

## Comparative Analysis of Health Initiatives on the Performance of Public and Private Hospital Institutions in Burundi: Case of Private Companies: The Van Norman Clinic (CVN) and the Kamenge Popular Hospital (HPK) and Public Companies: The Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital Center (CHUK)

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### Abstract

### Original Research Article

This article examines the impact of health initiatives on the performance of public and private hospital institutions in Burundi. The study focuses on four institutions : the Van Norman Clinic (CVN) and Kamenge Popular Hospital (HPK) in the private sector, and Prince Regent Charles Hospital (HPRC) and Kamenge University Hospital (CHUK) in the public sector. The primary objective of this study is to compare the performance of public and private hospitals in Burundi by evaluating the health initiatives they have implemented. Specifically, it aims to assess how these initiatives influence the quality of care, service efficiency, and patient satisfaction across these different types of institutions. The target population consists of 1,638 employees, distributed as follows: 730 employees at CHUK, 368 at HPRC, 360 at CVN, and 180 at HPK. The sample includes 41 employees from Kamenge University Hospital (CHUK), 20 from Prince Regent Charles Hospital (HPRC), 20 from Van Norman Clinic (CVN), and 10 from Kamenge Popular Hospital (HPK), totaling 91 participants. The results show that over 74% of employees in public and private hospitals (respectively 73.77% and 76.67%) actively participate in health initiatives. Approximately 85% believe that these initiatives have a significant impact, with 74.72% focusing on prevention. More than 77% have received training on these programs, and 72% perceive strong managerial support. About 87% consider that these initiatives improve the quality of care, while 90% see improvements in clinical outcomes. Finally, 78% support the development of recommendations to strengthen these efforts, and 78% are willing to participate in meetings on health initiatives, highlighting a strong institutional commitment in the health sector in Burundi. The study concludes that health initiatives play a pivotal role in hospital performance, though outcomes differ substantially between the private and public sectors. Private hospitals benefit from more efficient management and greater adaptability, while public hospitals, despite their commitment to universal service, are constrained by structural and financial challenges. Reforms in public hospital management and increased cross-sector collaboration could lead to improvements in the overall healthcare system.

**Keywords :** Health initiatives, hospital performance, public sector, private sector.

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## INTRODUCTION

The performance of hospital institutions represents a fundamental indicator of the quality of healthcare on a global scale. According to Arah, Klazinga and al. (2023), more than 10% of global health expenditure is allocated to improving hospital infrastructure and services, illustrating the importance attached to strengthening the efficiency of hospitals, both public and private. These initiatives aim to meet increasing demands for quality care, while highlighting

the need for governments and private actors to engage in structural reforms to optimize hospital performance on a global and local scale (Berg, Meijerink and al. 2021).

In Africa, the picture is highly contrasted. The continent is witnessing a dynamic of modernization of its health systems, during which health care expenditure has increased by 5.8% annually since 2015 (Bloom, and al. 2019). However, this progress is tarnished by persistent underfunding, as well as a lack of qualified human

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resources, thus hampering the efficiency of hospital institutions, a finding highlighted by Ontario Ministry of Health and Long-Term Care (2022), which reveals that only 30% of African private hospitals meet internationally recognized performance standards.

At a regional level, East African countries are actively seeking to improve the quality of care. Kenya, for example, has invested nearly USD 2.5 billion in modernizing its public hospitals since 2016, achieving a 15% increase in patient satisfaction (Boachie, and al. 2023). Similarly, in Tanzania, partial privatization of hospital services led to a 20% increase in productivity in private facilities (Casasnovas and al. 2022). However, these advances are far from uniform, with marked disparities in performance within the region.

The Republic of Burundi, in particular, faces significant challenges regarding hospital performance. The share of the national budget allocated to health, which represents only about 6.8% (Eggoh, 2020), aggravates a state of chronic dysfunction within public hospitals. In contrast, although private facilities, such as the Van Norman Clinic (CVN) and the Kamenge Popular Hospital (HPK), are often better equipped, they struggle to compensate for the shortcomings of the public sector. For example, the CVN and the HPK display better operational efficiency with a patient satisfaction rate of 82%, while the Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital (CHUK) only reach 68% (Greenberg, 2021).

Comparative analysis of performance between public and private hospitals in Burundi highlights the critical importance of health initiatives for improving performance indicators. In this context, reforms such as improving governance and human resource management in public hospitals have produced encouraging results. Indeed, a study conducted by the Burundian Ministry of Health revealed a 12% increase in efficiency in public hospitals since 2019 following the implementation of modern management practices (Burundi Ministry of Health, 2023).

However, comparing performance between the public and private sectors reveals notable divergences. Private hospitals, such as CVN and HPK, benefit from flexibility in managing their resources, while public hospitals must navigate rigid regulations, often exacerbated by chronic underfunding. As a result, quality of care and productivity tend to be higher in the private sector. According to WHO, nearly 60% of Burundian patients report a preference for private hospitals due to the perceived quality of care (Jakovljevic, 2023).

Disparities in hospital performance also create challenges in terms of access to care. Private hospitals tend to focus on a wealthier clientele, while public hospitals remain the main healthcare resource for the majority of Burundians. This dichotomy highlights

issues of equity in access to health services, a fundamental criterion for assessing the performance of hospital institutions.

This comparative analysis of health initiatives and the performance of hospital institutions, both public and private, in Burundi reveals the need for concerted efforts to address existing gaps. Although private hospitals generally perform better, reforms in the public sector are crucial to ensure equitable access to quality care for all Burundians.

## METHODOLOGY

The methodology of this research is based on a comparative approach aimed at assessing the performance of public and private hospital institutions in Burundi. In order to structure the analysis and ensure systematization of the data, we adopted a methodological framework inspired by the recommendations of Boachie, and al. (2023), which underlines the crucial importance of choosing an appropriate approach to guide any scientific analysis. With this in mind, we combined qualitative and quantitative methods to obtain a comprehensive understanding of the dynamics at play within the selected establishments, namely the Van Norman Clinic (CVN), the Kamenge Popular Hospital (HPK), the Prince Regent Charles Hospital (HPRC), and the Kamenge University Hospital Center (CHUK).

Initially, quantitative data collection was carried out through previously defined performance indicators, such as patient satisfaction rates, waiting times for care, and readmission rates. This information was collected through surveys administered to patients, as well as through the analysis of facility activity reports. In parallel, a qualitative method was integrated by conducting semidirected interviews with key stakeholders, including hospital managers, medical staff, and patients. This provided contextual perspectives on the challenges and opportunities encountered in both sectors.

Finally, a comparative analysis was conducted between the data collected from public and private institutions, aiming to identify divergences in performance and patient satisfaction. The results of this analysis were interpreted in light of existing theories on the effectiveness of health systems in order to develop relevant recommendations to strengthen the performance of hospital institutions in Burundi. By integrating these various methodological approaches, we aim to ensure a holistic evaluation of health initiatives and to offer meaningful insights on the necessary evolution of care practices in the country.

The study population consists of a representative sample of agents employed in the four hospital institutions selected for this analysis. Among these, the first two are in the private sector: the Van Norman Clinic (CVN) and the Kamenge Popular

Hospital (HPK), while the other two belong to the public sector: the Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital (CHUK). In total, the population includes 1638 employees, distributed as follows: 730 agents in the CHUK, 368 in the HPRC, 360 in the CVN and 180 in the HPK. This distribution aims to ensure adequate representation of each institution, thus allowing a comparative analysis based on robust empirical data.

$$nc = \frac{n}{1 + \frac{n}{N}} \quad \text{In} \quad nc = \frac{n}{1 + \frac{n}{N}} = \frac{n}{\frac{N+n}{N}} = \frac{n}{1} \times \frac{N}{N+n}$$

progress

$$nc = \frac{n \times N}{N + n}$$

N=Total of the parent population (target population).

nc = Corrected sample.

The total universal sample of a finite universe is  $n = 96$ .

$$\text{Corrected sample (nc) } n = \frac{96}{1 + \frac{96}{1638}} = \frac{96}{\frac{1638+96}{1638}} = \frac{96}{\frac{1734}{1638}} = 96 \times \frac{1638}{1734} = \frac{157248}{1734} = 91$$

### Sample size for the study

The Kamenge University Hospital (CHUK) represents the largest share of the sample, with 41 employees, which constitutes 44.57% of the total. This indicates that this center is a major player among the institutions studied. The Prince Regent Charles Hospital (HPRC) follows with 20 employees, representing 22.47% of the sample. Although this is a significant proportion, it is significantly lower than that of the CHUK. The Van Norman Clinic (CVN) and the Kamenge Popular Hospital (HPK) each have 20 employees (21.98%) and 10 employees (10.98%) respectively, which shows that these institutions have a lower representation in the sample.

There is a predominance of public institutions (CHUK and HPRC) in the sample, which represent 67.04% (61 out of 91 employees) while the private ones (CVN and HPK) constitute 32.96% (30 out of 91 employees). This could reflect a concern to include a majority of employees from public institutions, perhaps due to their size, diversity or accessibility to health services. The total sample is 91 employees, which is an adequate size for a study, allowing to obtain significant results while being representative of the target population.

For this study on the comparative analysis of health initiatives in public and private hospital institutions in Burundi, several data collection instruments were used. A structured questionnaire was developed, including sections on employee demographic characteristics, perceptions of facility performance, and

### Population size for the study

The surveyed population included 1638 individuals, from which a sample of 91 individuals was selected using Alain Bouchard's formula and were surveyed. According to Alain Bouchard's formula cited by Nkunuzwenabake (2021), when the study population is less than or equal to 1,000,000 individuals, it corresponds to a sample of 96 individuals with a margin of error of 10%.

analysis of health services provided. Semi-directed interviews were also conducted with managers of each institution to collect qualitative data on the health initiatives implemented. Data triangulation, by combining quantitative and qualitative data, allowed for a richer and more detailed overview of the factors influencing the performance of public and private hospitals.

The choice of stratified sampling is particularly relevant in the context of this study, because it allows for the equitable representation of the two categories of institutions studied: public and private. With 67.04% of employees coming from public institutions (CHUK and HPRC) and 32.96% from private ones (CVN and HPK), this method ensures that each group is proportionally represented in the final sample. Thus, the results are generalized while taking into account the specificities of each type of institution. This contributes to a better understanding of the dynamics of performance in the health sector in Burundi, by allowing a direct and meaningful comparison between the initiatives of the institutions.

## RESULTS

This part of the article presents the data collection for this study. It also deals with data analysis and interprets and discusses the results/conclusions and interpretation of results. Data is collected from the questionnaire. However, quantitative and qualitative research methodology was used to interpret the results found in the field.

**Table 1: Health Initiatives in Public and Private Hospitals**

Institution Type	Total Employees	Health Initiatives (Yes)	Health Initiatives (No)	Percentage Yes	Percentage No
Public Hospitals (CHUK + HPRC)	61	45	16	73.77%	26.23%
Private Hospitals (CVN + HPK)	30	23	7	76.67%	23.33%

Source : Field Survey

The comparative analysis of health initiatives between public and private hospitals in Burundi reveals meaningful differences. Private hospitals (Van Norman Clinic and Kamenge Popular Hospital) report an overall rate of 76.67% of employees benefiting from health initiatives, slightly higher than public hospitals at 73.77%. This suggests that private institutions enjoy greater flexibility and resource allocation efficiency, enabling them to implement programs that promote staff wellbeing more effectively. However, disparities within the private sector remain evident: Van Norman Clinic achieves a very high level of 90%, while Kamenge Popular Hospital is limited to 50%, showing that commitment to health initiatives is not uniform across private institutions.

On the public side (CHUK and HPRC), results are relatively consistent, with rates around 74– 75%, reflecting a clear willingness to integrate such initiatives despite budgetary and administrative constraints. Overall, the comparative figures demonstrate significant engagement from both public and private hospitals toward health and staff welfare. Yet, the fact that nearly a quarter of employees in both sectors (26.23% in public hospitals and 23.33% in private hospitals) do not benefit from these initiatives underscores the need for harmonization and additional efforts. Strengthening strategic management, particularly in public hospitals, would help achieve more comprehensive coverage and ensure equitable access to health initiatives across all institutions.

**Table 2: Health Initiatives**

Institution Type	Total Employees	Prevention Programs	Training Infrastructure	&	Awareness Campaigns	Overall Engagement (%)
Public Hospitals (CHUK + HPRC)	61	45	67		24	73.77%
Private Hospitals (CVN + HPK)	30	23	43		21	76.67%

Source : Field Survey

The comparative analysis of health initiatives between public and private hospitals in Burundi highlights both convergence and divergence in performance. Private hospitals (Van Norman Clinic and Kamenge Popular Hospital) show a slightly higher overall engagement (76.67%) compared to public hospitals (73.77%). Prevention programs remain the most widespread initiative, with 74.72% coverage across institutions, reflecting their strategic importance for public health. Private hospitals appear better positioned to implement these programs due to more autonomous management and flexible resource allocation, while public hospitals demonstrate consistency but face structural and budgetary constraints.

Training and infrastructure improvement also reveal significant investment, with 67 initiatives in public hospitals and 43 initiatives in private ones, underscoring a shared commitment to skill development and workplace enhancement. However, awareness campaigns remain less frequent, with an overall rate of 49.45%, showing that both sectors underexploit this potential. Public hospitals, despite their broader reach, do not fully capitalize on their capacity to influence communities, while private hospitals adopt a more proactive strategy to strengthen institutional performance and community health impact. This comparative evidence suggests that harmonization of practices and strategic management reinforcement are essential to achieve more equitable and comprehensive health outcomes across both sectors.

**Table 3: Innovative Character of Health Initiatives**

Institution Type	Total Employees	Very Innovative	Innovative	Little Innovative	Not Innovative	Overall (%)
Public Hospitals (CHUK + HPRC)	61	20	30	9	2	73.77%
Private Hospitals (CVN + HPK)	30	12	9	5	4	76.67%

Source : Field Survey

The comparative analysis of the innovative character of health initiatives reveals meaningful differences between public and private hospitals in Burundi. Public hospitals (CHUK and HPRC) demonstrate a relatively high level of innovation, with 49% of initiatives rated as innovative and 33% as very innovative. This reflects a strong desire to adopt new practices, though the predominance of moderate innovations suggests that budgetary and administrative constraints limit their ability to pursue more radical approaches. Despite these challenges, the overall engagement of 73.77% indicates a significant commitment to gradual and cautious innovation aimed at improving healthcare delivery. Private hospitals (CVN and HPK), by contrast, show greater variability. The Van Norman

Clinic stands out with 50% of its initiatives classified as very innovative, highlighting flexibility and responsiveness in adopting cutting-edge practices. Meanwhile, Kamenge Popular Hospital demonstrates weaker results, with only 20% of initiatives considered very innovative, revealing internal disparities within the private sector. Overall, private hospitals achieve a slightly higher engagement rate (76.67%) and appear better positioned to introduce bold innovations. This underscores the importance of flexible management and resource availability in fostering innovation. In conclusion, while both sectors contribute to innovation, public hospitals lean toward cautious and incremental strategies, whereas private institutions—especially CVN—pursue more daring approaches. Strengthening innovation capacity in public hospitals and harmonizing practices across the private sector are essential for sustainable healthcare improvements.

**Table 4: Perception of Quality of Care**

Institution Type	Total Employees	Very Good	Good	Average	Bad	Very Bad	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	13	30	14	3	1	61	21% Very Good, 49% Good, 23% Average, 7% Negative
Private Hospitals (CVN + HPK)	30	10	13	4	3	0	30	33% Very Good, 43% Good, 13% Average, 10% Negative

Source : Field Survey

In public hospitals (CHUK and HPRC), the majority of employees rated the quality of care as good (49%), with 21% considering it very good. However, perceptions are more mixed compared to the private sector, as 23% of responses were average, and 7% were negative (5% bad and 2% very bad). These results suggest that while public hospitals maintain a relatively acceptable level of care, structural challenges such as aging infrastructure, limited budgets, and heavy workloads negatively influence staff perceptions.

In private hospitals (CVN and HPK), the results are comparatively more favorable. Among employees,

33% rated the quality of care as very good, and 43% as good, while only 13% considered it average. Negative perceptions were limited to 10% bad and 0% very bad, indicating higher overall satisfaction. When combined, the global results show that 47% of all employees judged care quality as good, 25% as very good, 20% as average, and only 8% as negative (7% bad and 1% very bad). This demonstrates a general effort to maintain acceptable standards of care, but highlights that private hospitals are better positioned to meet expectations, while public hospitals continue to face structural and organizational constraints that hinder more positive evaluations.

**Table 5: Waiting Time for Consultation**

Institution Type	Total Employees		30 min – 1 hour	1 – 2 hours	> 2 hours	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	7	30	17	7	61	11.5% <30 min, 49% 30–60 min, 28% 1–2 hrs, 11% >2 hrs
Private Hospitals (CVN + HPK)	30	11	11	5	3	30	36.7% <30 min, 36.7% 30–60 min, 16.7% 1–2 hrs, 10% >2 hrs

Source : Field Survey

In public hospitals (CHUK and HPRC), the majority of employees (49%) reported waiting times between 30 minutes and 1 hour, but a significant proportion (28%) indicated delays of 1–2 hours, and 11%

reported waiting times exceeding 2 hours. Only 11.5% of employees experienced consultations in less than 30 minutes, reflecting the heavy patient load and limited resources that extend waiting times in public institutions.

These findings suggest that structural constraints and overcrowding remain major challenges affecting service delivery and patient satisfaction in the public sector.

In private hospitals (CVN and HPK), perceptions are more favorable. Here, 36.7% of employees reported consultations within 30 minutes, and another 36.7% experienced waiting times of 30 minutes to 1 hour. Longer delays were less frequent, with 16.7% reporting 1–2 hours and only 10% exceeding 2 hours. This distribution indicates a more efficient patient flow

and organizational flexibility, particularly at Van Norman Clinic, which stands out for its rapid service. Overall, across all institutions, 45% of employees reported waiting times of 30 minutes to 1 hour, making this the most common category. However, the contrast between public hospitals, where nearly 40% face delays beyond one hour, and private hospitals, where responsiveness is stronger, underscores the need for improved resource allocation and management strategies in the public sector to enhance institutional performance and patient satisfaction.

**Table 6: Patient Satisfaction Rates**

Institution Type	Total Employees	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	13	28	14	4	2	61	21% Very Satisfied, 46% Satisfied, 21% Neutral, 10% Negative
Private Hospitals (CVN + HPK)	30	12	9	5	2	2	30	40% Very Satisfied, 30% Satisfied, 17% Neutral, 13% Negative

Source : Field Survey

The patient satisfaction rates reveal important differences between public and private hospitals in Burundi. Overall, 68% of employees (62 out of 91) perceive patients as satisfied or very satisfied, with 27% (25 employees) indicating patients are very satisfied and 41% (37 employees) satisfied. In public hospitals (CHUK and HPRC), the majority of responses (28 out of 61, approximately 46%) fall into the satisfied category, while 21% (14 employees) have a neutral perception, and 6% (4 employees) are dissatisfied. This distribution reflects the internal challenges faced by public hospitals, such as aging infrastructure and patient overload, which likely impact patient perceptions negatively. Conversely, in private hospitals (CVN and HPK), 12 employees (40%) reports patients as very satisfied, and 9 (30%) as satisfied, indicating a more favorable perception. Yet, 17% (5 employees) remain neutral, and 13% (4 employees) are dissatisfied, illustrating that satisfaction levels are not uniform even within the private sector.

Globally, these figures suggest that private hospitals outperform public institutions in patient satisfaction, but room for improvement remains across both sectors. The combined data show that 68% of employees believe patients are satisfied or very satisfied, which is a positive indicator of service quality. However, the fact that 21% (19 employees) hold neutral views and 10% (6 employees) are dissatisfied underscores the need for targeted efforts to enhance patient experience, especially in public hospitals. Improving infrastructure, reducing waiting times, and addressing organizational constraints could help bridge this satisfaction gap. Ultimately, these results highlight the importance of continuous quality improvement initiatives to meet patient expectations and strengthen healthcare system performance.

**Table 7: Impact of Initiatives on the Quality of Care**

Institution Type	Total Employees	Yes, Significant	Yes, Moderate	No Improvement	Don't Know	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	22	30	6	3	61	36% Significant, 49% Moderate, 10% No/Unsure
Private Hospitals (CVN + HPK)	30	18	9	2	1	30	60% Significant, 30% Moderate, 10% No/Unsure

Source : Field Survey

The analysis of the impact of initiatives on the quality of care indicates a generally positive perception

across both public and private hospitals in Burundi. Overall, 87% of employees (79 out of 91) believe that

these initiatives have led to improvements, with 44% (40 employees) indicating a significant impact and 43% (39 employees) noting moderate improvements. In public hospitals (CHUK and HPRC), a large majority approximately 85% (52 out of 61) perceive some level of improvement, with 22 employees (about 36%) rating the impact as significant and 30 (around 49%) as moderate. Despite these positive perceptions, a small proportion (6 employees) believe there has been no improvement, and 3 are unsure, highlighting some residual limitations likely due to financial and organizational constraints. Conversely, private hospitals (CVN and HPK) exhibit even more favorable perceptions, with 60% (18 employees) reporting significant improvements and 30% (9 employees) moderate, reflecting a stronger capacity to translate initiatives into tangible results. The Van Norman Clinic, in particular, stands out with 75% of

responses indicating significant impact, underscoring its effective implementation.

Overall, these findings demonstrate that the initiatives have had a meaningful effect on improving healthcare quality, with private hospitals seeming to capitalize more effectively on these efforts. The high percentage of positive perceptions 87% confirms the initiatives' effectiveness across the sector. While public hospitals show encouraging progress, their impact remains more cautious and limited by ongoing structural challenges. The data suggest that continuing to support and expand successful initiatives, especially in resource-constrained settings, could further enhance care quality. The overall trend indicates that strategic investment in health initiatives can yield substantial improvements, reinforcing the importance of sustained efforts to optimize healthcare outcomes in Burundi.

**Table 8: Impact of Health Initiatives on Patient Clinical Outcomes**

Institution Type	Total Employees	Yes, Absolutely	Yes, Partly	No	Don't Know	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	28	27	4	2	61	46% Absolutely, 44% Partly, 10% No/Unsure
Private Hospitals (CVN + HPK)	30	19	8	3	0	30	63% Absolutely, 27% Partly, 10% No

Source : Field Survey

The analysis of the impact of health initiatives on patient clinical outcomes reveals a predominantly positive perception in both public and private hospitals in Burundi. Overall, 90% of employees (82 out of 91) acknowledge some level of improvement, with 52% (47 employees) stating that the impact is absolutely significant and 38% (35 employees) recognizing partial improvements. In public hospitals (CHUK and HPRC), a substantial majority approximately 90% (55 out of 61) perceive positive effects, with 28 employees (about 46%) noting an absolutely significant impact and 27 (around 44%) a partial one. Despite this, a small number (4 employees) believe there has been no improvement, and 2 are unsure, indicating room for enhancing the effectiveness of initiatives to achieve more tangible clinical benefits. Private hospitals (CVN and HPK) show even stronger perceptions, with 63% (19 employees) reporting absolutely significant impacts and 27% (8 employees) partial impacts, demonstrating a higher capacity to translate initiatives into concrete clinical

results. The Van Norman Clinic stands out with 75% of responses indicating an absolute impact, reflecting its superior ability to convert efforts into tangible patient outcomes.

Overall, these findings suggest that health initiatives are effectively contributing to improved patient clinical outcomes, with private hospitals gaining more from these efforts. The high overall perception 90% of employees recognizing some form of improvement confirms the positive influence of these programs. While public hospitals are making meaningful progress, their impact remains more moderate, highlighting the need for continued strengthening of implementation strategies to maximize clinical benefits. The data underscores the importance of sustained investment and targeted interventions to further enhance patient outcomes, demonstrating that well-executed health initiatives can lead to significant clinical improvements across healthcare facilities in Burundi.

**Table 9: Training Received on Health Initiatives**

Institution Type	Total Employees	Yes	No	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	45	16	61	74% Yes, 26% No
Private Hospitals (CVN + HPK)	30	25	5	30	83% Yes, 17% No

Source : Field Survey

The analysis of training received on health initiatives indicates a generally positive trend across both public and private hospitals in Burundi. Overall, 77% of employees (70 out of 91) report having received training,

demonstrating a strong institutional commitment to enhancing staff competencies. In public hospitals (CHUK and HPRC), approximately 74% (45 employees) have been trained, reflecting significant efforts to

integrate health initiatives into staff development. However, 26% (16 employees) have not received training, highlighting gaps in communication or implementation that need to be addressed to ensure more uniform coverage. Private hospitals (CVN and HPK) show even more favorable results, with 83% (25 employees) trained, and the Van Norman Clinic stands out with a 90% training rate, indicating a high level of dedication to ongoing staff development. Kamenge Public Hospital, while positive at 70%, still offers room

for improvement. Overall, these findings suggest that while most staff are being trained, private hospitals are more organized and efficient in delivering training programs. Public hospitals should focus on expanding and regularizing training efforts to maximize the effectiveness of health initiatives and ensure all personnel are adequately prepared. This ongoing capacity building is essential for sustaining and enhancing the quality of healthcare services in Burundi.

**Table 10: Management Support in the Implementation of Health Initiatives**

Institution Type	Total Employees	Excellent	Good	Average	Weak	Very Weak	Total Answers	Key Percentages
Public Hospitals (CHUK +HPRC)	61	15	30	12	3	1	61	25% Excellent, 49% Good, 20% Average, 6% Weak/Very Weak
Private Hospitals (CVN + HPK)	30	9	12	7	2	0	30	30% Excellent, 40% Good, 23% Average, 7% Weak

Source : Field Survey

The analysis of management support in the implementation of health initiatives shows an overall positive trend, with some notable differences between public and private hospitals in Burundi. Overall, 72% of employees (66 out of 91) perceive management support as “Excellent” or “Good,” indicating a strong institutional commitment to the success of health initiatives. In public hospitals (CHUK and HPRC), about 74% (45 employees) rate support positively, reflecting a solid willingness among management to back health programs. However, 12 employees (around 20%) see support as “Average,” and 4 (roughly 7%) perceive it as “Weak” or “Very Weak,” highlighting areas where follow-up and consistent support could be improved, especially in terms of regularity and effectiveness. Private hospitals (CVN and HPK) also demonstrate

favorable perceptions, with 21 employees (70%) rating support as “Excellent” or “Good.” The Van Norman Clinic stands out with strong management backing, whereas Kamenge Public Hospital shows a more mixed picture, with a higher proportion of “Average” or “Weak” responses, pointing to internal disparities within the private sector. Overall, these results underscore the importance placed on management support in driving health initiatives ; however, the presence of 21% “Average” and 6% “Weak” responses suggests that additional efforts are needed to harmonize and strengthen managerial engagement. Special focus should be given to public hospitals, where structural constraints may limit the full realization of support, to ensure more consistent and effective leadership in advancing health outcomes.

**Table 11: Challenges in Implementing Health Initiatives**

Institution Type	Total Employees	Lack of Financial Resources	Lack of Trained Personnel	Insufficient Communication	Lack of Management Support	Other	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	25	32	15	13	7	92	27% Financial, 35% Personnel, 16% Communication, 14% Management, 8% Other
Private Hospitals (CVN + HPK)	30	8	5	5	2	2	22	36% Financial, 23% Personnel, 23% Communication, 9% Management, 9% Other

Source : Field Survey

The analysis of challenges faced in implementing health initiatives reveals significant

differences between public and private hospitals in Burundi. Overall, the main obstacles include lack of

trained personnel (37 responses, 41%), insufficient financial resources (33 responses, 36%), communication issues (20 responses, 22%), management support deficits (15 responses, 16%), and other miscellaneous challenges (9 responses, 10%).

In public hospitals (CHUK and HPRC), the most prominent barriers are the lack of trained staff more than half of the responses and financial constraints. These issues highlight the heavy dependence of public hospitals on government budgets and the difficulties in maintaining continuous training programs aligned with evolving medical practices. Communication breakdowns and limited management support also contribute to slower or less effective implementation of health initiatives.

In contrast, private hospitals (CVN and HPK) face fewer challenges overall. The shortages of financial

resources and trained personnel are less frequently reported (8 and 5 responses, respectively), reflecting their greater flexibility in staffing and funding. However, communication and management support still pose some challenges, though to a lesser extent than in public hospitals.

Globally, these findings emphasize that public hospitals encounter more substantial obstacles particularly in training and funding which can hinder the full realization of health initiatives. Private hospitals are relatively better equipped but should focus on improving internal coordination and strengthening managerial engagement to further enhance their effectiveness. Addressing these challenges is crucial for ensuring the sustainability and success of health programs across Burundi.

**Table 12: Application of Best Practices for Health Initiatives**

Institution Type	Total Employees	Yes, Absolutely	Yes, Partly	No	Don't Know	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	23	30	7	1	61	38% Absolutely, 49% Partly, 11% No/Unsure
Private Hospitals (CVN + HPK)	30	12	12	5	1	30	40% Absolutely, 40% Partly, 20% No/Unsure

Source : Field Survey

The analysis of the application of best practices in health initiatives indicates a generally positive trend, with some differences between public and private hospitals in Burundi. Overall, 84% of employees (77 out of 91) believe that best practices are applied either "absolutely" or "partly."

In public hospitals (CHUK and HPRC), a significant majority of 87% (53 employees) feel that best practices are implemented to some extent, which reflects a strong institutional commitment. However, the presence of 7 responses indicating non-application points to areas where improvements are needed, particularly in communication and consistent implementation of health initiatives.

Private hospitals (CVN and HPK) also show promising results, with 80% (24 employees) affirming

that best practices are followed either fully or partially. The Van Norman Clinic stands out with a high rate of "absolutely" applied practices (50%), demonstrating strong engagement, whereas Kamenge Public Hospital presents a more mixed picture, with many responses indicating only partial application and some negative perceptions.

Globally, these findings suggest that most healthcare workers recognize efforts to uphold good practices, which underscores an institutional desire to improve health outcomes. Nevertheless, the 13% of negative responses and 2% of uncertainties highlight ongoing challenges, such as ensuring uniformity and effective communication in practice. Strengthening these areas can further enhance the quality and consistency of health initiatives across all hospital types.

**Table 13: Need for Recommendations for Improving Health Initiatives**

Institution Type	Total Employees	Yes	No	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	48	13	61	79% Yes, 21% No
Private Hospitals (CVN + HPK)	30	23	7	30	77% Yes, 23% No

Source : Field Survey

The analysis of the need for recommendations to improve health initiatives reveals a strong demand across both public and private healthcare institutions in Burundi. Overall, 78% of employees (71 out of 91)

believe that formulating recommendations is necessary to enhance health initiatives.

In public hospitals (CHUK and HPRC), an overwhelming majority of 79% (48 employees) see the

need for developing recommendations, reflecting a clear awareness of current limitations and a desire for improvement. The 13 responses indicating no suggest that some staff members either consider existing initiatives sufficient or remain skeptical about the potential impact of new recommendations.

In private hospitals (CVN and HPK), the need is even more pronounced, with 77% (23 employees) supporting the formulation of recommendations. The Van Norman Clinic stands out with 85% of staff advocating for this, indicating a strong culture of continuous improvement and a focus on quality care. Kamenge Public Hospital, although less affirmative at

60%, still demonstrates a significant interest in development efforts.

Globally, these findings underscore a strong institutional consensus on the importance of recommendations as a means to strengthen the quality and effectiveness of health initiatives. Private hospitals appear more proactive in this regard, while public hospitals also show substantial demand, highlighting the need for a coordinated approach to harmonize efforts and maximize impact across all healthcare settings. Implementing structured feedback and recommendation systems could significantly advance health outcomes in Burundi.

**Table 14: Willingness to Participate in Meetings on Health Initiatives**

Institution Type	Total Employees	Yes	No	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	45	16	61	74% Yes, 26% No
Private Hospitals (CVN + HPK)	30	26	4	30	87% Yes, 13% No

Source : Field Survey

The analysis of employees' willingness to participate in meetings on health initiatives indicates a generally positive trend in both public and private hospitals in Burundi. Overall, 78% of employees (71 out of 91) are willing to engage in such meetings, demonstrating a strong institutional commitment to participation and dialogue.

In public hospitals (CHUK and HPRC), about 74% (45 employees) express readiness to attend meetings, reflecting openness to dialogue and a desire to improve existing initiatives. However, the remaining 26% (16 employees) who are not willing to participate may be influenced by factors such as organizational constraints or lack of motivation.

In private hospitals (CVN and HPK), the willingness is even higher, with 87% (26 employees)

ready to participate. The Van Norman Clinic stands out with an impressive 90% positive response rate, highlighting a collaborative organizational culture focused on continuous improvement. Kamenge Public Hospital also shows a high willingness level at 80%, despite its smaller size.

Globally, these findings suggest a strong institutional culture favoring participation and strategic engagement, with private hospitals leading slightly in proactivity. The positive inclination across both sectors underscores the importance of fostering participatory forums to enhance health initiatives' effectiveness through shared insights and coordinated efforts. Encouraging ongoing dialogue can further strengthen the quality and success of health programs in Burundi.

**Table 15: Potential Impact of Strategic Recommendations**

Institution Type	Total Employees	Very Significantly	Significantly	Little	Not at All	Total Answers	Key Percentages
Public Hospitals (CHUK + HPRC)	61	30	22	7	2	61	49% Very Significant, 36% Significant, 15% Limited/None
Private Hospitals (CVN + HPK)	30	16	9	4	1	30	53% Very Significant, 30% Significant, 17% Limited/None

Source : Field Survey

The analysis of the potential impact of strategic recommendations on health initiatives reveals a generally positive perception among both public and private hospitals in Burundi. Overall, 85% of employees (46 out of 91) believe that strategic recommendations could significantly or very significantly improve health initiatives, indicating strong confidence in the value of targeted improvements.

In public hospitals (CHUK and HPRC), a substantial majority of 85% (52 employees) view the recommendations as having a significant or very significant impact. This reflects a high level of trust in the ability of well-formulated strategies to enhance existing programs. However, 15% (9 employees) remain skeptical, citing possible constraints related to structural or budgetary limitations within the public sector.

In private hospitals (CVN and HPK), perceptions are equally positive, with 83% (25 employees) considering the recommendations as impactful. The Van Norman Clinic stands out, with 60% of staff viewing the impact as very significant, demonstrating a proactive culture oriented toward continuous improvement. Kamenge Public Hospital, though smaller, also shows confidence in the potential benefits of strategic recommendations.

Overall, these findings emphasize that a large majority 85% of hospital staff believe that implementing tailored strategic recommendations can meaningfully enhance health initiatives. This consensus underscores the importance of developing and applying effective recommendations to strengthen institutional performance and improve care quality. While private hospitals tend to perceive a stronger impact, public hospitals also demonstrate a cautious yet genuine optimism, highlighting a shared commitment to advancing health outcomes through strategic planning.

## DISCUSSION

The analysis of the results of health initiatives in public and private hospitals in Burundi, when compared with the works of authors such as Arah *et al.* (2023) and Kelley & Hurst (2022), shows alignment in the importance of integrating innovative practices to improve the performance of the health system. For example, the majority of employees in both sectors perceive a significant improvement thanks to these initiatives, which supports the idea that innovation, even moderate, contributes positively to the quality of care. However, differences in the homogeneity of initiatives—particularly the disparity between Van Norman Clinic (90%) and Kamenge Hospital (50%)—illustrate the need to strengthen strategic management to ensure equitable diffusion of efforts, as emphasized by these authors in their conceptual framework (Arah *et al.*, 2023).

The results regarding the perception of care quality, with a majority of employees rating it as “good” or “very good,” are consistent with the performance indicators highlighted by Kelley & Hurst (2022), who stress the importance of using robust indicators to monitor hospital performance. The stronger perception in the private sector (47% very satisfied) compared to the public sector (25%) can be explained by more flexible management and a modern environment, reminding us that governance and effective management are key levers for improving quality, as also noted by Berg *et al.* (2021). Furthermore, the analysis of waiting times and patient satisfaction shows that private hospitals provide more responsive services, which has a direct impact on satisfaction and perceived quality, in line with the findings of Greenberg *et al.* (2021). These results highlight that reducing waiting times—often used as a performance indicator—is essential to strengthen user trust and improve overall health system performance.

Efficient flow management and organizational flexibility in the private sector illustrate the need to adopt similar strategies in the public sector to optimize these parameters.

Training efforts and managerial support, although more developed in the private sector, remain insufficient in the public sector, an issue also addressed by Casanovas *et al.* (2022), who emphasize the importance of continuous skill development and strong leadership to ensure the sustainability of initiatives. The strong demand for recommendations and participation in meetings, present in both sectors, reflects a culture of continuous improvement, consistent with the proposals for systematic performance evaluation in health care (Ten Asbroek *et al.*, 2021). This shows that staff engagement is crucial but must be supported by strengthened governance to overcome structural challenges. Major constraints, particularly the lack of financial resources and trained personnel in public hospitals, align with the observations of Jakobjevic *et al.* (2023), who point out that insufficient funding limits innovation capacity and care quality. Strategic recommendations and the application of best practices, perceived as having a strong impact by the majority of employees, must therefore be accompanied by structural reform and increased investment, in accordance with the analyses of Veillard (2023).

## CONCLUSION

This comparative study of health initiatives on the performance of public and private hospital institutions in Burundi, in particular the cases of the Van Norman Clinic (CVN), the Kamenge Popular Hospital (HPK), the Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital Center (CHUK), highlights significant differences in the management, practices and results of these institutions.

It appears that private institutions, such as CVN and HPK, benefit from greater flexibility in managing their resources, which allows them to better adapt to the challenges of modernization and patient satisfaction. These initiatives include investments in medical technologies, more efficient management of human resources, as well as more personalized patient monitoring. These elements contribute to a better overall performance of these private institutions.

On the other hand, public institutions such as HPRC and CHUK face greater budgetary and administrative constraints, which limit their ability to innovate and improve their services. However, these hospitals benefit from a wider coverage in terms of services provided, especially to the most vulnerable populations, thanks to their public service mission. Despite this, challenges such as patient overload, lack of material and human resources, as well as often obsolete infrastructure negatively affect their performance.

In conclusion, to improve the performance of public hospital institutions in Burundi, it is essential to implement initiatives that strengthen resource management, promote innovation and ensure equitable distribution of care. Reforms in the management of public institutions, inspired by good practices in private hospitals, could help fill these gaps. It is also crucial to encourage increased collaboration between the public and private sectors to create a more coherent and resilient health system, capable of meeting the needs of the population as a whole.

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## REFERENCES

- Arah, O. A., Klazinga, N. S., Delnoij, D. M. J., ten Asbroek, A. H. A., & Custers, T. (2023). *Conceptual frameworks for health systems performance : A quest for effectiveness, quality, and improvement*. International Journal for Quality in Health Care, 15(5), 377–398.
- Berg, M., Meijerink, Y., Gras, M., Goossensen, A., Schellekens, W., Haeck, J., Kallewaard, M., & Kingma, H. (2021). *Feasibility first: Developing public performance indicators on patient safety and clinical effectiveness for Dutch hospitals*. Health Policy, 75(1), 59–73.
- Bloom, D. E., Canning, D., & Sevilla, J. (2019). *The effect of health on economic growth: A production function approach*. World Development, 32(1), 1–13.
- Boachie, M. K., & Ramu, K. (2023). *Distribution of the benefits from public health expenditures in Ghana*. Quality & Quantity, 52, 415–430.
- Casanovas, G. L., Rivera, B., Castiñeira, B. R., Currais, L., & Nunes, L. C. (Eds.). (2022). *Health and economic growth: Findings and policy implications*. MIT Press.
- Eggoh, J., Sossou, G.-A., & Houeninvo, H. (2020). *Education, health and economic growth in African countries*. Journal of Economic Development, 40(1), 93–111.
- Greenberg, A., Angus, H., Sullivan, T., & Brown, A. D. (2021). *Strategy-based cancer care performance indicators: Ontario's evolving model*. International Journal for Quality in Health Care, 33(1), 1–10.
- Jakovljevic, M. B., Vukovic, M., & Fontanesi, J. (2023). *Life expectancy and health expenditure evolution in Eastern Europe—DiD and DEA analysis*. Expert Review of Pharmacoeconomics & Outcomes Research, 16(5), 537–546.
- Kaur, A. (2020). *Health status, government health expenditure and economic growth nexus in India: A Toda–Yamamoto causality approach*. Arthaniti: Journal of Economic Theory and Practice.
- Kelley, E., & Hurst, J. (2022). *Health Care Quality Indicators: A Conceptual Framework for OECD Countries (OECD Health Working Paper No. 55)*. Organisation for Economic Cooperation and Development.
- Ontario Ministry of Health and Long-Term Care. (2022). *Ontario Local Health System Scorecard Technical Report*. Ontario Health Results Team for Information Management.
- Plochg, T., Delnoij, D. M., Hogervorst, W. V., van Dijk, P., Belleman, S., & Klazinga, N. S. (2023). *Local health systems in the 21st century : Who cares ? An exploratory study on health system governance in Amsterdam*. European Journal of Public Health, 16(6), 559–564.
- Ray, D., & Linden, M. (2020). *Health expenditure, longevity, and child mortality: Dynamic panel data approach with global data*. International Journal of Health Economics and Management, 20(1), 99–119.
- Ten Asbroek, A. H., Arah, O. A., Geelhoed, J., Custers, T., Delnoij, D. M., & Klazinga, N. S. (2021). *Developing a national performance indicator framework for the Dutch health system*. International Journal for Quality in Health Care, 16(1), 65–71.
- Veillard, J. (2023). *Developing Ontario's Health System Performance Measurement Scorecard*. Ontario Ministry of Health and Long-Term Care Health Results Team.
- Westert, G. P., & Verkleij, H. (Eds.). (2020). *Dutch Health Care Performance Report [Updated English translation]*. National Institute of Public Health and the Environment.
- World Health Organization. (2021). *Study on patient preferences in Burundi*.