

From Green Rush to Regulation: Assessing the Impact of Medical Cannabis Legalisation in Thailand

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ABSTRACT

The legalisation of medical cannabis in Thailand has generated significant policy, health, and societal debates, yet the empirical understanding of its broader implications remains fragmented. Despite being the first Southeast Asian nation to take this historic step, Thailand continues to grapple with balancing potential health benefits against regulatory, social, and public health challenges. This review addresses the problem of limited synthesised knowledge by systematically examining the emerging research surrounding the impact of medical cannabis legalisation in Thailand. The aim of the study is to analyse how legalisation has influenced public health, regulatory frameworks, and societal outcomes, while also situating Thailand's experience within the wider global discourse on drug policy reform. The study employed Scopus AI (data retrieved on 28 September 2025) to identify and synthesise relevant academic literature. Scopus AI outputs, namely Summary, Expanded Summary, and Concept Map, were utilised to map conceptual linkages, evaluate the breadth of research, and highlight thematic trajectories. This methodological approach ensured comprehensive coverage of interdisciplinary studies related to regulatory framework, research, public health, and societal implications. Findings reveal that legalisation has led to increased demand for medical cannabis, particularly among cancer patients, alongside improvements in quality of life for certain patient groups. However, it has also heightened public health risks, including cannabis toxicity and rising adolescent use, while exposing gaps in regulatory enforcement and healthcare literacy. Moreover, societal perceptions remain divided, with persistent reliance on unlicensed providers and limited professional knowledge among healthcare workers. The implications of this review are twofold. Theoretically, it enriches discourse on medical cannabis policy in developing contexts by linking health, law, and society. Practically, it highlights the urgent need for robust regulation, targeted health education, and evidence-based policymaking. The study concludes that legalisation must be paired with robust regulation, guided by interdisciplinary research, to shape Thailand's cannabis trajectory and inform neighbouring reforms.

Keywords — Medical Cannabis Legalisation, Thailand, Public Health Impact, Societal Effects, Regulatory Framework, Drug Policy Reform

INTRODUCTION

The legalisation of medical cannabis has emerged as a transformative policy shift in global health and legal landscapes, reflecting broader debates on drug reform, patient rights, and economic opportunities. Countries across North America, Europe, and Latin America have progressively legalised cannabis for medical purposes, citing evidence of its therapeutic benefits for conditions such as chronic pain, epilepsy, and cancer-related symptoms. In Southeast Asia, Thailand stands out as the first nation to legalise medical cannabis, marking a historic departure from its traditionally punitive drug control regime and positioning itself as a regional pioneer in cannabis policy reform (Stienrut et al., 2024).

While this development has been celebrated for its potential to improve patient care and boost economic growth, the Thai experience also reveals a complex set of challenges. Reports have highlighted both positive outcomes, such as quality of life improvements among patients using cannabis-based treatments, and unintended consequences, including cannabis-related hospitalisations and increased adolescent use (Paisarnrodjanarat et al., 2025; Jongkam et al., 2025). The rapid commercialisation of cannabis in tourism hubs such as Phuket has further

raised concerns about drug tourism, policy misalignment, and the risk of diverting the medical cannabis framework toward recreational markets (Phucharoen et al., 2023). These dynamics highlight the urgency of critically assessing the impact of medical cannabis legalisation in Thailand.

Although studies have examined specific aspects of Thailand's cannabis reform, such as demand among cancer patients (Sukrueangkul et al., 2022, 2023), public health risks (Paisarnrodjanarat et al., 2025), and media representation (Mazahir et al., 2025; Sirita, 2022), there remains a lack of integrative research that synthesises findings across regulatory framework, public health, research and societal effects domains. Moreover, limited attention has been given to the perspectives of unlicensed providers, health literacy challenges, and the broader implications for international drug control and human rights frameworks (Assanangkornchai et al., 2022; Thongtaeng & Seesawang, 2026). This gap in holistic analysis hinders policymakers, healthcare professionals, and scholars from developing evidence-based strategies that maximise the benefits of legalisation while mitigating its risks.

This review aims to address that gap by systematically analysing the impact of medical cannabis legalisation in Thailand. Specifically, it examines emerging research themes, maps conceptual linkages across the regulatory framework, public health, research and studies, and highlights societal impacts. By doing so, it contributes to clarifying Thailand's cannabis trajectory within the broader context of global drug reform, offering insights relevant not only to domestic stakeholders but also to neighbouring countries considering similar policy shifts.

The contribution of this paper lies in its synthesis of interdisciplinary evidence to provide a comprehensive understanding of Thailand's medical cannabis legalisation. Unlike prior single-domain studies, this review integrates public health outcomes, regulatory challenges, public perceptions, and social effects, thereby offering a nuanced evaluation of both the promises and pitfalls of legalisation.

The remainder of this paper is organised as follows. Section B outlines the methodology employed to identify and synthesise relevant literature. Section C presents the results and discussion, beginning with an overview of the summary, expanded summary, and concept map. It then examines the relationship between medical cannabis legalisation in Thailand and its impacts on research, regulatory frameworks, public health, and society. This analysis highlights the key findings on the implications of medical cannabis legalisation in Thailand. Finally, the paper concludes with a summary of its contributions, limitations, and directions for future research.

METHODOLOGY

This study adopts a systematic review approach, employing Scopus AI as the primary tool for literature identification, synthesis, and thematic exploration. The search was conducted on 28 September 2025, ensuring the inclusion of the most recent and relevant studies on medical cannabis and its legalisation in Thailand. The methodology integrates both automated insights provided by Scopus AI and critical human interpretation to ensure a comprehensive and balanced analysis.

The literature search was performed using a structured Boolean string designed to capture the intersections between medical cannabis, legalisation, and Thailand. The final search string applied within Scopus AI was as follows: ("medical cannabis" OR "medical marijuana" OR "cannabis" OR "marijuana") AND ("legalization" OR "decriminalization" OR "regulation" OR "policy") AND ("Thailand" OR "Thai") AND ("health" OR "medicine" OR "treatment" OR "therapeutic") AND ("research" OR "study" OR "impact" OR "effect").

This query yielded a wide range of peer-reviewed publications across health sciences, social sciences, and law. Inclusion criteria were: (1) studies published in English; (2) peer-reviewed journal articles indexed in Scopus; and (3) publications explicitly addressing medical cannabis in Thailand in relation to health, law, or socio-economic impacts. Exclusion criteria included editorials, non-peer-reviewed reports, and studies outside the Thai context.

Scopus AI was employed not only to retrieve publications but also to generate analytical insights through its unique functionalities. The Scopus AI interface provided multiple layers of outputs, namely Summary, Expanded Summary and Concept Map, each of which was systematically analysed.

The Summary offered a broad overview of existing scholarship on the impact of medical cannabis legalisation in Thailand, whereas the Expanded Summary furnished more nuanced insights into the Thai legal jurisdiction. Scopus AI provided concise and expanded overviews of the retrieved corpus. These summaries synthesised the key findings of studies, ranging from clinical outcomes (e.g., patient quality of life) to public health challenges (e.g., adolescent misuse, cannabis-related hospitalisations) and societal effects (e.g., drug tourism, commercialisation). This enabled the identification of overarching patterns and tensions in Thailand's cannabis reform trajectory (Stienrut et al., 2024; Paisarnrodjanarat et al., 2025; Phucharoen et al., 2023).

A dynamic concept map was generated by Scopus AI, visually linking themes across (i) public health impact, (ii) Regulatory Framework, (iii) Societal Effects, and (iv) Research and Studies domains. The map also highlighted "medical cannabis legalisation" as a central node bridging research and studies, public health, social, and legal dimensions.

This methodological approach directly addresses the study's aim: to systematically analyse the impact of medical cannabis legalisation in Thailand by integrating evidence across research and studies, regulatory framework, public health, and societal domains. The combination of Scopus AI's automated synthesis with thematic mapping allowed the identification of conceptual linkages that shape Thailand's cannabis discourse. By employing these features, this review situates Thailand's experience within the broader global trajectory of drug reform while highlighting implications for neighbouring countries considering similar legalisation pathways.

Taken together, this methodological framework supports the study's aim of systematically analysing the impact of medical cannabis legalisation in Thailand by constructing a conceptual map of interrelated public health outcomes, regulatory frameworks, societal effects, and research evidence. By leveraging Scopus AI's integrated tools, this review not only synthesises existing literature but also draws valuable lessons from Thailand's experience with medical cannabis legalisation. It highlights the urgent need for robust regulatory mechanisms, targeted health education, and evidence-based policymaking to ensure that legalisation maximises benefits while mitigating potential risks.

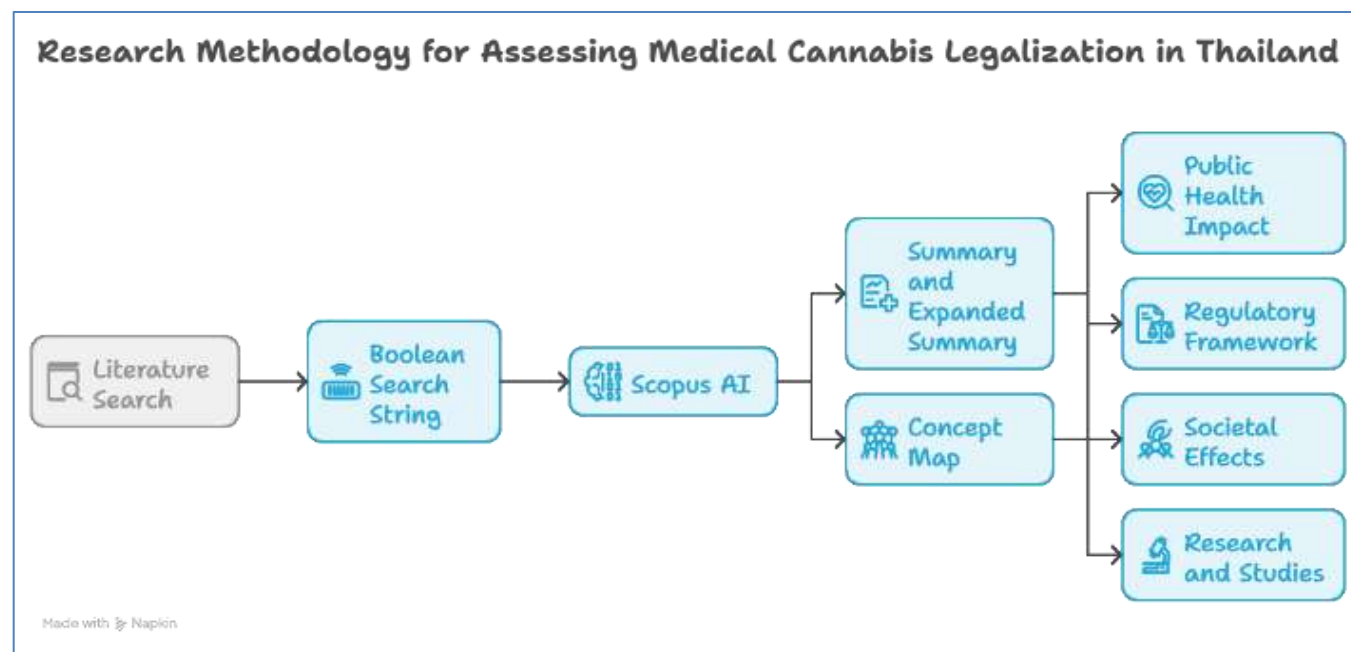


Figure 1. Scopus AI Analysis of the impact of medical cannabis legalisation in Thailand.

Figure 1 illustrates the research methodology employed to assess the legalisation of medical cannabis in Thailand, highlighting a systematic and structured process. The process begins with a literature search, followed by the application of a Boolean search string to ensure precision and relevance in data retrieval. The results are then processed through Scopus AI, which serves as the analytical engine. From there, two main outputs are generated: the Summary and Expanded Summary and the Concept Map. These outputs are further broken down into four thematic areas: Public Health Impact, Regulatory Framework, Societal Effects, and Research and

Studies, which form the core dimensions for evaluating cannabis legalisation. Overall, the figure demonstrates how AI-driven literature analysis can structure complex research synthesis by organising data into clear conceptual domains for deeper examination.

RESULTS AND DISCUSSION

The analysis of literature retrieved through Scopus AI (28 September 2025) provided a comprehensive overview of the complex impacts of medical cannabis legalisation in Thailand. The findings are presented by integrating insights from: (i) Summary and Expanded Summary, and (ii) Concept Map, which together offer a holistic understanding of this rapidly evolving policy and research area of the impact of medical cannabis legalisation in Thailand.

1) Summary and Expanded Summary: The legalisation of medical cannabis in Thailand has produced wide-ranging impacts across healthcare, public health, economics, law, and socio-cultural dimensions. The evidence retrieved through Scopus AI (28 September 2025) highlights both the promise of cannabis reform and the challenges of managing its implementation within a rapidly evolving social and policy context.

From a healthcare perspective, medical cannabis has shown considerable benefits in improving patients' quality of life. For instance, large-scale observational studies have demonstrated significant improvements in pain relief, cancer-related symptoms, and overall well-being following the administration of cannabis-based therapies, including cannabis oil ("ganja oil") (Stienrut et al., 2024). Such outcomes reinforce cannabis as a viable complementary treatment option for chronic conditions such as cancer and migraines, with a growing number of Thai patients reporting its perceived effectiveness (Thongtaeng & Seesawang, 2026). The demand is particularly high among cancer patients, where health literacy, supportive social networks, and positive perceptions of cannabis strongly influence treatment uptake (Sukrueangkul et al., 2022).

However, the public health dimension presents more complex outcomes. While patients benefit from symptomatic relief, cannabis legalisation has also been associated with increased hospitalisations and poisoning cases linked to cannabis product misuse, particularly following the broader decriminalization measures (Paisarnrodjanarat et al., 2025). Adolescents represent another vulnerable group, with rising use attributed to inadequate health literacy and low perceived risks, highlighting the urgent need for targeted prevention strategies in schools and communities (Jongkam et al., 2025). These findings suggest that while legalisation has expanded therapeutic opportunities, it has simultaneously created new risks for misuse and dependency.

The economic implications of legalisation are equally notable. The rapid proliferation of cannabis outlets, particularly in tourism-dependent regions such as Phuket, demonstrates how cannabis has become a commercial commodity fueling a "green rush." This commercialisation often targets international tourists, blurring the line between medical and recreational use (Phucharoen et al., 2023). Additionally, older adults increasingly report accessing cannabis as an affordable and accessible alternative to conventional medicines, highlighting its potential role in reducing healthcare costs (Thongtaeng & Seesawang, 2026). Yet, these economic gains raise concerns about sustainability and equitable access, as unregulated commercialisation risks overshadowing medical priorities.

On the legal and regulatory front, Thailand's cannabis reform has faced persistent challenges. Despite formal legalisation, many patients continue to rely on unlicensed providers due to issues of accessibility, cultural trust, and scepticism toward medical professionals who often hold negative attitudes about cannabis (Assanangkornchai et al., 2022). The persistence of informal networks underlines a gap in regulatory integration and highlights the importance of balancing formal medical oversight with community-based practices. Moreover, the expansion of cannabis tourism has prompted calls for stricter zoning and licensing regulations to prevent policy misuse (Phucharoen et al., 2023).

Finally, the socio-cultural impacts of cannabis legalisation reveal evolving perceptions of Thailand's global and domestic image. Media discourse, particularly on platforms like YouTube, has constructed a largely favourable narrative portraying Thailand as progressive, therapeutic, and economically innovative in its cannabis policies (Mazahir et al., 2025). This shift not only shapes public acceptance domestically but also positions Thailand as

a potential regional leader in cannabis reform. However, such narratives risk oversimplifying the challenges and may downplay health and regulatory concerns if not balanced with evidence-based policymaking.

In summary, the legalisation of medical cannabis in Thailand has generated significant positive outcomes in patient care and economic opportunity, yet it also presents ongoing challenges in public health, regulation, and social equity. To ensure long-term sustainability, policymakers must adopt an integrated approach that strengthens healthcare literacy, regulates commercialisation, and bridges the gap between formal medical systems and traditional providers. These measures are critical to maximising the therapeutic promise of cannabis while minimising unintended harms.

2) Concept Map: Figure 2, generated by Scopus AI on 28 September 2025, provides a structured overview of the main themes surrounding medical cannabis legalisation in Thailand. It visually organises the topic into four interconnected domains: research and studies, societal effects, regulatory framework, and public health impact. This representation highlights the multifaceted nature of cannabis legalisation, showing how it intersects with scientific research, social concerns, governance, and healthcare. By presenting these categories, the graph demonstrates that cannabis legalisation in Thailand is not a single-dimensional policy change but a broad transformation with multiple layers of implications.

The first domain, research and studies, emphasises the role of empirical evidence in shaping the discourse on cannabis policy. Within this category, the impact on cancer pain emerges as a key focus, reflecting medical cannabis's potential therapeutic role. Additionally, cross-sectional studies capture patterns of use, patient outcomes, and evolving public attitudes, providing a foundation for evidence-based policymaking. The second domain, societal effects, extends beyond medical applications to highlight issues such as the prevalence of cannabis use and the risk of addiction. These concerns underline the importance of balancing medical benefits with possible social harms, especially in a rapidly evolving legal and cultural environment.

The final two domains emphasise governance and health-related outcomes. The regulatory framework highlights the development and enforcement of laws and regulations, particularly those that govern cannabis oil, edibles, and other derivative products. This focus reflects Thailand's struggle to align its regulatory stance with both domestic needs and international standards. Meanwhile, the public health impact draws attention to practical health issues such as adolescent cannabis use, chronic pain management, and overall quality of life improvements among patients. Taken together, the themes identified by Scopus AI illustrate that medical cannabis legalisation in Thailand cannot be reduced to a matter of patient care alone; rather, it is embedded in broader social, regulatory, and health contexts that demand careful analysis and continuous monitoring.

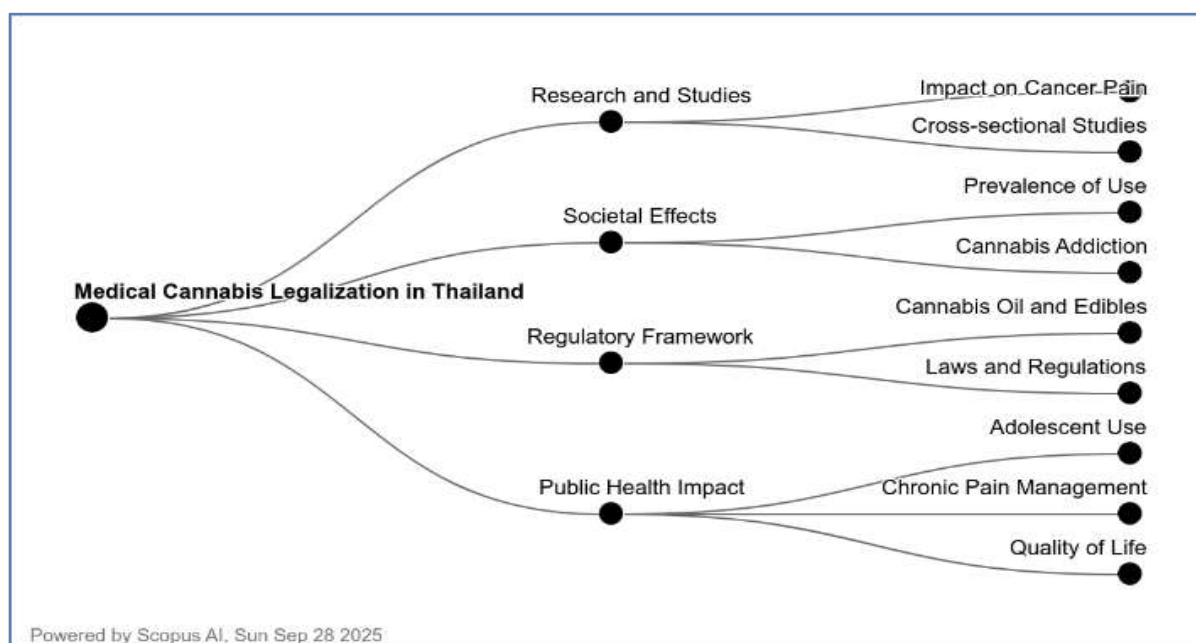


Figure 2. The Scopus AI-generated concept map

2.1) Medical Cannabis Legalisation in Thailand: The legalisation of medical cannabis in Thailand has generated diverse outcomes, reflecting the intersection of health, socio-economic, and cultural factors. One of the most visible impacts has been on tourism and cannabis supply. In Phuket, a tourism-centric province, a study found a significant correlation between cannabis stores and hotels, suggesting the emergence of cannabis-related tourism and potential risks of misuse following decriminalisation (Phucharoen et al., 2023). This “green rush” highlights Thailand’s positioning as a pioneer in Southeast Asia but also raises concerns about unregulated access, especially in tourist hubs where recreational use may overshadow intended medical purposes.

Cannabis legalisation has also been framed in multiple discourses, including economic, cultural, and scientific dimensions. Research analysing traditional and new media highlighted that cannabis was promoted as a driver of economic growth and traditional healing, but counter-narratives warned of health risks and policy gaps (Sirita, 2022). This dual discourse reveals how media constructions shape public opinion and influence policymaking, illustrating the tension between economic opportunity and public health safeguards. These findings suggest that Thailand’s cannabis policy is as much a socio-political phenomenon as it is a medical one.

In terms of medical demand, legalisation has provided new options for patients, but with uneven outcomes. A study on cancer patients in northern Thailand identified health literacy, social support, and positive attitudes as significant factors influencing the demand for medical cannabis (Sukrueangkul et al., 2022). Similarly, research on breast cancer patients showed varied content quality of cannabis-related information online, with some sources excessively romanticising its benefits (Peerawong et al., 2024). Together, these findings emphasise the importance of accurate information and robust health education to guide patients in making informed choices about cannabis as a complementary treatment.

Despite legalisation, many patients continue to rely on unlicensed providers due to accessibility and perceived trustworthiness. Assanangkornchai et al. (2022) found that unlicensed providers were often preferred because they offered easier access and culturally familiar practices, whereas negative attitudes from some healthcare professionals discouraged patients from seeking formal treatment. At the same time, studies on prescribing practices by licensed practitioners indicate that medical cannabis has the potential to improve quality of life for patients when integrated into mainstream healthcare systems (Stienrut et al., 2024). This dual reliance on both formal and informal systems reflects a gap between policy implementation and patient needs.

However, legalisation has also resulted in unintended negative consequences. Reports from Thailand’s poison centre documented a rise in cannabis-related exposures, particularly among children and adolescents (Paisarnrodjanarat et al., 2025). Older adults, meanwhile, expressed a need for clearer guidance and responsible use, while nurses displayed mixed attitudes toward cannabis, indicating gaps in professional training (Thongtaeng & Seesawang, 2026; Sawasdinartunart et al., 2024). Additionally, GIS-based studies revealed that cannabis establishments were often located in high-density areas, raising concerns about adolescent accessibility (Weschasat et al., 2024). These findings highlight the urgent need for stronger regulatory frameworks, targeted health literacy campaigns, and professional education to mitigate risks while maximising the medical potential of cannabis.

2.1.1) Relationship between Medical Cannabis Legalisation in Thailand and Research Studies: The legalisation of medical cannabis in Thailand has generated a notable increase in empirical research, reflecting the nation’s attempt to balance patient needs with public health and regulatory challenges. Studies highlight a significant demand for medical cannabis among patients with chronic illnesses such as cancer, where health literacy, social support, and younger age were strong predictors of willingness to use cannabis therapeutically (Sukrueangkul et al., 2022; Sukrueangkul et al., 2023). A nationwide prospective study further revealed that medical cannabis prescriptions were associated with improved quality of life outcomes, emphasising its potential as a complementary treatment within Thailand’s healthcare system (Stienrut et al., 2024). These findings suggest that legalisation has not only legitimised cannabis as a therapeutic option but also created avenues for patient-centred research to guide clinical and policy frameworks.

Despite these positive developments, legalisation has also prompted misconceptions about the health risks of cannabis use. Research indicates that a substantial number of Thai users perceive cannabis as low-risk or harmless, raising concerns about insufficient health literacy and the possibility of misuse (Lamy et al., 2024).

Such perceptions highlight gaps in health communication strategies and suggest that legalisation, if not paired with adequate prevention and education programs, may normalise cannabis consumption without consideration of potential adverse effects. This aligns with global findings where legalisation often shifts social norms and risk perceptions, requiring proactive public health campaigns to mitigate harm.

Another dimension of research explores the socio-economic and spatial implications of cannabis commercialisation. A geospatial analysis conducted in Phuket found a positive correlation between cannabis stores and hotels, suggesting a close link between cannabis retail and the tourism industry (Phucharoen et al., 2023). While this may support local economies, it also raises red flags about recreational misuse, particularly in tourism-centric areas. The findings call for more nuanced destination and regulatory management to balance economic benefits with responsible use, demonstrating that legalisation extends beyond healthcare into broader socio-economic structures.

The legalisation has also influenced professional and institutional attitudes, particularly among healthcare providers. A survey of Thai nurses revealed predominantly negative attitudes toward medical cannabis, largely driven by limited knowledge and clinical uncertainty (Sawasdinanart et al., 2024). This demonstrates the critical need for professional training, evidence-based guidelines, and curriculum integration to ensure that healthcare workers are equipped to counsel patients effectively. Without such measures, the gap between legalisation policy and medical practice may hinder the full integration of cannabis into therapeutic pathways.

Finally, research highlights the vulnerability of adolescents in the post-legalisation context. A recent intervention in Bangkok schools emphasised the urgency of implementing health literacy programs to reduce the risks associated with adolescent cannabis use (Jongkam et al., 2025). This reflects broader concerns about the unintended consequences of legalisation, where young people, who may have limited risk awareness, become disproportionately exposed to harm. Together, these studies illustrate that while medical cannabis legalisation in Thailand has advanced therapeutic access and research opportunities, it has simultaneously exposed gaps in public health preparedness, professional readiness, and youth protection. The growing body of evidence serves as a critical foundation for Thailand to refine its cannabis policy, balancing therapeutic promise with responsible regulation.

2.1.2) The Linkages between Medical Cannabis Legalisation and Societal Effects: The legalisation of medical cannabis in Thailand has significantly reshaped societal dynamics by increasing accessibility and demand across multiple population groups. For instance, a geospatial analysis of Surat Thani Province identified 61 cannabis establishments, with most clustered in densely populated areas, thereby increasing exposure and potential accessibility, particularly for adolescents (Weschasat et al., 2024). While such accessibility reflects the economic opportunities of legalisation, it also raises concerns about vulnerable populations becoming more susceptible to both medical and recreational use. This emphasises the dual nature of legalisation, where public health considerations must be weighed against market expansion.

Legalisation has also shown measurable effects on quality of life outcomes. Nationwide observational research revealed that medical cannabis, particularly cannabis oil prescribed by traditional practitioners, was effective in alleviating symptoms such as pain, anorexia, and insomnia, with notable improvements in patients' quality of life (Stienrut et al., 2024). However, variations in impact between cancer and non-cancer patients highlight the importance of tailoring medical cannabis use to specific clinical contexts. This reflects a broader societal shift towards integrating traditional practices with evidence-based healthcare in Thailand, but also stresses the need for consistent prescribing guidelines.

On the other hand, societal challenges have emerged through gaps in health literacy and regulatory enforcement. School-based programs in Bangkok demonstrated effectiveness in improving students' knowledge about cannabis risks, emphasising the role of education in mitigating misuse (Jongkam et al., 2025). At the same time, qualitative studies show that many patients continued to rely on unlicensed providers, citing reasons such as easier accessibility, trust in medicine quality, and negative attitudes from licensed professionals (Assanangkornchai et al., 2022). These findings suggest that legalisation has not fully displaced the informal cannabis market, thereby complicating efforts to ensure safe and standardised access.

One of the most consistent findings relates to factors influencing demand for medical cannabis among patients, especially those diagnosed with cancer. Studies highlight that high health literacy, strong social support networks, younger age, and positive attitudes towards cannabis use were positively associated with demand (Sukrueangkul et al., 2022; Sukrueangkul et al., 2023). These findings suggest that legalisation has provided patients particularly younger, informed groups, with more confidence to pursue cannabis as an alternative or complementary therapy. However, this also creates disparities, as older patients or those with lower literacy may be excluded from the potential benefits of legalised access.

Finally, the societal effects of legalisation are evident in healthcare burden trends. Data from the Ramathibodi Poison Centre revealed that the legalisation period coincided with an increase in hospitalisations related to cannabis, particularly among children and adolescents (Paisarnrodjanarat et al., 2025). This suggests that while legalisation has enhanced therapeutic access, it has also inadvertently increased risks of toxicity and accidental exposures. Taken together, these societal effects indicate that Thailand's legalisation of medical cannabis is both a public health opportunity and a policy challenge. The benefits of increased access and improved patient outcomes must be balanced against the risks of misuse, insufficient regulation, and adverse health outcomes, particularly among vulnerable populations.

2.1.3) The relationship between Medical Cannabis Legalisation and Regulatory Framework: The legalisation of medical cannabis in Thailand in 2019 marked a turning point in the country's regulatory landscape. The Thai government amended the Narcotics Act to allow cannabis use for medical and research purposes, making Thailand the first Southeast Asian country to do so (Assanangkornchai et al., 2022). Under this framework, patients could legally access medical cannabis for approved conditions, while researchers and healthcare institutions gained opportunities to explore its therapeutic applications. This legislation reflected both global reform trends and Thailand's strategic interest in positioning cannabis as a new frontier in public health and economic development.

Following legalisation, the regulatory framework expanded to permit domestic corporations to produce cannabis for therapeutic purposes, as well as to engage in research and development (Sommano et al., 2022). The Thai Food and Drug Administration (FDA) was tasked with the exclusive authority to license cannabis-related activities, consolidating regulatory control under a centralised system. While this ensured state oversight of cannabis production and distribution, it also raised challenges regarding equitable access and bureaucratic delays, which may have inadvertently encouraged reliance on unlicensed providers. Thus, although the framework was intended to establish legitimacy, its implementation has faced practical hurdles.

Patterns of cannabis consumption have also been shaped by the regulatory environment. A respondent-driven survey revealed that most Thai patients consumed oral crude cannabis oil extracts, primarily for managing cancer, neuropsychiatric symptoms, and musculoskeletal pain (Assanangkornchai et al., 2022). Beyond strictly medical purposes, cannabis was also consumed for recreational use and curiosity, blurring the line between therapeutic and non-therapeutic applications. This has coincided with an increase in hospitalisation rates, particularly among children and adolescents, following both medical and recreational legalisation, raising concerns about unintended health consequences (Paisarnrodjanarat et al., 2025). These findings illustrate the complex interaction between formal regulations, clinical use, and broader societal behaviours.

Public perceptions and consumer opinions further highlight gaps in the regulatory system. Most patients and consumers perceived cannabis to provide significant therapeutic benefits, while fewer than half acknowledged the potential for adverse effects (Assanangkornchai et al., 2022). This optimistic bias, combined with limited health literacy, has reinforced the popularity of cannabis but may also contribute to unsafe practices. Compounding this issue is the continued reliance on unlicensed providers, who are often favoured for their accessibility, affordability, and patient trust in the quality of their products, particularly in the context of negative attitudes from some licensed healthcare professionals (Assanangkornchai et al., 2022). These dynamics suggest that the regulatory framework, while robust on paper, has not fully supplanted informal markets.

Overall, the regulatory framework for medical cannabis in Thailand reflects both progress and limitations. On the one hand, it has created legal pathways for therapeutic use, research, and industrial development. On the other hand, rising hospitalisation rates, continued dependence on illicit providers, and consumer misperceptions

point to regulatory gaps that need urgent redress. Addressing these challenges requires not only refining licensing and monitoring systems but also expanding public education, enhancing healthcare professional training, and ensuring equitable access. By doing so, Thailand can strengthen its regulatory framework to better balance innovation, safety, and public health in its evolving cannabis policy.

2.1.4) The Linkages between Medical Cannabis Legalisation and Public Health Impact: The legalisation of medical cannabis in Thailand has generated both opportunities and challenges for public health, reflecting a complex interplay between therapeutic potential and unintended risks. One of the most promising impacts has been the documented improvement in patient quality of life, particularly among those with severe health conditions. A nationwide prospective study revealed that cannabis oil, often referred to as “Ganja Oil,” significantly alleviated symptoms such as pain, anorexia, and insomnia, especially among cancer patients, thereby enhancing their overall quality of life (Stienrut et al., 2024). These findings reinforce the therapeutic value of medical cannabis within a controlled healthcare context, positioning Thailand as a regional pioneer in integrating cannabis-based treatments into mainstream medicine.

Despite these therapeutic benefits, the legalisation has also led to an observable rise in cannabis-related toxicity and hospital admissions. Data from the Ramathibodi Poison Centre indicated a sharp increase in cases of cannabis product exposures between 2018 and 2022, particularly among children and adolescents, following expanded accessibility of medical and recreational cannabis (Paisarnrodjanarat et al., 2025). This emphasises a critical gap in regulatory safeguards, public awareness, and risk communication, as younger populations are disproportionately vulnerable to unintentional consumption and misuse. The rise in hospitalisations suggests that legalisation, without parallel investment in preventive education, may inadvertently compromise public health outcomes.

In addition to children and youth, older adults have emerged as an important demographic affected by cannabis legalisation. A recent mixed-methods study reported that many older Thai adults used cannabis to manage chronic health conditions such as musculoskeletal pain and insomnia, yet knowledge gaps and misconceptions about cannabis effects persisted (Thongtaeng & Seesawang, 2026). While this highlights the broad appeal of cannabis as a perceived natural remedy, it also signals the need for targeted educational interventions and systematic monitoring of adverse effects in older populations. Without structured health literacy programs, older adults may be at heightened risk of inappropriate use, drug interactions, and long-term complications.

Among patients with life-threatening illnesses, demand for medical cannabis has been particularly strong. Research conducted in northern Thailand demonstrated high interest in medical cannabis among cancer patients, with demand shaped by health literacy, social support, and positive attitudes toward cannabis use (Sukrueangkul et al., 2022). This indicates that legalisation not only meets patient-driven demand but also reflects shifting social norms regarding cannabis as a legitimate medical treatment. However, the findings also suggest the importance of healthcare professionals in guiding patient use, as unregulated demand can foster self-medication practices that may be inconsistent with safe medical guidelines.

Beyond therapeutic contexts, legalisation has also been linked to potential negative public health externalities, including heightened risk of infectious diseases. A case-control study in Southern Thailand highlighted that smoking and sharing cannabis, particularly through communal bongs, increased the risk of pulmonary tuberculosis transmission in high-prevalence areas (Chumchuen & Chongsuvivatwong, 2024). This demonstrates that legalisation has implications extending beyond individual health, influencing communicable disease dynamics in community settings. Collectively, these findings suggest that while Thailand’s legalisation of medical cannabis has yielded substantial health benefits, it has simultaneously introduced new risks that require vigilant regulatory oversight, sustained education, and integration of cannabis use into broader public health frameworks.

CONCLUSIONS

This review has demonstrated that the legalisation of medical cannabis in Thailand has yielded a multifaceted impact on public health and regulatory frameworks. Key findings highlight significant therapeutic benefits, particularly in improving the quality of life for patients with cancer and chronic conditions through symptom

management. At the same time, legalisation has introduced new challenges, including increased cannabis-related toxicity, rising hospitalisation rates among vulnerable groups, and heightened risks of communicable diseases such as tuberculosis. These findings emphasise the dual nature of cannabis legalisation, which simultaneously offers opportunities for medical advancement and poses emerging public health concerns that demand careful oversight.

Theoretically, the study contributes to the growing body of scholarship on global drug policy reform by situating Thailand's experience within broader debates on the balance between patient rights, public safety, and state regulation. The review reinforces frameworks that emphasise a harm-reduction approach, suggesting that legalisation must be complemented by strong regulatory controls and legislation, educational initiatives, and evidence-based healthcare practices. Practically, the findings highlight the importance of equipping healthcare professionals with accurate knowledge, strengthening licensing and distribution channels, and expanding patient-centred educational programs to mitigate misuse. These measures are critical not only for sustaining the credibility of medical cannabis as a therapeutic option but also for ensuring that legalisation aligns with public health goals.

Despite its contributions, this study is subject to limitations. The evidence base remains relatively young, with most studies focusing on short-term outcomes rather than long-term health and social effects. In addition, much of the available research is concentrated on specific populations, such as cancer patients and older adults, limiting generalizability across the broader Thai population. Future research should therefore adopt longitudinal and comparative approaches, exploring not only health outcomes but also socio-economic, cultural, and policy dimensions of cannabis legalisation. Cross-country studies with jurisdictions that have longer histories of legalisation, such as Canada and Uruguay, would also provide valuable comparative insights. Such research can guide Thailand and its neighbouring countries in refining cannabis policies that are both socially responsible and scientifically grounded.

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