

Adolescent cannabis use continues its downward trend, New Zealand 2012–2018

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A recent research article in the *NZMJ* showed that cannabis use declined in secondary students (13 to 18 years old) between 2001 and 2012, with particularly strong declines among Māori and students at low-decile schools.¹ The article provided data and commentary relevant to current cannabis law reform debates, but left trends since 2012 unexamined. This research letter provides an update on adolescent cannabis use trends for the 2012–2018 period using a nationally representative survey of Year 10 students (Youth Insights Survey) administered by the Health Promotion Agency/Te Hīringa Hauora (HPA).

Methods

The Youth Insights Survey (YIS) formed part of the New Zealand Youth Tobacco Monitor, and has included a question on cannabis use since 2012. It is a nationally representative self-report survey of Year 10 students (predominantly 14 to 15 year olds) conducted in schools every two years.

A two-stage cluster sampling design is used, where first schools are randomly selected and then classes are randomly selected within participating schools. School response rates ranged from 68% (2018) to 77% (2012), and student response rates ranged from 82% (2012) to 86% (2016). Over the 2012 to 2018 period, 11,838 students participated in the survey: 3,171 in 2012; 2,935 in 2014; 2,974 in 2016; 2,758 in 2018. Further details about the survey design, procedures and response rates are available in methodology reports produced for each survey year and available on HPA website.²

For the purposes of this study, analysis was restricted to 14 and 15 year olds to improve comparability between years. After this exclusion was applied, 11,445 students were included in the analysis.

Cannabis use is based on the question: 'During the last 30 days (one month), how often did you smoke marijuana (pot, grass, weed, cannabis)?' Answer options were: 'I have never smoked marijuana', 'In the past but not in the past 30 days', 'Once or twice in the past 30 days', 'Two or three times in the past 30 days', 'About once a week', 'Several times a week'.

Four categories of cannabis use were identified: never use, ever use, past month use (ie, 'once or twice in the past 30 days' or more often) and weekly use (ie, 'About once a week' or more often). Note that these categories are not mutually exclusive. Descriptive statistics were used to calculate the number and proportion in each category. The denominator included participants who did not respond to the cannabis question. Weighted proportions were calculated using delete-a-group jack-knife method and 95% confidence intervals (CI) were used to represent the sample errors for estimates. Any difference between survey years was confirmed using *p* value that was calculated using Pearson's chi-square test. Analyses were performed using STATA version 15.0.

Results

Recent trends in cannabis use among Year 10 students are presented in Table 1. Between 2012 and 2018 the proportion who had never used cannabis increased from 80% to 85%. Ever use decreased from 19% to 14% and past month use decreased from 10% to 8% over the same period. There was no statistically significant change in weekly use. It is notable that the decline appears to be slowing, with little or no change in the most recent (2016–2018) period for both 'ever use' and 'past month use'.

Table 1: Prevalence of cannabis use in New Zealand Year 10 students (14 to 15 year olds), 2012–2018.

	2012 (N=3,017)		2014 (N=2,855)		2016 (N=2,884)		2018 (N=2,689)		Statistical significance of difference between 2012 and 2018
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)	p
Never use	2,426	79.7 (77.5–81.9)	2,336	81.2 (78.9–83.5)	2,380	82.1 (80.1–84.0)	2,281	84.7 (82.8–86.6)	<.01
Ever use	544	18.7 (16.6–20.8)	374	13.6 (11.6–15.6)	401	14.1 (12.6–15.5)	379	14.2 (12.3–16.0)	<.01
Past month use	290	9.9 (8.6–11.3)	271	9.9 (8.1–11.7)	225	7.9 (6.7–9.0)	211	7.8 (6.4–9.1)	<.05
Weekly use	117	4.1 (3.2–4.9)	96	3.7 (2.5–4.8)	79	2.9 (2.2–3.6)	92	3.3 (2.6–4.0)	ns

Discussion

The findings confirm that cannabis use in Year 10 students has continued to decline since 2012. This was predicted, since cannabis trends in this age group are strongly associated with tobacco trends, and it was already known that smoking in Year 10 students had continued to decline since 2012.³

In contrast, the New Zealand Health Survey (NZHS) shows that cannabis use has increased substantially among adults over the same period. Past year use increased from 9% in 2012/13 to 15% in 2018/19 overall, and from 19% to 29% among 15 to 24 year olds, the age group with the highest cannabis usage.⁴

New Zealand and international evidence suggests there are two key reasons for this discrepancy between adolescent and adult cannabis trends. Firstly, the average age at which young people are initiating risk behaviours, including cannabis use,

has increased in recent years.^{5–8} Secondly, normalisation of cannabis use has been counteracted by decreasing prevalence and frequency of smoking and drinking in this age group.^{9,10} The evidence suggests that adolescents' willingness to try cannabis has increased, but their opportunities for doing so have decreased due to less face to face time with friends and fewer drinking and smoking occasions.^{11,12}

A methodological strength of the YIS survey is the consistency of the cannabis question wording, study design and administration, providing strong comparability across years. The survey has a large sample size and a good student response rate. A limitation of the current study is that it includes only 14 and 15 year olds. Therefore trends in older secondary school students (among whom cannabis use is likely to be more prevalent) remain unknown. However, this information gap will be filled when the results of the Youth19 survey by the Adolescent Health Research Group are released in 2020.

Competing interests:

Nil.

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