

Analysis of Hospital Disaster Plan Management Implementation Using the Hospital Safety Index

Vinna Puspitawaty*, Muhardi, Tasya Aspiranti, Rabiatal Adwiyah, Sri Suwarsi, Pupung Purnamasari

Universitas Islam Bandung

Correspondence Email: vpuspitawaty85@gmail.com*

Abstract

Disasters pose serious threats to communities. Hospital preparedness is therefore essential to ensure effective emergency and disaster response services. This study assesses hospital preparedness using the Hospital Safety Index (HSI), focusing on structural, non-structural, and functional dimensions, and examines disaster management policies at SMC Regional General Hospital (RSUD SMC), Tasikmalaya Regency. A quantitative approach was applied by calculating HSI scores based on standardized indicators from Hospital Disaster Plan Management, covering seven management dimensions and three preparedness standards. The results show that RSUD SMC achieved an overall HSI score of 0.648, placing the hospital in Category A, indicating it is likely to remain operational during emergencies and disasters. Structural preparedness scored 0.822, non-structural preparedness 0.780, and functional preparedness 0.580. Although disaster management has been implemented, it has not been fully optimized, indicating the need for policy revisions and continuous capacity-building to strengthen hospital safety and disaster resilience.

Keywords: disaster, hospital, preparedness, hospital disaster plan management, hospital safety index.

INTRODUCTION

Disaster refers to an event or a series of events that pose a threat to, and disrupt, the lives and livelihoods of communities. Such occurrences may stem from natural, non-natural, or human-induced factors, often resulting in loss of life, environmental degradation, property damage, and psychological distress. Consequently, Law No. 24 of 2007 delineates three principal categories of disasters: natural, non-natural, and social disasters. A natural disaster is defined as a calamity arising from natural phenomena or a sequence of natural events, including but not limited to earthquakes, tsunamis, volcanic eruptions, floods, droughts, typhoons, and landslides (Unmehopa, 2020).

A non-natural disaster, on the other hand, results from non-natural causes or processes such as technological failures, modernization failures, epidemics, and disease outbreaks. Meanwhile, a social disaster is triggered by human activities or interactions, encompassing social conflicts between groups or within communities (Unmehopa, 2020). Geographically, Indonesia is situated at the convergence zone of several major global tectonic plates – namely, the Eurasian Plate, the Indo-Australian Plate, the Pacific Plate, and the Philippine Sea Plate.

This geotectonic position renders the Indonesian archipelago highly dynamic, characterized by numerous active fault lines that frequently generate earthquakes.

Tectonic activity has also given rise to a vast chain of volcanoes stretching across the islands of Sumatra, Java, Bali, and Nusa Tenggara, as well as the northern regions of Sulawesi, Maluku, and extending to Papua. This volcanic belt constitutes a segment of the larger Asia-Pacific volcanic arc, commonly referred to as the Pacific Ring of Fire or the Circum-Pacific Belt. Consequently, Indonesia is inherently prone to a wide range of natural hazards, including earthquakes, tsunamis, volcanic eruptions, and landslides (Herdaru P., 2020).

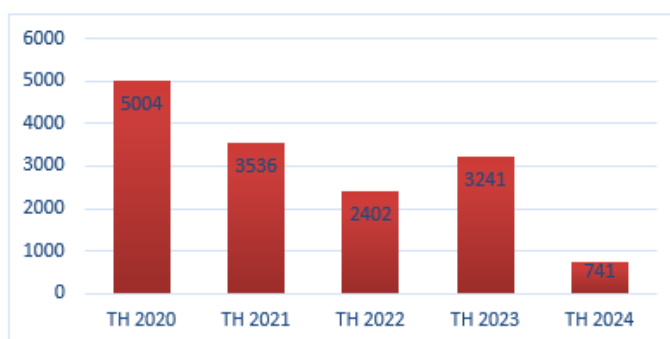


Figure 1. Statistical Overview of Disaster Events in Indonesia (2020–2024)

Source: National Disaster Management Agency of Indonesia (BNPB), 2024

Over the past five years, the National Disaster Management Agency (BNPB) has recorded a total of 14,930 disaster events across Indonesia, affecting approximately 12,988,781 people, of whom 1,273 lost their lives. As of June 2024, a total of 741 disasters had occurred. Landslides accounted for the highest number of incidents (249 cases), while volcanic eruptions represented the lowest (only one case). March was recorded as the month with the greatest number of disasters (187 events), whereas June experienced the fewest (38 events). The Government of Indonesia has implemented various disaster management measures through the establishment of a comprehensive national system. These efforts include the enactment of Law No. 24 of 2007 on Disaster Management, the formation of the National Disaster Management Agency (BNPB), and the allocation of dedicated disaster management budgets. Furthermore, Presidential Regulation No. 87 of 2020 established the National Disaster Management Master Plan (RIPB) 2020–2024, which aligns with the National Long-Term Development Plan (RPJPN), the first period ending in 2025 and the second spanning 2025–2045.

Hospital preparedness is crucial across all regions to ensure the continuity and quality of healthcare services during emergencies. Preparedness reflects the hospital management's commitment and resilience in maintaining primary health services before, during, and after disasters. This involves internal and external policy support, adequate resource and infrastructure allocation, budget readiness, establishment of an emergency response management team, and regular monitoring and evaluation. Theoretically, this study contributes by integrating the Hospital Disaster Plan Management and Hospital Safety Index frameworks to strengthen the assessment of hospital preparedness across structural, non-structural, and functional dimensions. This approach enhances the understanding of hospital resilience in disaster-prone settings. Practically, the findings provide evidence-based guidance for hospital managers and policymakers to identify preparedness gaps, improve disaster management policies, and strengthen hospital resilience to ensure service continuity during emergencies.

In disaster management, hospitals must define the actions to be taken during pre-incident, incident, and post-incident periods. These include the recognition phase, warning phase, and response phase, all of which must be planned according to the potential severity of risk and damage. The post-incident management phase can extend for several weeks and focuses primarily on service recovery. Unfortunately, in many hospitals, disaster plans are limited to basic alarm systems, creating a false sense of preparedness (Hendrik, 2016).

The RIPB 2020–2044 also refers to several international frameworks, including the Paris Agreement (ratified through Law No. 16 of 2016), the Sustainable Development Goals (SDGs) 2015–2030, and the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015–2030.

Yenni et al. (2021) reported that the structural preparedness of RSUP Dr. Mohammad Hoesin, as measured by the Hospital Safety Index (HSI), achieved a score of 0.75, indicating a good level of structural disaster readiness. Triangulation informants from the Occupational Safety and Health Committee, supported by in-depth interviews, revealed that despite this relatively adequate level of preparedness, several constraints remain. Limited budget allocation and the hospital's strategic focus on improving healthcare service delivery were identified as the main barriers to further enhancing structural preparedness for disaster situations.

Choirrini and Lestari (2019) analyzed hospital disaster management preparedness in Cilegon City using a descriptive observational design with a semi-quantitative approach. Primary data were collected through in-depth interviews with hospital expert staff, guided by a modified Safe Hospital Checklist. The results showed that both public hospitals included in the study were classified under Category A, indicating a high level of disaster preparedness. Hospital Z achieved an average preparedness score of 0.67, while Hospital X scored 0.85. Despite these favorable results, the study emphasized that long-term preventive efforts are still necessary to further enhance hospital disaster preparedness and ensure sustained resilience in facing future disasters.

METHOD

The research method employed in this study involved calculating the Hospital Safety Index (HSI) using the HSI calculator and collecting data through questionnaires distributed via Google Forms. The variables examined were identified from the seven dimensions of Hospital Disaster Plan Management, assessed according to the three standards of the Hospital Safety Index: structural, non-structural, and functional (Emergency and Disaster Management). The study population and sample consisted of 60 respondents. The findings revealed that the Hospital Safety Index score at SMC Regional General Hospital regarding hazards affecting hospital safety and its role in disaster and emergency management was 0.648. The structural preparedness score was 0.822, non-structural preparedness was 0.780, and functional preparedness (Emergency and Disaster Management) was 0.580. With an overall HSI classification of "A," this indicates that the hospital is likely to remain operational during emergencies and disasters. Although the implementation of Hospital Disaster Plan Management has been carried out, it has not yet reached an optimal level in meeting structural, non-structural, and functional preparedness based on the Hospital Safety Index. Therefore, policy improvements are required, particularly in updating disaster management strategies by revising the existing Hospital Disaster Plan Management document in line with hospital developments. In addition, continuous efforts should be made to strengthen emergency and disaster response capacities, along with medium- and long-term initiatives to enhance hospital safety during emergencies and disasters.

Data Collection Technique

1. Calculation of the Hospital Safety Index (HSI)

The first step in calculating the Hospital Safety Index is conducting an evaluation by an appointed assessment team and completing the checklist process covering all four modules. The hazard level associated with the hospital's location, including risks related to soil characteristics is not included in the calculation of the Hospital Safety Index.

2. Data Collection from Questionnaire Results

Data collection is a crucial stage in research, as it determines the accuracy and reliability of the overall findings. Therefore, the selection of appropriate data collection techniques must begin with the identification of the main data sources to be utilized in the study. According to Sugiyono (2017), data sources are generally classified into two types: primary data sources and secondary data sources.

This study employs both types of data for different purposes. Primary data serve as the main source, gathered directly from respondents through questionnaires to obtain information that will later be processed and analyzed. In contrast, secondary data function as a complementary source, providing the theoretical foundation for the variables and concepts applied in this research. These secondary data are collected from various scholarly sources, including previous studies, books, academic journals, conference proceedings, and other scientific reports.

Method of Calculating the Hospital Safety Index

The calculation of the Hospital Safety Index (HSI) is based on a weighting system. There are two recommended models for determining the HSI score:

Model 1: Applied in regions with a higher risk of structural and non-structural failure, such as areas prone to earthquakes or strong winds.

- a. The structural component accounts for 50% of the total index value.
- b. The non-structural component represents 30%.
- c. The functional capacity component represents 20%.

Model 2: Applied in regions where earthquakes or strong winds are not considered major hazards. In this model, all three components are equally weighted, each contributing 33.3% of the total index value.

- a. The structural component represents 33.3% of the total index.
- b. The non-structural component represents 33.3%.
- c. The functional capacity component represents 33.3%.

Data Analysis Design

1. Determine the level of coordination in emergency and disaster management activities.
2. Assess the hospital disaster management planning.
3. Evaluate the information and communication management systems.
4. Assess the availability and adequacy of human resources.
5. Evaluate the logistics and financial management.
6. Assess the patient care services and supporting services.
7. Evaluate the evacuation, decontamination, and security systems.

RESULT AND DISCUSSION

The findings of this study were derived from a comprehensive evaluation of 60 respondents comprising directors and members of the Emergency and Disaster Management Team (P3B) of RSUD SMC Kabupaten Tasikmalaya. The Hospital Safety Index (HSI) was assessed across four main modules covering structural, non-structural, and functional dimensions of hospital preparedness. The data were collected through a structured questionnaire and analyzed using SPSS version 23, with all 60 items validated (R-values > 0.496) and a Cronbach's Alpha coefficient of 0.988, indicating excellent reliability and consistency of the instrument.

In contrast, the study conducted by Lamine, Chebili, and Zedini (2022) revealed that 7 out of 9 University Hospitals were classified under safety category "B," with overall HSI scores ranging from 0.37 to 0.62. Moreover, 4 of the 9 hospitals recorded very low safety scores (below 0.20) in the emergency and disaster management component, indicating substantial weaknesses in functional preparedness. Compared to these findings, RSUD SMC exhibits relatively better performance, particularly in maintaining functional and managerial readiness for emergency and disaster response.

This comparison highlights that while hospital safety levels vary across institutional and geographical contexts, functional preparedness remains a common challenge. The relatively higher preparedness level observed at RSUD SMC suggests that more consistent implementation of disaster management policies and stronger institutional commitment may contribute to improved hospital resilience.

Hospital Safety Index Assessment Results

The overall HSI score for RSUD SMC Tasikmalaya was 0.583, which, according to WHO's classification, falls within the category requiring short-term intervention. This indicates that although the hospital has established several preparedness measures, the overall level of safety remains moderate and needs systematic improvement. The finding suggests that patient and staff safety, as well as the hospital's operational capacity during and after a disaster, remain potentially vulnerable. This outcome implies that the hospital's capacity to maintain essential functions during emergencies is insufficiently optimized, particularly in terms of resource allocation, coordination, and communication. The result also aligns with the WHO's framework for Safe Hospitals, which emphasizes the integration of structural resilience, non-structural stability, and functional readiness as three interdependent pillars of safety.

Structural Preparedness Analysis

The structural component of the HSI assessment revealed that RSUD SMC's physical infrastructure meets basic safety standards but exhibits several vulnerabilities. There are visible cracks and corrosion on some building structures, particularly on walls and joints, which may compromise resilience during seismic or high-wind events. Additionally, uneven floor elevations pose slip and fall risks, suggesting the need for anti-slip surface installations.

The hospital's buildings were designed before the full implementation of the Hospital Disaster Plan (HDP) in 2022, meaning that retrofitting efforts have not yet been systematically integrated into disaster mitigation strategies. These conditions highlight the importance of continuous infrastructure maintenance and the integration of risk-based building inspections as part of the hospital's disaster preparedness policy.

Non-Structural Preparedness Analysis

From the non-structural standpoint, the hospital demonstrated partial compliance with safety standards. Key issues include limited functional fire protection systems and insufficient periodic maintenance of essential utilities such as water, oxygen, and power backup systems. Some emergency exits were identified as poorly marked or obstructed, and fire extinguishing systems were not fully operational. The hospital management has made progress in establishing an emergency coordination structure; however, there is a lack of formalized Standard Operating Procedures (SOPs) to guide staff during disaster situations. This finding underscores the importance of regular system testing, functional audits, and the development of an integrated safety manual that aligns with the WHO HSI Module II guidelines.

Functional Preparedness and Management

In the functional capacity domain, RSUD SMC exhibited moderate levels of preparedness. While staff have undergone basic emergency response training, there is a recognized need for periodic simulation drills to strengthen team coordination. The study found that inter-team communication during emergencies remains suboptimal, with limited interoperability between medical, logistical, and administrative units.

The hospital's Hospital Disaster Plan document, prepared in 2022, was not updated at the time of this study, resulting in disorganized coordination during simulated emergency events. This gap underscores the necessity for policy revision and continuous capacity-building, ensuring that the hospital disaster management team operates effectively under both routine and crisis conditions. Furthermore, although functional networks with neighboring hospitals and emergency services exist, data-sharing and communication systems remain largely manual, hindering rapid response. This limitation mirrors findings in similar studies in Iran and Indonesia, which report that most functional inefficiencies stem from insufficient financial resources and inadequate managerial planning.

Management Policy and Organizational Readiness

The management of RSUD SMC has implemented basic disaster readiness policies, yet these remain fragmented and reactive rather than preventive. The study found that policy documents related to disaster risk reduction are not fully institutionalized across hospital departments.

To enhance disaster resilience, RSUD SMC should:

1. Revise and update its Hospital Disaster Plan Management document to align with the hospital's current structural conditions and operational scale.
2. Establish a dedicated budget allocation for emergency preparedness and infrastructure reinforcement.
3. Regularly conduct simulation exercises and integrate lessons learned into updated SOPs.
4. Foster cross-sector collaboration with local governments and BPBD to strengthen regional emergency response networks.

According to respondents, these interventions will significantly improve coordination, communication, and staff readiness, thereby elevating the hospital's HSI classification from "Moderate" to "Safe."

Discussion and Interpretation

The findings of this research reaffirm that hospital safety is a multidimensional construct that depends not only on physical infrastructure but also on effective management systems and human resource readiness. The moderate HSI score of 0.583 indicates that RSUD SMC

Tasikmalaya is partially resilient, but still vulnerable to structural and managerial disruptions during large-scale disasters. This result resonates with previous research by Yenni, Novrikasari, and Windusari (2021), which highlighted the utility of combining HSI and Hazard Vulnerability Analysis (HVA) tools to provide a holistic overview of hospital resilience. The current study contributes to this discourse by emphasizing the crucial role of continuous policy updating, multi-level coordination, and practical drills in sustaining hospital functionality during emergencies. The study also underscores the relevance of Indonesia's disaster management framework, including Law No. 24/2007 and Presidential Regulation No. 87/2020, as foundational instruments for local-level implementation. However, effective execution still depends on hospital-level governance, leadership commitment, and inter-agency collaboration. The Hospital Safety Index (HSI) score of 0.583 for RSUD SMC Tasikmalaya signifies a moderate level of hospital safety, corresponding to the category that requires short-term corrective interventions as defined by the World Health Organization (WHO). This classification implies that the hospital has achieved a baseline level of preparedness but remains vulnerable to operational disruptions should a major disaster occur. In essence, the hospital's capacity to maintain essential functions such as emergency medical services, power supply, and communication systems during and after a disaster is partially reliable but not yet resilient.

CONCLUSION

In conclusion, this research underscores that hospital safety extends far beyond physical infrastructure; it represents a multidimensional institutional commitment that integrates structural resilience, managerial competence, organizational culture, and human resource readiness. True disaster preparedness is not achieved solely through building strength or compliance with safety codes, but through the establishment of a comprehensive and adaptive management system that ensures every component of the hospital—people, processes, and physical assets functions cohesively during crises.

The successful implementation of a robust Hospital Disaster Plan Management system requires a synergistic approach supported by adequate budgeting, continuous staff training, policy enforcement, and inter-agency collaboration. Budgetary commitments are essential to sustain preventive maintenance, procure safety equipment, and finance regular simulation exercises. Likewise, capacity-building initiatives including structured emergency response drills and refresher courses are indispensable to cultivate a workforce that can respond efficiently and confidently to any emergency situation.

Furthermore, policy integration plays a pivotal role in institutionalizing preparedness as a permanent component of hospital governance rather than an ad hoc response to disasters. This integration ensures that risk assessment, safety monitoring, and emergency management are embedded within the hospital's standard operating procedures and annual strategic plans. In addition, collaboration with local government agencies, disaster management authorities (BNPB/BPBD), and nearby healthcare facilities enhances coordination and resource mobilization during large-scale emergencies.

By strengthening these interrelated aspects, RSUD SMC Tasikmalaya will not only comply with the national disaster management framework but also align with international benchmarks such as the Sendai Framework for Disaster Risk Reduction (2015–2030). Ultimately, these efforts will transform the hospital into a safe, resilient, and sustainable healthcare institution capable of protecting both patients and healthcare personnel, maintaining service continuity, and contributing to regional disaster risk reduction initiatives.

REFERENCES

- Al Jazairi, A. F. (2017). Disasters and disaster medicine. <https://doi.org/10.5772/intechopen.72947>
- Almuida, A., Tosepu, R., & Saptaputra, S. K. (2023). Analysis of Structural Preparedness in Facing Disasters at Kendari City General Hospital 2022. *Journal of Occupational Health and Safety of Halu Oleo University*, 4(1), 36–44. <https://doi.org/10.37887/jk3-uho.v4i1.36102>
- Arab, M. A., et al. (2019). Developing a hospital disaster risk management evaluation model. *Risk Management and Healthcare Policy*, 12, 287–296. <https://doi.org/10.2147/RMHP.S215444>
- Ariani, D. (2017). *Operations and Human Resource Management* (3rd ed.). Banten: Open University.
- BNPB. (2022). Potential Disaster Threats. <https://bnpb.go.id/potensi-ancaman-bencana>
- Boon, Q. W., et al. (2021). A review of the management theory for special education task load perspective. *Turkish Journal of Computer and Mathematics Education*, 12(11), 5234–5238.
- BPBD Bogor Regency. (2019). Disasters and Disaster Management. <https://bpbd.bogorkab.go.id/bencana-dan-manajemen-bencana/>
- Choirrini, S., & Lestari, F. (2019). Analysis of hospital disaster management preparedness in Cilegon City in 2018. *Disaster Management Dialogue Journal*, 10(2).
- Choirrini, S., & Lestari, F. (2019). Analysis of hospital disaster management preparedness in Cilegon City. *Jurnal Dialog Penanggulangan Bencana*.
- Cilacap General Hospital. (2022). Hospital Disaster Management Guide 2022, 1–134.
- Government Regulation No. 47 of 2021 on the Implementation of the Hospital Sector. (2021).
- Hanafi, M. (2019). Basic concepts and development of management theory. *Management*, 1(1), 66. <http://repository.ut.ac.id/4533/1/EKMA4116-M1.pdf>
- Handoko. (2015). *Human Resource Management*. Bandung: Pustaka Setia.
- Hasibuan, R. L., & Harahap, P. S. (2019). Implementation of Municipal Regulations [Preprint].
- Hayaturrahmi, R., & Husna, C. (2018). Resource preparedness and cooperation in the integrated emergency response system in disaster management. *JIM FKep*, 3(3).
- Hendro Wartatmo. (2024). *Guidelines for the Preparation of Hospital Disaster Plans (HDP)*. Jakarta: Sagung Seto. <https://kubuku.id/detail/pedoman-penyusunan-hospital-disaster-plan-hdp-/85890>
- Husna, C. (2019). Factors affecting disaster preparedness at RSUZA Banda Aceh. *Idea Nursing Journal*, 3(2).
- Indrayathi, P. A., & Noviyani, R. (2017). Teaching Material on Equity in Health Services, 1–49.
- Kendrastuti, N. N., & Nursyabani, M. F. (2023). Evaluation of medical record administration in fulfilling accreditation standards at Kedaung Barat Public Health Center, Tangerang Regency. *Indonesian Health Information Management Journal (INOHIM)*, 11(1), 68–78. <https://doi.org/10.47007/inohim.v11i1.508>
- Komang Evan Riana. (2019). Public attitudes toward no-smoking area policy (Study at Abdul Moeloek Hospital, Bandar Lampung City). *University of Lampung*, 1(1), 2019.
- Lamine, H., Chebili, N., & Zedini, C. (2022). Evaluating the level of disaster preparedness of Tunisian university hospitals using the Hospital Safety Index: A nationwide cross-sectional study. *African Health Sciences*.
- Laxague, F., et al. (2024). A comparison of timing and patterns of treatment failure, and survival outcomes after progression between HPV+ and HPV– patients undergoing chemoradiation for oropharyngeal squamous cell carcinomas. *Head and Neck*, 46(3), 503–512. <https://doi.org/10.1002/hed.27600>

- Lepangkari, J. S., Wahid, R. A. H., & Wardani, T. S. (2020). *Hospital Management*. Salatiga: Pustaka Baru Press.
- Lestari, F., et al. (2022). Analysis of hospital's emergency and disaster preparedness using Hospital Safety Index in Indonesia. *Sustainability (Switzerland)*, 14(10). <https://doi.org/10.3390/su14105879>
- Martini, M., et al. (2021). Disaster Management, (November), 1-183.
- Minister of Health Decree No. 01.07/Menkes/1128/2022 on Hospital Accreditation Standards. (2022).
- Ministry of Health RI. (2007). *Technical Guidelines for Health Crisis Management Due to Disasters*. Jakarta: Ministry of Health RI.
- Ministry of Health RI. (2022). Basic Concepts of Disaster Management.
- Ministry of Health. (2016). Minister of Health Regulation No. 72 of 2016 on Standards of Pharmaceutical Services in Hospitals. *Journal of Basic School Teacher Education Research*, 6(August), 128.
- Ministry of Health. (2024). Guidelines for Disaster Safe Hospitals, 1-82.
- Mojtahedi, M., et al. (2021). Developing hospital emergency and disaster management index using TOPSIS method. *Sustainability (Switzerland)*, 13(9). <https://doi.org/10.3390/su13095213>
- Muninjaya. (2018). *Quality Management of Health Services*. Jakarta: EGC.
- Nurul, F., Sutopo Patria, J., & Yuliani, S. (2022). Disaster analysis and hospital management commitment in Indonesia: A literature review. *Indonesian Health Promotion Publication Media (MPPKI)*, 5(4). <https://doi.org/10.56338/mppki.v5i4.2279>
- Purwanza, S. W., et al. (2022). *Quantitative, Qualitative, and Mixed Research Methodology*. Media Sains Indonesia.
- SMC Regional Hospital. (2022). SMC Regional Hospital Report, Tasikmalaya Regency.
- SMC Regional Hospital. (2023). *Infection Prevention and Control Report of SMC Hospital*. Tasikmalaya.
- Sugiyono. (2017). *Quantitative, Qualitative, and R&D Research Methods* (26th ed.). Indonesia: Alfabeta. https://ecampus-fip.umj.ac.id/pustaka_umj/main/search?pengarang=Sugiyono
- Unmehopa, Y. F. (2020). Implementation of Law No. 24 of 2007 on Disaster Management in Sirnaresmi Village, Cisolok Subdistrict, Sukabumi Regency. *Journal of Health Society*, 9(2).
- Van, V. (2022). *14 Principles of Management (Fayol)*. Toolshero [Preprint].
- World Health Organization (WHO). (2020). WHO Guidelines on Climate-Resilient and Environmentally Sustainable Health Care Facilities.
- Yenni, R. A., Novrikasari, & Windusari, Y. (2021). Analysis of structural preparedness in disaster management based on the Hospital Safety Index. *Jurnal Arkesmas*, 6(1), June.
- Yenni, R. A., Novrikasari, & Windusari, Y. (2021a). Structural preparedness analysis in facing disasters based on the Hospital Safety Index. *ARKESMAS (Public Health Archives)*, 6(1). <https://doi.org/10.22236/arkesmas.v6i1.4801>
- Yenni, R. A., Novrikasari, & Windusari, Y. (2021b). Structural preparedness analysis in facing disasters based on the Hospital Safety Index. *ARKESMAS (Public Health Archives)*, 6(1), 1-6. <https://doi.org/10.22236/arkesmas.v6i1.4801>