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# Health Project Implementation Processes and Performance Efficiency in Rwanda: A Case Study of the HIV Case Based Surveillance Program in Mayange Health Centre, Bugesera District

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## Abstract

The efficient implementation of health projects is critical to improving the quality of healthcare services and achieving positive health outcomes. However, many factors can influence the performance efficiency of these projects, making it challenging to achieve the desired results. This study aims to investigate the factors that affect the performance efficiency of health projects, with a specific focus on the implementation of the HIV case-based surveillance program at Mayange Health Centre. The study has several objectives, including evaluating the effect of service delivery processes, project responsiveness processes, and accessibility processes on performance efficiency. A mixed-method strategy was used, combining qualitative and quantitative techniques. The study involved 83 respondents; 2 managers, 13 staff, and 68 beneficiaries selected from the CBS program in the health center. The findings of the study shed light on the variables that can affect the outcome of health projects and guide future initiatives to enhance the provision of healthcare in environments like these. Semi-structured questionnaires were used for data collection, while SPSS was used for data analysis. It was found that positive relationship between independent variables namely service delivery, responsiveness and accessibility and dependent variable in this case the performance efficiency of the HIV case based surveillance program in Mayange health Centre because of their correlation coefficients of .944<sup>\*\*</sup>, .761<sup>\*\*</sup> and .719<sup>\*</sup> respectively and that is statistically significant since the Sig. (2-tailed) P-value of .000 is less than 0.01. The study recommends that the project management team should provide adequate finances for project implementation, and capacity building for project efficiency. The study recommends that health centers should frequently organize regular training on project factors that influence the performance efficiency. It was concluded that service delivery, responsiveness and accessibility greatly influence the performance efficiency of the HIV case based surveillance program in Mayange health Centre.

**Keywords:** *Health Project, Implementation Processes, Performance Efficiency, Service Delivery Processes, Project Responsiveness Processes, Accessibility Processes*

## 1.0 Introduction

Health project implementation and performance efficiency is a critical issue in healthcare management. Many healthcare organizations are implementing various health projects to improve healthcare service delivery and patient outcomes. The effectiveness and efficiency of these projects' implementation, however, frequently determines their success. Therefore, it is essential to evaluate the implementation and performance efficiency of health projects to ensure their success and sustainability. Several factors can influence the implementation and performance efficiency of health projects, such as the availability of resources, stakeholder engagement, project management, and organizational culture. Understanding these factors can help healthcare organizations to identify potential challenges and develop strategies to address them. Previous research has shown that healthcare organizations that prioritize the implementation and performance efficiency of their health projects have improved patient outcomes, reduced healthcare costs, and enhanced organizational performance. However, many healthcare organizations struggle with the implementation and performance efficiency of their health projects due to various factors. For instance, one study found that organizations that prioritized project management practices had better implementation success rates, the study found that successful projects are closely connected with an organization's capacity for project management; when an organization's capacity is high, its success rate rises. (Karim, Muhammad & Ali,2022). Health project implementation and performance efficiency are critical issues that have been explored in various international contexts. In many countries, healthcare organizations are implementing health projects to improve healthcare service delivery and patient outcomes. However, the success of these projects often depends on their implementation and performance efficiency.

### 1.1 Statement of the Problem

A country's health system success is gauged by how effectively healthcare services are provided by motivated human resources and how seriously government organizations take responsibility of and sustainability of health initiatives. Statistics from the Ministry of Health for 2021 show that Rwanda has 1.1 qualified healthcare providers per 1,000 people, compared to the 4.45 skilled healthcare workers per 1,000 people suggested by the WHO. The low healthcare worker density in public health facilities, which accounts to an average turnover rate of 8.7% (Ministry of health, 2019), justifies the high staff turnover. However, this figure is quite high in rural areas, as demonstrated by Kirehe District Hospital, which had an overall attrition rate of 31.7% but an attrition rate for medical doctors only of 81.8% in 2013. (Odhiambo, 2017) Low pay, a heavy workload, and substandard living circumstances are all blamed for the high attrition rate. This disparity in the recommended number of skilled healthcare workers and the actual number of qualified healthcare providers, indicates potential challenges in healthcare service delivery. It is also important to note that in 2020, Rwanda had 1.4 people use primary healthcare services annually (National Institute of Statistics for Rwanda, 2020), compared to the OECD's 7.1 visits per person in 2013 (Nyandekwe, Nisingizwe, Ndagije, Bakundukize & Hedt-Gauthier, 2020). This shows that the utilization rate of primary healthcare services in Rwanda remains lower than international benchmarks, indicating potential barriers to the accessibility, responsiveness and utilization of healthcare services.

Despite the implementation of various health projects aimed at improving healthcare service delivery and patient outcomes in Rwanda, there are still challenges that hinder the effectiveness of these projects. Inadequate funding, limited healthcare workforce, and inadequate healthcare infrastructure are some of the challenges that healthcare organizations in Rwanda face in

implementing and maintaining the effectiveness of health projects. Therefore, more research is required to assess the factors that influence the effectiveness of health programs inside Rwanda's health system. In order to better understand the difficulties healthcare organizations in Rwanda face in implementing and maintaining the success of health projects.

## 1.2 Hypotheses of the Study

**Ho1:** Service delivery has a statistically significant influence on the performance efficiency of health projects.

**Ho2:** project responsiveness has a statistically significant influence on the performance efficiency of health projects.

**Ho3:** accessibility has a statistically significant influence on the performance efficiency of health projects.

## 2.0 Literature Review

### 2.1 Theoretical Framework

This research was guided by two theories namely theory of systems theory and quality improvement theory.

#### 2.1.1 Systems Theory

Systems theory is a framework that focuses on the interdependence of various components within a system and how they interact to achieve a common goal. It is particularly useful in the context of health projects as it helps identify the various subsystems and how they can be coordinated to achieve optimal performance efficiency. This theory states that a system is made up of various interconnected and interdependent pieces that cooperate to accomplish a single goal. For example, in a health project, the various subsystems may include health facilities, staff, patients, and resources. Each of these subsystems has its own unique characteristics and functions, but they are all interconnected and interdependent. By understanding the relationships between these subsystems, it becomes possible to identify ways to advance the overall performance of the system. One of the key benefits of using systems theory in health projects is that it helps identify potential areas of conflict and overlap between different subsystems. By recognizing these issues early on, it becomes possible to develop strategies to address them and ensure that the system is functioning optimally. Additionally, this theory can also help identify potential bottlenecks and inefficiencies within the system, allowing for targeted interventions to improve performance. (Katrakazas et al., 2020).

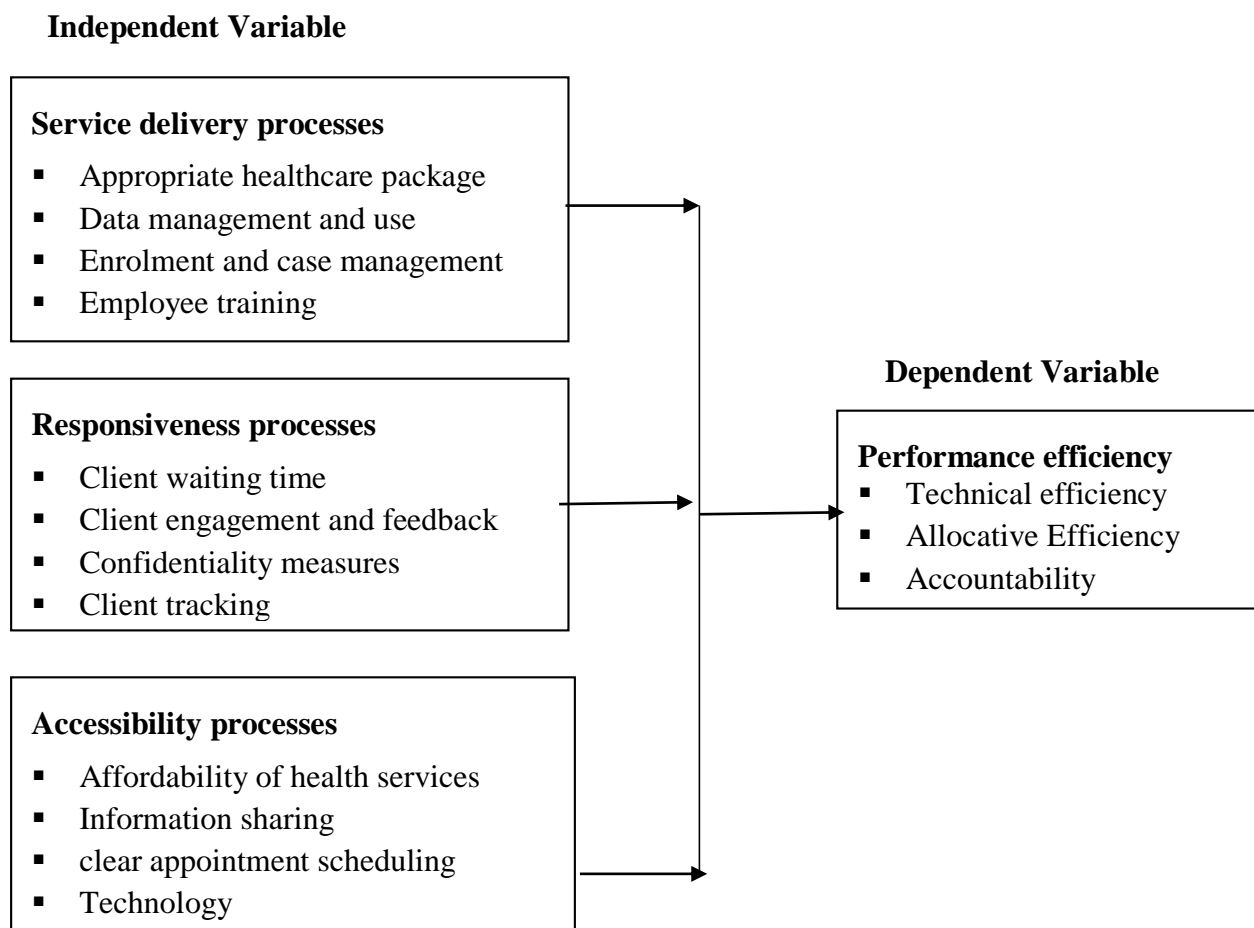
#### 2.1.2 Quality Improvement Theory

Quality improvement theory is a framework that focuses on improving the quality of care by identifying and addressing gaps in service delivery. It emphasizes the importance of continuous monitoring and evaluation of performance metrics to identify areas for improvement. In the context of a health project, this theory can help develop a framework for monitoring and evaluating the project's performance efficiency and identifying areas for improvement. According to this theory, quality improvement is a continuous process that involves setting goals, measuring performance, and implementing interventions to improve outcomes. It involves a systematic

approach to identifying and addressing gaps in service delivery, including identifying the root causes of quality problems and implementing solutions to address them. Quality improvement theory also recognizes the importance of engaging stakeholders, including patients, providers, and administrators, in the improvement process. One of the key benefits of using quality improvement theory in health projects is that it helps identify areas for improvement and develop targeted interventions to address them. By continuously monitoring performance metrics and engaging stakeholders in the improvement process, it becomes possible to develop sustainable improvements in the quality of care delivered. (Boaden, 2009).

## 2.2 Conceptual framework

Conceptual frameworks are important in research because they help differentiate concepts and organize ideas. Health Project Implementation is the independent variable in this study. Performance efficiency forms the dependent variable of the study.



**Figure 1: Conceptual framework**

## 3.0 Research Methodology

The goals and objectives of this study were gathered using a descriptive study design. According to the CBS data, the institution has 2 managers and 13 staff members and 68 beneficiaries in total comprising of 83 respondents. The researcher adopted census technique on all CBS staff and



managers and used convenience sampling on the 68 beneficiaries to select the respondents to participate in the study. Questionnaires were employed as a data collection method.

#### 4.0 Results and Discussions

This section evaluated how closely the independent and dependent variables are correlated. As a result, various regression models and correlation coefficients were employed.

**Table 1: Correlation between the variables**

| Health project implementation processes |                     | Performance efficiency |
|---|---------------------|------------------------|
| Service delivery                        | Pearson Correlation | .944                   |
|   | Sig. (2-tailed)     | .000                   |
|   | N                   | 83                     |
| Responsiveness                          | Pearson Correlation | .761                   |
|   | Sig. (2-tailed)     | .000                   |
|   | N                   | 83                     |
| Accessibility                           | Pearson Correlation | .719                   |
|   | Sig. (2-tailed)     | .000                   |
|   | N                   | 83                     |

Table 1 reveal a favorable link between the dependent variable and the independent variables of service delivery, responsiveness, and accessibility, in this case, the effectiveness of the HIV case-based surveillance program at Mayange Health Centre. This relationship is statistically significant because the correlation coefficients of .944, .761, and .719 are all less than .000.

#### 4.1 Regression analysis

This part indicates the model summary, the analysis of variance and the regression coefficients between the variables.

**Table 2 Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .949 <sup>a</sup> | .900     | .896              | .28447                     |

Table 2 shows Adjusted R squared, which takes into account variations in the independent variable, can explain the findings in the preceding sentence. It further shows that the adjusted R squared value was 0.896, indicating a variation of 89.6% in the HIV case-based surveillance program's performance efficiency at the Mayange Health Center, this was because of changes in accessibility, service delivery, responsiveness at 95% confidence interval. Therefore 89.6% changes in performance efficiency of the HIV case based surveillance program in Mayange health Centre could be accounted for by accessibility, service delivery, and responsiveness. According to this, the other variables (factors) that were not investigated in this study were responsible for 10.4% of the variability in the effectiveness of the HIV case-based surveillance program at the Mayange Health Center. The findings revealed a significant positive association between the investigated variables, as indicated by the correlation coefficient R, which stands for 0.949.

**Table 3 Analysis of variance (ANOVA)**

| Model |            | Sum of Squares | Df | Mean Square | F       | Sig.              |
|-------|------------|----------------|----|-------------|---------|-------------------|
| 1     | Regression | 57.543         | 4  | 19.181      | 237.029 | .000 <sup>a</sup> |
|       | Residual   | 6.393          | 79 | .081        |         |                   |
|       | Total      | 63.936         | 83 |             |         |                   |

The regression model used in the research was evaluated for overall significance using the ANOVA method, and The model was substantial, as demonstrated by the outcomes at the 95% confidence level with a p-value of 0.05 (Sig. = 0.000). This demonstrates how the HIV case-based surveillance program's performance efficiency is influenced by accessibility, service delivery, and response at the Mayange Health Center. For data that is normally distributed, a p-value of 0.000 is less than the predetermined level of significance of 0.05. This indicates that the model is crucial for illuminating the effectiveness of the HIV case-based surveillance program at the Mayange Health Center.

**Table 4. Regression Coefficients**

| Model |                  | Unstandardized Coefficients |            | Standardized Coefficients |        | Sig. |
|-------|------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                  | B                           | Std. Error | Beta                      | T      |      |
| 1     | (Constant)       | 2.673                       | .298       |                           | 5.622  | .000 |
|       | Service delivery | 1.664                       | .105       | 1.101                     | 15.904 | .000 |
|       | Responsiveness   | 1.111                       | .162       | 1.087                     | 2.684  | .000 |
|       | Accessibility    | 1.160                       | .180       | 1.101                     | 3.886  | .002 |

The results in Table 4 imply that service delivery relates positively with performance efficiency of the HIV case based surveillance program in Mayange health Centre, the relationship is statistically significant since ( $p < 0.05$ ;  $p = 0.000$ ); There is a positive relationship between responsiveness and performance efficiency of the HIV case based surveillance program in Mayange health Centre and the relationship is statistically significant since ( $p < 0.05$ ;  $p = 0.000$ ); and accessibility relates positively with performance efficiency of the HIV case based surveillance program in Mayange health Centre and the relationship is statistically significant since ( $p < 0.05$ ;  $p = 0.000$ ).

## 5.0 Conclusions

The study concluded that there is the positive relationship between service delivery and the performance efficiency of the HIV case based surveillance program in Mayange health Centre. The analysis of the data indicates a strong positive relationship between service delivery and the performance efficiency of the HIV case-based surveillance program at Mayange Health Centre. The study also concluded that the observed relationship between service delivery and performance efficiency is unlikely to have occurred by chance. The quality and effectiveness of the services provided directly influence the program's overall efficiency in identifying and monitoring HIV cases. The study also concluded that the relationship between responsiveness and performance efficiency is unlikely to be due to chance. The findings suggest that when responsiveness improves within the HIV case-based surveillance program at Mayange Health Centre, there is a corresponding increase in performance efficiency. Moreover, the study concluded that there is a positive relationship between accessibility and performance efficiency of the HIV case based surveillance program in Mayange health Centre.

## 6.0 Recommendations

The study recommended that accessibility and responsiveness be integrated into project implementation from the start of the project and throughout its implementations in order to guarantee service delivery. According to the study, the project management team should allocate sufficient funds for project implementation and invest in project efficiency by growing capability. The report suggests that health facilities regularly schedule training sessions on the project aspects that affect performance effectiveness.

## REFERENCES

- Boaden, R. (2009). Quality improvement: Theory and practice. *British Journal of Health Care Management, 15*(1).
- Karim, M. A., Ong, T. S., Ng, S. H., Muhammad, H., & Ali, N. A. (2022). Organizational Aspects and Practices for Enhancing Organizational Project Management Maturity. *Sustainability (Switzerland), 14*(9).
- Nyandekwe, M., Nzayirambaho, M., & Kakoma, J. B. (2020). Universal health insurance in rwanda: Major challenges and solutions for financial sustainability case study of rwanda community-based health insurance part i. *Pan African Medical Journal, 37*.



Odhiambo, J. (2017). Retention of Health Workers in Rural Rwanda: Engaging the Private Sector to Increase Opportunities for Health Worker Investment. *African Journal of Health Economics*, 6(1), 15-24