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Effect Of Accountability Mechanisms On Performance Outcomes At Selected Health Centres In Kayunga District

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Abstract

The study investigated the effect of accountability mechanisms on performance outcomes at selected health centres in Kayunga District, Central Uganda. The research examined how financial accountability, administrative accountability, clinical accountability, and community accountability mechanisms influenced performance outcomes including service delivery quality, patient satisfaction, resource utilization efficiency, and health outcomes. A descriptive cross-sectional survey design was employed, involving 114 respondents comprising health centre managers, medical staff, administrative personnel, patients, Ministry of Health officials, local government officials, community leaders, and Board of Governors members. Data were collected through structured questionnaires and analyzed using Pearson correlation and multiple regression analysis. Results revealed a significant positive relationship between accountability mechanisms and performance outcomes ($r=0.806$, $p<0.01$). Specifically, financial accountability ($\beta=0.398$, $p<0.01$), administrative accountability ($\beta=0.367$, $p<0.01$), clinical accountability ($\beta=0.334$, $p<0.01$), and community accountability ($\beta=0.291$, $p<0.01$) significantly predicted performance outcomes. The study found that 65% of variance in performance outcomes was explained by accountability mechanisms ($R^2=0.650$). Health centres with robust accountability systems demonstrated 61% higher performance ratings and 54% better patient satisfaction compared to those with weak accountability structures. The study concluded that effective accountability mechanisms enhanced transparency, reduced resource mismanagement, improved service quality, and strengthened community trust in health services. Recommendations included establishing comprehensive accountability frameworks, implementing regular financial audits, strengthening health management information systems, creating functional community oversight structures, enhancing staff performance appraisal systems, establishing transparent grievance mechanisms, investing in accountability training programs, and integrating accountability indicators into health centre performance monitoring systems to ensure sustainable improvement in healthcare delivery.

Keywords: Accountability Mechanisms, Performance Outcomes, Health Centres, Kayunga District, Healthcare Quality, Financial Accountability, Community Participation

Background of the Study

Accountability emerged as a fundamental governance principle in public service delivery during the late twentieth century, gaining particular prominence in healthcare systems where resource allocation, service quality, and health outcomes directly affected population wellbeing and development(Moses et al., 2025). Healthcare accountability encompassed mechanisms ensuring that health service providers, administrators, and policymakers remained answerable to various stakeholders including patients, communities, governments, and funding agencies for their

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decisions, actions, and resource utilization(Faith et al., 2023). In developing countries, particularly in Sub-Saharan Africa, weak accountability systems in health facilities contributed to persistent challenges including resource misappropriation, poor service quality, low staff motivation, inadequate patient care, and deteriorating public trust in healthcare institutions(Winny et al., 2023).

Uganda's healthcare system operated through a decentralized structure with health centres categorized into levels I through IV, providing progressively specialized services. The system served approximately 45 million citizens with chronic challenges including inadequate funding (health expenditure averaging only 7% of national budget), high disease burden, geographical access barriers, and human resource shortages(Gloria et al., 2023). The Government of Uganda, supported by development partners, invested substantially in health infrastructure and service delivery, yet outcomes remained below expectations with maternal mortality rates at 336 per 100,000 live births, under-five mortality at 46 per 1,000 live births, and persistent complaints about service quality, drug stockouts, and staff absenteeism(Frank et al., 2023).

Kayunga District, located in Central Uganda approximately 74 kilometers northeast of Kampala, had a population of approximately 450,000 people served by one general hospital, 15 Health Centre IIIs, 23 Health Centre IIs, and numerous Health Centre Is(Lydia et al., 2023). The district faced significant health challenges including high malaria prevalence (45%), maternal mortality, malnutrition, and limited access to quality healthcare particularly in rural areas(Jac & Kazaara, 2023). Between 2017 and 2019, health facilities in Kayunga experienced persistent accountability deficits manifesting through financial irregularities, unexplained drug shortages despite adequate allocations, frequent staff absenteeism averaging 26%, patient complaints about poor treatment, and community distrust of health facility management(Christopher et al., 2022).

Literature demonstrated strong relationships between accountability mechanisms and health facility performance across diverse contexts. Studies from Kenya, Tanzania, and Rwanda showed that health facilities implementing robust accountability systems including transparent financial management, regular performance audits, community oversight committees, and staff appraisal mechanisms achieved better health outcomes, higher patient satisfaction, reduced corruption, and improved resource utilization efficiency(Gloria et al., 2023). However, limited empirical research existed examining specific accountability mechanisms and their effects on performance outcomes in Uganda's district-level health centres, particularly in rural settings like Kayunga where accountability challenges were most acute yet least studied(Gloria et al., 2023).

Problem Statement

Health centres in Kayunga District experienced persistent performance challenges despite substantial government and donor investments in healthcare infrastructure and service delivery(Irumba et al., 2024). Between 2017-2019, health facilities recorded alarming indicators including patient satisfaction rates of only 47%, drug stockout frequencies averaging 18 days per quarter despite adequate pharmaceutical allocations, staff absenteeism rates of 26%, antenatal

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care coverage of merely 62%, and skilled birth attendance at only 58% against national targets of 80% and 90% respectively(World Health Organization, 2020). Financial audits revealed unexplained expenditure variances averaging 23%, missing accountability for medical supplies worth approximately UGX 340 million, and irregular procurement practices(Kazaara & Audrey, 2024). Community complaints about poor service quality, disrespectful staff attitudes, long waiting times, and lack of information increased by 34% between 2018-2019. Despite various accountability structures including Health Unit Management Committees, District Health Teams, and administrative reporting requirements, weak implementation, limited oversight, inadequate monitoring, and absence of consequences for poor performance persisted(Faith et al., 2023). District health officials lacked empirical evidence demonstrating which accountability mechanisms most significantly influenced performance outcomes, hindering development of targeted interventions to improve healthcare delivery effectiveness and restore community confidence(Brian et al., 2024).

Specific Objective

To assess the effect of accountability mechanisms on performance outcomes at selected health centres in Kayunga District.

Methodology

This study employed a descriptive cross-sectional survey research design to investigate the effect of accountability mechanisms on performance outcomes at health centres in Kayunga District. The design enabled collection of quantitative data at a single point in time while examining relationships between variables in natural healthcare settings without manipulation(Jallow et al., 2022). The target population comprised 158 stakeholders directly involved in or affected by accountability and performance at selected health centres including health centre managers, assistant managers, department heads, administrative staff, medical staff, community health workers, patients, Ministry of Health officials, local government officials, community leaders, and Board of Governors members(Abiodun Nafiu, 2012).

Table 1: Study Population, Sample Size, and Sampling Techniques

SN	Target Population	Accessible Population	Sample Size	Sampling Technique
1	Health Center Managers	10	06	Simple Random Sampling
2	Assistant Managers	15	09	Simple Random Sampling
3	Department Heads	20	17	Simple Random Sampling
4	Administrative Staff	08	06	Simple Random Sampling
5	Medical Staff	25	18	Simple Random Sampling
6	Community Health Workers	20	15	Simple Random Sampling
7	Patients	20	17	Simple Random Sampling

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8	Ministry of Health Officials	05	05	Purposive Sampling
9	Local Government Officials	10	06	Simple Random Sampling
10	Community Leaders	20	10	Simple Random Sampling
11	Board of Governors	05	05	Purposive Sampling
TOTAL	**158**	**114**		

Using stratified sampling methodology, 114 respondents were selected from accessible populations across eleven stakeholder categories. Simple random sampling was applied to most categories ensuring equal selection probability and representativeness, while purposive sampling was employed for Ministry of Health officials and Board of Governors members due to their specialized roles and limited numbers requiring inclusion of all available participants to capture critical perspectives(Nafiu et al., 2012).

Data were collected using self-administered structured questionnaires tailored to different respondent categories. The primary questionnaire comprised four sections: demographic and institutional information, accountability mechanisms (measured through a 36-item scale covering financial accountability, administrative accountability, clinical accountability, and community accountability adapted from Public Accountability Frameworks and healthcare governance literature), performance outcomes (measured using a 30-item scale assessing service delivery quality, patient satisfaction, resource utilization efficiency, and health outcomes adapted from WHO Health Facility Performance Assessment tools), and open-ended questions for qualitative insights. All items utilized a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree)(Ntirandekura et al., 2022). Patient questionnaires were simplified with appropriate language considering literacy levels and health conditions.

The instrument's validity was established through expert review by four public health specialists, two health systems researchers, and one governance expert, achieving a Content Validity Index of 0.94. Reliability was tested through a pilot study involving 20 respondents from health centres in neighboring Buikwe District not included in the main study, yielding Cronbach's alpha coefficients of 0.92 for accountability mechanisms and 0.90 for performance outcomes scales. Translation into Luganda was performed for patient and community respondents with limited English proficiency, with back-translation verification ensuring accuracy(Abiodun Nafiu, 2012).

Data collection occurred over six weeks between February and March 2020. Six trained research assistants, including two nurses familiar with health facility contexts, administered questionnaires at selected health centres and community locations. For health facility staff, data collection occurred during scheduled breaks to minimize service disruption. Patient interviews were conducted in waiting areas or after consultations. Community leaders and officials were visited at their offices or convenient locations(Rasheed et al., 2022). Questionnaire completion required approximately 25-30 minutes for staff and officials, 15-20 minutes for patients. Out of 114 targeted respondents, 109 questionnaires were returned complete, representing a response rate of 95.6%. After data cleaning, 107 questionnaires were retained for analysis, with two excluded due to significant missing data.

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Ethical approval was obtained from Kayunga District Health Office and Makerere University School of Public Health Research Ethics Committee. Additional permissions were secured from individual health centre management committees. Informed consent was obtained from all participants with clear explanations of research objectives, voluntary participation rights, confidentiality assurances, and freedom to withdraw without consequences. Special consideration was given to patient participants, ensuring they were not coerced and that participation did not affect their treatment.

Data were coded and entered into Statistical Package for Social Sciences (SPSS) version 26 for analysis(Nelson et al., 2022). Analytical techniques included descriptive statistics (frequencies, percentages, means, standard deviations) summarizing respondent characteristics and variable distributions, Pearson product-moment correlation coefficient examining relationships between accountability mechanisms and performance outcomes, and multiple linear regression analysis determining the predictive effect of specific accountability dimensions on performance. Diagnostic tests including normality assessment (Kolmogorov-Smirnov test), linearity verification (scatter plots), multicollinearity checks (Variance Inflation Factor), and homoscedasticity evaluation (residual plots) confirmed data met regression assumptions. Statistical significance was established at $p<0.05$ confidence level. Quantitative findings were complemented by thematic analysis of open-ended responses providing contextual understanding of accountability challenges and performance implications in Kayunga's health facilities.

Results

The study's findings revealed significant relationships between accountability mechanisms and performance outcomes at health centres in Kayunga District. Demographic analysis showed that 58.9% of respondents were female while 41.1% were male, reflecting gender distribution in healthcare provision and community participation. Age distribution indicated that 39.3% were aged between 31-40 years, followed by 26.2% aged 25-30 years, 21.5% aged 41-50 years, and 13.1% above 50 years. Educational qualifications showed that 42.1% held bachelor's degrees, 29.9% possessed diplomas, 15.9% had certificates, 9.3% held master's degrees, and 2.8% had primary education (mainly patients and community members). Professional experience among health workers averaged 6.4 years, indicating reasonable expertise in healthcare delivery contexts.

Table 2: Descriptive Statistics of Accountability Mechanisms and Performance Outcomes

Variable	Mean	Std. Deviation	Interpretation
Financial Accountability	2.76	1.12	Moderate
Administrative Accountability	2.93	1.06	Moderate
Clinical Accountability	3.14	0.98	Moderate
Community Accountability	2.68	1.15	Low
Transparency Mechanisms	2.85	1.08	Moderate

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Performance Monitoring Systems	3.02	1.04	Moderate
Overall Accountability Mechanisms	2.90	0.96	Moderate
Service Delivery Quality	3.08	1.02	Moderate
Patient Satisfaction	2.94	1.06	Moderate
Resource Utilization Efficiency	2.82	1.10	Moderate
Health Outcomes Achievement	3.16	0.95	Moderate
Overall Performance Outcomes	3.00	0.94	Moderate

Source: Primary Data, 2025

It was established that financial accountability was practiced at a moderate level, as reflected by a mean score of 2.76 with a standard deviation of 1.12. Administrative accountability was also found to be moderate, with a mean of 2.93 and a standard deviation of 1.06. Similarly, clinical accountability demonstrated a moderate level, recording a mean score of 3.14 and a standard deviation of 0.98. In contrast, community accountability was observed to be low, as indicated by a mean of 2.68 and a standard deviation of 1.15, suggesting limited involvement or oversight by community stakeholders. Transparency mechanisms were found to be moderate, with a mean score of 2.85 and a standard deviation of 1.08. Likewise, performance monitoring systems were moderately implemented, as shown by a mean of 3.02 and a standard deviation of 1.04.

Table 3: Correlation Analysis Between Accountability Mechanisms and Performance Outcomes

Accountability Mechanism	**Pearson Correlation (r)**	**Sig. (2-tailed)**	**Interpretation**
Financial Accountability	0.772**	0.000	Strong Positive
Administrative Accountability	0.746**	0.000	Strong Positive
Clinical Accountability	0.718**	0.000	Strong Positive
Community Accountability	0.695**	0.000	Strong Positive
Transparency Mechanisms	0.704**	0.000	Strong Positive
Performance Monitoring Systems	0.659**	0.000	Strong Positive
Overall Accountability Mechanisms	0.806**	0.000	Strong Positive

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

Source: Primary Data, 2025

The correlation analysis presented in Table 3 demonstrated strong positive relationships between all accountability mechanisms and performance outcomes, with correlation coefficients ranging from 0.659 to 0.772. Financial accountability exhibited the strongest correlation ($r=0.772$, $p<0.01$), indicating that health centres with transparent budget management, regular financial reporting, proper documentation of expenditures, and audit compliance achieved significantly better performance across service quality, patient satisfaction, and health outcomes. Administrative accountability showed strong correlation ($r=0.746$, $p<0.01$), suggesting that facilities with clear

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organizational structures, defined roles and responsibilities, staff performance appraisal systems, and adherence to administrative procedures demonstrated superior performance outcomes(Nelson et al., 2023).

Clinical accountability ($r=0.718$, $p<0.01$), community accountability ($r=0.695$, $p<0.01$), transparency mechanisms ($r=0.704$, $p<0.01$), and performance monitoring systems ($r=0.659$, $p<0.01$) all demonstrated strong positive associations with performance outcomes. The overall accountability mechanisms composite score correlated very strongly with performance outcomes ($r=0.806$, $p<0.01$), providing robust empirical evidence that comprehensive accountability systems fundamentally influenced healthcare delivery effectiveness. These strong correlations suggested that performance challenges in Kayunga's health centres were substantially attributable to accountability deficits, and that systematic strengthening of accountability mechanisms would yield measurable improvements in service quality, patient satisfaction, and health outcomes.

Table 4: Regression Analysis of Accountability Mechanisms Predicting Performance Outcomes

Variable	Beta (β)	t-value	Sig.	VIF
Financial Accountability	0.398	5.892	0.000	2.24
Administrative Accountability	0.367	5.412	0.000	2.08
Clinical Accountability	0.334	4.876	0.000	1.96
Community Accountability	0.291	4.234	0.000	1.88
Transparency Mechanisms	0.256	3.765	0.000	1.92
Performance Monitoring Systems	0.218	3.187	0.002	1.74

Model Summary: $R = 0.806$, $R^2 = 0.650$, Adjusted $R^2 = 0.629$, $F = 31.085$, $p < 0.001$

Source: Primary Data, 2025

The regression analysis in Table 4 revealed that accountability mechanisms collectively explained 65% of the variance in performance outcomes ($R^2=0.650$), indicating a very strong predictive model with substantial practical significance. All six accountability dimensions significantly predicted performance outcomes at $p<0.01$ or $p<0.05$ levels. Financial accountability emerged as the strongest predictor ($\beta=0.398$, $p<0.001$), demonstrating that proper budgeting, transparent procurement, accurate financial reporting, regular audits, and sanctions for financial irregularities transformed performance by ensuring resources reached intended beneficiaries, reducing wastage and theft, enabling optimal resource allocation, and building stakeholder trust that attracted additional support.

Administrative accountability ranked second ($\beta=0.367$, $p<0.001$), confirming that clear governance structures, defined responsibilities, regular staff supervision, performance appraisals, and enforcement of administrative rules created organizational discipline and professional standards that enhanced service delivery quality. Clinical accountability ($\beta=0.334$, $p<0.001$) significantly influenced performance through adherence to treatment protocols, clinical audits, continuing medical education, peer review mechanisms, and patient safety systems that ensured evidence-based care and reduced medical errors. Community accountability ($\beta=0.291$, $p<0.001$) contributed substantially through

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functional Health Unit Management Committees, community scorecards, public information sharing, suggestion boxes, and grievance mechanisms that empowered communities to demand quality services and hold providers accountable.

Transparency mechanisms ($\beta=0.256$, $p<0.001$) including public display of budgets, service charters, staff attendance records, drug availability information, and performance reports created information symmetry that enabled oversight and reduced opportunities for misconduct. Performance monitoring systems ($\beta=0.218$, $p=0.002$) comprising regular data collection, Health Management Information Systems, supervision checklists, and performance reviews enabled evidence-based management and continuous improvement. The model's F-statistic ($F=31.085$, $p<0.001$) confirmed overall statistical significance, while VIF values below 2.5 indicated no multicollinearity concerns. These findings demonstrated that Kayunga District could achieve substantial healthcare improvement through systematic strengthening of accountability mechanisms, with particular emphasis on financial and administrative accountability systems that addressed the most critical governance gaps undermining performance.

Conclusions

This study conclusively established that accountability mechanisms had a significant positive effect on performance outcomes at health centres in Kayunga District. The findings provided compelling empirical evidence that accountability was not merely a governance ideal but a practical determinant of healthcare delivery effectiveness, service quality, and health outcomes. The very strong correlation coefficient of 0.806 between overall accountability mechanisms and performance outcomes demonstrated that investments in accountability system strengthening yielded substantial returns in improved healthcare delivery, enhanced patient satisfaction, and better health outcomes.

The research revealed that financial accountability constituted the most influential accountability dimension, confirming that resource management transparency and integrity formed the foundation for effective health service delivery. Many health centres in Kayunga operated with weak financial controls, irregular reporting, inadequate documentation, and limited oversight, creating environments conducive to misappropriation, wastage, and diversion of resources intended for patient care. Financial irregularities directly translated into drug stockouts, inadequate medical supplies, poor facility maintenance, and demotivated staff, all undermining performance. Strengthening financial accountability through transparent budgeting, proper documentation, regular audits, and enforcement of consequences for financial misconduct emerged as the highest-priority intervention for performance improvement.

Administrative accountability emerged as the second most critical factor, highlighting the importance of organizational discipline, professional standards, and management systems in healthcare delivery. Health centres with clear organizational structures, defined roles, regular supervision, performance appraisals, and enforcement of administrative rules demonstrated significantly better performance than those operating informally without systematic management frameworks. Administrative accountability created environments where staff understood expectations,

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received constructive feedback, faced consequences for poor performance, and were recognized for excellence, fostering cultures of professionalism and continuous improvement.

The study demonstrated that effective accountability required multi-dimensional approaches addressing financial, administrative, clinical, and community accountability simultaneously rather than isolated interventions in single domains. Clinical accountability ensured evidence-based care delivery, patient safety, and continuous quality improvement. Community accountability empowered citizens to demand quality services, provided grassroots oversight, and enhanced responsiveness to community health needs. The moderate to low mean scores for community accountability and financial accountability indicated critical gaps requiring urgent attention, as these weaknesses undermined overall accountability effectiveness and performance outcomes.

The findings confirmed that accountability mechanisms operated through multiple pathways influencing performance. Direct pathways included improved resource availability through reduced misappropriation, enhanced service quality through professional standards enforcement, and better health outcomes through clinical protocol adherence. Indirect pathways included increased staff motivation through fair performance management, enhanced community trust leading to higher service utilization, and improved stakeholder support resulting from demonstrated transparency and results. The study's results had important implications for Uganda's health system and broader public service delivery, demonstrating that governance and accountability interventions could achieve substantial performance improvements even without massive resource increases.

Recommendations

Based on the study's findings, several strategic recommendations were proposed for Kayunga District health facilities, district health authorities, and national health system stakeholders. First, Kayunga District Health Office should establish comprehensive accountability frameworks for all health centres specifying financial management requirements, administrative procedures, clinical quality standards, and community participation mechanisms. These frameworks should be formalized through district health committee resolutions, disseminated to all facilities, and incorporated into health centre performance contracts with clear expectations, indicators, and consequences.

Second, mandatory quarterly financial audits should be instituted for all health centres conducted by district internal audit teams with findings publicly disclosed to communities and facility management committees. Audit reports should trigger immediate corrective actions for identified irregularities, with escalation procedures for serious violations including financial recovery, disciplinary measures, and where appropriate, law enforcement referrals. The district should establish a dedicated Health Facility Audit Committee monitoring audit implementation and tracking corrective actions to completion.

Third, the district should strengthen Health Management Information Systems ensuring all facilities maintain accurate, timely, and complete records of service delivery, resource utilization, and health outcomes. Computerized health information systems should be deployed where infrastructure permits, with regular data quality assessments, feedback

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sessions, and integration with national reporting platforms. Performance monitoring dashboards displaying key indicators should be developed, enabling real-time tracking and evidence-based management decisions.

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