

# High time to decide

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The October 2020 'reeferendum' will determine the legal status of recreational cannabis in New Zealand (<http://www.referendums.govt.nz/cannabis/summary.html>). Amidst the many arguments for and against, a key issue has yet to receive adequate debate and critical scrutiny. Cannabis-induced psychosis warrants concern because of the profound and sometimes irreversible social and occupational disability that can result. Epidemiological data from New Zealand<sup>1</sup> and elsewhere<sup>2,3</sup> strongly implicate a causal role for tetrahydrocannabinol (THC) in schizophrenia. Additional concern arises from the impacts of regular cannabis use on a critical period of brain maturation during adolescence up to the age of 25 or so.<sup>4</sup>

These problems are exacerbated by commercial pressure, regardless of legal status, for producers to develop strains of cannabis with ever higher THC content. Urban myths notwithstanding, THC drives recreational use as well as reported symptom relief and side-effects of 'medicinal' cannabis.<sup>5</sup> Another cannabis

constituent, cannabidiol (CBD), may mitigate the psychogenicity of THC,<sup>6</sup> but the notion that sufficiently high levels of the former relative to the latter could be legally mandated must be regarded as little more than a pipe dream.<sup>7</sup>

If recreational cannabis were to be legalised in New Zealand, based on overseas experience we can expect rapid commercialisation, increased use in the adult and adolescent populations, followed by an elevated incidence of psychosis.<sup>3</sup> A proper health-economic study will be required to reckon the consequent social and economic costs and, ideally, to counterbalance these against anticipated gains from legalisation on reduced gang activity, prosecution and incarceration.<sup>8</sup> On the other hand, there is evidence that decriminalisation<sup>9</sup> offers a useful compromise between the extremes of legalisation and criminalisation; its relevance as an alternative in New Zealand has been cogently argued,<sup>10</sup> but available evidence indicates that we still have a long way to go to achieve this.<sup>11,12</sup>

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**Competing interests:**

Nil.

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## REFERENCES:

1. Mellsoy G, Tapsell R, Menkes DB. Testing a hypothesis arising from the epidemiology of schizophrenia in New Zealand. *General Psychiatry*. 2019; 32(2):e100048.
2. Hasan A, von Keller R, Friemel CM, Hall W, Schneider M, Koethe D, et al. Cannabis use and psychosis: a review of reviews. *European Archives of Psychiatry and Clinical Neuroscience*. 2020; 270(4):403–12.
3. Murray RM, Hall W. Will legalization and commercialization of cannabis use increase the incidence and prevalence of psychosis? *JAMA Psychiatry*. 2020; 77(8):777–8.
4. Bagot KS, Milin R, Kaminer Y. Adolescent initiation of cannabis use and early-onset psychosis. *Substance Abuse*. 2015; 36(4):524–33.
5. Stith SS, Vigil JM, Brockelman F, Keeling K, Hall B. The association between cannabis product characteristics and symptom relief. *Scientific Reports*. 2019; 9(1):2712.
6. Wall MB, Pope R, Freeman TP, Kowalczyk OS, Demetriou L, Mokrysz C, et al. Dissociable effects of cannabis with and without cannabidiol on the human brain's resting-state functional connectivity. *Journal of Psychopharmacology*. 2019; 33(7):822–30.
7. Menkes DB. The double edged sword of medicalising cannabis. *BMJ*. 2019; 365:l4066.
8. DeVlylder JE, Mittal VA, Schiffman J. Balancing the public health costs of psychosis vs mass incarceration with the legalization of cannabis. *JAMA Psychiatry*. 2020; published online 2 September: 10.1001/jamapsychiatry.2020.591.
9. Grucza RA, Vuolo M, Krauss MJ, Plunk AD, Agrawal A, Chaloupka FJ, et al. Cannabis decriminalization: A study of recent policy change in five U.S. states. *International Journal of Drug Policy*. 2018; 59:67–75.
10. Bower L, Stevens D. Better to decriminalise cannabis rather than legalise it - bill opponents. *Stuff* [Internet]. 2020. Epub 6 May 2020. Available from: <http://www.stuff.co.nz/national/health/300005217/better-to-decriminalise-cannabis-rather-than-legalise-it-bill-opponents>
11. The number of charges and number of people charged and convicted of cannabis offences (2010–2020). Ministry of Justice, New Zealand Government. <http://www.justice.govt.nz/justice-sector-policy/research-data/justice-statistics/data-tables/>
12. Holden M. Think we're no longer criminalising people for using cannabis? Think again. *The Spinoff* [Internet]. 2020. Epub 31 July 2020. Available from: <http://thespinoff.co.nz/society/31-07-2020/think-were-no-longer-criminalising-people-for-using-cannabis-think-again/>