International Research Journal Of Business and Strategic Management

Vol 8, Issue 2, pp 444-460, July 2, 2026, © International Research Journal Publishers, ISSN 2710-2742 (online) www.irjp.org

Monitoring and Evaluation Practices and Performance of HIV Programs in Level 5 Hospitals in Nairobi County, Kenya

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Accepted: 29 June 2026

Abstract

Globally, HIV programs have achieved significant improvements, but performance remains inconsistent due to weaknesses in monitoring and evaluation (M&E) systems. Within this national context, Level-5 hospitals in Nairobi County face unique challenges. The general objective of the study is to examine the influence of Monitoring and Evaluation practices on the performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. Specifically, the study sought to assess the influence of capacity building and feedback on the performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. The study was anchored on Human Capital Theory and Feedback Intervention Theory. A cross-sectional correlational design was adopted. The study population was 121, from which a sample size of 93 was determined using Slovin's formula. The units of observation included program officers, clinical staff, and data managers drawn from eleven Level-5 hospitals. Data was collected using structured questionnaires and analyzed through descriptive and inferential statistics, while qualitative data was examined using thematic analysis. Findings were presented in the form of pie charts, graphs, tables, and figures. The research model was a regression model. The study concludes that capacity building has a positive and significant effect on performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. The study concludes that feedback has a positive and significant effect on performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. Based on the findings, the study recommends that HIV programs in Kenya should invest in continuous capacity building for healthcare workers involved in HIV programs through regular training, mentorship, workshops, and skills development initiatives. Strengthening the knowledge and competencies of staff in areas such as HIV treatment guidelines, data management, patient counseling, and program monitoring enhances service quality and operational efficiency.

Keywords: *Monitoring and Evaluation Practices, Capacity Building, Feedback, HIV Programs, Level 5 Hospitals*

INTRODUCTION

Monitoring and evaluation (M&E) practices are structured approaches for systematically tracking, assessing, and improving program activities and outcomes. Monitoring offers continuous updates on implementation progress, while evaluation examines the relevance, effectiveness, efficiency, and sustainability of interventions (Issifu & Agyapong, 2023). Strong M&E systems also act as learning platforms, where evidence from routine monitoring and periodic evaluations guides better planning and resource distribution. Studies show that

programs with solid M&E frameworks demonstrate better coordination, increased transparency, and timely responsiveness to implementation challenges (Shuna & Kithandi, 2024).

Program performance refers to the extent to which a program achieves its objectives, outcomes, and impact relative to its set targets. It includes aspects such as efficiency in using resources, effectiveness in delivering services, and the quality of outcomes (Muasya & Mulwa, 2023). Performance is not just measured by outputs delivered but also by the sustainability and relevance of the results in meeting identified needs. In this way, program performance reflects how well M&E evidence is turned into practical strategies.

The relationship between M&E practices and program performance is both direct and reinforcing. Effective M&E provides dependable data to measure progress, identify gaps, and guide adjustments, thereby enhancing performance outcomes (Chhetri & Khanal, 2024). Without credible M&E, performance assessments risk being inaccurate or incomplete, leading to poor decision-making. Conversely, programs that institutionalize strong M&E practices are better positioned to achieve higher levels of performance, accountability, and impact. Therefore, M&E practices serve both as a driver and a safeguard for program performance.

Level-5 hospitals in Kenya, also known as county referral hospitals, are healthcare facilities that offer specialized, comprehensive care and act as referral centers for lower-level facilities (Ministry of Health, 2021). These hospitals usually have more than 100 inpatient beds, specialized medical staff, advanced diagnostic services, internship programs, and are actively involved in training and research (Paukwa, 2023).

In Nairobi County, several Level-5 hospitals, both public and private, are essential to HIV/AIDS program delivery because of their ability to handle high patient loads, manage complex cases, and provide mentorship and technical assistance to smaller facilities in HIV care (Ministry of Health, Kenya, 2022). Their roles include offering antiretroviral therapy, monitoring viral suppression, managing opportunistic infections, implementing M&E systems, and ensuring continuity of care. Due to their resources, strategic importance, and diversity—spanning public, faith-based, and private institutions—these facilities serve as ideal case studies for examining how M&E practices influence HIV/AIDS program performance.

Statement of the problem

Globally, HIV programs have achieved significant improvements, but performance remains inconsistent due to weaknesses in monitoring and evaluation (M&E) systems. In 2023, around 39 million people were living with HIV, with 29.8 million (76%) accessing antiretroviral therapy (UNAIDS, 2023). Despite this progress, 1.3 million new infections still occurred that year, highlighting ongoing performance gaps related to inequities in data use, inclusiveness, and responsiveness (Global Fund, 2024). These issues point to managerial inefficiencies in M&E practices. This situation underscores the urgent need for stronger, locally tailored M&E mechanisms that directly link managerial processes to program outcomes.

Kenya reflects many of these regional issues, with HIV still a major public health problem. In 2022, 1.4 million people lived with HIV, and the adult prevalence was 4.7% (NSDCC, 2023). Although national strategies like the Kenya AIDS Strategic Framework II have improved accountability and coordination, implementation at health facilities remains weak. For example, a recent study of 187 health facilities showed significant differences in data quality, with incomplete and inconsistent reports decreasing confidence in decision-making (Were et al., 2023). Retention is also an issue: even though 97% of diagnosed people were on ART,

41,028 patients stopped treatment in 2023, exposing gaps in follow-up systems and feedback loops (NSDCC, 2023).

Within this national context, Level-5 hospitals in Nairobi County face unique challenges. As referral centers, they manage large patient volumes, operate under various ownership structures, and have complex reporting requirements. Despite their key role in HIV service delivery, limited empirical evidence exists on how M&E practices in these facilities impact program outcomes. Existing research has mainly focused on county-wide or general health projects, leaving a gap in understanding the managerial dynamics within referral hospitals (Lichfield et al., 2025).

Robust M&E systems not only serve as accountability tools but also as learning platforms, where evidence from routine monitoring and evaluations guides planning and resource allocation. Studies highlight that programs with well-structured M&E frameworks demonstrate improved coordination, enhanced transparency, and timely responsiveness to implementation challenges (Shuna & Kithandi, 2024). Without credible M&E, performance assessments risk being inaccurate or incomplete, leading to poor decision-making. Conversely, programs that institutionalize strong M&E practices are better positioned to achieve higher levels of performance, accountability, and impact. Therefore, M&E practices act as both a driver and a safeguard for program performance.

National evidence further highlights these concerns. A multi-facility study found substantial differences in data completeness and consistency, which undermined managers' confidence to reallocate resources or respond to performance signals (Were et al., 2023). Recent reforms have therefore focused on transparent budgeting and harmonized reporting to cut down on duplication and improve the predictability of resource flows (NSDCC, 2023; Global Fund, 2024). Participation in M&E also acts as a managerial tool that incorporates local insights into program design and outreach, thereby increasing relevance and reach (Apondi, 2023). Additionally, blended models combining training with mentoring have proven to produce greater improvements in data quality and utilization than training alone, resulting in measurable gains in reporting accuracy (Were et al., 2023; Litchfield et al., 2025). Importantly, prompt feedback has been statistically linked to faster resolution of data discrepancies and better patient follow-up rates (Were et al., 2023), underscoring the importance of timeliness as a key factor in operational responsiveness. Due to these issues, the researcher would like to examine the monitoring and evaluation practices and performance of HIV programs in level 5 hospitals in Nairobi County, Kenya.

Research Objectives

General Objective

The general objective of the study is to examine the influence of Monitoring and Evaluation practices on the performance of HIV programs in level-5 hospitals in Nairobi County, Kenya.

Specific Objectives

i. To assess the influence of capacity building on the performance of HIV programs in level-5 hospitals in Nairobi County, Kenya.
ii. To evaluate the influence of feedback on the performance of HIV programs in level-5 hospitals in Nairobi County, Kenya.

THEORETICAL REVIEW

Human Capacity Theory

Human capital theory was developed by Becker (1964), who argued that investing in people's knowledge, skills, and competencies improves productivity and performance. This theory explains why continuous capacity building through training, mentorship, and skill development is essential for improving data quality, service delivery, and clinical outcomes.

When healthcare workers and program staff acquire relevant technical and managerial skills, they are better equipped to implement M&E activities effectively, supporting evidence-based decision-making and operational efficiency (Bates, Taegtmeyer & Squire, 2020; Muchiri, Kyalo & Mulwa, 2021).

The theory also supports the Capacity Building variable by emphasizing that staff who apply newly acquired skills contribute to improved reporting accuracy, patient follow-up, and adherence to HIV care protocols, thereby enhancing effectiveness and sustainability of HIV programs (Young, Sun & Hyunmi, 2020). However, Human Capital Theory is sometimes criticized for assuming that training alone guarantees improved performance. Evidence shows that without supportive systems such as supervision, resources, and incentives, knowledge may not translate into practice (Barnes, Abor & Boohene, 2024).

Feedback Intervention Theory

Feedback Intervention Theory (FIT) was proposed by Kluger and DeNisi (1996), who discovered that feedback mechanisms significantly influence individual and organizational performance. The theory highlights that prompt, actionable, and responsive feedback promotes improvements in behavior and outcomes. This directly supports the feedback variable, where effective communication loops and responsiveness enhance HIV program performance. Feedback mechanisms help staff identify gaps in service delivery, improve data quality, and act promptly on performance issues (Okeke, Wasunna & Amulele, 2020). Timely and targeted feedback enables healthcare workers and managers to adjust strategies, allocate resources appropriately, and address program bottlenecks before they escalate, reinforcing operational efficiency and responsiveness (Mairanga, 2020).

The theory directly aligns with the study's feedback variable by explaining how timeliness, actionability, and responsiveness contribute to better HIV program outcomes. Actionable feedback guides staff on practical steps to improve retention, follow-up, and reporting accuracy, while responsiveness reflects the extent to which managers act on feedback to drive improvements (Kagwanja, Gilson & Tsofa, 2024). However, FIT cautions that poorly delivered or vague feedback can demotivate staff and hinder program performance, indicating the need for structured, supportive feedback systems (Zahid, Shinwari & Dawood, 2021).

Conceptual Framework

A conceptual framework is the analytical structure that shows how key concepts, variables, and relationships in a study are organized and connected. It provides a visual and theoretical map that guides the research by demonstrating how the independent variables are expected to influence the dependent variable. It helps researchers justify why certain factors are studied and how they are hypothesized to affect outcomes, thereby aligning the study with both academic and practical relevance (Adom et al., 2024).

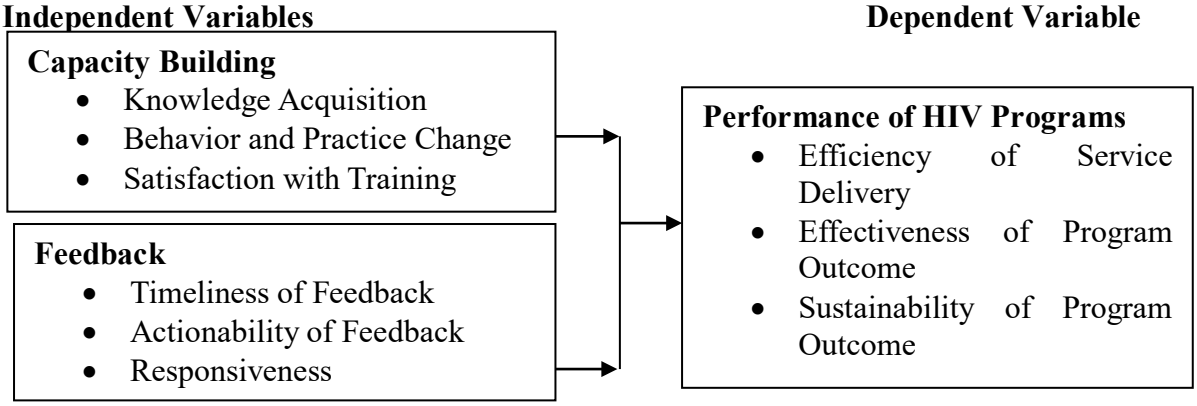

Figure 1: Conceptual Framework

Empirical Review

Capacity Building and Performance of HIV Programs

Young, Sun and Hyunmi (2020) conducted a study on the effect of development and effect of a global health capacity building program for nursing students in South Korea. The subjects of this study were 83 students recruited from 29 nursing colleges. Domestic workshops and overseas training in the Philippines were offered. For data collection and analysis, the triangulation method was adopted. The study found that Students' critical thinking disposition and global leadership capacity were significantly increased. The study concluded that the global health capacity building program improved nursing students' view of global health and nursing care.

Barnes, Abor and Boohene (2024) conducted a study on the effect of capacity building in Ghana's decentralized health system: a qualitative Study. The study adopted a descriptive-exploratory design with a qualitative approach. A semi-structured interview guide is the primary tool for data collection in this study. The results of the study showed that though Ghana's health system is implementing the decentralization reform, to some extent, some core functions like human resources, procurement, logistics, and recruitment are still centralized, with the majority of the actions taken at the top management level.

Gitonga, Oyore and Otieno (2025) conducted a study on the effect of training and capacity building on the use of routine health data in public health programs: evidence from a quasi-experimental study in Kenya. Data collected at baseline and end line using structured questionnaires was analyzed using descriptive statistics, chi-square tests, and a Difference-indifference model. Results showed significant improvements in analytical, interpretive, and application competencies among trained CHMT members, with a 0.45-unit increase in perceived data-use capacity relative to controls. This study concludes that structured training and capacity-building initiatives play a pivotal role in strengthening the ability of CHMTs to interpret and apply RHD in managerial decision making

Bates, Taegtmeyer and Squire (2020) conducted a study on the effect of indicators of sustainable capacity building for health research: analysis of four African case studies. Four projects were selected as case studies using pre-determined criteria, including the achievement of sustainable capacity. The study found that indicators of sustainable capacity building increased in complexity as projects matured and included - early engagement of stakeholders; explicit plans for scale up; strategies for influencing policies; quality assessments (awareness and experiential stages). The study concluded that indicators of sustainable capacity building need to be tested prospectively in a variety of projects to assess their usefulness. For each project the evidence required to show that indicators have been achieved should evolve with the project and they should be determined prospectively in collaboration with stakeholders

Muchiri, Kyalo and Mulwa (2021) conducted a study on the effect of empirical study of how monitoring and evaluation staff capacity building influence performance of public funded projects in Kirinyaga County, Kenya. Data was collected using questionnaires. A pilot study was carried out in a similar County. The study indicated that there was a significant positive linear relationship between M&E Staff Capacity Building and Performance of Public funded projects in Kirinyaga County. The study concluded that there was no Building Capacity outline for Monitoring and Evaluation Staff in Kirinyaga County, hence negatively affecting Performance of Public Funded Projects in the County.

Feedback and Performance of HIV Programs

Zahid, Shinwari and Dawood (2021) conducted a study on the influence of feedback mechanism on health care services in health care setting and barriers to their use in Pakistan.

This is review article for which the literature research has been conducted through various electronic databases. The study found that the concept of feedback needs to be willingly encompassed and supported by clinical leadership and other participants and it will definitely bring about a positive change. The study concluded that as Pakistan is a resource poor country, this QI initiative would help in improving the facility for both patients and employees.

Aminu, Otokpen and Mmirikwe (2023) conducted a study on the effect of improving program outcomes through responsive feedback: a case study of a leadership development academy in Nigeria. Incorporating feedback from the first cohort led to an increase in the proportion of trainees acquiring intermediate to advanced competencies in target skill areas from 41% to 57% in the second cohort. The study found that the trainees have taken on more challenging roles at NPHCDA, delivering technical assistance to SPHCBs and bolstering the agency's ability to independently execute activities such as the COVID-19 vaccine introduction. The study concluded that RF has demonstrated that identifying and engaging key stakeholders to participate in continuous learning and adaptation is critical to achieving program effectiveness and sustainability.

Okeke, Wasunna and Amulele (2020) conducted a study on the effect of including the voice of care recipients in community health feedback loops in rural Kenya. The study explores the design and deployment of a USSD-based system that allows anyone who possesses a basic mobile phone to provide feedback regarding the health services and quality of care they received from a CHW or during a hospital visit. Findings from our deployment show that 168 care recipients engaged with the system, submitting 495 reports via USSD. The study concluded that a range of sociotechnical challenges that arose during our study as we explored the feasibility, equity, privacy, and sustainability of using such a system to provide vulnerable populations with a voice in their own community health programs.

Mairanga (2020) conducted a study on the effect of health information system feedback in selected public health facilities in Nairobi city county, Kenya. The sample size of 130 respondents was chosen in the public health facilities. The research instruments used included questionnaires and interviews schedules. Also, the study revealed that with a correlation coefficient of .440, information flow in HIS positively influenced feedback. In addition, the study established that with correlation between exchange platforms and feedback indicated that with a correlation coefficient of .579, exchange platform positively influenced feedback in HIS. Based on the findings, it was concluded that sources of data, information flow and exchange platforms are significant but not major factors influencing HIS feedback.

Kagwanja, Gilson and Tsofa (2024) conducted a study on the effect of understanding health system responsiveness to public feedback at the sub-national level: insights from Kilifi County, Kenya. In this paper we share a system responsiveness framework to reflect this wider conceptualization and illustrate how we used this framework combined with Aragon's insights on organizational capacity, to explore system responsiveness practices at sub-national level in Kenya. The study findings are relevant to similar low-and-middle-income contexts and draw attention to the importance of integrating multiple mechanisms and forms of feedback, alongside considering system capacities and their interactions, in strengthening health system responsiveness.

METHODOLOGY

Research Design

A research design is a framework that directs how a study is carried out, detailing the strategies for gathering, analyzing, and interpreting data to answer research questions. It defines the type of study, data sources, and methods to ensure that the findings are valid,

reliable, and aligned with the study goals. A well-organized design creates a logical connection between theory and empirical evidence, enhancing the credibility of research results (Creswell & Creswell, 2023).

This study used a cross-sectional correlational research design. A cross-sectional approach allows data collection from respondents at a single point in time, making it suitable for examining current conditions and relationships within a defined population (Chhetri & Khanal, 2024). This design combines both descriptive and inferential analysis, providing comprehensive insights into the phenomena under investigation.

Target Population

The target population for this study included healthcare professionals and program staff directly involved in HIV program implementation and monitoring at Level 5 hospitals within Nairobi County. These comprise program officers, clinical officers, nurses, data managers, and HIV testing services (HTS) counselors working in selected facilities. This population is suitable because these individuals are directly engaged in program delivery, decision-making, and reporting processes, and therefore have relevant knowledge and skills. According to recent methodological literature, clearly defining a target population helps ensure that the study results are valid and applicable to the larger context being examined (Saunders, Lewis, & Thornhill, 2019; Muasya & Mulwa, 2023).

The study population consisted of 121 individuals. As shown in Table 3.1, this includes 33 project officers, 33 clinical officers, 22 nurses, 11 data managers, 11 finance officers, and 11 HIV testing services (HTS) counselors across the selected facilities. This distribution ensures representation from key professional categories directly involved in HIV program implementation and monitoring.

Table 1: Target Population

Category	Target Population
Project officers	33
Clinical officers	33
Nurses	22
Data managers	11
Finance officers	11
HTS counselors	11
Total	**121**

Sample Size and Sample Technique

The study used a stratified random sampling method to ensure fair representation of all professional categories involved in HIV program implementation at Level 5 hospitals. To calculate the appropriate sample size, Slovin's formula was applied with a 95% confidence level and a 5% margin of error.

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

Where n= the required sample size

N = is the Target Population (121 respondents)

e = accuracy level required. Standard error = 5%

Sample calculation

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

$$n=\frac{121}{1+(121)0.05^2}$$

$$n=\frac{121}{1.3025}=92.898$$

The formula yields a sample size of 92.898. Therefore, the study sampled 93 respondents,

proportionally drawn from each professional group to ensure balanced participation across the selected hospitals.

Data Collection Instruments

Data collection instruments are the tools researchers use to gather relevant information from respondents systematically. They ensure that data are collected reliably, validly, and in a structured manner, aligned with the study's objectives (Christou, 2025).

This study utilized structured questionnaires as the main data collection instrument. Questionnaires are suitable because they provide standardized responses, are cost-effective, and can easily gather perceptions on monitoring and evaluation practices such as capacity building, and feedback. Recent research emphasizes their effectiveness in survey-based studies since they produce quantifiable data ideal for statistical analysis (Chhetri & Khanal, 2024; Muasya & Mulwa, 2023).

Data Collection

Data collection is the organized process of gathering information from relevant sources to meet research goals and answer study questions. It ensures that accurate, reliable, and sufficient evidence is collected for analysis and interpretation (Christou, 2025).

This study used both primary and secondary data. Primary data was collected through structured questionnaires given to program staff in Level 5 hospitals, as they provide direct, context-specific insights into monitoring and evaluation practices. Secondary data came from hospital reports (e.g. Routine HIV performance reports and dashboards, ART retention and suppression summaries), policy documents, and published studies to support and verify the primary findings. Using both sources improves data triangulation, enhances validity, and offers a more comprehensive understanding of how M&E practices affect program performance (Chhetri & Khanal, 2024; Muasya & Mulwa, 2023).

Pilot Study

A pilot study is a small-scale preliminary version of the main study, conducted to test research procedures and instruments before the full study begins. It helps identify problems in data collection, refine the instrument items, and estimate variability. Usually, it involves about 10% of the actual sample size, enough to catch major issues without using excessive resources (Muasya & Mulwa, 2023). Insights from the pilot help adjust tools, clarify ambiguities, and improve the overall study design.

Data Analysis and Presentation

The collected data was analyzed using both quantitative and qualitative methods. Quantitative data from the questionnaires was coded and entered into SPSS for analysis with descriptive statistics such as frequencies, means, and percentages, as well as inferential statistics including correlation and multiple regression models to examine the influence of monitoring and evaluation practices on program performance. Qualitative data was thematically analyzed through content analysis to complement the quantitative results and provide context. Findings were presented in tables, charts, and narrative summaries to improve clarity and interpretation.

The research model that underpinned this study is the regression model as follows:

$Y= \beta 0+\beta_1 X_1+\beta_2 X_2+ \epsilon$

Explanation;

Y= Performance of HIV program

β0=Constant

β1=Capacity building

β2=Feedback

ϵ= Error term

FINDINGS AND DISCUSSIONS

Response Rate

The sample size of this study was 93 respondents, out of which 9 were used for pilot study. The researcher therefore distributed the remaining 84 questionnaires to the respondents during the main study data collection process and 80 were filled and returned to the researcher, thus making a response rate of 95.2%. Kothari (2019) argues that a response rate of more than 50% is considered adequate, while an excellent response rate is usually above 70%. This implies that the response rate in this research is good for making conclusions as well as recommendations.

Descriptive Statistics

Capacity Building and Performance of HIV Programs

The first specific objective of the study was to assess the influence of capacity building on the performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. The respondents were requested to indicate their level of agreement on various statements related to capacity building and performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. The results were as shown in Table 2.

From the results, the respondents agreed that training programs improve the knowledge and understanding of participants (M=3.885, SD= 0.763). In addition, the respondents agreed that capacity-building initiatives effectively enhance participants' awareness of key program areas (M=3.865, SD= 0.718). Further, the respondents agreed that training received leads to improved work practices among staff and stakeholders (M=3.856, SD= 0.813).

From the results, the respondents agreed that participants apply the knowledge gained from training in their daily tasks and responsibilities (M=3.830, SD= 0.598). In addition, the respondents agreed that participants are satisfied with the quality of training provided during capacity-building programs (M=3.771, SD= 0.640). Further, the respondents agreed that the training methods used are appropriate and effective for learning (M=3.760, SD= 0.867).

The results are in line with those of recent studies, which emphasize that capacity building is a key determinant of effective health program performance by strengthening knowledge, skills, and practical competencies among implementers. According to Young, Sun and Hyunmi (2020), structured training programs in health systems significantly improve staff knowledge and enhance the quality of service delivery through better understanding of program objectives and procedures. The results concur with the findings of Barnes, Abor and Boohene (2024), who established that capacity-building initiatives in public health interventions lead to improved workplace practices and increased efficiency in program implementation. Similarly, a study by Gitonga, Oyore and Otieno (2025) found that continuous training and skills development enhance employees' ability to apply acquired knowledge in routine tasks, thereby improving overall program outcomes. In addition, Bates, Taegtmeyer and Squire (2020) reported that effective training methods and well-designed capacity-building programs increase participant satisfaction and strengthen institutional performance in HIV-related interventions.

Table 2: Capacity Building and Performance of HIV Programs

	Mean	Std. Deviation
Training programs improve the knowledge and understanding of participants.	3.885	0.763
Capacity-building initiatives effectively enhance participants' awareness of key program areas.	3.865	0.718

Training received leads to improved work practices among staff and stakeholders.	3.856	0.813
Participants apply the knowledge gained from training in their daily tasks and responsibilities.	3.830	0.598
Participants are satisfied with the quality of training provided during capacity-building programs.	3.771	0.640
The training methods used are appropriate and effective for learning.	3.760	0.867
Aggregate	**3.828**	**0.733**

The respondents were further requested to indicate how else capacity building influences Performance of HIV program in level 5 hospitals in Nairobi County, Kenya. From the results, the respondents indicated that capacity building influences the performance of HIV programs by improving staff competence, confidence, and efficiency in service delivery. They noted that regular training equips health workers and program implementers with updated knowledge on protocols, guidelines, and emerging issues, which enhances the quality of care provided to clients. In addition, respondents observed that capacity-building initiatives strengthen technical skills such as data management, reporting, and patient follow-up, thereby improving accuracy and timeliness in program implementation. This was reported to reduce errors, improve coordination, and enhance overall service effectiveness.

The respondents further indicated that capacity building promotes adaptability and innovation among staff by exposing them to new approaches and best practices in program management. They explained that trained personnel are better able to respond to challenges, adopt improved work methods, and implement changes required to achieve program objectives. Additionally, respondents highlighted that capacity building enhances motivation and job satisfaction, as staff feel more valued and empowered in their roles. This increased morale was said to contribute to higher productivity, better teamwork, and sustained improvements in program performance within level-5 hospitals.

Feedback and Performance of HIV Programs

The second specific objective of the study was to evaluate the influence of feedback on the performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. The respondents were requested to indicate their level of agreement on various statements related to feedback and performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. The results were as shown Table 3.

From the results, the respondents agreed that stakeholders receive feedback within a reasonable time frame to support decision-making (M=3.880, SD= 0.696). In addition, the respondents agreed that delays in providing feedback do not hinder program implementation and improvement (M=3.816, SD= 0.826). Further, the respondents agreed that feedback provided is clear and specific enough to guide improvements in program activities (M=3.805, SD= 0.586).

From the results, the respondents agreed that program implementers use feedback to make meaningful adjustments to their work (M=3.792, SD= 0.766). In addition, the respondents agreed that concerns raised through feedback mechanisms are addressed in a timely manner (M=3.776, SD= 0.911). Further, the respondents agreed that there is a strong culture of acting upon feedback to improve program performance (M=3.738, SD= 0.538).

The results are consistent with those of recent studies which emphasize that feedback mechanisms are essential in strengthening Monitoring and Evaluation systems and improving the performance of health programs. According to Zahid, Shinwari and Dawood (2021), timely and structured feedback in health interventions enhances decision-making processes and enables implementers to make prompt adjustments that improve service delivery

outcomes. The results concur with the findings of Aminu, Otokpen and Mmirikwe (2023), who established that clear and actionable feedback significantly improves program responsiveness and supports continuous improvement in public health initiatives. Similarly, a study by Okeke, Wasunna and Amulele (2020) found that effective feedback systems foster a culture of accountability and enable health workers to address implementation challenges more efficiently, thereby improving program performance. In addition, Mairanga (2020) reported that feedback utilization in HIV-related programs strengthens adaptive management practices and enhances the overall effectiveness of service delivery.

Table 3: Feedback and Performance of HIV Programs

	Mean	Std. Deviation
Stakeholders receive feedback within a reasonable time frame to support decision-making.	3.880	0.696
Delays in providing feedback do not hinder program implementation and improvement.	3.816	0.826
Feedback provided is clear and specific enough to guide improvements in program activities.	3.805	0.586
Program implementers use feedback to make meaningful adjustments to their work.	3.792	0.766
Concerns raised through feedback mechanisms are addressed in a timely manner.	3.776	0.911
There is a strong culture of acting upon feedback to improve program performance.	3.738	0.538
Aggregate	**3.801**	**0.721**

The respondents were further requested to indicate how else Feedback influences Performance of HIV program in level 5 hospitals in Nairobi County, Kenya. From the results, the respondents indicated that feedback influences the performance of HIV programs by enabling continuous improvement in service delivery processes. They noted that timely and clear feedback allows program implementers to identify weaknesses, correct errors, and adjust strategies in line with emerging needs and operational challenges. In addition, respondents reported that feedback strengthens communication between management, staff, and stakeholders, ensuring that concerns raised at different levels are acknowledged and addressed. This was said to improve coordination and enhance the overall efficiency of program implementation.

The respondents further indicated that feedback promotes accountability and responsiveness within program operations. They explained that when feedback mechanisms are effectively utilized, staff become more attentive to performance expectations and more committed to achieving set targets. Additionally, respondents highlighted that feedback fosters a culture of learning and adaptability, where lessons from implementation are used to refine future activities. This continuous learning process was reported to enhance decision-making, improve service quality, and ultimately strengthen the overall performance of programs in level-5 hospitals.

Performance of HIV Programs

The respondents were requested to indicate their level of agreement on various statements related to performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. The results were as shown Table 4.

From the results, the respondents agreed that HIV services are delivered within an acceptable timeframe without unnecessary delays (M=3.848, SD= 0.740). In addition, the respondents

agreed that available resources are utilized optimally in providing HIV services (M=3.811, SD= 0.888). Further, the respondents agreed that HIV programs significantly improve patients' health outcomes and quality of life (M=3.773, SD= 0.890).

From the results, the respondents agreed that the program consistently achieves its intended targets, such as viral suppression and treatment adherence (M=3.737, SD= 0.629). In addition, the respondents agreed that the hospital has adequate capacity and systems to support the continuation of HIV services in the long term (M=3.718, SD= 0.834). Further, the respondents agreed that HIV program outcomes are supported by reliable funding, policies, and institutional commitment (M=3.687, SD= 0.595).

The results are consistent with those of recent studies which emphasize that program performance in public sector and health-related interventions is largely determined by efficiency, effectiveness, resource utilization, and the extent to which intended outcomes are achieved. According to Paukwa (2023), strong program performance is reflected in timely service delivery, optimal use of available resources, and the achievement of planned targets, all of which contribute to improved organizational outcomes. The results concur with the findings of Were et al. (2023), who established that well-performing programs are characterized by efficient operational systems and the ability to translate inputs into meaningful outputs and outcomes, particularly in public service delivery contexts. Similarly, a study by Shuna and Kithandi (2024) found that institutional capacity and reliable systems significantly enhance program sustainability and effectiveness by ensuring continuity of services and achievement of strategic objectives. In addition, Apondi, (2023) reported that supportive institutional frameworks, adequate funding, and strong governance structures play a critical role in enhancing overall program performance across development and health interventions.

Table 4: Performance of HIV Programs

	Mean	Std. Deviation
HIV services are delivered within an acceptable timeframe without unnecessary delays.	3.848	0.740
Available resources are utilized optimally in providing HIV services.	3.811	0.888
HIV programs significantly improve patients' health outcomes and quality of life.	3.773	0.890
The program consistently achieves its intended targets, such as viral suppression and treatment adherence.	3.737	0.629
The hospital has adequate capacity and systems to support the continuation of HIV services in the long term.	3.718	0.834
HIV program outcomes are supported by reliable funding, policies, and institutional commitment.	3.687	0.595
Aggregate	**3.762**	**0.763**

Inferential Statistics

Inferential statistics such as correlation analysis and regression analysis were used to assess the relationships between the independent variables (capacity building and feedback) and the dependent variable (performance of HIV programs in level-5 hospitals in Nairobi County, Kenya).

Correlation Analysis

This research adopted Pearson correlation analysis determine how the dependent variable (performance of HIV programs in level-5 hospitals in Nairobi County, Kenya) relates with the independent variables (capacity building and feedback).

Table 5: Correlation Coefficients

		Program Performance	Capacity Building	Feedback
Program Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	80		
Capacity Building	Pearson Correlation	.864**	1	
	Sig. (2-tailed)	.000		
	N	80	80	
Feedback	Pearson Correlation	.853**	.211	1
	Sig. (2-tailed)	.001	.098	
	N	80	80	80

**. Correlation is significant at the 0.01 level (2-tailed).

From the results, there was a very strong relationship between capacity building and performance of HIV programs in level-5 hospitals in Nairobi County, Kenya (r = 0.864, p value =0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings are in line with the findings of Gitonga, Oyore and Otieno (2025) who indicated that there is a very strong relationship between capacity building and program performance.

The results also revealed that there was a very strong relationship between feedback and performance of HIV programs in level-5 hospitals in Nairobi County, Kenya (r = 0.853, p value =0.001). The relationship was significant since the p value 0.001 was less than 0.05 (significant level). The findings are in line with the findings of Okeke, Wasunna and Amulele (2020) who indicated that there is a very strong relationship between feedback and program performance.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (capacity building and feedback) and the dependent variable (performance of HIV programs in level-5 hospitals in Nairobi County, Kenya).

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.800	.639	.638	.10428

a. Predictors: (Constant), capacity building and feedback

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.639. This implied that 63.9% of the variation in the dependent variable (performance of HIV programs in level-5 hospitals in Nairobi County, Kenya) could be explained by independent variables (capacity building and feedback).

Table 7: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.612	2	21.306	68.288	.001[b]
	Residual	24.051	77	.312		
	Total	66.663	79			

a. Dependent Variable: performance of HIV programs in level-5 hospitals in Nairobi County, Kenya
b. Predictors: (Constant), capacity building and feedback
The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 68.288 while the F critical was 3.115. The p value was 0.002. Since the F-calculated was greater than the F-critical and the p value 0.002 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of capacity building and feedback on performance of HIV programs in level-5 hospitals in Nairobi County, Kenya.

Table 8: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.276	0.072		3.833	0.000
	capacity building	0.354	0.092	0.355	3.848	0.000
	feedback	0.343	0.089	0.342	3.854	0.001

a Dependent Variable performance of HIV programs in level-5 hospitals in Nairobi County, Kenya

The regression model was as follows:

$$\mathbf{Y = 0.276 + 0.354X_1 + 0.343X_2 + \varepsilon}$$

According to the results, capacity building has a significant effect on performance of HIV programs in level-5 hospitals in Nairobi County, Kenya β1=0.354, p value= 0.000). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The findings are in line with the findings of Gitonga, Oyore and Otieno (2025) who indicated that there is a very strong relationship between capacity building and program performance.

In addition, the results revealed that feedback has a significant effect on performance of HIV programs in level-5 hospitals in Nairobi County, Kenya β2=0.343, p value= 0.001). The relationship was considered significant since the p value 0.001 was less than the significant level of 0.05. The findings are in line with the findings of Okeke, Wasunna and Amulele (2020) who indicated that there is a very strong relationship between feedback and program performance

Conclusions

The study concludes that capacity building has a positive and significant effect on performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. Findings revealed that knowledge acquisition, behavior and practice change and satisfaction with training influence performance of HIV programs in level-5 hospitals in Nairobi County, Kenya

The study concludes that feedback has a positive and significant effect on performance of HIV programs in level-5 hospitals in Nairobi County, Kenya. Findings revealed that timeliness of feedback, actionability of feedback and responsiveness influence performance of HIV programs in level-5 hospitals in Nairobi County, Kenya

Recommendations

Further, the study recommends that HIV programs in Kenya should invest in continuous capacity building for healthcare workers involved in HIV programs through regular training, mentorship, workshops, and skills development initiatives. Strengthening the knowledge and competencies of staff in areas such as HIV treatment guidelines, data management, patient

counseling, and program monitoring enhances service quality and operational efficiency

The study also recommends that HIV programs in Kenya should strengthen feedback mechanisms within HIV programs by establishing structured and continuous channels for collecting, analyzing, and responding to information from patients, healthcare workers, and other stakeholders. This can be achieved through patient satisfaction surveys, suggestion boxes, digital reporting systems, and routine review meetings to ensure timely identification of service gaps and areas for improvement.

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