ANALYSIS OF IMPLEMENTATION READINESS FOR STANDARDIZED INPATIENT CLASS (KRIS) USING A MIXED METHODS APPROACH AT A PRIVATE HOSPITAL IN YOGYAKARTA, INDONESIA

*NAUFAL ARDI RACHMANDA[1], KUSBARYANTO[2]

[1]MAGISTER PROGRAM IN HOSPITAL ADMINISTRATION, POSTGRADUATE PROGRAM, UNIVERSITAS MUHAMMADIYAH YOGYAKARTA, YOGYAKARTA, INDONESIA.
[2]DEPARTMENT OF PUBLIC HEALTH, FACULTY OF MEDICINE AND HEALTH SCIENCES, UNIVERSITAS MUHAMMADIYAH YOGYAKARTA, YOGYAKARTA, INDONESIA.
EMAIL: *[1]naufalardi2015@gmail.com [2]koesbary@yahoo.co.id

Abstract

Background: Indonesia's National Health Insurance (JKN) mandates the implementation of Standardized Inpatient Classes (KRIS) by 2025 to ensure equitable and quality healthcare. This study assesses the implementation readiness for KRIS in a private hospital setting, identifying challenges and facilitating factors.

Objective: To analyze the KRIS implementation readiness level at RSU Rachma Husada Bantul, a Type C private hospital in Yogyakarta, based on 12 standard criteria, and to explore influencing factors using the Van Meter and Van Horn policy implementation framework.

Methods: An explanatory sequential mixed-methods design was employed. Quantitative data were collected via observation and checklist assessment of 10 designated KRIS inpatient rooms against the 12 criteria. Qualitative data were gathered through in-depth interviews with 11 key informants (foundation, management, staff) and analyzed thematically based on the Van Meter and Van Horn framework.

Results: The overall readiness level was 78.3%, indicating partial preparedness. High compliance (≥80%) was observed for criteria related to building components, bedside tables, patient segregation, ventilation, lighting, room density, and privacy partitions. Significant gaps remained in bathroom accessibility (50%), in-room bathroom availability (60%), oxygen outlets (60%), temperature/humidity control (60%), and bed completeness (electrical/nurse call) (70%). Qualitative findings highlighted financial constraints for infrastructure upgrades as the primary barrier, compounded by regulatory and JKN tariff uncertainties. Strong internal commitment was a key facilitator.

Conclusion: While demonstrating good initial commitment, the hospital faces significant hurdles, primarily financial, in achieving full KRIS compliance. Successful implementation requires targeted strategies, including innovative financing, enhanced human resource capacity, and clear, supportive external policies from regulators.

Keywords: Standardized Inpatient Class, KRIS, National Health Insurance, JKN, Hospital Readiness, Mixed Methods, Policy Implementation, Private Hospital, Indonesia

1. INTRODUCTION

Indonesia's pursuit of Universal Health Coverage (UHC) through its National Health Insurance (JKN) program, managed by the Social Security Administering Body for Health (BPJS Kesehatan), aims to provide equitable and comprehensive healthcare access for all citizens [1, 2]. A key component of this initiative is the mandated implementation of Standardized Inpatient Classes (Kelas Rawat Inap Standar - KRIS), replacing the previous multi-tiered class system. Governed by Government Regulation No. 47 of 2021 concerning Hospital Affairs, KRIS seeks to eliminate disparities in inpatient care based on contribution levels, ensuring all JKN participants receive services based on medical need in facilities meeting defined quality standards [3, 4]. The policy mandates compliance with 12 specific criteria related to infrastructure, facilities, and patient comfort by January 1, 2025 [5].

While the principle of KRIS aligns with global trends towards standardized healthcare quality seen in countries like the UK and Japan [6, 7], its implementation in Indonesia presents unique challenges. Previous studies have highlighted significant hurdles, including infrastructure deficiencies, financial constraints, human resource capacity gaps, and policy ambiguities [8, 9, 10]. These challenges are particularly acute for private hospitals, which often operate with different resource structures and funding mechanisms compared to public facilities [11]. Assessing the readiness of

diverse hospital types is crucial for anticipating implementation bottlenecks and informing targeted support strategies. RSU Rachma Husada Bantul, a Type C private hospital in Yogyakarta, serves a substantial JKN patient population and plays a vital role in the regional healthcare system. As the 2025 deadline approaches, understanding its preparedness level for KRIS implementation is essential. This study aimed to comprehensively analyze the KRIS implementation readiness at RSU Rachma Husada based on the 12 standard criteria. Furthermore, it sought to identify the specific barriers, challenges, and facilitating factors influencing this readiness, utilizing the established Van Meter and Van Horn policy implementation framework [12] to provide a structured analysis of the implementation dynamics.

2. METHODS

2.1. Study Design
This study employed an explanatory sequential mixed-methods design [13]. The initial quantitative phase assessed the physical readiness level based on the 12 KRIS criteria, followed by a qualitative phase to explore the contextual factors, challenges, and strategies related to implementation.

2.2. Setting and Participants
The study was conducted at RSU Rachma Husada Bantul, Yogyakarta, Indonesia – a 102-bed, Paripurna-accredited, Type C private hospital. The quantitative assessment focused on 10 inpatient rooms within the Arofah Ward, which had been designated and prepared by the hospital for KRIS implementation. For the qualitative phase, 11 key informants were selected using purposive sampling based on their strategic roles in KRIS implementation. Informants included representatives from the hospital's foundation board, senior management (directors, heads of installations), and heads of relevant operational departments (nursing, facilities management).

2.3. Data Collection
Quantitative Phase: Data were collected between April and May 2025. A standardized checklist, derived from the 12 KRIS criteria outlined in Ministry of Health technical guidelines
[5] and PP No. 47/2021 [4], was used. Direct observation and physical measurements were conducted in the 10 selected rooms. Measurements included room dimensions and distances (tape measure, laser distance meter), lighting levels (luxmeter), air exchange rates (anemometer, velocitymeter), and temperature/humidity (thermometer, hygrometer). Compliance with each of the 12 criteria was recorded for each room.

Qualitative Phase: Following the quantitative assessment, in-depth interviews were conducted with the 11 key informants. A semi-structured interview guide was developed based on the six core components of the Van Meter and Van Horn policy implementation framework [12]: (1) policy standards and objectives, (2) resources (financial, human, material), (3) interorganizational communication and enforcement activities, (4) characteristics of the implementing agency, (5) disposition or attitude of the implementers, and (6) the broader economic, social, and political environment. Interviews were conducted in Indonesian, audio-recorded with consent, and transcribed verbatim.

2.4. Data Analysis
Quantitative Analysis: Data from the checklists were analyzed using descriptive statistics. The number and percentage of the 10 assessed rooms meeting each of the 12 KRIS criteria were calculated. An overall readiness score was computed as the average percentage of compliance across all 12 criteria.

Qualitative Analysis: Transcripts were analyzed using thematic analysis [14], guided by the Van Meter and Van Horn framework. Initial codes were generated, then grouped into categories and refined into key themes corresponding to the framework's components, identifying specific barriers and facilitators within each component.

Integration: Findings from the qualitative analysis were used to explain and provide context to the quantitative compliance rates, particularly for criteria with lower scores. This integration followed the explanatory sequential design, where qualitative data helps interpret quantitative results [13].

2.5. Ethical Considerations
Ethical approval was obtained prior to data collection (details to be added). Informed consent was secured from all interview participants. Anonymity and confidentiality were maintained throughout the study.

3. RESULTS

3.1. Quantitative Readiness Assessment
The overall readiness level of RSU Rachma Husada, based on the assessment of 10 designated KRIS rooms against the 12 criteria, was calculated at **78.3%**. This indicates a state of partial preparedness.
Compliance varied significantly across criteria (summarized from Table 4.1 in the thesis): * **100% Compliance:** Achieved for three criteria: Building components having low porosity, availability of one bedside table (nakas) per

bed, and appropriate segregation of rooms based on gender, age, and disease type. * **High Compliance (80-90%):** Observed for four criteria: Ventilation (minimum 6 air changes per hour; 80%), room lighting (standard lux levels; 90%), room density (max 4 beds/room, min 1.5m spacing) and bed quality (80%), and availability and standards of curtains/partitions for privacy (90%). * **Moderate Compliance (60-70%):** Found for four criteria: Completeness of bed facilities (min. 2 electrical outlets, functional nurse call; 70%), stable room temperature (20-26°C) and humidity (<60%) (60%), availability of an en-suite bathroom within the inpatient room (60%), and availability of a functional oxygen outlet per bed (60%). * **Low Compliance (50%):** The lowest compliance was recorded for the criterion requiring bathrooms to meet accessibility standards (e.g., disability signage, grab bars, non-slip floors, sufficient space, emergency call bell; 50%).

Figure 4.17 from the thesis visually represents the compliance levels for each criterion, highlighting the specific areas requiring the most significant improvement.

3.2. Qualitative Findings: Barriers and Facilitators

Thematic analysis of the in-depth interviews, structured around the Van Meter and Van Horn framework, revealed key factors influencing KRIS implementation readiness:

Policy Standards and Objectives: Informants generally understood the goals of KRIS (equity, quality improvement). However, concerns were raised regarding the lack of finalized technical details for some criteria and the anticipated impact of a single JKN tariff on hospital revenue, creating uncertainty.

Resources: This emerged as the most critical factor. **Financial constraints** were consistently cited as the primary barrier to achieving full compliance, particularly for infrastructure-heavy criteria like bathroom renovations, oxygen system upgrades, and HVAC improvements. As a private hospital, RSU Rachma Husada lacks direct government capital investment subsidies available to public hospitals. **Human resource** readiness was considered adequate in terms of general skills, but specific training on new standards and potential changes in workflow associated with KRIS was identified as a need.

Interorganizational Communication and Enforcement: Internal communication regarding KRIS preparation was reported as effective. However, communication with external agencies (Ministry of Health, BPJS Kesehatan, District Health Office) was perceived as needing improvement, particularly regarding definitive technical guidelines, tariff finalization, and potential support mechanisms. The enforcement aspect (meeting the 2025 deadline) was a source of pressure.

Characteristics of Implementing Agency: RSU Rachma Husada's status as a Type C private hospital provides operational autonomy but also limits access to public funding streams. Its existing organizational structure and accreditation status (Paripurna) were seen as strengths, facilitating organized preparation efforts.

Disposition of Implementers: A strong positive attitude and high commitment towards implementing KRIS were evident among management and staff. They recognized the policy's importance for quality improvement and equity. However, informants stressed that this positive disposition needs to be sustained through tangible resource support and clear communication to avoid burnout or frustration.

Economic, Social, and Political Environment: The broader JKN policy environment, including tariff negotiations between BPJS Kesehatan and hospitals, significantly impacts the financial viability of KRIS implementation. Regulatory stability and clear long-term government commitment to the policy were seen as crucial for successful adoption.

3.3. Integration of Findings

The qualitative data strongly corroborated the quantitative results. The criteria with the lowest compliance scores (bathroom accessibility, in-room bathrooms, oxygen outlets, temperature control) directly corresponded to areas identified in interviews as requiring significant capital investment, which was constrained by limited financial resources. The high compliance in areas like building materials and patient segregation reflected existing hospital standards or less resource-intensive adjustments. The overall 78.3% score reflects a hospital actively preparing but facing substantial resource-dependent barriers to full compliance.

4. DISCUSSION

This study provides a mixed-methods assessment of KRIS implementation readiness in a Type C private hospital in Indonesia. The overall readiness level of 78.3% suggests that RSU Rachma Husada has made considerable progress but faces significant challenges in achieving full compliance with the 12 mandated criteria by the 2025 deadline. This finding of partial readiness aligns with broader national observations and previous studies indicating widespread challenges across various hospital types in Indonesia [8, 9, 10, 11], although the specific compliance level here appears somewhat higher than earlier reports from different regions [8], potentially reflecting ongoing preparation efforts.

The primary bottleneck identified, consistent across both quantitative and qualitative data, is the financial burden

associated with infrastructure upgrades required to meet specific KRIS criteria, particularly those related to bathroom standards, oxygen outlets, and environmental controls (temperature/humidity). This highlights a critical vulnerability for private hospitals, especially smaller Type C facilities, which may lack the capital reserves or access to public funding enjoyed by government hospitals. The uncertainty surrounding the post-KRIS JKN tariff structure further exacerbates financial planning difficulties, a concern echoed in other stakeholder perception studies [10].

Applying the Van Meter and Van Horn framework [12] proved valuable in dissecting the implementation dynamics. It revealed that while internal factors such as clear understanding of policy goals (albeit with some technical ambiguities) and positive implementer disposition are present and act as facilitators, they are insufficient to overcome major external constraints, primarily inadequate resources and lack of clear supporting mechanisms (financial or otherwise) from policymakers and the JKN agency. Effective interorganizational communication, particularly regarding finalized standards and financial implications, is crucial but currently perceived as lacking.

The findings underscore the complex interplay between policy design, implementing agency characteristics, resource availability, and the external environment in shaping implementation outcomes. For KRIS to succeed nationally, particularly in ensuring equitable participation from private providers like RSU Rachma Husada, policy adjustments may be necessary. These could include phased implementation timelines, targeted financial assistance or incentives for infrastructure upgrades, and clarification of the JKN tariff mechanism to ensure financial sustainability for hospitals post-KRIS implementation.

This study contributes to the limited body of evidence on KRIS readiness specifically within the private hospital sector in Indonesia. It provides actionable insights for hospital management regarding priority areas for improvement (e.g., bathroom accessibility, oxygen systems) and highlights the need for strategic financial planning and advocacy. For policymakers, it emphasizes the necessity of addressing the resource constraints faced by private hospitals to ensure the equitable and successful nationwide rollout of the KRIS policy.

Limitations of this study include its focus on a single hospital, limiting the generalizability of findings. The quantitative assessment relied on a checklist and descriptive analysis; further studies could incorporate more rigorous statistical methods. Additionally, the perspectives of patients regarding the KRIS standards were not directly assessed in this study.

5. CONCLUSION

RSU Rachma Husada Bantul demonstrates partial readiness (78.3%) for implementing the Standardized Inpatient Class (KRIS) policy. While showing strong internal commitment and compliance in several areas, significant gaps remain, primarily related to infrastructure standards requiring substantial financial investment (bathroom accessibility, in-room facilities, oxygen outlets, environmental controls). Financial constraints, coupled with uncertainties in external policy support and JKN tariff adjustments, pose the most significant barriers to achieving full compliance by the 2025 deadline.

Successful KRIS implementation at this facility, and likely other similar private hospitals, necessitates a multi-pronged approach. Internally, the hospital requires a prioritized, phased infrastructure upgrade plan and exploration of innovative financing strategies. Externally, clear and finalized technical guidelines, a sustainable JKN tariff model, and potentially targeted support mechanisms from policymakers are crucial. Continued monitoring, evaluation, and research, including cost-benefit analyses and patient perspectives, are recommended to guide the ongoing implementation of this major national health policy reform.

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