

ARTICLE

Dynamic Drug Dealings and Addiction Patterns Within Police Station Boundaries in Kuala Lumpur and Selangor

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ABSTRACT

The study investigates the spatial overlap of drug dealing and addiction across police station boundaries in Kuala Lumpur and Selangor. The spatial data comprise police station boundaries (24 in Kuala Lumpur and 87 in Selangor, totalling 111), and road data. Attribute data include police station name, records of drug dealing and addiction cases from 2016 to 2020, obtained from Bukit Aman. Using location quotient (LQ) analysis, the research identified significant spatial clusters of drug addiction and dealing in both states during the study period. A key finding is the highly dynamic nature of these clusters, with high concentrations of drug-related activity shifted markedly from year to year, indicating a fluid and evolving pattern of criminal activity. Some areas recorded exceptionally high concentrations of drug addiction, with LQs exceeding 8.0 for addiction in certain years. The study also revealed a spatial mismatch area with high addiction rates did not always align with areas of high drug dealing activity. This finding underscores the limitations of static, location-based crime prevention strategies. The shifting nature of clusters demonstrates the need for adaptable and dynamic approaches to law enforcement and intervention. The research highlights the importance of continuous monitoring and data-driven adjustments to resource allocation and policing strategies. The spatial mismatch between addiction and dealing suggests the need for a more comprehensive understanding of drug distribution networks and their geographical reach. Although enforcement efforts may contribute to these fluctuations, the analysis suggests that areas with high rates of positive drug tests are not always align with areas of high drug dealing activity. Furthermore, the study highlights a significant concentration of drug-related offenses, particularly along Selangor's borders, suggesting vulnerabilities related to differences in law enforcement practices and accessibility. These patterns call for further research into why addiction and dealing are often geographically separated, and why border regions are particularly susceptible to drug-related activity.

1 | Introduction

In 2018, an estimated 269 million people globally had used drugs at least once in the previous year. This represents 5.4% of the global population aged 15–64, with a range of 3.3%–7.5%. If the global prevalence of drug use remains constant, solely

considering the projected population increase would lead to an estimated 11% rise in the number of drug users worldwide by 2030, reaching 299 million people (World Drug Report 2021). In Malaysia, Royal Malaysia Police Bukit Aman (2025) reported a 12.4% increase in positive urine tests in Kuala Lumpur between 2016 and 2017, followed by a substantial 34.3% decrease from