often well suited to meet the decision-making needs about MCP activities	3.78	0.97
The monitoring and evaluation exercise provides information that is needed for improvement purposes regard to MCP implementation.	4.16	0.72
Sub Mean & Standard Deviation	**4.04**	**0.71**
Pooled Mean & Standard Deviation	**4.00**	**0.76**

Key: 4.20-5.00 Very High, 3.40-4.19 High, 2.60-3.39 Average, 1.80-2.59 Low, 1.00-1.79 Very Low
Source: Primary

Study findings in Table 1 show an overall high-level state of decision factors about M&E activities (Mean = 4.00, SD = 0.76). Such high-level state of decision factors are reflected in the high scores in decision features (Mean = 3.91), high levels of receptiveness (Mean = 4.04) alongside frequent information needs of the results from the monitoring and evaluation (Mean = 4.04).

Table 2: ***Descriptive results on the Utilization Level of Monitoring and Evaluation Findings***

M &E Findings Utilization	Mean	Std. Deviation
The results from monitoring and evaluation of MCPs have been used to inform the current ways we manage risks during the program implementation	2.41	0.49

The M&E findings have used in the planning and designing of the malaria control program being implemented	2.41	0.56
The M&E results are always used as a learning point concerning the implementation of MCP	2.32	0.56
The preceding M&E findings have always been utilized for making decisions regarding the implementation of the malaria control program	2.32	0.49
The formulation of policies on the implementation of MCP has always been based on the successful use of the preceding M&E results	2.07	0.67
The results from M&E have also been explicitly used in undertaking MCP impact assessment	2.32	0.54
The improvement in the implementation of MCP has been based on the successful utilization of the M&E findings	2.65	0.63
Pooled Mean & Standard Deviation	**2.36**	**0.56**

Key: 4.20-5.00 Very High, 3.40-4.19 High, 2.60-3.39 Average, 1.80-2.59 Low, 1.00-1.79 Very Low
Source: Primary

The findings as presented in Table 2 depicts on overall a low level of use of the monitoring and evaluation findings during the implementation of the malaria control programs within Mukono district (Mean = 2.36, SD = 0.56). The level of use of such findings however varies attributed to a possibility of past experiences. The low use of M&E findings is reflected using them to inform the current ways of managing risks during the program implementation, limited use in the planning and designing of the malaria control programs being implemented and rarely being used as learning points about the implementation of MCPs. The low use is also reflected in the fact that they are rarely utilized for making decisions regarding the implementation of the malaria control programs, the formulation of policies on the implementation of MCPs and rarely used in undertaking MCPs impact assessment.

Table 3: ***Pearson's correlation results of the factors that influence the utilization of M&E results***

Decision factors	Pearson Correlation(r)	*p*- value
Decision characteristics	0.476	**0.000****
Receptiveness	-0.031	0.372
Information needs	0.205	**0.015****

*****Significant at 5%***

The study results In Table 3 show a insignificantly negative relationship between the level of receptiveness as a decision factor and the utilization of M&E results in implementing the Malaria Control Program in Mukono district (r = -0.031, p = 0.372). There however exists a positive significant relationship between the level of the score of decision characteristics and utilization of M&E results (r =0.476, p = 0.000). Similarly, a positively significant relationship exists between the level of the score of information needs and level utilization of findings from M&E (r =0.476, p = 0.000).

Table 4: ***Multiple regression results for Decision factors that independently influence utilization of M&E results***

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	12.779	1.042		12.265	.000
Decision characteristics	.391	.089	.696	4.400	.000
Receptiveness	-.039	.081	-.085	-.482	.631
Information needs	-.155	.155	-.251	-1.004	.318
R	.532				
R Square	.283				
Adjusted R Square	.263				
F	14.182				
Sig.	.000[b]				

a. Dependent Variable: Utilization of M&E results

The study results in Table 4 show the state of decision factors as having on the overall a positive correlation on the level of use of the M&E results ($R = 0.532$, $p < 0.001$). The decision factors on the aggregate influences the level of use of results from M&E ($F = 14.182$, $p < 0.001$). The other findings indicate 26.3% of the variation in the utilization of M&E results as being explained by the different decision factors in Table 4 with the remaining 73.7% explained by other factors. Table 4 shows that the level of receptiveness ($\beta = -.085$, $p > 0.005$) and consideration for information needs ($\beta = -.251$, $p > 0.005$) have got no significant influence on utilization of M&E results in the implementation of the Malaria Control Programs. The decision characteristics, however, have a positive significant effect on the level of use of M&E findings in the implementation of the Malaria Control Programs ($\beta = .696$, $p < 0.001$).

Discussion of Findings

The current study as in Table 4 successfully fitted multiple regression model constituting decision characteristics, receptiveness and information needs as the deciding factors on the utilization level of M&E results. The study basing the F-test whose value was 14.182 and the respective p-value as 0.000 rejected the null hypothesis that decision factors had no significant effect on the utilization of the M&E results. Such a result by implication meant that decision factors significantly affected M&E results use as per the implementation of the Malaria Control Programs. This finding is similar to what was found by Mulgan (2000) that results from M&E reports promoted accountability, which in turn improved performance during implementation. This finding is also similar to earlier findings by Thomas (2010) that the external demand for specific information on outcomes and impacts played a key role in promoting measurement of those aspects of development work, and in keeping the results of the M & E system in use and in a more honest way.

The current study, however, found the level of receptiveness alongside the level of consideration for information needs as having no significant bearing to the utilization of M&E results in the implementation of the Malaria Control Programs. This finding is different from what was earlier established by Molander, Nilson and Schick (2002) that receptiveness while implementing result-based monitoring is fundamental in ensuring that results are put to good use. They are not consistent with what was earlier found by Rist et al who reported that knowing the information needed for proper implementation of a particular program was paramount in pushing for better utilization of the evaluation results. There is however need for further empirical investigations involving more programs in other contexts.

This study however established decision characteristics as having a positive significant bearing on the level of use of M&E findings in the implementation of the Malaria Control Programs. This finding is much similar to what Mackay (2007) earlier found that the utilization of M&E information was central to the performance and sustainability of an M&E system, and depended on the nature and strength of demand for M&E

information. This result provides relevant insight into the need for implementing personnel to integrate decision characteristics as crucial in propelling the use of results from the monitoring and evaluation activities.

Conclusion and Recommendations

The study concluded that monitoring and evaluation findings are less used during the implementation of the malaria control programs and that not all desired successes may be reached by implementing organizations. The decision characteristics are however pertinent and if not, well-addressed limits use of monitoring and evaluation findings in the implementation of MCP activities. It was therefore, recommended that management staff need to exclusively involve stakeholders in making decisions for the successful implementation of Malaria Control Programs. Furthermore, the personnel involved in designing the program need to ensure the empowerment of all players for the monitoring and evaluation in those organizations. The M&E experts within the MCP implementing organizations should support their respective organizations in ensuring the building of a monitoring and evaluation system that provides the rightful information for learning and decision-making needs concerning MCP activities.

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