

# Use of Pain Medication and Cannabis by Age Groups Before and After Legalization of Cannabis: An Investigation of Trends from 2017 to 2019 in a Representative Sample of Canada

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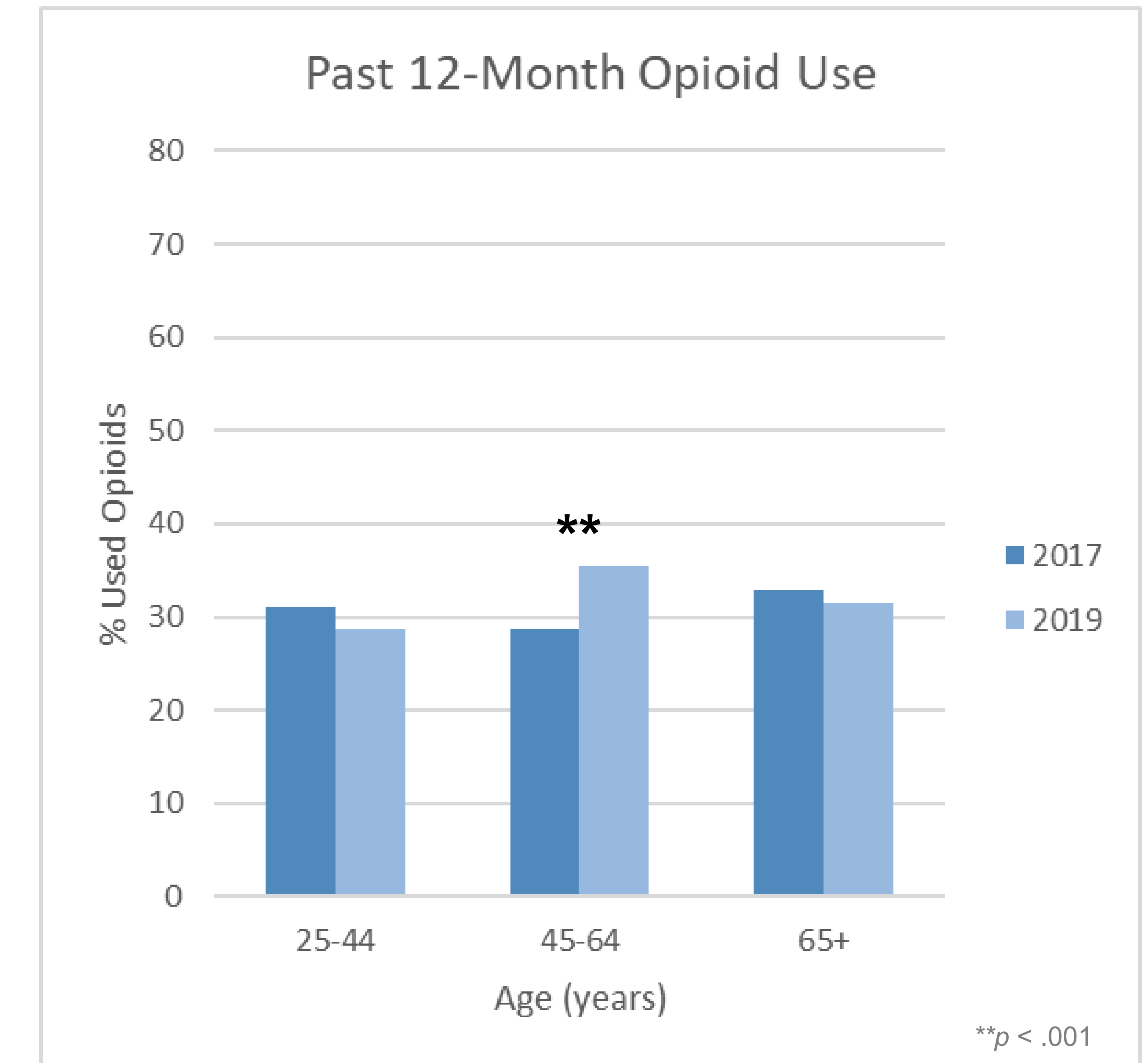
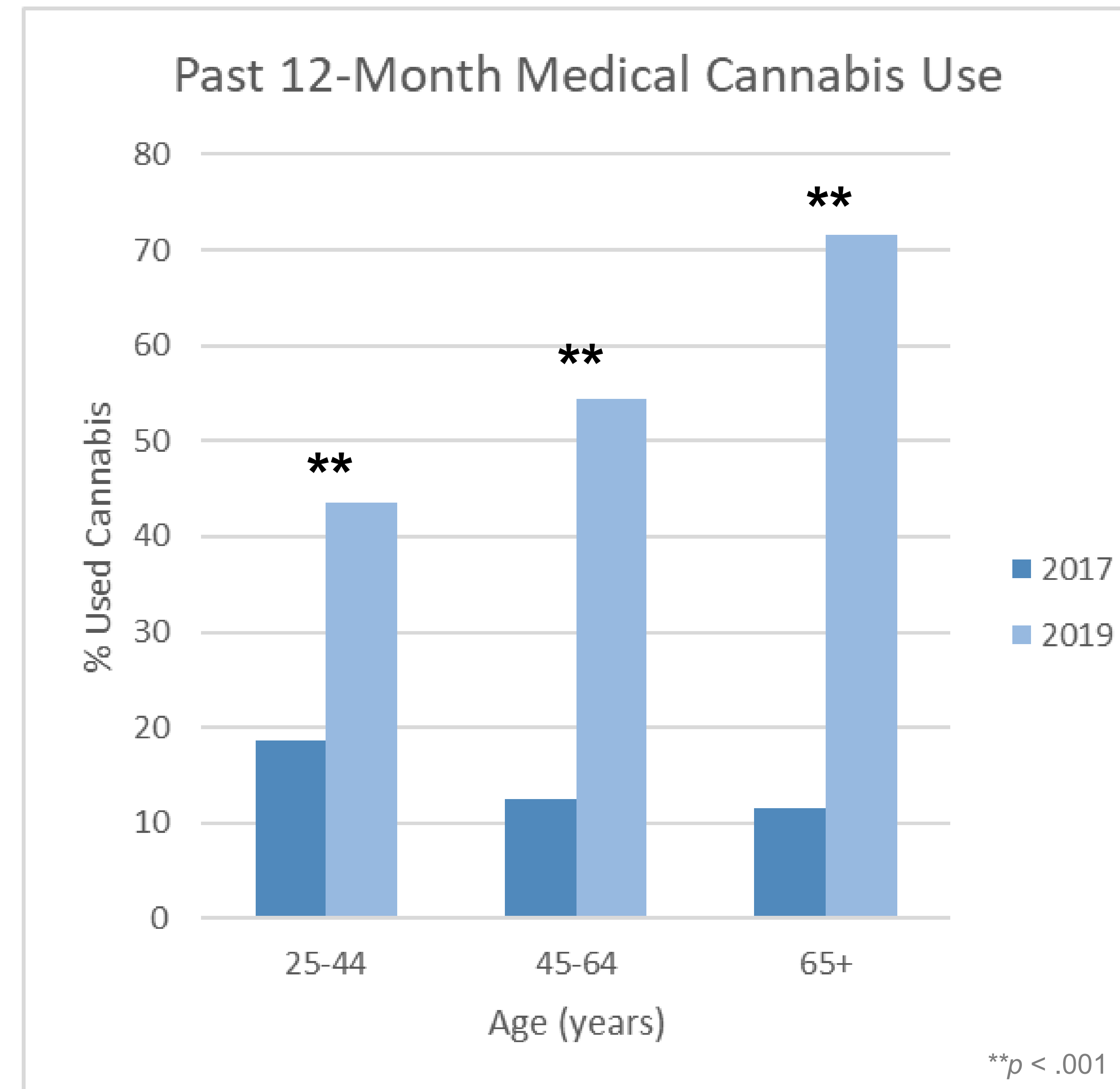
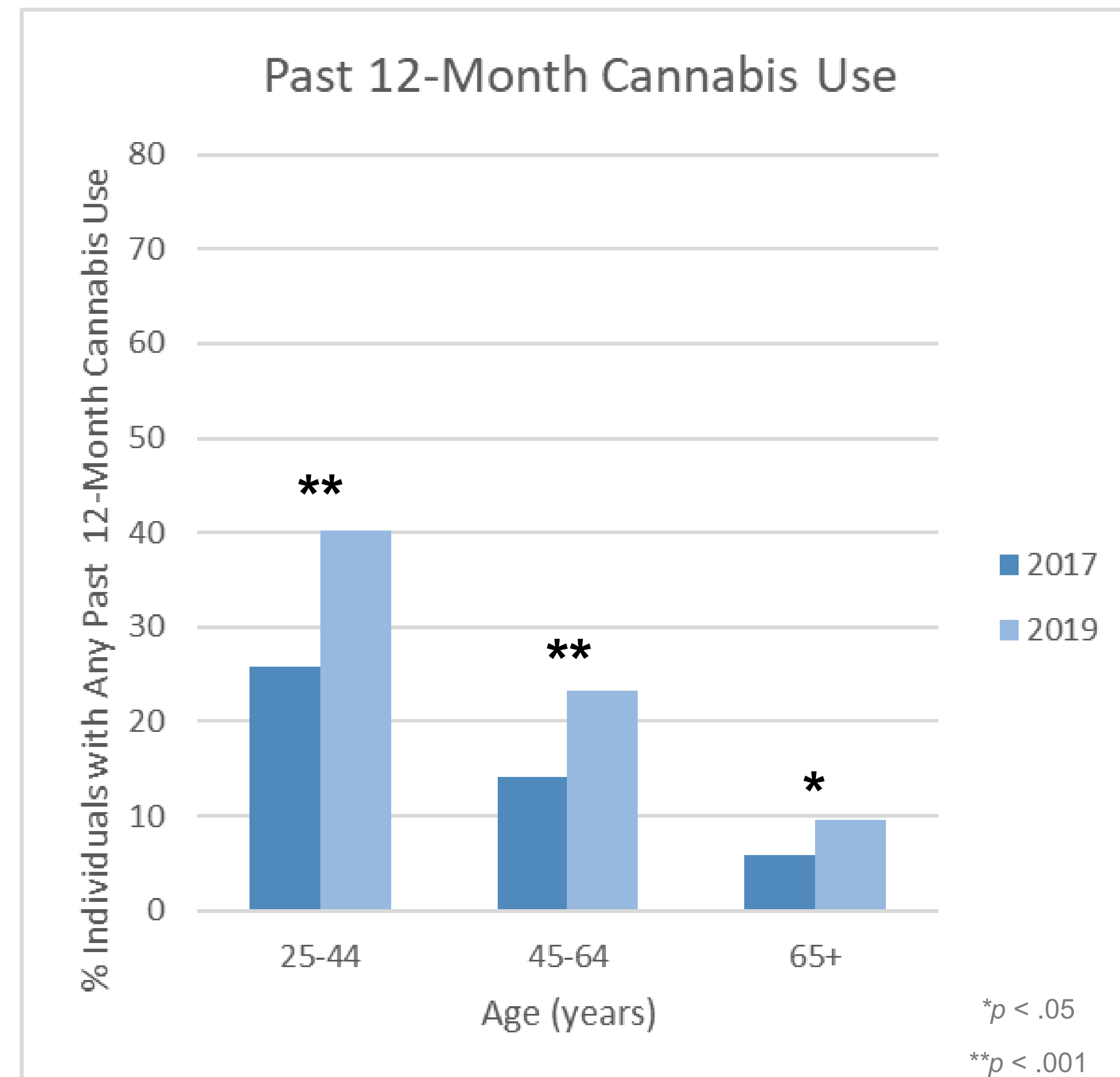
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## Introduction

- Recent nation-wide statistics have shown rising prevalence of pain-related health complaints, across age groups.
- Ongoing public health concerns regarding prescription opioid misuse have encouraged exploration of alternative pain management options, including cannabis.<sup>1</sup>
- Canada's 2018 cannabis legalization offers a rare glimpse into shifting opioid pain medication use patterns as a possibly linked consequence of change to cannabis legal status.
- Aim:** To investigate changes in the rate of opioid pain medication use before and after cannabis legalization in individuals reporting  $\geq 1x$  lifetime use of opioid medication, and to assess differences by age group.

## Methods

- 2017 and 2019 Canadian Alcohol and Drugs Survey respondents  $\geq 25$  years old reporting ever using prescription opioid medication, stratified by age (25-44, 45-64, 65+ years).
- Statistics:** Chi-Square and t-tests for demographics. Chi-square and Spearman's  $\rho$  for key outcomes.  $\alpha = .05$

## Results

Demographics	Age 25-44			Age 45-64			Age 65+		
	2017	2019	p	2017	2019	p	2017	2019	p
<b>N (%F)</b>	827 (60.7)	1,306 (60.4)	n.s.	1,638 (58.1)	1,911 (56.8)	n.s.	460 (55.7)	1,313 (58.2)	n.s.
<b>Urban Community (%)</b>	25.2	19.8	.005	28.1	28.4	n.s.	30.0	28.2	n.s.
<b>Mean Health (SD)</b> 1=Excellent, 5=Poor	2.21 (0.93)	2.14 (0.87)	.002	2.31 (0.99)	2.41 (1.00)	n.s.	2.71 (1.13)	2.65 (1.01)	<.001
<b>Mean Mental Health (SD)</b> 1=Excellent, 5=Poor	2.11 (0.97)	2.34 (1.00)	.013	2.03 (0.92)	2.16 (0.97)	.001	2.14 (0.97)	2.06 (0.91)	.002

### KEY FINDINGS

- Increased past 12-month cannabis use ( $X^2 = 6.0-45.9$ , all  $p$ 's<.05).
- Among cannabis users: increased reported medical use ( $X^2 = 77.6-283.9$ , all  $p$ 's<.001).
- Increased past 12-month prescription opioid use in age 45-64 ( $X^2=18.2$ ,  $p<.001$ ). No other significant differences in opioid use by age group.
- Small associations between past 12-month cannabis (general and medical) and opioid use in all ages ( $r=.43-.254$ , all  $p$ 's <.05)

### REFERENCES

- Health Canada. Canadian Pain Task Force Report. Published 2021. Accessed May 27, 2022.
- Vyas MB, LeBaron VT, Gilson AM. The use of cannabis in response to the opioid crisis: A review of the literature. *Nursing Outlook*. 2018;66(1):56-65

## Conclusions

- Cannabis and opioid use increased over time, suggesting cannabis legalization may not reduce opioid use.
- Increased medical cannabis and opioid use is congruent with increasing prevalence of pain-related health complaints, suggesting increasing need for pain management.<sup>2</sup>
- Direct relationships between substance use with legalization of cannabis and pain cannot be elucidated due to the nature of the dataset.
- Given study's cross-sectional design, etiology of observed changes in opioid and cannabis use across time cannot be determined.
- Future longitudinal investigations are needed, such as in countries where cannabis legalization is being considered.

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