

Staff Capacity-Building Initiatives And Health Service Delivery In Local Governments: Evidence From Kaliro District, Uganda

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Abstract

This study examined the influence of staff capacity-building initiatives on health service delivery in Kaliro District Local Government, Uganda. Guided by Human Capital Theory, the study analyzed how staff workshops, mentorship, and job rotation affect health service delivery outcomes, conceptualized through quality, accessibility, and efficiency indicators. A descriptive, correlational, cross-sectional design employing a mixed-methods approach was used. Quantitative data were collected from 94 health workers, while qualitative insights were derived from key informants, including the District Health Officer and District Health Educator.

Findings revealed a very strong and statistically significant relationship between staff workshops and health service delivery ($r = 0.867, p < 0.001$). Staff mentorship similarly demonstrated a strong positive relationship ($r = 0.758, p = 0.001$). Job rotation showed a weak but statistically significant association ($r = 0.243, p = 0.002$). Regression results indicated that workshops were the strongest predictor of service delivery performance. Qualitative findings further confirmed that workshops and mentorship improved adherence to clinical guidelines, staff motivation, and responsiveness to patient needs, whereas job rotation was hindered by inconsistent implementation and insufficient policy guidance.

The study concludes that well-designed capacity-building interventions significantly enhance health service delivery within decentralized systems. It recommends institutionalized workshop programs, structured mentorship frameworks, and policy-guided job rotation to strengthen the performance of frontline health workers.

Keywords: Staff Workshops, Mentorship, Job Rotation, Health Service Delivery, Local Government, Uganda

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I. Introduction

Efficient health service delivery within decentralized systems depends heavily on the competence, motivation, and adaptability of frontline health workers. In Uganda, districts are mandated to implement and oversee primary health care services; however, many including Kaliro District continue to face shortages of skilled personnel, uneven service quality, and persistent gaps in critical indicators such as immunization coverage, antenatal care utilization, and skilled birth attendance. As a result, capacity-building initiatives have become central to enhancing workforce performance and achieving national and district health targets.

Although Uganda has invested in in-service training, mentorship programs, and job rotation, empirical evidence linking these initiatives to measurable improvements in district health service delivery remains limited. Existing studies tend to focus on national-level reforms or specific programmatic interventions, leaving a gap in understanding how routine, district-level capacity-building strategies shape day-to-day service delivery outcomes. This study addresses that gap by examining the relationship between staff workshops, mentorship, and job rotation (independent variables), and health service delivery (dependent variable) in Kaliro District.

Grounded in Human Capital Theory, the study argues that investments in staff knowledge, skills, and professional support are essential for improving the effectiveness of local government health systems. The findings contribute to scholarship on decentralized health systems and provide actionable insights for district managers, policymakers, and development partners seeking to strengthen human resources for health in Uganda.

II. Literature Review

Theoretical Foundation

Human Capital Theory (HCT) provides the conceptual basis for this study. HCT posits that individuals possess skills, knowledge, health, and competencies that function as forms of capital capable of generating returns through increased productivity (Becker, 1964; Schultz, 1961). Investments in education, training, mentorship, and on-the-job learning are therefore seen as mechanisms for enhancing the capacity of workers to deliver higher-quality outputs and contribute to organizational performance.

Becker (1964) emphasizes that investments in human capital yield both private and social returns, improving individual employability, organizational efficiency, and societal well-being. Schultz (1961, 1962), similarly, highlights how improvements in education and health strengthen the quality of the labour force, contributing to broader economic development. Contemporary interpretations of HCT applied to public service organizations assert that capacity-building interventions such as workshops, mentorship, and strategic rotations enable health workers to perform more effectively, solve problems more efficiently, and provide better-quality services (Le Chapelain & Matéos, 2020).

In decentralized health systems like Uganda's, where districts assume responsibility for primary health care delivery, HCT suggests that strengthening frontline human resources is essential for improving service responsiveness, reducing inefficiencies, and achieving key health outcomes.

Empirical Review

Local governments play a critical role in public health service delivery, serving as the operational arm of primary health care. Staff capacity-building initiatives including in-service training, mentorship, and job rotation are widely recognized as essential strategies for enhancing the competence and performance of health workers (Adebayo & Eyo, 2020). This section presents empirical evidence on these interventions and their implications for health service delivery within decentralized contexts.

Capacity building generally refers to structured activities designed to improve the abilities of health workers to perform effectively. These activities often include workshops, mentorship programs, coaching, and continuing education intended to strengthen knowledge, skills, and attitudes (World Health Organization [WHO], 2017). Agyepong et al. (2018) argue that capacity-building efforts are foundational for sustainable health system strengthening, particularly in settings with constrained resources and a high burden of disease.

With decentralization placing frontline responsibility on districts, evidence shows that health worker performance gaps often mirror weaknesses in capacity-building systems (Abimbola et al., 2016). Tailored programmes that incorporate participatory approaches, respond to local needs, and involve district leadership tend to be more effective than externally imposed interventions (Sampson et al., 2020).

Staff Workshops (IV1)

Staff workshops structured; collaborative training sessions constitute one of the central pillars of in-service professional development. Workshops are designed to update health workers' knowledge, skills, and attitudes in specific areas such as clinical protocols, quality improvement, data reporting, and infection prevention (WHO, 2021). They also expose health workers to new policies, technologies, and emerging public health threats (Onah et al., 2020).

Literature increasingly underscores the importance of frequent workshop-based training in decentralized health systems. Abimbola et al. (2019) note that local governments require ongoing staff development opportunities to meet dynamic service needs. Guo et al. (2022) found that interactive, participatory workshops significantly improve comprehension and retention among health workers. Emerging innovations such as blended-learning models and digital learning platforms are making workshops more accessible and cost-effective in low-resource settings (Mumtaz et al., 2021).

Workshops have also been associated with improved teamwork, communication, and clinical decision-making. Ojo and Oduwole (2022) demonstrate that participatory workshops lead to improved application of public health procedures and better adherence to standard guidelines. In Uganda and similar decentralized settings, workshop-based training has been shown to enhance staff motivation and service quality, particularly when aligned with observed performance gaps (Dan & Nnamani, 2023).

Staff Mentorship (IV2)

Mentorship refers to a structured professional relationship in which experienced practitioners guide less experienced staff members to improve their competencies, confidence, and overall performance (Kelley et al., 2021). Mentorship can take multiple forms including peer mentoring, formal mentoring programs, and integrated coaching models and has become increasingly vital in local government health settings where human resource constraints are common (Okereke et al., 2020).

Evidence suggests that mentorship enhances skill acquisition, reinforces adherence to clinical protocols, and improves professional judgment. Mensah et al. (2023) found that structured mentorship programs contributed to better health worker retention and improved service quality in Ghanaian district health systems. Similarly, Chukwu et al. (2022) observed improved clinical decision-making and maternal health outcomes in local government health centers in Nigeria following mentorship interventions.

Decentralization increases the need for ongoing support at the facility level, making mentorship an effective mechanism for bridging skills gaps and supporting continuous professional development (Duru et al., 2019). Peer-mentorship models, in which experienced staff mentor junior colleagues, have proven effective in

easing new staff into their roles and reducing performance variability (Olojede & Fatusi, 2021). In resource-constrained settings, mentorship has also been used to complement limited training budgets and ensure continuous skills transfer (Kelley et al., 2021).

Job Rotation (IV3)

Job rotation involves the planned movement of staff across different roles or units to expose them to diverse tasks, broaden their skill sets, and improve organizational flexibility (Mustapha et al., 2022). In local government health systems, job rotation may involve rotating staff across outpatient units, laboratories, maternity services, or administrative roles.

Job rotation is theorized to reduce monotony, promote learning, and enhance resilience in service delivery, especially in settings with chronic understaffing (Alonge et al., 2019). When implemented systematically, job rotation facilitates knowledge transfer and encourages the standardization of clinical and administrative procedures across departments (Nabahungu & Kamanzi, 2022).

However, the effectiveness of job rotation depends heavily on the presence of clear policies, transparent rotation schedules, and orientation mechanisms. Mustapha et al. (2022) argue that structured rotation systems minimize disruption, increase fairness, and enhance staff acceptance. Conversely, poorly implemented rotations can lead to dissatisfaction, reduced productivity, and skill mismatches (Ogunyomi & Shadare, 2019).

Empirical studies indicate that while job rotation contributes to adaptability and continuity of care, its impact on health outcomes varies widely depending on planning, communication, and supervision (Kibria et al., 2021).

Health Service Delivery (DV)

The relationship between decentralization, governance, and health service delivery performance has become a central theme in health systems research. Evidence shows that service delivery outcomes vary significantly across districts, influenced by governance capacity, resource availability, and managerial competence (Chen et al., 2021).

In Tanzania, Kigume and Maluka (2018) report that decentralization enhanced community participation and responsiveness but did not resolve persistent systemic challenges such as drug stock-outs and human resource shortages. Similar findings emerge from Nigeria, where Eboreime et al. (2018) found that local government health planning under the DIVA model was hindered by weak leadership and limited technical capacity.

Recent analyses of health system strengthening initiatives highlight the importance of district management capacity. Rogers et al. (2024) describe improvements in planning, budgeting, and performance review associated with targeted mentoring and training investments. UNICEF's District Health System Strengthening Initiative (DHSSI) across Kenya, Malawi, Tanzania, and Uganda similarly demonstrated that strengthening district leadership, governance, and data-use capacities leads to meaningful improvements in service delivery performance (UNICEF, 2023a; UNICEF, 2023b).

In Uganda, persistent disparities in district health outcomes have been attributed to differences in governance capacity, human resources, and infrastructure. The Annual Health Sector Performance Report (2023/24) shows wide variation in skilled birth attendance, immunization coverage, and facility functionality across districts. Namakula et al. (2025) attribute these disparities to leadership gaps, accountability challenges, and supply chain inefficiencies.

At district level, Henriksson et al. (2019) highlight that planning processes remain constrained by limited technical capacity and central government funding structures. Nkurunziza (2025) found that capacity-building initiatives, peer support mechanisms, and technical assistance significantly improve health worker performance and service delivery outcomes. Similarly, Bosongo et al. (2023) show that strengthening district managers' competencies enhances maternal and child health service delivery.

Research leveraging bottleneck and coverage models has also demonstrated that districts with stronger governance; particularly in leadership, partnership management, and accountability achieve better health coverage and quality outcomes.

III. Methodology

This study adopted a descriptive, correlational, and cross-sectional survey design utilizing a mixed-methods approach to investigate the relationship between staff development initiatives and health service delivery in Kaliro District Local Government. The mixed-methods design allowed for triangulation of findings, where quantitative data provided statistical estimates of relationships between variables, while qualitative insights offered explanatory depth and context.

Study Population and Sample Size

The target population comprised health workers and district-level health managers operating within Kaliro District. These included health workers at Health Centre II, III, and IV levels; facility in-charges; the District Health Officer (DHO); District Health Educator (DHE); and members of the District Health Management Team (DHMT).

A total sample of 108 respondents was selected from a population of 150, as summarized in Table 3.1.

Table 3.1: Target Population, Sample Size, Sampling Technique and Methods of Data Collection

Participants	Population	Sample Size	Sampling Technique	Methods of Data Collection
Health Centre Workers	131	94	Stratified sampling	Questionnaire
Facility In-charges	07	05	Purposive sampling	Interview
District Health Officer	01	01	Census sampling	Interview
District Health Educator	01	01	Census sampling	Interview
District Health Management Team	10	07	Purposive sampling	Focus Group Discussion
Total	150	108	—	—

Source: Kaliro District Health Department (2024).

Stratified sampling ensured proportionate representation across different health facility levels, while purposive and census approaches captured strategic informants with specialized knowledge of district health system functioning.

Primary quantitative data were collected using a structured, self-administered questionnaire distributed to sampled health workers. The questionnaire comprised four sections capturing demographic characteristics, staff workshops, mentorship, job rotation, and perceptions of health service delivery.

Qualitative data were collected through Key Informant Interviews (KII) with the DHO, DHE, and facility in-charges and Focus Group Discussions (FGDs) with DHMT members. These qualitative tools enabled deeper exploration of implementation experiences, contextual barriers, and perceived effects of capacity-building interventions on service delivery.

Secondary data were sourced from district reports, policy documents, and relevant literature to contextualize primary findings and triangulate results.

Validity and Reliability

The research instrument underwent both content and construct validation. Experts in health systems management and research methodology reviewed the questionnaire to ensure relevance and appropriateness of items. A Content Validity Index (CVI) of 0.82 was obtained, indicating high validity.

To assess internal consistency, a pilot test was conducted, and findings were subjected to Cronbach's Alpha reliability testing. The instrument achieved a Cronbach's Alpha coefficient of 0.87, surpassing the recommended threshold of 0.70, and confirming its reliability.

Data Analysis

Quantitative data were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics (frequencies, percentages, means, and standard deviations) were generated to summarize respondent characteristics and variable distributions. Inferential analysis involved: Pearson Product-Moment Correlation Coefficients to determine the strength and significance of relationships between independent variables (staff workshops, mentorship, and job rotation) and the dependent variable (health service delivery) and Multiple Regression Analysis to assess the predictive power of the three staff development interventions on health service delivery outcomes. Qualitative data from interviews and FGDs were transcribed verbatim and analyzed thematically. Themes were derived inductively and used to explain and enrich the quantitative findings.

Ethical Considerations

Ethical approval was sought and obtained from the Kaliro District Health Department. Participation was voluntary, and respondents were informed of the study purpose, confidentiality measures, and their right to withdraw at any point. Data were anonymized to ensure privacy and professionalism in reporting.

IV. Findings And Discussion

Correlation between Staff Development Interventions and Health Service Delivery in Kaliro District Local Government

A Pearson correlation analysis was conducted to examine the relationship between the three staff development initiatives; staff workshops, staff mentorship, and job rotation and health service delivery in Kaliro District. The results are presented in Table 4.1.

Table 4.1: Correlation between Staff Workshops, Staff Mentorship, Job Rotation, and Health Service Delivery

Variable	Pearson Correlation with Health Service Delivery	Sig. (2-tailed)	N
Staff Workshops	0.867*	0.000	100
Staff Mentorship	0.758*	0.001	100
Job Rotation	0.243*	0.002	100

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

Source: Primary Data (2025).

The results in Table 4.1 demonstrate a very strong and statistically significant positive correlation between staff workshops and health service delivery ($r = 0.867$, $p < 0.01$). This indicates that improvements in the frequency, content, and delivery of workshops are strongly associated with enhanced service delivery outcomes. The strength of this correlation suggests that workshops constitute one of the most influential capacity-building dimensions in the district. Workshops likely enhance staff knowledge, improve adherence to clinical guidelines, and strengthen overall professionalism—insights consistent with qualitative evidence from interviews and prior studies such as Dan and Nnamani (2023) and Ojo and Oduwole (2022).

A strong, positive, and statistically significant correlation was also found between staff mentorship and health service delivery ($r = 0.758$, $p < 0.01$). This implies that improved mentorship—through regular coaching, guidance, and professional support—is associated with better performance across health service delivery indicators. Qualitative findings support this, with respondents emphasizing that mentorship enhances skill development, boosts morale, and fosters accountability. This aligns with global evidence indicating mentorship's positive role in strengthening clinical practice, such as those reported by Mensah et al. (2023) and Chukwu et al. (2022).

Job rotation exhibited a positive but weak correlation with health service delivery ($r = 0.243$, $p < 0.01$). Although statistically significant, the weak magnitude suggests that job rotation has a relatively limited direct influence on service delivery outcomes in the district. Qualitative findings revealed challenges affecting the effectiveness of job rotation, including inconsistent implementation, inadequate orientation, and perceptions of unfairness. These findings resonate with literature noting that job rotation's impact is often muted when not structured or supported sufficiently (Mustapha et al., 2022; Ogunyomi & Shadare, 2019).

Overall, the correlation results reveal that while all three staff development initiatives are associated with improved health service delivery, staff workshops and mentorship are significantly stronger contributors than job rotation.

Regression Analysis

Table 4.2: Regression Analysis of Staff Workshops, Staff Mentorship, and Job Rotation on Health Service Delivery

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-value	Sig. (p-value)
(Constant)	1.012	0.234	—	4.324	0.000
Staff Workshops	0.582	0.072	0.693	8.083	0.000
Staff Mentorship	0.412	0.095	0.506	4.337	0.000
Job Rotation	0.106	0.051	0.151	2.078	0.041

Source: Primary Data (2025).

The regression analysis demonstrates that staff workshops, mentorship, and job rotation jointly make a significant contribution to predicting health service delivery outcomes in Kaliro District. The model's significance underscores the importance of capacity-building interventions in strengthening decentralized health systems.

Staff workshops had the highest standardized beta coefficient ($\beta = 0.693$, $p < 0.001$), confirming that they are the most influential predictor of health service delivery. Workshops likely contribute to performance improvements by providing health workers with up-to-date knowledge, practical skills, and confidence needed for effective service provision.

Staff mentorship also emerged as a significant predictor ($\beta = 0.506, p < 0.001$), indicating that formalized and continuous mentorship strengthens health worker competence, problem-solving abilities, and adherence to clinical procedures. These results are consistent with qualitative data showing that mentorship enhances team cohesion, accountability, and staff motivation.

Job rotation exhibited a weaker predictive effect ($\beta = 0.151, p = 0.041$), consistent with its weaker correlation score. The significant but modest effect implies that rotation contributes to staff capacity only when supported by structured implementation, proper orientation, and transparent policies. Without these supportive mechanisms, job rotation may disrupt workflow continuity and reduce clarity in professional roles.

Overall, the regression results reinforce the central conclusion that capacity-building interventions are not equally impactful, and their effectiveness depends on how they are designed, implemented, and aligned with service delivery priorities. Workshops and mentorship are shown to be robust levers for improving health service delivery, while job rotation requires enhanced structure and institutional support to achieve similar outcomes.

V. Discussion

Staff Workshops and Health Service Delivery

The study revealed a very strong positive relationship between staff workshops and improved service delivery outcomes ($r = 0.867, p < 0.01$). This confirms earlier evidence indicating that well-structured training interventions enhance healthcare workers' competencies and influence the quality of services provided (Dan & Nnamani, 2023; Ojo & Oduwole, 2022). Workshops expose staff to updated clinical guidelines, improve data management skills, and strengthen infection prevention practices—all of which are vital in decentralized settings where health workers must make context-specific decisions.

The findings align with WHO (2021), which identifies staff workshops as critical mechanisms for strengthening health system responsiveness. Empirical studies by Michael et al. (2022) and Agbana et al. (2021) similarly show that training interventions enhance clinical practice, teamwork, and patient satisfaction. In Kaliro District, qualitative responses highlighted that workshops fostered professionalism and improved health workers' confidence in managing patient care.

Staff Mentorship and Health Service Delivery

The strong correlation between mentorship and health service delivery ($r = 0.758, p = 0.001$) reflects findings from prior literature that mentorship enhances professional development, decision-making, and service quality. Kelley et al. (2021) and Okereke et al. (2020) emphasize mentorship as a key strategy for bridging skill gaps in resource-constrained health systems. Mentorship helps junior staff apply theoretical knowledge, build clinical judgment, and improve teamwork elements echoed in the qualitative insights from Kaliro.

Chukwu et al. (2022) demonstrated improvements in maternal health outcomes following mentorship interventions in Nigeria, while Mensah et al. (2023) found similar benefits in Ghana, confirming mentorship's cross-context relevance in improving decentralized service delivery. In this study, mentorship was identified as a mechanism for enhancing accountability, reinforcing adherence to protocols, and supporting staff during complex clinical and administrative tasks.

Job Rotation and Health Service Delivery

The weak positive correlation between job rotation and health service delivery ($r = 0.243, p = 0.002$) suggests that although rotation has potential benefits, it is not being implemented optimally in Kaliro District. Literature indicates that job rotation can improve staff adaptability, reduce burnout, and enhance cross-functional knowledge (Mustapha et al., 2022; Alonge et al., 2019). However, these benefits only materialize when rotation is structured, fairly administered, and supported by proper orientation.

Qualitative data from this study revealed staff concerns about unclear rotation criteria, inadequate supervision, and insufficient preparation for new roles. These concerns reflect findings from Ogunyomi and Shadare (2019), who argue that poorly implemented rotations may reduce productivity and morale. The study's regression results reinforce that job rotation has a comparatively limited impact unless implemented strategically and consistently.

Conclusions

Staff Workshops and Health Service Delivery in Kaliro District Local Government

The study revealed a very strong and statistically significant positive relationship between staff workshops and health service delivery ($r = 0.867, p < 0.001$). Regression results further confirmed that workshops had the highest predictive influence among the three variables ($\beta = 0.693, p < 0.001$). These findings demonstrate that frequent, relevant, and well-delivered workshops substantially enhance staff knowledge, skills, and adherence to clinical and administrative standards. Qualitative responses corroborated this, highlighting improvements in

professionalism, responsiveness to patient needs, and confidence in clinical decision-making. Therefore, staff workshops constitute a critical capacity-building strategy for strengthening district-level health service delivery.

Staff Mentorship and Health Service Delivery in Kaliro District Local Government

Staff mentorship exhibited a strong, positive, and statistically significant relationship with health service delivery ($r = 0.758$, $p = 0.001$). In the regression model, mentorship remained a significant predictor ($\beta = 0.506$, $p < 0.001$), underscoring its role in enhancing service performance. These results suggest that structured mentorship characterized by consistent guidance, supervision, and professional support contributes significantly to the development of clinical competencies, teamwork, and accountability. Qualitative insights reinforced this conclusion, revealing that mentorship improved communication, confidence, and staff retention. Overall, mentorship emerges as an effective mechanism for continuous professional development within decentralized health systems.

Job Rotation and Health Service Delivery in Kaliro District Local Government

Job rotation showed a positive but weak relationship with health service delivery ($r = 0.243$, $p = 0.002$), with a modest effect confirmed through regression analysis ($\beta = 0.151$, $p = 0.041$). These findings indicate that while rotation can support workforce flexibility, skill diversification, and continuity of care, its impact is limited when not supported by clear policies, structured implementation, and adequate orientation. Qualitative data further highlighted concerns regarding unfair practices, inconsistent rotation schedules, and insufficient preparation for new roles. Thus, despite its potential benefits, job rotation in Kaliro District contributes minimally to service delivery outcomes, largely due to implementation shortcomings that require policy strengthening.

Recommendations

Staff Workshops and Health Service Delivery

1. Institutionalize structured, needs-based workshop programs aligned with district health priorities and identified service delivery gaps to ensure relevance and meaningful performance improvements.
2. Engage qualified facilitators to deliver workshops using participatory, practice-based methods; including case studies, group activities, and simulations to enhance skill acquisition and clinical application.
3. Establish a comprehensive monitoring and evaluation (M&E) framework to track workshop effectiveness, measure staff performance improvements, and guide continuous refinement of training initiatives.

Staff Mentorship and Health Service Delivery

1. Develop and adopt formal mentorship policies clearly outlining mentor and mentee roles, selection criteria, expected outputs, and duration of mentorship relationships. Integration of mentorship into staff development plans is essential for sustainability.
2. Provide mentors with training in mentorship skills, communication, adult learning principles, and leadership. Modest incentives—such as recognition awards, certificates, or promotion points—should be implemented to motivate and retain mentors.
3. Complement mentorship with supportive supervision and peer learning platforms to reinforce accountability, encourage continuous learning, and strengthen team cohesion across facilities.

Job Rotation and Health Service Delivery

1. Formulate a transparent job rotation policy specifying objectives, eligibility criteria, rotation intervals, and covered roles. A clear framework will reduce perceptions of unfairness and promote consistency across health units.
2. Ensure rotation decisions are guided by staff competencies, performance history, and facility needs, while also considering individual career development goals to avoid mismatches and enhance motivation.
3. Implement structured orientation, formal knowledge handover, and supportive supervision during each rotation to minimize service disruption, ensure continuity of care, and enable staff to transition smoothly into new roles.

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