

Military Health Strategies Against Narcotics Threats within the CBRNE Framework

Faonaso Harefa^{1*}, Yahdiana Harahap¹, Dian Andriani Ratna Dewi¹, R.M. Tjahya Nurrobi¹, Sutanto¹

¹Doctoral Postgraduate in Defense Health Concentration, Defense University, Jakarta, Indonesia

*Corresponding Author Email: faonaso.harefa@doktoral.idu.ac.id

Abstract

This study positions narcotics as an emerging non-traditional threat within the CBRNE framework due to its chemical nature and its impact on public health and national resilience. Drug abuse in Indonesia has evolved into a multidimensional threat that not only disrupts social stability but also weakens public health resilience. This study aims to analyze the role of military health within its service and health support functions based on existing regulations, particularly its contribution to combating drug threats as a form of non-military threat endangering young generations and national defense. Using a descriptive qualitative method with data analysis conducted through NVivo 12. The findings reveal that regulation based military health support has a positive impact in reducing drug abuse and trafficking while strengthening both public health resilience and national defense. However, the involvement of military health in cross sectoral collaboration remains limited, despite its proven capability and resilience in managing health crises, as demonstrated during the Covid-19 pandemic. This study emphasizes the need to strengthen the role of military health in drug control through formal cooperation mechanisms, such as a Memorandum of Understanding (MoU) with the leading sectors *Badan Narkotika Nasional*, the *Kepolisian Negara Republik Indonesia*, and *Kementerian Kesehatan* to ensure clear synergy, avoid overlapping authority, and establish an integrated and sustainable national health defense system. However, the study identifies a gap in formal institutional integration, which limits the optimization of military health roles.

Keywords: CBRNE, Military Health, Narcotics Threats, National Security, Public Health.

Abstrak

Studi ini menempatkan narkoba sebagai ancaman non-tradisional yang muncul dalam kerangka CBRNE karena sifat kimianya dan dampaknya terhadap kesehatan masyarakat dan ketahanan nasional. Penyalahgunaan narkoba di Indonesia telah berkembang menjadi ancaman multidimensional yang tidak hanya mengganggu stabilitas sosial tetapi juga melemahkan ketahanan kesehatan masyarakat. Studi ini bertujuan untuk menganalisis peran kesehatan militer dalam fungsi pelayanan dan dukungan kesehatannya berdasarkan peraturan yang ada, khususnya kontribusinya dalam memerangi ancaman narkoba sebagai bentuk ancaman non-militer yang membahayakan generasi muda dan pertahanan nasional. Studi ini menggunakan metode kualitatif deskriptif dengan analisis data yang dilakukan melalui NVivo 12. Hasil penelitian menunjukkan bahwa dukungan kesehatan militer berbasis regulasi memiliki dampak positif dalam mengurangi penyalahgunaan dan perdagangan narkoba sekaligus memperkuat ketahanan kesehatan masyarakat dan pertahanan nasional. Namun, keterlibatan kesehatan militer dalam kolaborasi lintas sektoral masih terbatas, meskipun telah terbukti memiliki kemampuan dan ketahanan dalam mengelola krisis kesehatan, seperti yang ditunjukkan selama pandemi Covid-19. Studi ini menekankan perlunya memperkuat peran kesehatan militer dalam pengendalian narkoba melalui mekanisme kerja sama formal, seperti Nota Kesepahaman (MoU) dengan sektor-sektor utama *Badan Narkotika Nasional*, *Kepolisian Negara Republik Indonesia*, dan *Kementerian Kesehatan* untuk memastikan sinergi yang jelas, menghindari tumpang tindih kewenangan, dan membangun sistem pertahanan kesehatan

* Copyright (c) 2026 **Faonaso Harefa et.al**

This work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).

Received: November 10, 2025; Revised: April 7, 2026; Accepted: April 25, 2026

nasional yang terintegrasi dan berkelanjutan. Namun, studi ini mengidentifikasi adanya kesenjangan dalam integrasi kelembagaan formal, yang membatasi optimalisasi peran kesehatan militer.

Kata kunci: CBRNE, Kesehatan Militer, Ancaman Narkotika, Keamanan Nasional, Kesehatan Masyarakat.

INTRODUCTION

Drug abuse in Indonesia has evolved into a multidimensional threat that not only disrupts social stability but also weakens public health resilience and, consequently, national security. Data from the National Narcotics Agency (BNN, 2025) indicate a significant increase in drug abuse, particularly among the productive age population (Sitorus, 2019). This condition reduces workforce productivity, increases public health expenditure, and erodes social resilience. A joint national survey by BNN and the National Research and Innovation Agency (BRIN, 2023) reported a prevalence rate of 1.73% among individuals aged 15-64, equivalent to approximately 3.3 million users, including a substantial proportion of young people. Despite intensified law enforcement efforts, the persistence of drug abuse indicates that punitive approaches alone remain insufficient to address the problem effectively (Rifqi, 2020; Tunggal & Wardani, 2025).

In this context, narcotics can be understood within the CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosives) framework due to their chemical nature, their potential to cause widespread harm, and their capacity to degrade human health, cognitive function, and social resilience over time (Gorniak et al., 2025). Although not traditionally categorized as chemical weapons, narcotics share characteristics with chemical-based threats in terms of their systemic and long-term impact on population stability. This perspective provides a conceptual basis for positioning narcotics as an emerging non-traditional security threat, thereby highlighting the relevance of integrating military health institutions into prevention and response strategies (Malizia et al., 2025).

From a national defense perspective, drug abuse has often been treated primarily as a criminal issue rather than a strategic threat. This narrow approach limits the effectiveness of national responses and overlooks its broader implications for public health, human capital, and national resilience. In reality, drug abuse poses a significant threat that requires a comprehensive and integrated response beyond law enforcement. Military health institutions, with their established discipline, capacity, and organizational structure, have the potential to contribute to preventive, promotive, and rehabilitative efforts. This role is consistent with Law No. 3 of 2002 on National Defense and Law No. 3 of 2025, which mandate the Indonesian National Armed Forces (TNI) to support government efforts in addressing non-military threats, including public health crises (Neumeister & Gray, 2021).

Theoretically, this study is grounded in the understanding that health is a strategic component of national security. Health Security Theory emphasizes that threats to public health can significantly affect national stability. The Public Health Model of Drug Control highlights the importance of prevention, education, and rehabilitation, while Military Health System Theory underscores the role of military health in supporting national resilience through integrated medical and humanitarian functions.

Previous studies have shown that drug abuse affects not only civilian populations but also military readiness and institutional performance. However, most existing approaches remain dominated by law enforcement strategies, with limited integration of health-based perspectives. In Indonesia, challenges such as limited coordination, resource constraints, and fragmented policy implementation continue to hinder the effectiveness of drug control programs (Harefa et al., 2025).

Based on these conditions, this study addresses the gap by examining the strategic role of military health in supporting drug prevention efforts within a national defense framework. Accordingly, this study aims to analyze how military health institutions can contribute to addressing narcotics threats and how cross-sectoral collaboration can strengthen national health resilience(Harefa, Harahap, Dewi, Nurrobi, & Harsono, 2026).

In this context, a strategic approach is required that positions military health not merely as a supporting element, but as a key actor in prevention, early detection, rehabilitation, and the strengthening of the national health system. This strategy includes enhancing health education and promotion, optimizing rehabilitation services through military health facilities, strengthening health system capacity to address narcotics threats, and reinforcing cross-sectoral collaboration. Accordingly, military health can function as an integral component of the national strategy in addressing narcotics threats within the CBRNE framework(Harefa, Harahap, Dewi, Nurrobi, Sutanto, et al., 2026).

RESEARCH METHOD

This study employs a descriptive qualitative method aimed at gaining an in depth understanding of expert perspectives and insights regarding the role of military health in addressing drug related threats to public health, which have now evolved into a non-military security challenge(Cruz, 2024).

Informants were selected using purposive sampling based on expertise in military health, public health, and defense policy. Semi-structured interviews were conducted for approximately 45-60 minutes. Data analysis involved open coding, axial coding, and selective coding using NVivo 12(Rasyid et al., 2022).

Primary data were collected through in depth interviews with 7 health experts from the *Indonesia Defense University (Universitas Pertahanan Indonesia)*, while secondary data were obtained from relevant legal and institutional documents, including Law No. 3 of 2002 on National Defense, Law No. 3 of 2025 amending Law No. 34 of 2004 on the *Tentara Nasional Indonesia*, and Law No. 17 of 2023 on National Health. Additional secondary sources consisted of theoretical foundations and peer-reviewed scientific articles indexed in SINTA and Scopus databases.

Data analysis was conducted using NVivo 12 software, which involved several stages: coding, thematic categorization, analysis of inter node relationships, and thematic conclusion drawing(Dhakal, 2022). The validity of the data was ensured through source triangulation and member checking to verify the accuracy and consistency of findings(Syaodih & Samsudin, 2021).

The proposition of this study asserts that the involvement of military health institutions in combating drug threats through the optimization of health service and support functions grounded in regulatory frameworks has a significant and positive influence on mitigating drug related threats, strengthening public health resilience, and enhancing the Total People Defense and Security System (*Sishankamrata*) in *Indonesia*(Purwadi et al., 2022).

RESULTS AND DISCUSSION

The following section discusses the results of interviews with experts, as well as the analysis of regulations and reputable articles, regarding the role of military health in providing medical services and health support in addressing the drug threat in *Indonesia* (Chekol & Wu, 2020).

Interview Quotations:

Informant 1:

“Military health institutions possess strong capacity; however, their role has not yet been optimally integrated into drug prevention efforts. This condition indicates that, despite having well-trained personnel, adequate medical infrastructure, and experience in handling public health crises, the potential contribution of military health remains underutilized in addressing narcotics-related challenges. The current involvement is still largely limited to internal functions and has not been fully expanded into broader community-based prevention strategies. Furthermore, the absence of formal coordination mechanisms and clear regulatory frameworks contributes to this limited integration. Strengthening collaboration with relevant institutions, such as public health agencies and law enforcement bodies, could enhance the effectiveness of drug prevention programs. Therefore, optimizing the role of military health requires not only institutional capacity but also systematic integration within national policies and inter-agency coordination frameworks. (Bunker, 2019)”.

Informant 2:

“Although military health has considerable capacity, its integration into national drug prevention efforts remains limited. This condition suggests that existing resources, including trained personnel, medical infrastructure, and experience in managing health crises, have not been fully utilized within broader drug prevention strategies. Current involvement tends to remain sectoral and has not yet been systematically coordinated with relevant institutions. In addition, the absence of a specific regulatory framework governing the role of military health in addressing narcotics issues contributes to this limitation. Therefore, strengthening cross-sector coordination and clarifying policy frameworks are essential to optimize the contribution of military health in supporting national drug prevention efforts (Prayuda et al., 2025).”



Figure 1. Interview Analysis Results Using NVivo 12 Word Cloud

The NVivo analysis identified five major themes prevention, rehabilitation, regulation, collaboration, and system capacity which collectively reflect the key dimensions in addressing narcotics-related threats. The theme of prevention highlights the importance of educational and promotive approaches to reduce drug abuse at an early stage, while rehabilitation emphasizes the need for comprehensive recovery services to restore individuals’ social functioning. The regulatory

aspect illustrates the role of legal frameworks in providing direction and legitimacy for policy implementation, whereas collaboration underscores the importance of cross-sector synergy in enhancing program effectiveness. Meanwhile, system capacity reflects the readiness of human resources, infrastructure, and operational mechanisms in responding to the issue in a sustainable manner. These five themes are interconnected, indicating that efforts to address narcotics cannot be carried out in isolation but require an integrated and systematic approach (Patabendige, 2023).

The Role of Military Health as a Strategic Component of National Security

According to the Health Security Theory by Kaldor and Beebe, military health plays a strategic role in maintaining national stability, as threats to public health such as drug abuse can undermine the nation endurance (Mavrouli et al., 2023). In this context, military health is not only responsible for providing medical services to soldiers and supporting domestic and UN humanitarian operations, such as peacekeeping in Lebanon, but also serves as an integral component of the national security system (Gastaldi & Horlait, 2022). Through preventive and promotive measures, it addresses drug related threats that endanger public health, the younger generation, and the nation's overall defense capacity (Hassan & Mahmoud, 2021).

The Role of Military Health in Prevention and Public Education

Referring to the Public Health Model of Drug Control by Babor et al., drug control efforts must emphasize prevention and education (Ajana, 2021). The study findings reveal that military health institutions are expected to actively engage in raising awareness about drug dangers within military education settings, surrounding communities, and *Tentara Nasional Indonesia* units. These educational efforts foster collective awareness of the destructive effects of drugs on health, morality, and discipline, thereby enhancing social and mental resilience within society (Werfalli et al., 2020).

Medical Services and Rehabilitation Support by Military Health Institutions

Aligned with the Military Health System Theory by Haider et al., this study found that military health units contribute significantly to medical and rehabilitation services for drug abuse victims both among military personnel and civilians. Through a network of military hospitals under the Ministry of Defense, including *RSPAD Gatot Soebroto*, *Kesdam* hospitals, and naval and air force hospitals across the country, the military health system provides detoxification and medical counseling services that promote recovery and productivity. This demonstrates that military health functions not only as a tool for combat readiness but also as a humanitarian and non-military defense instrument contributing directly to human resource quality and national resilience (Riadi & Erdiyansyah, 2021).

Collaboration and Integration of Military Health with Civil Institutions.

Based on interviews, regulations, and scholarly sources, the study finds that drug control effectiveness increases through synergy and collaboration among military health institutions, the National Narcotics Board (BNN), the Ministry of Health, and law enforcement agencies. Military health supports cross sectoral operations particularly in medical rehabilitation, epidemiological surveillance, and addressing health impacts of drug abuse (Havârneanu et al., 2022). Such collaboration, reflecting the Whole of Government and Whole of Nation approaches, represents a unified national effort against drug threats as a non-military defense issue (Janse et al., 2022). This

approach positions health as a strategic pillar of the national defense system, recognizing that national strength depends not only on military capability but also on the nation's capacity to safeguard public health, productivity, and human capital through cross sectoral cooperation and active public participation (Masita et al., 2025).

Strengthening the Capacity and Resilience of the National Health System

Conceptually and empirically, this study finds that the support and presence of military health institutions have rarely been fully utilized, even though their capacity could significantly strengthen the resilience of the national health system. With well trained and resilient personnel, a disciplined organizational structure, and rapid crisis response capabilities, the military health units under the Ministry of Defense and the *Tentara Nasional Indonesia* (TNI) are better equipped to fill the gaps in the civilian health system when facing drug related threats. This is evident from the Ministry of Defense and *Tentara Nasional Indonesia* effective response during the COVID-19 pandemic, despite their formal legal status as supporting actors under the leadership of the Ministry of Health. Such readiness and performance confirm that military health institutions should not merely act as supplementary components of national defense but should instead serve as a frontline defense in protecting the younger generation from the degradation caused by drug abuse an issue that could have been addressed more effectively through their active involvement.

Regulatory Perspective

Military health institutions possess a strong legal foundation to participate in countering drug related threats as part of their humanitarian duty and national defense mandate. This is clearly stated in Law No. 3 of 2002 on National Defense, which affirms that all components of the nation, including the *Tentara Nasional Indonesia*, share responsibility for maintaining sovereignty and national security against both military and non-military threats. Furthermore, Law No. 3 of 2025, amending Law No. 34 of 2004 on the *Tentara Nasional Indonesia*, provides explicit authority for the *Tentara Nasional Indonesia* to assist the government in disaster response, refugee management, and humanitarian operations. Under these legal provisions, drug abuse can be categorized as a public health crisis and a non-traditional security threat. Therefore, the role of military health institutions in medical services, rehabilitation, and health support is legally and constitutionally legitimate as part of efforts to strengthen public health resilience and national defense (Hashimov & Khudeynatov, 2024). This implies that the military health sector holds clear legal legitimacy to play an active role in combating drug abuse not as a secondary function, but as part of a humanitarian and defense mission. With this legal foundation, the involvement of the *Tentara Nasional Indonesia* through its medical corps can be directed toward medical support, rehabilitation, and preventive health measures, emphasizing that drug control is not solely a law enforcement matter but also a national health defense responsibility to protect the population and reinforce national resilience against non-traditional threats that erode human quality (Al Saffer et al., 2021).

Comparison with Previous Studies

The studies by O'Brien and McLellan and the RAND Corporation in the United States highlight the impact of drug abuse within military environments, showing its direct consequences on operational readiness and the mental health of soldiers. These findings underscore the importance of a robust military health system for internal prevention and rehabilitation. Öun's research

broadens the perspective by identifying drug abuse among active military personnel as a global issue requiring a comprehensive integration of public and military health systems. In the context of *Indonesia* defense health, these findings indicate that drug abuse is not only a social or legal issue but also a humanitarian challenge that affects defense preparedness. Therefore, *Indonesia* military health system must strengthen its humanitarian function through medical services, rehabilitation, and public education as a tangible contribution to protecting public health (Thomson et al., 2019). This approach aligns with the Military Operations Other Than War mandate, in which the *Tentara Nasional Indonesia* assists the government in addressing health crises such as drug abuse thereby reinforcing defense health dual function in both operational readiness and humanitarian assistance for communities affected by narcotics (Khatri et al., 2023).

Comparison with Domestic Studies

The studies by Karyono and Putra & Astika in Indonesia focus on the implementation of the Prevention and Eradication of Drug Abuse and Illicit Trafficking (*P4GN*) program in civilian sectors, particularly within educational institutions and local governments (Manesh, 2020). Their findings indicate some progress in program execution but also reveal constraints related to human resources, budget limitations, and weak inter-agency coordination. Within *Indonesia* defense health context, these findings suggest that civilian efforts to combat narcotics face structural and coordination barriers, limiting their overall effectiveness. This situation opens an opportunity for military health institutions to contribute by strengthening institutional capacity through human resources, medical facilities, and a more disciplined, integrated coordination system. Thus, collaboration between civilian and military sectors becomes essential to broaden the reach of the *P4GN* program, enhance implementation efficiency, and ensure that drug eradication efforts are incorporated into a sustainable national health defense strategy (Khorram-Manesh et al., 2022).

International Comparison

Thailand has implemented a 120 day rehabilitation program based in military hospitals, combining medical and psychosocial training, which has proven effective in improving recovery rates and social reintegration among drug dependents. In the United States, the Military Health System integrates prevention, early detection, referral, and evidence based therapy for service members and their families, emphasizing the central role of military health in managing substance abuse. Meanwhile, Israel has developed a specialized policy for young veterans focusing on prevention, therapy, and harm reduction as a model of cross sectoral collaboration driven by military and veteran health needs. Collectively, these international examples demonstrate that military health systems can play an active and strategic role in addressing drug abuse as a non traditional security threat, a lesson highly relevant to Indonesia in strengthening its own defense health framework (Newmann & and Christiansen, 2023).

Discussion

Key Research Findings

This study broadens the understanding of the role of military health as a strategic element in addressing drug related threats, which have long been viewed primarily as criminal issues. Theoretically, the findings reinforce the Health Security Theory proposed by Kaldor and Beebe,

which asserts that threats to public health directly impact national stability (Giegerich & Hackett, 2024). In the *Indonesia* context, drug abuse demonstrably reduces human resource productivity and weakens social resilience, thereby positioning it as a non-traditional security threat to national defense (Fusiek, 2020).

Multi Perspective Analysis

From an empirical perspective, the research findings indicate that the involvement of military health institutions in educational and preventive programs produces a multiplier effect on public health awareness. Educational activities conducted by military health personnel in military education environments and civilian communities contribute to the development of adaptive behavior and increased public literacy regarding the dangers of drug abuse. This aligns with the Public Health Model of Drug Control by Babor et al., which emphasizes that public health approaches based on prevention and rehabilitation are far more effective in reducing drug use prevalence than law enforcement centered strategies (Sarjito, 2024). Moreover, the study reveals that medical facilities under military health institutions such as *RSPAD Gatot Soebroto* and regional *Kesehatan Kodam, Lantamal, dan Lanud* hospitals play an essential role in providing medical rehabilitation services for drug abuse victims, both military and civilian. These services strengthen access to detoxification, counseling, and social reintegration, forming a crucial part of the *Military Health System Theory*, which emphasizes the role of military medicine in national resilience and recovery (Shchokin et al., 2023).

From a policy perspective, the findings highlight that collaboration among military health institutions, the *Badan Narkotika Nasional* (BNN), the Ministry of Health, and the National Police enhances the effectiveness of anti narcotics programs through the Interagency Collaboration and Societal Resilience Frameworks. This collaborative approach supports the implementation of the Total People Defense and Security System (*Sishankamrata*), which is inclusive and multidimensional. However, such collaboration is still constrained by limited policy integration, resource shortages, and the absence of formal mechanisms defining the specific role of military health in drug prevention and rehabilitation. Therefore, it is crucial for the leading sectors *Badan Narkotika Nasional* (BNN) and the National Police to formalize cooperation with the *Tentara Nasional Indonesia* (TNI) through a Memorandum of Understanding (MoU) to establish legal clarity, role delineation, and avoid overlapping authority (Thomas, 2021). From a regulatory perspective, the study demonstrates that military health institutions have a strong legal foundation to assist the government in addressing drug related issues, as mandated in Law No. 3 of 2002 on National Defense, Law No. 3 of 2025 amending Law No. 34 of 2004 on the Indonesian National Armed Forces, and Law No. 17 of 2023 on National Health. Nevertheless, the lack of derivative regulations explicitly defining narcotics as a national defense threat has limited the optimal involvement of military health in addressing the issue (Khorram-Manesh et al., 2020).

International Comparison

Indonesia can draw valuable lessons from nations such as Thailand, the United States, and Israel in optimizing the role of military health in countering narcotics threats. Thailand's success with its 120 day military hospital based rehabilitation program demonstrates the effectiveness of medical and psychosocial recovery models (Boland et al., 2021). The United States, through its

Military Health System, has successfully integrated prevention, early detection, referral, and continuous evidence based therapy for service members and their families. Meanwhile, Israel's cross sectoral approach focused on prevention, treatment, and harm reduction among young veterans exemplifies a collaborative and sustainable framework. These global practices underscore that *Indonesia* military health sector supported by its strong logistics, human resources, and hospital network can take a more proactive role in prevention, rehabilitation, and social reintegration programs. With appropriate regulatory reinforcement and institutional collaboration, military health can become a national strategic force in addressing narcotics as a non-traditional threat to both national resilience and public health (Alilio et al., 2022).

Implications and Contributions of the Study

The findings of this study indicate that military health possesses relevant capacity to support the management of narcotics-related threats through prevention, healthcare services, and rehabilitation, although its utilization within the national system remains suboptimal. These findings imply the need to strengthen the integration of military health roles within the broader health and defense policy framework, particularly through the development of clear and sustainable cross-sector coordination mechanisms. In addition, the study highlights the importance of incorporating health-based approaches as a complement to strategies that have predominantly relied on law enforcement, thereby enabling a more comprehensive and integrated response to narcotics-related challenges (Aulia et al., 2025).

From a theoretical perspective, this study contributes by extending the scope of Health Security and Military Health System frameworks into the context of narcotics threats within the CBRNE framework. It also enriches the literature on non-traditional security by positioning narcotics not solely as a criminal issue, but as a multidimensional challenge encompassing health and national defense dimensions. From a practical perspective, this study provides a basis for the development of more integrated policies by emphasizing the importance of cross-sectoral synergy and the optimization of military health resources in supporting prevention, rehabilitation, and the strengthening of the national health system (Thie & Adhari, 2025).

Strengths and Limitations of the Study

This study offers a novel perspective by examining the role of military health in addressing narcotics threats within the CBRNE framework, an area that has received limited attention in existing literature. Furthermore, the use of NVivo-based qualitative analysis enables a systematic and in-depth identification of key themes. However, the study is limited by the relatively small number of informants and its focus on perspectives primarily drawn from the military health sector, which may not fully represent cross-sectoral viewpoints. In addition, the study does not incorporate broader empirical data at the implementation level, thereby limiting the generalizability of the findings. Future research is therefore recommended to involve a wider range of stakeholders and adopt more comprehensive empirical approaches to strengthen the robustness of the findings.

CONCLUSION

This study demonstrates that military health plays a strategic role in addressing narcotics-related threats through prevention, medical services, and rehabilitation. The findings indicate that collaboration

between military health institutions and relevant stakeholders contributes to strengthening the effectiveness of national health responses. However, existing regulatory and coordination arrangements still require further alignment to optimize the integration of military health within broader drug prevention efforts.

This study contributes to the development of a national defense perspective by positioning military health as a relevant component in addressing narcotics issues within the CBRNE framework. It highlights the importance of integrating health-based approaches into existing strategies and underscores the value of cross-sector collaboration in enhancing policy coherence and implementation.

This study is limited by the small number of informants and its focus on perspectives within the military health sector. Future research is recommended to include broader institutional perspectives in order to provide a more comprehensive understanding of cross-sector collaboration in addressing narcotics-related challenges.

Acknowledgements

The author would like to express sincere gratitude to the esteemed lecturers of the Doctoral Postgraduate Program in Defense Health Concentration at the Defense University, Jakarta namely, Lecturer 2, Lecturer 3, Lecturer 4, and Lecturer 5 for their valuable guidance, insightful feedback, and unwavering support throughout the development of this article. Their expertise and encouragement have been instrumental in ensuring the quality and completion of this work.

REFERENCES

- Ajana, B. (2021). Immunitarianism: Defence and sacrifice in the politics of COVID-19. *History and Philosophy of the Life Sciences*, 43(1). <https://doi.org/10.1007/s40656-021-00384-9>
- Al Saffer, Q., Al-Ghaith, T., Alshehri, A., Al-Mohammed, R., Al Homidi, S., Hamza, M. M., Herbst, C. H., & Alazemi, N. (2021). The capacity of primary health care facilities in Saudi Arabia: Infrastructure, services, drug availability, and human resources. *BMC Health Services Research*, 21(1), 1–15. <https://doi.org/10.1186/s12913-021-06355-x>
- Alilio, M., Hariharan, N., Lugten, E., Garrison, K., Bright, R., Owembabazi, W., Inyang, U., Hassan, S. E. D., & Saldana, K. (2022). Strategies to promote health system strengthening and global health security at the subnational level in a world changed by COVID-19. *Global Health Science and Practice*, 10(2), 1–10. <https://doi.org/10.9745/GHSP-D-21-00478>
- Aulia, Y. P., Rifai, M., & Marsingga, P. (2025). Transnational narcotics trafficking and the role of NCB Interpol Indonesia: A case study from West Java. *Jurnal Ilmiah Wahana Pendidikan*, 11(10A), 65–78.
- Boland, S. T., McInnes, C., Gordon, S., & Lillywhite, L. (2021). Civil-military relations: A review of major guidelines and their relevance during public health emergencies. *BMJ Military Health*, 167(2), 99–106. <https://doi.org/10.1136/bmjmilitary-2020-001505>
- Bunker, R. J. (2019). Strategic threat: Narcos and narcotics overview. In *Narcos Over the Border* (pp. 8–29). Routledge.
- Chekol, T., & Wu, A. (2020). The opioid epidemic: Challenge to military medicine. *Military Medicine*, 185, 662–667. <https://doi.org/10.1093/milmed/usz487>
- Cruz, E. D. La. (2024). A quantitative study of cybersecurity data analytics system success using partial least squares structural equation modeling. *Ayan*, 15(1), 37–48. <https://doi.org/10.13140/RG.2.2.35552.70405>
- Dhakal, K. (2022). NVivo. *Journal of the Medical Library Association*, 110(2), 270–272. <https://doi.org/10.5195/jmla.2022.1271>

- Fusiek, D. A. (2020). Rethinking security: The limits of the traditional concept of security in a world of non-traditional threats. *HAPSc Policy Briefs Series*, 1(2), 265. <https://doi.org/10.12681/hapscpbs.26500>
- Gastaldi, S., & Horlait, M. (2022). Health care organizations' interoperability during multi-organizational disaster management: A scoping review. *Prehospital and Disaster Medicine*, 37(3), 401–408. <https://doi.org/10.1017/S1049023X22000516>
- Giegerich, B., & Hackett, J. (2024). Defence analysis and military data at the IISS: How to count and when is a tank modern? In *Comparisons in Global Security Politics* (pp. 44–59). <https://doi.org/10.56687/9781529241846-006>
- Gorniak, L., Cichon, N., Stela, M., Niemcewicz, M., Podogrocki, M., Siadkowski, A., Ceremuga, M., & Bijak, M. (2025). A practical classification approach for chemical, biological, radiological and nuclear (CBRN) hazards based on toxicological and situational parameters. *Applied Sciences*, 15(19), 10421.
- Harefa, F., Aritonang, S., Supriyadi, A. A., & Harsono, C. F. (2025). Politicization of the Indonesian Armed Forces (TNI) regarding ABRI's dual function and civilian supremacy. *Khazanah Sosial*, 7(1), 67–85.
- Harefa, F., Harahap, Y., Dewi, D. A. R., Nurrobi, R. M. T., & Harsono, C. F. (2026). The role of physiotherapy in a health maintenance strategy for retirees in Indonesia to support total defense. *Physical Therapy Journal of Indonesia*, 7(1), 70–78.
- Harefa, F., Harahap, Y., Dewi, D. A. R., Nurrobi, R. M. T., Sutanto, S., & Harsono, C. F. (2026). An integrated risk analysis approach in military hospitals: Implications for public health preparedness and resilience. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 9(1), 99–113.
- Hashimov, E., & Khudeynatov, E. (2024). Methodology for assessing the effectiveness of the air defense system. *Системи Управління, Навігації Та Зв'язку*, 1(75), 21–27. <https://doi.org/10.26906/sunz.2024.1.021>
- Hassan, E. M., & Mahmoud, H. (2021). Healthcare and education networks interaction as an indicator of social services stability following natural disasters. *Scientific Reports*, 11(1), 1–15. <https://doi.org/10.1038/s41598-021-81130-w>
- Havârneanu, G. M., Petersen, L., Arnold, A., Carbon, D., & Görgen, T. (2022). Preparing railway stakeholders against CBRNe threats through better cooperation with security practitioners. *Applied Ergonomics*, 102. <https://doi.org/10.1016/j.apergo.2022.103752>
- Janse, J., Kalkman, J. P., Burchell, G. L., Hopperus Buma, A. P. C. C., Zuiderent-Jerak, T., Bollen, M. T. I. B., & Timen, A. (2022). Civil-military cooperation in the management of infectious disease outbreaks: A scoping review. *BMJ Global Health*, 7(6), 1–13. <https://doi.org/10.1136/bmjgh-2022-009228>
- Khatri, R. B., Endalamaw, A., Erku, D., Wolka, E., Nigatu, F., & Zewdie, A. (2023). Preparedness, impacts, and responses of public health emergencies towards health security: Qualitative synthesis of evidence. 1–15.
- Khorram-Manesh, A., Mortelmans, L. J., Robinson, Y., Burkle, F. M., & Goniewicz, K. (2022). Civilian-military collaboration before and during COVID-19 pandemic—A systematic review and a pilot survey among practitioners. *Sustainability*, 14(2). <https://doi.org/10.3390/su14020624>
- Khorram-Manesh, A., Robinson, Y., Boffard, K., & Örttenwall, P. (2020). The history of Swedish military healthcare system and its path toward civilian-military collaboration from a total defense perspective. *Military Medicine*, 185(9–10), E1492–E1498. <https://doi.org/10.1093/milmed/usaa071>
- Malizia, A., McGovern, J., Sarigiannis, D., Karakitsios, S., Anastas, P. T., Ludovici, G. M., Manenti, G., & Vasiliou, V. (2025). Integrating the exposome framework in CBRNe risk assessment: A holistic approach to chemical, biological, radiological, nuclear, and explosive threats. *The European Physical Journal Plus*, 140(11), 1103.

- Manesh, A. K. (2020). Facilitators and constrainers of civilian–military collaboration: The Swedish perspectives. *European Journal of Trauma and Emergency Surgery*, 46(3), 649–656. <https://doi.org/10.1007/s00068-018-1058-9>
- Masita, M., Hairi, F. M., Bachtiar, A., Mulyana, N., & Andriani, H. (2025). Community-driven strategies and policies for drug-resistant tuberculosis control in Banyumas Regency, Indonesia: A comprehensive 2023 analysis. *Journal of Public Health Research*, 14(3). <https://doi.org/10.1177/22799036251376872>
- Mavrouli, M., Mavroulis, S., Lekkas, E., & Tsakris, A. (2023). The impact of earthquakes on public health: A narrative review of infectious diseases in the post-disaster period aiming to disaster risk reduction. *Microorganisms*, 11(2). <https://doi.org/10.3390/microorganisms11020419>
- Neumeister, S. M., & Gray, J. P. (2021). The strategic national stockpile: Identification, support, and acquisition of medical countermeasures for CBRN incidents. *Toxicology Mechanisms and Methods*, 31(4), 308–321.
- Newmann, W. W., & Christiansen, W. T. (2023). Simulating the US national security interagency process: Solid foundations and a method of assessment. *Journal of Political Science Education*, 19(2), 331–348. <https://doi.org/10.1080/15512169.2022.2135517>
- Patabendige, C. (2023). Legal implications on narcotics: A threat to national security. *NATIONAL*, 31.
- Prayuda, R., Munir, F., & Suyastri, C. (2025). The evolving threat of narcotics smuggling: A non-traditional security challenge in Southeast Asian border states. *JAS (Journal of ASEAN Studies)*, 13(1), 211–229.
- Purwadi, A., Wijaya, U., Surabaya, K., Efendi, B., Islam, U., & Agung, S. (2022). Indonesia's regulations regarding reserve components to counteract geopolitical threats in the Asia-Pacific region. 12.
- Rasyid, S., Nurdin, D., Suryana, A., Samsudin, A., & Aminudin, A. H. (2022). Can the Tahfidzul-Qur'an education system (T-QES) create leadership with integrity? NVivo 12 analysis. *Cypriot Journal of Educational Sciences*, 17(6), 1925–1942.
- Riadi, S., & Erdiyansyah. (2021). Collaborative governance in handling natural and non-natural disasters based on the perspective of public administration: Evidence from Indonesia. *Problems and Perspectives in Management*, 19(2), 468–479. [https://doi.org/10.21511/ppm.19\(2\).2021.37](https://doi.org/10.21511/ppm.19(2).2021.37)
- Rifqi, M. (2020). Drug crime as a threat to Indonesia's national security. *Jurnal Pertahanan*.
- Sarjito, A. (2024). Enhancing national security: Strategic policy development in defense management. *Jurnal Pelita Nusantara*, 2(1), 56–68. <https://doi.org/10.59996/jurnalpelitanusantara.v2i1.524>
- Shchokin, R., Soloviov, O., & Tantsiura, I. (2023). Strengthening cooperation between the civilian and military sectors in the context of state security: Benefits and challenges. *Revista de Cercetare Si Interventie Sociala*, 83, 155–170. <https://doi.org/10.33788/rcis.83.11>
- Sitorus, M. (2019). *Motivation and readiness for change from substance abuse: Indonesian perspectives*. Adler University.
- Syaodih, E., & Samsudin, A. (2021). Parent's perspective on early childhood learning needs during COVID-19 using NVivo 12 software: A case study in Indonesia. *Kasetsart Journal of Social Sciences*, 42(4), 924–931.
- Thie, N. A., & Adhari, A. (2025). Wanted list-based drug law enforcement: Effective strategy or mere formality? *JIHK*, 7(1), 367–381.
- Thomas, B. (2021). *Preparing for the future of combat casualty care: Opportunities to refine the military health system's alignment with the National Defense Strategy*. <https://doi.org/10.7249/RR-A713-1>
- Thomson, N., Littlejohn, M., Strathdee, S. A., Southby, R. F., Coghlan, B., Rosenfeld, J. V., & Galvani, A. P. (2019). Harnessing synergies at the interface of public health and the security sector. *The Lancet*, 393(10168), 207–209. [https://doi.org/10.1016/S0140-6736\(18\)32999-4](https://doi.org/10.1016/S0140-6736(18)32999-4)

- Tunggal, D., & Wardani, N. P. R. K. (2025). Understanding drug abuse patterns in Asia: A systematic comparative review of community-level impacts and interventions. *Golden Ratio of Data in Summary*, 5(3), 56–67.
- Werfalli, M., Raubenheimer, P. J., Engel, M., Musekiwa, A., Bobrow, K., Peer, N., Hoegfeldt, C., Kalula, S., Kengne, A. P., & Levitt, N. S. (2020). The effectiveness of peer and community health worker-led self-management support programs for improving diabetes health-related outcomes in adults in low- and middle-income countries: A systematic review. *Systematic Reviews*, 9(1). <https://doi.org/10.1186/s13643-020-01377-8>