

Operational and Financial Barriers in KRIS Implementation: A Critical Review of Hospital Readiness and Equity in Indonesia

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Abstract: The implementation of the *Kamar Rawat Inap Standar* (KRIS) policy marks a significant reform in Indonesia's healthcare system, aiming to standardize inpatient services and improve equity. This review explores the operational and financial challenges hospitals face during KRIS implementation, particularly disparities between urban and rural facilities. A descriptive analytical approach was used to examine studies published between 2013 and 2023, focusing on hospital readiness, resource allocation, and financial sustainability. Findings indicate that urban hospitals are generally better equipped to comply with KRIS standards due to stronger infrastructure and more consistent funding. Conversely, rural hospitals face significant obstacles, including outdated facilities, limited financial capacity, and reliance on BPJS Kesehatan reimbursements. These disparities hinder equitable policy implementation. Despite these issues, the review identifies opportunities for improvement, such as targeted government support in the form of infrastructure investment, increased reimbursement rates, and workforce training. The review also considers the potential of digital health technologies—such as electronic medical records and health information systems—to improve hospital efficiency and reduce long-term costs. However, high initial investments remain a barrier, particularly for smaller institutions. This study concludes that while KRIS holds promise for enhancing service quality and equity, its success depends on addressing operational and financial disparities across hospital types and regions. A more context-sensitive and supportive implementation strategy is essential to achieve the policy's intended outcomes.

Keywords: KRIS, hospital asset management, health policy, healthcare equity, health system reform

1. Introduction

The Indonesian healthcare system has undergone significant reforms in recent years, with the goal of improving accessibility, equity, and efficiency in providing healthcare services to the population. One of the major components of these reforms is the introduction

of the *Kamar Rawat Inap Standar* (KRIS), or Standard Inpatient Room, which was designed to enhance the standard of inpatient care and streamline hospital resource management. This initiative is part of the broader efforts under *BPJS Kesehatan*, Indonesia's national health insurance system, which strives to ensure affordable, equitable, and high-quality healthcare for all citizens. The implementation of KRIS has led to substantial changes in how hospitals manage their assets, affecting everything from inpatient beds and medical equipment to facility utilization and hospital operations.

The aim of this review is to critically evaluate the implications of KRIS on hospital asset management, with a specific focus on its effects on hospital resources, such as beds, medical equipment, and space management. One of the main concerns within the healthcare sector is ensuring that the KRIS policy aligns with the financial and operational objectives of hospitals while maintaining or improving the quality of patient care. While KRIS was introduced with the intention of standardizing inpatient care and improving service quality, its implementation has not been without challenges. However, despite growing discourse on the policy's equity goals, limited attention has been given to how KRIS affects operational readiness, infrastructure planning, and sustainable resource allocation—particularly in under-resourced facilities. These operational implications represent a critical gap in current literature, which this study aims to address.

Over the years, numerous studies have explored the impacts of healthcare reforms and hospital asset management practices globally, particularly focusing on how new policies are integrated, their financial implications, and operational difficulties. Fraser and Mathias (2020) highlighted the importance of strategic asset management in healthcare, suggesting that effective management of hospital assets can have a profound impact on the efficiency and quality of services provided. Similarly, Chan et al. (2023) pointed out that optimizing hospital infrastructure and equipment is crucial for maintaining high-quality healthcare services, especially in resource-limited settings. Despite these insights, there remains a significant gap in the literature concerning the specific implications of KRIS for hospital asset management in Indonesia. Most studies have focused on the policy framework and patient care outcomes, with fewer addressing the operational aspects, such as how hospital resources are allocated and utilized under KRIS. This review uniquely contributes by connecting policy implementation with hospital operations and resource planning, offering a critical synthesis rarely addressed in existing studies.

One of the primary concerns about KRIS is its practical implementation. Research by Arisa, et al. (2023) revealed several barriers hospitals face when adopting KRIS, including inadequate infrastructure, insufficient staff training, and resistance to change from hospital staff. Moreover, there is an ongoing debate about whether KRIS can fulfill its intended objectives of improving healthcare equity and service quality, especially given these operational challenges. These varied opinions highlight the need for a comprehensive review that not only examines the theoretical framework of KRIS but also looks at its real-world applications and the gaps in the current research. Therefore, this article presents a novel perspective by analyzing KRIS from the standpoint of hospital asset management, providing insights that bridge the gap between policy intention and operational capacity—particularly for facilities outside urban centers that face disproportionate challenges.

2. Methods

This study uses a descriptive analytical approach to examine the implications of *Kamar Rawat Inap Standar* (KRIS) on hospital asset management in Indonesia. A systematic literature review was conducted on peer-reviewed journal articles, using academic databases such as Google Scholar, PubMed, and Scopus. The search strategy employed Boolean operators with key terms such as “KRIS,” “hospital asset management,” “standard inpatient class,” and “BPJS Kesehatan.” Inclusion criteria consisted of articles that discussed KRIS implementation in hospitals, asset or infrastructure management, or policy impacts on hospital operations in Indonesia. Exclusion criteria involved commentaries, editorials, or studies not directly related to healthcare facilities. The review process followed a simplified PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) model to ensure transparency and replicability in article selection and screening (Page et al., 2021). The main instrument for data extraction was a standardized summary table that captured article metadata, study design, main findings, challenges, and recommendations. Procedural steps included initial screening by title and abstract, followed by full-text reading and cross-comparison to identify overlapping findings and gaps. The analysis focused on synthesizing recurring themes regarding hospital readiness, resource allocation, and financial sustainability under KRIS. This study relies entirely on secondary data from publicly available literature; therefore, no primary data collection or ethical clearance was required. All data used in this review are traceable through the cited databases and references.

3. Results and Discussion

The analysis of the 10 selected studies reveals key outcomes regarding the challenges, opportunities, and operational impacts associated with the implementation of KRIS in hospitals. This review examines:

3.1. Hospital Readiness for KRIS Implementation

A recurring theme in the reviewed literature is the readiness of hospitals to comply with the KRIS policy. Multiple studies highlight significant regional disparities in hospital preparedness. Arisa et al. (2023) and Qurnaini et al. (2023) emphasized that hospitals in urban areas generally have the infrastructure and financial resources required for successful KRIS implementation. In contrast, hospitals in rural areas are often hindered by outdated facilities, insufficient financial support, and limited access to trained healthcare professionals. These disparities have implications for the equitable distribution of healthcare resources across the country, as urban hospitals are better positioned to meet the new standards, while rural hospitals struggle to comply with the KRIS policy.

While these findings align with those of Chan et al. (2023), who highlighted the relationship between institutional capacity and successful policy adoption, this review emphasizes how infrastructure gaps in rural areas challenge the implementation of standardized policies like KRIS. The significance of this finding lies not only in logistical readiness but also in questioning the assumption that policy uniformity translates directly into equity. Hence, while KRIS is designed to be equitable, its effectiveness will depend on the extent to which implementation challenges in under-resourced regions are addressed.

Table 1. Hospital Readiness for KRIS Implementation		
Study	Key Findings	Challenges Identified
Arisa et al. (2023)	Regional disparities in hospital readiness for KRIS	Limited infrastructure, insufficient staff training
Sari et al. (2024)	Better preparedness in urban hospitals	Resistance to change, resource limitations
Fusia Meidiawaty (2024)	Decline in bed availability for BPJS patients	Space limitations, inadequate funding

Table 1 summarizes key findings from three studies regarding hospital readiness for KRIS implementation. Arisa et al. (2023) identified significant regional disparities, particularly in rural areas with limited infrastructure and staff training. Sari et al. (2024) reported that urban hospitals show better preparedness but still face resistance to change and resource constraints. Meanwhile, Fusia Meidiawaty (2024) highlighted a decline in bed availability for BPJS patients, mainly due to space limitations and insufficient funding. These studies collectively underscore the uneven readiness and resource challenges across healthcare facilities in Indonesia.

3.2. Impact on Asset Management and Resource Allocation

The implementation of KRIS has significant implications for hospital asset management, particularly with regard to resource allocation, bed utilization, and space management. Studies such as those by Chan et al. (2023) and Hakiki (2025) have highlighted that larger hospitals with sufficient resources have been able to more efficiently allocate beds and space in accordance with KRIS standards. These hospitals generally experience improved asset utilization as a result of standardizing inpatient rooms, enabling them to better manage patient flow and optimize available resources.

However, for hospitals with limited financial and infrastructural capacity, such as those in rural areas, KRIS implementation has created significant challenges. Smaller hospitals often face difficulties in complying with the space and equipment requirements of the policy. Bhayangkara TK II Medan, for example, struggled with space constraints, which affected the efficient utilization of its inpatient beds (Qurnaini et al., 2023). In these cases, hospitals may need to reallocate resources or prioritize certain services over others, which can impact the overall quality of care provided. Compared to findings by Fraser and Mathias (2020), which emphasize the benefits of voluntary infrastructure optimization, this review indicates that forced compliance under resource strain may, paradoxically, reduce service accessibility for patients.

3.3. Financial Sustainability and Operational Challenges

One of the most pressing concerns identified in the literature is the financial sustainability of hospitals under the KRIS framework. The costs associated with implementing the policy, including infrastructure upgrades, staff training, and medical equipment procurement, place a significant financial burden on hospitals. This is particularly problematic for smaller hospitals, which often struggle to meet KRIS requirements without external financial support.

Hakiki (2025) and Chan et al. (2023) both highlighted that larger hospitals are better positioned to absorb these costs, benefiting from economies of scale. Smaller hospitals, on the

other hand, face the risk of financial instability due to inadequate BPJS Kesehatan reimbursements, which fail to cover the costs of complying with KRIS standards. This issue is further compounded by the need for increased investment in hospital infrastructure and medical equipment, which can overwhelm the budgets of hospitals already operating under financial constraints. Although Awad Abdellatif et al. (2020) and Mutiara et al. (2012) propose the adoption of advanced technologies to improve cost efficiency, such measures remain largely inaccessible to smaller institutions due to high initial investment requirements.

Table 2. Financial Implications of KRIS Implementation

Study	Key Findings	Financial Concerns
Hakiki (2025)	Smaller hospitals face financial strain in upgrading facilities	High upfront costs for infrastructure and equipment
Qurnaini et al. (2023)	Limited financial capacity hinders KRIS compliance	BPJS reimbursement rates insufficient to cover upgrades
Awad Abdellatif et al. (2020)	Technology adoption could reduce long-term costs	High initial investments required for new technologies

Table 2 highlights the financial implications of KRIS implementation across different studies. Hakiki (2025) notes that smaller hospitals experience significant financial strain due to high upfront costs for facility upgrades. Qurnaini et al. (2023) emphasize that limited financial capacity, compounded by inadequate BPJS reimbursement rates, hampers compliance. Awad Abdellatif et al. (2020) suggest that adopting advanced technologies may reduce long-term costs, but the high initial investment remains a major barrier. Collectively, the studies reveal that financial constraints are a key challenge in achieving KRIS standards.

3.4. Policy Implications and Future Directions

The findings from the reviewed studies indicate that while the *Kamar Rawat Inap Standar* (KRIS) policy has the potential to improve healthcare delivery in Indonesia by standardizing inpatient care, its successful implementation faces significant operational and financial challenges. The core objective of KRIS is to ensure uniform standards of care across all hospitals, but the practical challenges of implementing this policy have proven more complex, particularly in rural and underfunded regions. As shown by Wulandari et al. (2022), regional disparities in access to hospital services persist, with urban areas significantly better positioned than rural ones to benefit from health system reforms.

Urban hospitals, which generally have more resources, modern infrastructure, and better financial backing, have been able to adapt to the KRIS requirements more effectively. These hospitals can afford the necessary upgrades to their infrastructure, medical equipment, and staff training to meet the standards set by the policy. As a result, they experience more efficient resource utilization, improved patient care, and better compliance with the KRIS standards. Chan et al. (2023) emphasize that strong asset management strategies are essential for infrastructure optimization in healthcare institutions—an advantage more commonly found in urban centers.

In contrast, hospitals in rural or underfunded areas continue to face difficulties with the policy's implementation. These hospitals encounter significant barriers, including outdated infrastructure, limited financial resources, and insufficient staffing, all of which hinder their ability to comply with KRIS standards. Smaller hospitals, which often rely on BPJS Kesehatan for funding, are particularly vulnerable. The financial constraints of these institutions, combined with the high costs of upgrading infrastructure and acquiring necessary equipment, make it difficult for them to meet the new standards. Hakiki (2025) and Meidiawaty (2024) both highlight these issues, showing that underfunded facilities are often excluded from the full benefits of KRIS due to structural limitations.

To enhance the effectiveness of KRIS and address disparities between hospitals, the government must focus on ensuring equitable implementation. This can be achieved by providing targeted support to hospitals in less developed regions. The government must adopt policies that balance the needs of both urban and rural hospitals, ensuring that all hospitals receive the resources they need to meet KRIS standards. A study by Sari et al. (2024) supports this position, noting that differential resource allocation is critical to achieving policy success in a decentralized health system like Indonesia's.

Financial support and capacity building are critical components for the success of KRIS, especially for smaller hospitals. This could involve increasing BPJS Kesehatan reimbursement rates to cover the additional costs associated with infrastructure upgrades and operational changes. In addition, providing subsidies or low-interest loans could help smaller hospitals secure the funding needed to implement the necessary changes. Additionally, staff training programs should be prioritized to ensure that healthcare providers are adequately equipped to deliver care according to the new standards. Qurnaini et al. (2023) argue that training and financial assistance must go hand in hand to ensure long-term compliance and service quality.

The adoption of digital health technologies presents an opportunity to streamline hospital operations and reduce costs. For instance, the integration of electronic medical records (EMR) systems and other digital tools could help hospitals improve patient management, reduce administrative overhead, and enhance the overall quality of care. However, as Abdellatif et al. (2020) caution, the high initial costs of implementing such technologies remain a barrier for many smaller hospitals. Future research should explore scalable and cost-effective digital solutions that can be realistically adopted by hospitals in low-resource settings to support KRIS implementation.

Conclusions

The implementation of the *Kamar Rawat Inap Standar* (KRIS) policy in Indonesia presents both opportunities and challenges in the management of hospital assets. This review has successfully addressed its primary objective: to critically analyze the operational and financial implications of KRIS implementation, particularly in relation to hospital readiness, resource allocation, and sustainability across diverse healthcare settings. The findings underscore a significant gap between urban and rural hospitals, where disparities in infrastructure, staffing, and funding hinder equitable policy execution.

This study offers a novel contribution by shifting the lens from patient-level outcomes to institutional-level preparedness and capacity. Unlike prior studies that focus mainly on regulatory or equity aspects, this review emphasizes the intersection of policy implementation and hospital asset management – an area often underrepresented in the literature. Practically,

the study highlights the urgent need for targeted government interventions, increased BPJS reimbursement rates, and tailored capacity-building strategies to support under-resourced hospitals.

In conclusion, while KRIS holds strong potential to standardize and improve healthcare delivery in Indonesia, its long-term success depends on overcoming structural and regional disparities. Addressing these barriers with equity-focused policies and scalable digital innovations will be critical in ensuring that the goals of KRIS are not only implemented in form but achieved in impact. This study provides a foundation for future research and policy refinement aimed at closing the gap between health policy design and practical execution.

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Conflicts of Interest

The author declares that there are no conflicts of interest related to the completion of this research. All data and findings presented in this review are based on unbiased analysis and evaluation of the available literature.

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