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Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia

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Legalising cannabis: What does the evidence say?

A webpage from the Prime Minister's Chief Science Advisor, Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia.

Webpage content

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Office of the Prime Minister's Chief Science Advisor
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Introduction

In 2020, New Zealanders voted on whether to legalise cannabis for recreational use.

The 2020 cannabis referendum narrowly failed, with 50.7% of voting New Zealanders voting against proposed legislation[1] for the legalisation of recreational cannabis and 48.4% voting in favour. 0.9% of votes were unclear or incomplete. This means recreational cannabis remains illegal, although the Misuse of Drugs Act affirms that discretion should be used[2,3] when deciding whether to press charges, taking a health-centred approach. Medicinal cannabis remains legal.

Ahead of the 2020 referendum, our Office summarised key information about the possible impacts of legalising cannabis, with support from a diverse panel of experts and clinicians, see *Our Panel* (Page 57).

Legalising cannabis in Aotearoa New Zealand: What does the evidence say?

To support voters ahead of the 2020 referendum on recreational cannabis, we summarised key information about the possible impacts of legalising cannabis.

Although the referendum is now over, having narrowly failed, you can still read our summary and access relevant resources below.

This information focuses on the impact of legalising recreational cannabis use, not on the medicinal uses of cannabis, which has its own law.[4]

Many people have preconceptions and established beliefs about whether cannabis is good or bad, harmless or risky. The topic is complex and multifaceted. There may be implications of legalisation you haven't yet considered. Here we provide balanced information from trusted sources that covers a broad range of areas impacted by cannabis, including health and social impacts.

This work was informed by a diverse panel of researchers and clinicians, see *Our panel*, (Page 57). Each individual contributed information and their expertise, drawing on research from here and overseas to collectively review the available information. As this topic is complex and there are gaps in research and scientific data, we did not reach uncontested conclusions or agree on every single point. But we tried to reach a consensus on as many aspects as possible.

What might happen if you vote yes or no?

We have summarised the available evidence related to cannabis legalisation into an 'at a glance' summary.

What might happen if you vote…

Yes

We can look overseas to places with legalised cannabis for clues.

But the evidence for overseas outcomes is uncertain, reflecting the short time since reforms were made, different regulatory approaches, and a commercial industry that isn't yet fully established. Pre-existing or time-lagged trends in health and social impacts also contribute. The evidence may never become completely 'certain' and interpretation will require value judgements.

The Aotearoa New Zealand experience will depend on our unique environment and specific regulatory approach and implementation.

No

We can look at the outcomes from our current drug law where cannabis is criminally prohibited (except for the separate legal medical scheme, see *FAQ's What are we voting on* (Page 21). These outcomes are likely to stay the same or follow recent trends.

Different outcomes may arise from the progressive softening of the law, including recent changes that give police discretion to take a more health-oriented approach to drug possession rather than prosecution. However, cannabis will remain illegal. Discriminatory application of the law disproportionately affects Māori, young men and people from lower socioeconomic backgrounds when it comes to enforcement.

Production and supply of cannabis

Yes

Legal cannabis production and supply controlled see *FAQ's What are we voting on* (Page 21) through a tightly regulated but large-scale commercial for-profit industry, with regulation of the type, strength and quality of products.

No

Cannabis production and supply remains exclusively in the hands of illegal operations.

Those who wish to use cannabis need to get it from illegal sources and commit a criminal act.

No control over the type, strength and quality of cannabis products, who can purchase it, and how much an individual can buy.

Any person aged 20 or over able to buy a maximum of 14 grams per day of dried cannabis (or its equivalent) from licensed stores supplied by licensed growers.

Any person aged 20 or over allowed to grow two plants at home, up to a maximum of four per household.

Advertising and promotion not allowed. In practice, this might be difficult to control on social media and wider internet platforms.

Overseas experience suggests that illegal production and supply is likely to continue at a reduced level. The level may depend on how legal cannabis is priced.

Cannabis use

We can expect 'normalisation' of cannabis use, which may lead to increased use.

Overseas experience shows mixed evidence for use among youth and preliminary evidence of increasing cannabis use among older age groups and university students, following legalisation.

Despite regulation, commercial sellers will likely seek to expand use or broaden available products to gain market share and profits. This may involve dropping the price of cannabis.

Most New Zealanders try cannabis at some point.

15% of adults reported using cannabis at least once in the past year (2018/19 data).

Young people are the biggest users with 29% reporting past-year use (ages 15-24, 2018/19 data).

Current usage patterns likely to continue.

Cannabis enforcement and criminal justice

	Yes	No
	Cannabis-related enforcement not necessary for now-legal activities such as adult use of cannabis and limited home growing. Enforcement changes would be felt most significantly by Māori and young men. People under 20 caught with cannabis would not be convicted of a crime and would instead receive a health-based response or pay a fine. Enforcement for remaining offences would vary and may continue to discriminate against Māori and young men. Focusing enforcement on health-related offences (e.g. impaired driving) may impact public health outcomes, but depends on police priorities.	Current laws result in a substantial number of people being subject to cannabis-related enforcement and criminal convictions, which may lead to social harm. Rates of arrests for cannabis have declined substantially in the past ten years and this trend is expected to continue under recent reforms to the Misuse of Drugs Act. The number of convictions is also likely to decrease over time. Enforcement may continue to discriminate against Māori and young men.

Social and community outcomes

	Yes	No
	Weakened illegal market and reduced criminal convictions alleviate wider social harms, felt most strongly in marginalised communities. Tax revenue from legal sales could support community resources and development, but this would be subject to government spending decisions. Depending on how the regulations are applied, poor outcomes may emerge from:	The illegal production and supply of cannabis is embedded in deprived communities and is likely to continue to: • give rise to and boost organised and opportunistic crime, • compromise social wellbeing and safety, especially in vulnerable populations, and • cause disproportionate and intergenerational social harms.

- high density or concentrated cannabis retail outlets in vulnerable neighbourhoods,
- withholding new economic development opportunities and benefits from already marginalised communities
- people involved in illegal markets being unable to benefit from legal market due to compliance costs or other barriers
- the price of legal cannabis driving people to continue to use the illegal market.

Government revenue from legal cannabis sales provides an opportunity for wider community benefit.

People who are convicted for cannabis use – often young people – continue to be socially stigmatised. The lifelong impacts make it difficult to get jobs, find housing, travel and be approved for loans.

Public health outcomes

Making cannabis legal reduces some but not all risks for cannabis-related health harms. These are most often experienced by frequent and/or high-potency product users, people who start using cannabis young, and those who have a pre-existing or family history of mental health conditions or substance use disorders.

Products available for legal purchase will be safer in some respects (e.g. composition-labelled, dose-controlled, quality -regulated). However, legal markets to date feature high-potency products, which carry some risk.

A minority of users experience cannabis-related health harms, particularly those who use cannabis young, often, use high-potency products, or have a pre-existing or family history of mental health conditions or substance use disorders.

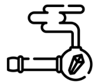
Having an illegal and unregulated market enables some product characteristics or ways of using that contribute to health risks (e.g. steadily increasing potency, contamination, no checks on product type or safety, no regulation of age of consumer).

	Information, education and guidance on safer-use practices will be directly provided (e.g. health warnings on products and at outlets). If the legal supply system includes high potency products, low prices and abundant retail outlets, use and harm may increase. At the same time, illegal markets supplying mostly high-risk products are likely to remain active and competitive.	Information, education and guidance on safer-use practices are hindered by its criminal status, with lack of awareness of how to reduce risk or limited access to the professional help/treatment for people who need it, including parents of young users.

Availability and use of help services

	Yes	No
	Reduced stigma may make people more likely to seek help or treatment if experiencing cannabis problems. Normalisation of cannabis use could change what is considered problematic use, making some people less likely to seek help when they need it. Positioning cannabis use as a health issue means it may be easier to get help and treatment to address problematic use, if the government allocates required resources and funding.	The stigma of cannabis being illegal may: • continue to prevent some people from seeking help, and • hinder other interventions that would openly educate about risks or help people use cannabis more safely. Limited professional help and treatment services available for people who have problems with cannabis use, especially young people, unless the government resources these more adequately.

Effect on other drug use



	Yes	No
	Preliminary overseas experience shows mixed evidence for changes in use of alcohol, tobacco and other psychoactive substances with legal cannabis.	Using alcohol, tobacco and other drugs with cannabis is common, can be harmful, and is likely to continue.

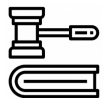
Government spending and revenue

	Yes	No
	Opportunity to generate significant tax revenue and jobs from cannabis production and sales. Opportunity to save some money on enforcement, but active targeting of remaining offences to achieve public health and safety goals would have a cost. Additional spending needed to implement, monitor and manage new regulatory systems and additional help services for users.	The government may continue to spend substantially more on cannabis enforcement than cannabis-focused prevention or treatment services. Remains impossible to generate tax revenue or benefit from economic development related to cannabis production and sales.

Research and monitoring

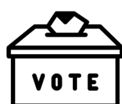
Yes	No
Some barriers to much-needed research removed, allowing for better understanding of use, products and effects. The law would be reviewed after five years. To maximise desirable impacts, the government would need to provide resources to closely monitor outcomes and adjust the regulations as necessary.	Studying cannabis use, products and effects remains difficult, despite the need for better data and a stronger evidence base. Recent legalisation of medicinal cannabis in many places is already reducing barriers to research.

Legal-political considerations



Yes	No
Cannabis laws will be more consistent with the legal provisions for alcohol and tobacco, but will have stricter regulations. Regulatory approach for cannabis will be more consistent with personal freedom to choose to use cannabis.	Cannabis prohibition laws remain generally inconsistent with those for alcohol and tobacco. Law infringes on the rights of individuals to choose to use cannabis for personal benefit (inconsistent with alcohol and tobacco regulation, but consistent with other laws that exist to limit harm to individuals and society).

Ka ahatia mēnā koe ka pōti...



Āe

Kei tāwāhi, kei ngā wāhi i whakaaetia te tarutaru i raro i te ture, ētahi tuwhiri hei tirotiro mā tātou.

Engari he pāhekeheke noa ngā taunakitanga o ngā putanga i tāwāhi, he hua nō te poto o te wā mai i ngā whakahoutanga ā-ture, te rerekē o ngā tukanga waeture, me tētahi rāngai arumoni kāore anō kia āta whakatūria. He wāhi hoki tō te āhua o mua, tō te huringa rānei i roto i tētahi wā, o te hauora me ngā pānga pāpori. E kore pea e toka ngā taunakitanga, ā, me āta arotake e te tangata e ai anō ki ōna uaratanga, e whai māramatanga ai.

Ko te wheako o Aotearoa ka whirinaki atu ki ngā āhua motuhake o tō tātou taiao, o ā tātou tukanga waeture me tōna whakatinanatanga.

Kāo

Ka taea tā tātou titiro ki ngā putanga o tō tātou ture pūroi o nāianei, e aukatihia taiharatia ana te tarutaru (hāunga te kaupapa ture rongoā motuhake). Tērā tonu pea ka mau tonu ēnei putanga, ka whai rānei i ngā āhuatanga o nā tata nei.

Tērā pea he putanga rerekē ka hua mai i te āta whakangāwaritia o te ture, tae ana ki ngā panonitanga o nā tata nei, e āhei ai tā te pirihimana whakatau, mō te pupuritanga pūroi, kia whāia kētia tētahi ara hāpai i te hauora, tērā i te hāmenetanga. Heoi anō, ka noho taihara tonu te tarutaru. He haukume nō te whakatinanatanga o te ture, ko tōna whakauruhitanga e ngau kino ana i a ngāi Māori, i te taitamatāne, me te hunga pōhara hoki.

Te whakatipu me te whakarato I te tarutaru

	Āe	Kāo
	Ko te whakatipu me te whakarato i te tarutaru i raro i te ture, ka āta waeturetia, ka whakahaerehia mā roto i tētahi ahumahi nui e arumoni ana, e waeturetia ai te momo, te kukūtanga, me te kounga o ngā hua. Ko te tangata e 20 tau, neke atu rānei te pakeke, ka āhei tana hoko i te tarutaru maroke, kia kaua e nui atu i te 14 karamu i te rā (ko tōna ritenga rānei) i ngā toa kua whai raihana, ka whakaratohia e ngā kaiwhakatipu whai raihana. Ko te tangata e 20 tau, neke atu rānei te pakeke, ka āhei tana whakatipu i ngā tipu e rua i te kāinga, kia kaua e nui atu i ngā tipu e whā i te kāinga kotahi. Kāore e āhei te whakatairangatanga. Ka uaua pea tēnei te whakauruhi i ngā pae o te pāhopori me te ipurangi whānui. E ai anō ki ngā wheako o tāwāhi, tērā tonu pea ka haere tonu ngā mahi taihara hei whakatipu, hei whakarato hoki, engari ka iti ake te pērā. Ko tana nui ka hāngai pea ki te utu o te tarutaru ka hokona i raro i te ture.	Ka noho tonu te whakatipu me te whakarato i te tarutaru hei kawenga mā te hunga taihara anake. Ko te hunga e hiahia ana ki te kai i te tarutaru, ka mate ki te whai i ngā takenga taihara, me te takahi hoki i te ture. Kāore he herenga i te momo, i te kukū, i te kounga rānei o ngā hua tarutaru, i te hunga hoko rānei, i te nui rānei ka hokona e te tangata takitahi.

Te kai tarutaru

Āe

E whakapaetia ana ka 'whakamāoritia' te kai tarutaru, ā, mā reira pea e nui ake ai te kainga ōna..

E ai anō ki ngā wheako i tāwāhi, i muri mai i te whakaturetanga, he kitenga rerekē i ngā taunakitanga mō te kai tarutaru a te taiohi, ā, he taunakitanga hukihuki e tohu ana i te piki haere o te kai tarutaru a ngā hunga pakeke ake, a ngā tauira whare wānanga anō hoki

Ahakoa ngā waeturetanga, tērā tonu pea ka whai ngā kaihoko arumoni ki te whakawhānui i te whakamahinga o te tarutaru, i ngā momo hua rānei e nui ake ai tō rātou tūtanga hokohoko, ā rātou huamoni anō hoki. Ka whai pea ko te whakahekenga o te utu o te tarutaru.

Kāo

Ko te nuinga o ngā tāngata o Aotearoa ka whakamātau i te tarutaru i tōna wā.

15% o ngā pakeke i tohu i tā rātou kai tarutaru, kia kotahi te wā, kia nui ake rānei i te tau kua hipa (nō ngā raraunga 2018/19).

Ko te taiohi te hunga e kaha ana ki te kai tarutaru, he 29% i tohu kua kainga e rātou i te tau kua hipa (15-24 tau te pakeke, nō ngā raraunga 2018/19).

Tērā tonu pea ka pērā tonu te āhua o te whakamahinga i tō nāianei.

Ngā whakauruhitanga mō te tarutaru me te ture taihara

	Āe	Kāo
	Kāore he take o ngā whakauruhitanga mō te tarutaru, mō ngā momo mahi kua kore e aukatihia e te ture, pērā i tā te pakeke kai tarutaru, me te whāititanga o te whakatipu ka āhei i te kāinga. Ko ngā panonitanga ki te whakauruhitanga ka kaha ake te rangona e ngāi Māori, e te taitamatāne anō hoki. Ka kore e mau tangetange te hara ki te hunga i raro i te 20 tau te pakeke ka mau e whai tarutaru ana, engari kē ia ka pā atu he urupare ā-hauora, he whiunga ā-pūtea rānei. Ko ngā whakauruhitanga mō ngā mahi ka noho tonu hei hara ka rerekē, ā, ka haukume tonu atu pea ki a ngāi Māori, ki ngā taitamatāne anō hoki. Ko te arotahi o ngā whakauruhitanga ki ngā hara e pā ana ki te hauora (h.t. ko te hautū waka ka māngina ana) ka pā pea ki ngā putanga hauora tūmatanui, engari e whirinaki ana ki ngā whāinga matua o te pirihimana.	Ko te hua o ngā ture o nāianei, he tokomaha ka pāngia e ngā whakauruhitanga, ka mau tangatange rānei mō te hara e pā ana ki te tarutaru, ā, mā reira pea ka whai ake ko ngā ūtonga pāpori. I te tekau tau kua hipa, kua kaha te heke haere o ngā pāpātanga mauhere mō te tarutaru te take, ā, e whakapaetia ana ka pērā tonu i raro i ngā whakahoutanga o nā tata nei i te Misuse of Drugs Act. Tērā tonu pea ka heke hoki te nui o ngā whakamaunga hara i te takanga o te wā. Ka haukume tonu pea ngā whakauruhitanga ki a ngāi Māori, ki ngā taitamatāne anō hoki.

Ngā putanga ā-pāpori, ā-hapori hoki

Āe

I te ngoikore haere o ngā tauhokohoko taihara, me te iti ake o ngā whakamaunga hara, e māriri ake ai ngā ūtonga pāpori whānui ka kaha ake te pā atu ki ngā hapori he rite tonu te whakatahangia.

Ko ngā hua tāke ka ahu mai i ngā hokotanga i raro i te ture hei hāpai pea i ngā rauemi me te whanaketanga ā-hapori, engari ka whirinaki atu tēnei ki ngā whakatau a te kāwanatanga mō te whakapaunga pūtea.

E ai ki te āhua o te whakaū i ngā waeture, he putanga kino pea ka hua mai i:

- te noho apiapi, te nui rawa rānei o ngā toa hoko tarutaru i ngā takiwā e paraheahea ana
- te taupā i ngā āheinga me ngā hua o ngā whanaketanga ōhanga hou i ngā hapori kua whakatahangia kētia
- ngā utu tautukunga, i ngā āraitanga kē atu rānei e tauārai ana i tā te hunga nō ngā mākete taihara whai wāhi atu ki ngā painga o te mākete i raro i te ture
- tā te tangata whai wāhi tonu atu ki ngā mākete taihara, nā te nui o te utu o te tarutaru i raro i te ture.

He hua pea ka puta ki te hapori whānui, i ngā whiwhinga pūtea a te kāwanatanga nō ngā hokotanga tarutaru i raro i te ture.

Kāo

Kua whai pakiaka ngā mahi taihara mō te whakatipu me te whakarato i te tarutaru ki roto i ngā hapori rawakore, ā, tērā tonu pea ka pērā tonu te:

- hāpai, te whakanui hoki i ngā taihara ka āta whakaritea, me ngā taihara tene anō hoki.
- whakararu i te oranga me te haumarutanga ā-pāpori, inarā i ngā taupori e paraheahea ana, me
- te whakaara ake i ngā ūtonga pāpori e pāhikahika ana, ka pā hoki ki ngā tini whakareanga.

Ko te hunga ka mau tangetange ō rātou hara mō te kai tarutaru - he nui ngā rangatahi ka pērā - ka mau tonu te poapoataunu ā-pāpori. Ko ngā pānga mau roa e uaua ai te whai mahi, te whai wāhi noho, te haere ki tāwāhi, te tono taurewa rānei.

Ngā putanga hauora tūmatanui

Āe

Mā te whakature i te tarutaru e iti iho ai ētahi o ngā tūraru mō ōna pānga kino ki te hauora, engari kaua ko te katoa. Ka kaha ake te rangona e te hunga he rite tonu te kai i ngā hua tarutaru, i ngā hua kukūtanga nui rānei, e te hunga rānei ka tīmata ki te kai tarutaru i ō rātou tamarikitanga, me rātou kua pāngia e ngā mate hinengaro, e ngā mate waranga rānei, kua pērā rānei ō rātou whānau ake.

Ka haumaru ake ētahi āhuatanga o ngā hua ka āhei te hoko i raro i te ture (h.t. ngā whakamōhiotanga ki ngā whakaurunga, ngā inetanga pota, ngā waeturetanga kounga anō hoki). Heoi anō, i ngā mākete i raro i te ture, kua kitea ētahi hua kukūtanga nui, he tūraru e whai pānga ana.

Ka hāngai te tuku atu i ngā pārongo, i ngā mātauranga, me ngā kupu arataki mō ngā tukanga whakamahinga haumaru (h.t. ko ngā whakatūpato ā-hauora i runga i ngā hua, ki ngā wāhi hoko anō hoki).

Ki te whai wāhi atu ngā hua kukūtanga nui, ngā utu iti, me ngā wāhi hoko huhua ki te pūnaha whakarato i raro i te ture, ka piki pea te kai tarutaru, me ōna ūtonga hoki.

Waihoki, tērā tonu pea ka hohe tonu, ka noho tātāwhāinga tonu ngā mākete taihara, he tūraru nui te nuinga o ngā hua e whakaratohia ana.

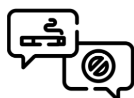
Kāo

He tokoiti te hunga kai tarutaru ka pāngia e ngā ūtonga hauora, inarā ko te hunga ka kai tarutaru ka tamariki ana, ka rite tonu rānei te kai tarutaru, ka kai rānei i ngā hua kukūtanga nui, ka pāngia rānei e ngā mate hinengaro, e ngā mate waranga rānei, kua pērā rānei ō rātou whānau ake.

Mā te mākete taihara, kāore ōna waeture, e puta ai ētahi āhuatanga o ngā hua, o ngā tukanga kai rānei e whai pānga ana ki ngā tūraru hauora (h.t. te whakakaha i te kukūtanga, te tāhawahawatanga, te korenga o ngā arotakenga i ngā momo hua, i ngā haumarutanga rānei, te korenga o ngā waeture mō te pakeke o te kaihoko).

Ka raru te tuku pārongo, mātauranga, kupu arataki hoki e pā ana ki ngā tukanga whakamahi haumaru i te noho taihara o te tarutaru, ā, ka noho kūware ki ngā ara hei whakaiti i te tūraru, hei whai wāhi atu rānei ki ngā ratonga ngaio, ki ngā ratonga whai oranga rānei mō te hunga e hiahia ana, tae ana ki ngā mātua o ngā tamariki kai tarutaru.

Te whai wāhi ki ngā ratonga āwhina



Āe

Ki te heke te poapoataunu, tērā tonu pea ka kaha ake tā te tangata whai āwhina, whai oranga rānei ina pāngia e te raru, ko te tarutaru te take.

I te whakamāoritanga o te kai tarutaru, ka huri pea ngā whakaaro ki te taumata e kīia ai he raru, ā, kāore pea ētahi e whai āwhina i te wā e tika ana.

Mā te whakatū i te kai tarutaru hei take hauora, ka māmā ake pea te whai āwhina, te whai oranga hoki ina raru, ki te toha te kāwanatanga i ngā rauemi me ngā pūtea e hiahiatia ana.

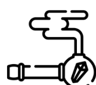
Kāo

Mā te poapoataunu o te noho taihara o te tarutaru, tērā pea ka:

- āraitia tonutia ētahi i te whai āwhina, ā
- ka raru ētahi atu kaupapa āwhina e āta whakaako ana i ngā tāngata ki ngā tūraru, ki ngā tukanga rānei e haumaru ake ai tā te tangata kai tarutaru.

He iti ngā ratonga ngaio, ngā ratonga whai oranga hoki e wātea ana ki te hunga e raru ana i te kai tarutaru, inarā ko ngā taiohi, ki te kore e nui ake ngā tohanga rauemi a te kāwanatanga.

Ngā pānga ki te kai whakapōauau kē atu



Āe

Ko ngā kōrero hukihuki mō ngā wheako i tāwāhi e tohu ana i ētahi taunakitanga rerekē e pā ana ki ngā huringa i te kai waipiro, i te kai tupeka, i te kai whakapōauau kē atu rānei ki te taha o te tarutaru kua whakaturehia.

Kāo

E auau ana te kainga ngātahitia o te waipiro, o te tupeka, o ngā whakapōauau kē atu hoki me te tarutaru, he ūtonga pea te hua, ā, tērā tonu pea ka mau tonu taua tūāhuatanga.

Te whakapau me te whiwhi pūtea a te kāwanatanga

	Āe	Kāo
	He āheinga ki te whai i ngā hua tāke nui, ki te whakatū hoki i ngā tūranga mahi i te whakatipu me te hoko tarutaru. He āheinga ki te tiaki i ētahi wāhi pūtea nō te whakauruhitanga, engari he utu tō te āta aru i ngā hara e taihara tonu ana, e tutuki ai ngā whāinga mō te hauora me te haumarutanga tūmatanui. He whakapaunga pūtea anō ka hiahiatia, hei whakatinana, hei aroturuki, hei whakahaere hoki i ngā pūnaha waeture hou, me ngā ratonga kē atu hei āwhina i te hunga kai tarutaru.	Ka mau tonu te nui ake o te whakapaunga pūtea a te kāwanatanga ki ngā whakauruhitanga mō te tarutaru, tērā i ngā ratonga tauārai, i ngā ratonga whai oranga rānei e pā ana ki te tarutaru. Kāore tonu e āhei te whai hua tāke, te whai painga rānei i te whanaketanga ā-ōhanga e hāngai ana ki te whakatipu me te hoko tarutaru.

Te rangahau me te aroturuki

	Āe	Kāo
	Ka whakakorehia ētahi o ngā taero ki ngā rangahau e hiahiatia nuitia ana, mā reira e mārama ake ai te whakamahinga, ngā momo hua, me ngā pānga. Kia hipa te rima tau, ka arotakehia te ture. E eke ai ngā pānga pai ki te taumata ikeike ka taea, me tuku rauemi te kāwanatanga hei āta aroturuki i ngā putanga, me te panoni anō i ngā waeture ka tika ana te pērā.	He uaua te tātari i te kai tarutaru, i ngā momo hua me ngā pānga, ahakoa te hiahia ki ngā raraunga e pai ake ana, ki tētahi tūāpapa taunakitanga hoki e pakari ake ana. E heke kē ana ētahi o ngā taero rangahau, i runga i te whakaturetia o te tarutaru hei rongoā i ngā wāhi huhua.

Ngā whakaarotanga ā-tōrangapū, ā-ture hoki

	Āe	Kāo
	Ka hāngai ake ngā ture tarutaru ki ngā ritenga ture mō te waipiro me te tupeka, engari ka pākaha ake ōna waeture. Ka hāngai ake ngā tukanga waeture mō te tarutaru ki tō te tangata mana whaiaro ki te kōwhiri ki te kai tarutaru.	Kāore tonu ngā ture aukati i te tarutaru e hāngai ki ērā mō te waipiro me te tupeka. E takahi ana te ture i ngā mōtika o te tangata ki te kōwhiri ki te kai tarutaru hei painga mōna (kāore e hāngai ana ki te waeturetia o te waipiro me te tupeka, engari ka hāngai ki ture kē atu e whai nei kia herea ngā ūtonga ki ngā tāngata takitahi, ki te pāpori anō hoki).

Prohibition vs legalisation

Our current law uses a 'prohibition' approach to cannabis.[5] The threat of arrest or conviction is intended to put people off using cannabis, therefore avoiding any associated social or health problems. But cannabis being illegal isn't stopping people using it and, as a result, society experiences substantial social and health harms related to cannabis. Because of the harms arising with prohibition, some people are concerned about the impacts of current drug laws – particularly on certain groups – and advocate for drug law reform.[6] Some advocates for drug law reform also note that prohibiting cannabis restricts personal freedoms in a way that is inconsistent with our ability to choose to drink alcohol or smoke tobacco. On the other hand, people argue that prohibition is in line with Aotearoa New Zealand's international obligations under United Nations drug conventions[7] and that prohibition provides a symbolic and legal deterrent to cannabis use.[8]

Though cannabis use is currently prohibited by The Misuse of Drugs Act[9] in Aotearoa New Zealand, over the past decade the regulation has morphed into a 'soft decriminalisation' approach. The extent to which the law is enforced has eased. The most recent change in August 2019 affirmed police discretion[5] to take a health-centred approach rather than prosecuting those in possession of drugs. It is too early to have solid evidence for the difference this approach has made to cannabis use, enforcement and harm. However, early signs, supported by a wealth of related evidence here and overseas, suggests that such discretion may not be applied equally. Discriminatory policing and justice outcomes[10] result from the uneven application of cannabis laws, especially for Māori. [10,11]

An alternative approach being implemented in some jurisdictions is to legalise the production, supply and use of cannabis, see *Cannabis law reform: overseas experiences* (Page 43). In theory, this approach has the potential to undercut the illegal market for cannabis, help reduce cannabis-related harm through regulated product safety, better facilitate intervention and treatment services, and separate access to cannabis from the illegal market for more harmful drugs. Whether this plays out in reality is yet to be determined, as legalisation reforms in other places have not been in place for long enough for a full evaluation of long-term impacts. There is an inevitable lag before evidence of changes in health and social measures emerge. It also takes some time for the effects of commercialisation of cannabis to eventuate where a profit-oriented approach is taken.

The impacts of cannabis law reform also depend on the specific regulations and how these are implemented and enforced in each jurisdiction. For example, Uruguay, see *Uruguary: A government-controlled market* (Page 55) has a more strict government-controlled supply of cannabis as opposed to the more liberal, commercialised markets for cannabis, similar to alcohol, seen in some states in the US, see *United States: An open, commercial approach that varies by state* (Page 52). Canada's system of legal supply is a hybrid of these two systems, with a commercial cannabis industry and limited retail and use provisions, see *Canada: A controlled, commercial model* (Page 49). Ultimately, the impacts we see in Aotearoa New Zealand will not be determined by whether cannabis is legalised, but by the specific details in the regulation. The specific regulatory framework in the draft bill[12] is therefore a critical consideration in deciding which way to vote in the referendum[12].

The impacts we see in Aotearoa New Zealand will not be determined by whether cannabis is legalised, but by the specific regulatory details in a legal framework

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The Coalition Government has proposed a regulatory framework for legalising cannabis, see *What are we voting on?* (Page 21).

Frequently asked questions

What are we voting on?

The referendum is about legalising recreational use of cannabis. The government has outlined the details of what the legalisation framework would be in Aotearoa New Zealand to control the use and supply of cannabis.[13]

A person aged 20 or over would be able to:

- buy up to 14 grams of dried cannabis (or its equivalent) per day, but only from businesses with a licence to sell cannabis
- enter licensed premises where cannabis is sold or consumed, but not smoke or vape inside (and alcohol and tobacco cannot also be sold there)
- consume cannabis on private property or at a licensed premise, but not in public
- grow up to two plants, with a maximum of four plants per household, but out of sight or not accessible by the public
- share up to 14 grams of dried cannabis (or its equivalent) with another person aged 20 or over, but it would be illegal to supply cannabis to anyone under 20.

Any cannabis for sale through a licensed vendor would:

- have been through an approval process that controls the potency (strength), quality and contents of the cannabis
- be an approved product type (e.g. dried cannabis) and not a prohibited type (e.g. those that appeal to children such as gummy bear edibles)
- come in plain packaging with health warnings and details of how the product compares to the daily purchase limit
- be taxed, with a higher rate for more potent cannabis, and levied to fund services to reduce cannabis harm
- only be available in locations and during opening hours that are established in consultation with the local community
- not be promoted or advertised outside the store.

Further details about the regulation of the supply chain, licencing, taxes and more are available at referendums.govt.nz. The bill includes proposed ways to decrease rather than increase social disparities through community involvement, input and employment in the cannabis industry, particularly for Māori and economically deprived communities.

Note that the final *draft* Bill is available to inform the referendum.[12] If the majority of people vote 'yes', the Bill would still need to go through parliament and the public would have an opportunity to provide input on the details. Therefore some details of the bill could change before the regulation was implemented.

The referendum is about legalising recreational use of cannabis

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- *The vote is for legalisation not decriminalisation – these are different*. Decriminalising cannabis means that it is no longer a criminal offence to use cannabis, but a civil penalty may still be applied, such as a fine. In places where cannabis has been decriminalised it remains illegal to grow or sell cannabis and an illegal market is relied on for supplying the drug. Examples of countries that have decriminalised cannabis, see *Cannabis law reform: overseas experiences* (Page 46) include the Netherlands, Portugal and some states in Australia and the United States. Aotearoa New Zealand took a step towards decriminalisation with the alteration to the Misuse of Drugs Act in August 2019[2] which affirmed police discretion to take a health-oriented approach rather than prosecuting people who use cannabis. In contrast, legalisation means that the production, supply and use of cannabis are legal in accordance with the specific regulations.
- *There are different laws for recreational and medicinal use of cannabis*. Medicinal cannabis is where cannabis is used as a treatment or medication for people with certain health conditions as prescribed by a doctor. Recreational use of cannabis refers to most other use (some of which involves self-medication). Aotearoa New Zealand's laws relating to medicinal cannabis[4] changed in 2019. The current referendum is only about recreational use. If recreational cannabis is legalised, cannabis will be legally available without medical advice.
- *Synthetic cannabis is illegal and is not included in the proposed law change*. So-called synthetic cannabis[14] contains chemical compounds called synthetic cannabinoids sprayed onto a smokeable plant material e.g. products sold as K2 or Spice. These chemicals are made in a lab to attempt to mimic the effects of cannabis but can be more potent and cause significant physical and mental harm, including seizures, irregular heartbeat, hallucinations and in rare cases, death. Compared with natural cannabis products, most synthetic cannabis products are stronger and more dangerous – becoming more so with each new generation of cannabinoids developed. Unlike natural cannabis, there is a risk of overdose with synthetic cannabinoids. In recent years, despite being illegal, rates of use for synthetic cannabis have increased.

If recreational cannabis is legalised, cannabis will be legally available without medical advice

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See *What happens if you get caught with cannabis now? How would it change?* (Page 23)

What is cannabis?

Cannabis used for non-medical purposes commonly exists as either a resin (called hashish in the US) or as dry herbal material. The resin is made by compressing resin glands from the plant. The dried plant material is dried flowers and fruits and some leaves and stems of the female cannabis plant. The plant can be processed into a number of products including oils, concentrates and extracts.

Cannabis contains more than 120 chemicals known as cannabinoids. Experts still aren't sure what each cannabinoid does, but two are relatively well-studied – CBD (cannabidiol) and THC (Δ9-tetrahydrocannabinol), with THC being the most studied. CBD is a non-intoxicating cannabinoid and THC is the main psychoactive compound that is responsible for the 'high' feeling.[15-17] In the plant, THC and CBD exist in their acid form (THC-A, or CBD-A), which get converted to THC or CBD on heating or drying. The combined effect of CBD and THC is complex and not well understood, but it is known that the ratio is important because CBD reduces some of the more negative aspects of THC, including anxiety and unpleasant psychosis.[18,19] Levels of THC and CBD vary depending on the plant strain and growing conditions. The strength of cannabis has been steadily increasing on the illegal market through the breeding of plants to increase the THC content, lower the CBD content, or make the ratio of THC to CBD higher.[20]

When cannabis is smoked, THC (and other chemicals) pass from the lungs into the bloodstream, which carries them rapidly throughout the body to the brain. Effects are felt quickly. When cannabis is eaten, the effects are delayed by 30-60 minutes as the body digests the food or drink. This delay may cause some people to eat more THC, leading to a higher dose than planned. The noticeable effects of cannabis last about 1-3 hours if smoked and can last for many hours when eaten. Cannabinoids can stay stored in the body for periods lasting weeks or more, which has implications for drug testing.

See *Is all cannabis use harmful?* (Page 31) and *How might legalization change the health impacts of cannabis?* (Page 33)

What happens if you get caught with cannabis now? How would it change?

It is currently illegal to possess, deal or grow cannabis in Aotearoa New Zealand. Though cannabis use is controlled through the criminal justice system, the focus on enforcing cannabis laws has substantially eased over the past decade in Aotearoa New Zealand, morphing into more of a 'soft decriminalisation' approach.

If cannabis is legalised, it would be legal for an individual aged 20 or older to possess 14 grams of cannabis and grow up to two plants at home (to a maximum of four per household). However, there would still be cannabis-related offences for breaking the new law (see *Table 1*). For example, it would still be an offence for people younger than 20 to use cannabis, for anyone to deal cannabis without a license, to supply people under the age of 20 with cannabis, and to drive while impaired.

There would still be cannabis-related offences for breaking the new law

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Table 1 Current law verses proposed legal framework

Offence	**Under the proposed legal framework**	**Current law**
Possession	The proposed regulation for cannabis would limit individual purchases to 14 grams of dried cannabis (or its equivalent) per day – the same as the limit for the amount a person can have in public. The Panel estimates this is equivalent to around 30 joints. The purchase limit accounts for the likelihood that people would purchase enough cannabis to use over a longer period of time in one transaction, in the same way that we buy a cask of wine or a case of beer. The proposed limits are lower than the possession limits in US states (most commonly 28 grams, but up to 71 grams) and Canada (30 grams), but higher than the purchase limits for Uruguay (10 grams per week or 40 grams per month). It is unclear how purchase limits will be managed.	The maximum penalty for possession of cannabis is three months in prison or a fine of up to $500, or both. [21] Police have the discretion to take a health-oriented approach rather than prosecuting those in possession of cannabis, unless they think it is in the public good to do so.[2] If cannabis possession is the only offence it is likely a person will be directed to treatment or counselling rather than the criminal justice system. The August 2019 change is likely to result in a (possibly large) decrease in the number of convictions for cannabis use. However, inherent biases in police discretion already lead to disproportionate arrests and convictions of Māori for cannabis possession.[22] This suggests that this law change may not address social inequities as much as legalisation of cannabis could.
Youth possession	People younger than 20 would be prohibited from growing, possessing and consuming cannabis. Those caught with cannabis would receive a health-based response such as an education session, social or health service, or they would pay a small fee or fine if found in possession of cannabis. This would not lead to a conviction.	Most people under 17 who are caught with cannabis will receive a warning, diversion, or require a family group conference if it is their first offence and they only had small amounts for personal use.[21] More serious cases are addressed in the Youth Court.
Dealing	Selling cannabis will only be legal for licensed stores. All other sales via the illicit market will remain illegal.	The maximum penalty for dealing cannabis is eight years in prison.[21]

Offence	Under the proposed legal framework	Current law
	Supplying cannabis to a person aged 19 years or younger would carry a fine or prison sentence, with a maximum penalty of 4 years in prison or fine of $150,000.	
Growing	The proposed regulation allows for individuals to grow up to two plants at home, with a maximum of four plants for two or more adults at the same house. If a person grows more than that (up to 10 plants) they will be fined but not convicted. There is no limit for total annual production from home growing. Of other places that have legalised cannabis, only Uruguay has set a production limit from home growing to 480 grams per year. The panel estimates that the amount of cannabis that could be grown from two plants per person is less than what could be purchased based on the daily purchase limit of 14 grams.	The maximum penalty for growing cannabis is seven years in prison, but the charge depends on the amount being grown and if the person is dealing it.[21]
Driving while impaired	The bill does not cover driving while impaired. A new compulsory random roadside oral fluid testing scheme is being introduced by 2021 regardless of whether cannabis becomes legal or remains illegal.[23] The threshold for a criminal offence will be aligned with that for alcohol. An independent expert panel is advising the government on the test.[24]	It is an offence to drive while impaired by cannabis. Potential penalties include up to three months in prison, or a fine up to $4,500 and disqualified licence for at least six months. At the higher end of the spectrum, penalties may include 10 years in prison, or a fine up to $20,000 and disqualified licence for at least one year. Roadside testing for drugs, including cannabis, is being introduced by 2021 regardless of the referendum outcome. A new compulsory random roadside oral fluid testing scheme will include testing for cannabis.[23] The threshold for a criminal offence will be aligned with that for alcohol. An independent expert panel is advising the government on the test.[24]

Offence	Under the proposed legal framework	Current law
Positive drug test at work	Legalisation will not affect the right of employers to test employees for cannabis use. For example, employers can still have policies (or contractual provisions) that require negative drug tests before they will employ someone to use heavy machinery.	Employers have the right to test for cannabis, as long as they have a policy in place (or contractual provision) that provides for drug testing.

For further details about the proposed regulatory framework for cannabis in Aotearoa New Zealand, see *What are we voting on?* (Page 21)

Will cannabis use increase if it is legalised?

It is very common to have tried cannabis and common to occasionally use cannabis even though it is illegal. Most people have tried cannabis at some point in their lives and 15% of people reported using cannabis in the past year in 2018/19.[25] It is not clear how rates of cannabis use would change if recreational use is legalised but it is reasonable to expect that legalisation will 'normalise' cannabis use in society. Exact changes depend on whether non-users begin to use cannabis upon legalisation, and whether existing users change their patterns of use. In turn, regulation of the legal market and the price of legal cannabis will impact use patterns. The regulation will dictate where, how much and what types of cannabis can be accessed legally.

It is very common to have tried cannabis and common to occasionally use cannabis even though it is illegal

Through studies and surveys conducted locally, we know that despite cannabis being illegal:

- *Most New Zealanders have tried cannabis*. Large numbers of people report trying cannabis,[26] with one study finding four out of five people tried cannabis before the age of 25.[27] We tend to see higher rates of use reported where study participants are followed over time as opposed to one-off questionnaires which may reflect differences in peoples' willingness to report honestly or differences in the types of people captured by the study.
- *Overall, an increasing number of New Zealanders report current use*. The number of people who reported using cannabis at least once in the past year increased from 8% in 2011/12 to 15% in 2018/19.[25] Māori report rates of use that are roughly double those of non-Māori.[26] There is limited information about the rates of cannabis use for Pacific people, though available data suggests that young people who live in the Pacific Islands have higher rates of use than young Pacific people who live in Aotearoa New Zealand.[28]
- *Many people who use cannabis do so frequently*. Around a third of New Zealanders who use cannabis report using it at least once every week.[26]

- *Younger New Zealanders are the biggest users of cannabis***.** Around 29% of people aged 15-24 years report using cannabis in the last year, up from 15% in 2011/12.[26] Though rates of use are going up in 15-24 year olds, fewer young New Zealanders are reporting that they have tried cannabis in year 10 with continued decreases in use between 2001 and 2018. Five percent fewer year 10 students reported ever trying cannabis in 2018 compared to 2012 and 2% fewer reported using cannabis in the past month. The largest drop in use has been in Māori, younger students and students at lower decile schools, and the changes are not thought to be because students were increasing use of other drugs.[29]
- *Getting a cannabis conviction doesn't stop people from continuing to use cannabis***.** Ninety-five percent of people who use cannabis either continue or increase their cannabis use after arrest or conviction.[30]
- *Using both cannabis and tobacco is common***.** People who smoke tobacco are about five times more likely to also use cannabis, and about 30 times more likely to smoke both if they are heavy users.[31] In a global drug survey, around one in four New Zealanders who use cannabis reported mixing with tobacco, well below the global average of three in five.[32]

There are only a small number of studies to date measuring the impacts on rates of use where cannabis has been legalised. These short-term effects may not reflect longer-term trends. This is because the legal retail environment is only recently established in most places, so the impact of legalisation is lagging behind the law change. Some studies are also limited in how they measure 'use', commonly looking at whether someone used cannabis in the past month or year which may not reflect problematic use that leads to increased harm. Use trends differ by age, gender and location so there are no blanket findings about cannabis use following legalisation.

Use trends differ by age, gender and location so there are no blanket findings about cannabis use following legalisation

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So far, the evidence from overseas shows that in the short term:

- *Adults report moderate increases in occasional cannabis use:* The Canadian government reports that after legalisation around 2% more people used cannabis in the past three months, reflecting particular increases in use by males, adults over 25 and those from certain regions.[33] US studies also report increases in past-year use ranging from around 1-5%,[34] and highlight changes in certain subgroups, including an increase in past-month use in college students[35] and people older than 25.[36] In Uruguay, a 1% increase in past-year and 1.6% increase in past-month cannabis use have been reported between 2011 and 2014.[37] Notably rates of occasional cannabis use were increasing before legalisation so these increases may reflect ongoing trends.

- *Patterns of frequent and problematic use may change:* In the US, the frequency of cannabis use has increased among adult cannabis users after legalisation of medical cannabis with commercial retail outlets and similar evidence is emerging after legalisation for recreational use.[36] There is early evidence of a small increase in cannabis use disorder from 0.9% to 1.23% for those over 26 in states where recreational legalisation has occurred compared to those where it hasn't.[36] However, in Canada there hasn't been an increase in the number of people using cannabis daily or almost daily, except in those over 65.[33]
- *There is no clear pattern of change for young people.* In the US, there has been no clear impact on rates of use or cannabis use disorders in youth. Studies have demonstrated increases and decreases of around 2-4%, or no change, depending on who is surveyed and in which states. One study found that the increase in rates of cannabis use disorder in 12-17 year olds is 25% higher in states where cannabis has been legalised, but these findings may be caused by other factors, and no differences were reported for those aged 18-25.[36] In Canada, there has been no reported change in those age 15-24 for occasional or frequent use. A significant drop in occasional use is reported for 15-17 year olds, but it is stated this needs to be interpreted with caution.[33,36,38-43] In Uruguay, a study found no impact of cannabis legalisation on rates of youth use.[44] It is possible these trends reflect wider decreases in substance use seen among young people.[45]

There are only a small number of studies to date measuring the impacts on rates of use where cannabis has been legalised. These short-term effects may not reflect longer-term trends

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It is too early to tell what the impact of legalisation on use rates will be and we are unlikely to know long-term outcomes on patterns of use for some time. For context, it took four decades for alcohol consumption to return to pre-prohibition levels in the US.[38]

We also need to interpret cannabis use data with caution. Because it is illegal, research on cannabis has historically been difficult and there are real concerns about collecting and storing data on who uses cannabis and where they get it from. People may also be reluctant to be honest about their use of cannabis when it is illegal but more willing to report use when it becomes legal. This makes it look like use has increased following legalisation, though it doesn't explain differential changes among different subgroups. Alternative methods of testing cannabis use such as through wastewater testing, as was done in Washington State,[46] could get around these issues. In Aotearoa New Zealand, ESR is working with the police on testing for drugs in wastewater[47], but cannabis is not currently included.

Public health impacts are related to problematic use of cannabis rather than occasional use, so health impacts depend on who is using cannabis and how often – see *Is all cannabis use harmful?* (Page 31)

What are the social and community impacts of cannabis prohibition?

Laws that make people who use cannabis criminals cause harm.[48] Prosecuting a person for cannabis use subjects them to a criminal process that may stigmatise them for the rest of their life and in some cases expose them to prison.[49] These social harms do not impact everyone in the same way because not everyone is treated the same when it comes to enforcing the law. Some people and communities come under far greater levels of scrutiny and surveillance by state agents, particularly the police, than others.

In Aotearoa New Zealand, systemic racism in the justice system means that Māori are disproportionately more likely to be arrested, sentenced and convicted for drug offences, including cannabis-related crimes.[11,50,51] As a result, the social harms from our current cannabis laws disproportionately fall on Māori communities and young people, exacerbating inequality and social problems. For people and communities disproportionately affected and criminalised under punitive drug regimes, criminalisation of cannabis use may cause more harm than cannabis use itself.[11,50,52]

Māori are disproportionately more likely to be arrested, sentenced and convicted for drug offences, including cannabis-related crimes

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- *Illegal cannabis use, production and supply activities are embedded in deprived communities*. This gives rise to organised and opportunistic crime, compromises social wellbeing and safety, and exerts disproportionate and inter-generational social harms associated with cannabis in these communities. Some people in these communities rely on the illegal market as a source of income and further harm may be caused if these people cannot benefit from the legal market. Māori already have greater barriers for accessing health and other services and cannabis prohibition means that for marginalised groups a justice approach rather than a health approach is more likely in the current legal framework.[53,54]
- *Having a drug conviction leads to the loss of many opportunities over a person's lifetime*. Sometimes referred to as 'harm from drug conviction', this includes reduced job prospects, difficulty finding housing, missing out on getting an education, or being unable to travel overseas.
- *A low-level cannabis conviction can have a snowball effect in the justice system*. The harms cascade within the broader justice system. For example, having a prior conviction influences whether a person is bailed or remanded in custody – therefore exposing a person to prison time. Housing issues that result from a drug conviction, even a low-level cannabis conviction, may also make a person less likely to be bailed because they do not have an address that is approved by the police and courts.
- *Cannabis convictions also affect family and whānau, in many cases further embedding poverty*. Formal interactions with the criminal justice system often means ongoing association with people and systems that are likely to lead to other criminal behaviour.

See *How would legalizing cannabis impact Māori specifically?* (Page 30)

What is cannabis use disorder?

Doctors use the term 'cannabis use disorder' to describe problematic use of cannabis, ranging from mild to severe, with addiction at the severe end of the spectrum. Cannabis use disorder can lead to a person suffering from anxiety, sleeping problems, depression and appetite changes when they stop using it. People who use cannabis have a 1 in 5 risk of developing cannabis use disorder, with risk increasing for those who use cannabis early, often, and use more potent cannabis. But use alone does not determine if someone will develop problematic use of cannabis – other personal, environmental and social factors will contribute.

How would legalising cannabis impact Māori specifically?

Māori have borne the brunt of biased enforcement and the negative health effects of cannabis being illegal.[53] Legalising cannabis could have important positive implications for social equity outcomes, particularly for Māori. Legalisation has the potential to formally address some of the bias in the justice system by placing Māori on a substantively equal footing with other citizens regarding cannabis use.

Legalising cannabis could have important positive implications for social equity outcomes, particularly for Māori

- *Prohibition of cannabis has disproportionately prosecuted and imprisoned Māori. Māori are three times more likely to be arrested and convicted of a cannabis-related crime than non-Māori,* even after accounting for differences in use.[55] Coupled with being ten times more likely to get a conviction if you're male, Māori men in particular are disproportionately impacted by the illegal status of cannabis.[55]
- *The significant and life-long collateral consequences from cannabis convictions which can ruin future opportunities disproportionately impact rangatahi Māori*. These include the ability to stay engaged in formal education, travel overseas, gain and maintain employment, housing and welfare benefits.[53]
    - See *What are the social and community impacts of cannabis prohibition?* (Page 29)
- *Racial biases mean that the discretion afforded to police may privilege non-Māori and disadvantage Māori.* Māori are almost twice as likely as non-Māori to go to court over a first offence and nearly seven times more likely to be charged.[11] Though police have discretion to take a health-oriented approach rather than prosecuting those using cannabis, inherent biases in police discretion implied by the disproportionate arrests and convictions for cannabis possession for Māori suggest that this law change may not address social inequities as much as legalising cannabis could. Unconscious bias by police towards Māori has been acknowledged by former Police Commissioner Mike Bush and current Police Commissioner Andrew Coster.[56] While systemic racism persists in our justice system, the current cannabis laws will continue to disproportionately affect Māori and fuel social disparities.

- *Māori are more likely to suffer harm from cannabis use and less likely to be able to access health treatment*.[53,57] There is currently a lack of provision of alcohol and other drug treatment services in the geographic locations where Māori reside. Under the legal framework proposed, people who use cannabis will be able to be directed to health resources, such as treatment for addiction, which will be funded by cannabis-derived taxes.
  - See *Will legalising cannabis burden the healthcare system?* (Page 35)
- *Legalising cannabis may help to tackle wider inequities and injustices faced by Māori*. One of the policy objectives is to lower the number of New Zealanders, especially Māori, whose future opportunities are negatively affected by cannabis use charges. It is estimated that legalising cannabis will reduce Māori cannabis convictions by up to 1,279 per year.[10] Social equity provisions in the proposed regulation may also help to ensure that already disadvantaged people, including those who rely on the illegal market, do not miss out on economic benefits from a legal market due to compliance costs or other barriers. However, if these measures are ineffective the legal market may widen the equity gap.
- *Legalisation will not eliminate police-related cannabis contacts*. For example, it will still be an offence to drive under the influence of cannabis, consume cannabis in public or use cannabis under the age of 20.[58] Elsewhere, racial disparities for cannabis-related enforcement have persisted after legalisation, as these require wider, systemic issues of discriminatory policing and justice outcomes to be addressed.[59] It is possible that an agency other than the police could be responsible for enforcing some aspects of a legalised regime.

See *What happens if you get caught with cannabis now? How would it change?* (Page 23)

Is all cannabis use harmful?

Illegal cannabis use is common and the majority of people who use cannabis have not experienced harms from their use. But the consequences of using cannabis aren't the same for everyone.[22,60-64] Certain people or those with particular patterns of use are more likely to be harmed – either because of health impacts from using cannabis (see below) or because cannabis is illegal and using it has got them in trouble with the law (referred to as 'social' harm – see *What are the social and community impacts of cannabis prohibition?* (Page 29) Cannabis also comes in a variety of forms and strengths – some are less harmful than others – see *'What is cannabis?* (Page 23)

The consequences of using cannabis aren't the same for everyone

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- Cannabis use can be harmful for young people. The earlier in life you begin using cannabis, the higher your risk of serious health problems. As a general rule, using cannabis before age 15 leads to the poorest outcomes and waiting until age 25 to use cannabis has the best outcomes. People who start using cannabis at a young age are less likely to finish their education and more likely to be unemployed, use other drugs, experience mental health conditions and develop cannabis use disorder (a diagnosis given for problematic cannabis use, including addiction and other related problems), especially if they use cannabis often. [22,60-64]

- Using cannabis daily or nearly every day is more harmful than occasional use. People who use cannabis frequently or intensively are more likely to experience poor outcomes or develop problems with use, especially young people.[22,65] People who use cannabis often also pay more for it, most likely because the price fluctuates seasonally but they cannot wait for lower prices.[66]
- Higher potency cannabis is associated with some mental health problems. Stronger cannabis has higher concentrations of THC and/or a higher THC to CBD ratio, which is known to increase the risk of developing mental health conditions or cannabis use disorder.[67] Most cannabis within Aotearoa New Zealand is thought to be high THC with low levels of CBD.[67]
- All ways of using cannabis come with risks. Different ways of using cannabis, including smoking, vaping and edibles have different risks.[68]
    - Guidelines for lower-risk use of cannabis advise people to avoid smoking it. Similar to smoking cigarettes, smoking cannabis has negative health impacts such as lung damage, including so-called 'bong lung'.[69] The Government has set a goal for smokefree 2025, aiming for fewer than 5% of New Zealanders to be smokers by that date. This is not a law change and smoking will not be illegal – it's simply a target to support people who smoke to quit and prevent non-smokers from starting smoking.
    - Vaping is currently considered a lower-risk alternative to smoking cannabis. Although vaping cannabis is likely to be substantially less harmful than smoking cannabis, it is not harmless. A big concern is that we don't know what the long-term health effects of vaping are because it is so new. Differences in vape pens (e.g. different maximum temperatures) and products (e.g. dry flower vs vaping liquid) are associated with different health-related harms. For example, use of cannabis vaping liquids has been associated with a cluster of severe lung injury cases caused by contamination of the products with vitamin E. Most of these were illicitly produced and without quality controls contamination by bacteria or other chemicals could also happen. Another concern with vaping is that it enables people to use higher-potency cannabis concentrates, increasing the risk of harm.
    - Consuming cannabis through edibles is considered lower-risk than smoking it. Cannabis edibles are anything that you can eat or drink that has been infused with cannabis. Using cannabis this way eliminates the substantial respiratory risks and lung damage associated with smoking cannabis. It can also reduce risk if edible products are available with regulated potency. Edibles have other potential issues that need to be managed.[38,68] Unfamiliarity with edible dosing and difficulties in dividing edibles can result in unintentional overdose.[70] This may be particularly problematic for first time or novice users. Accidental exposure to edibles is a particular risk for children and is a risk whether or not the product is legal. However, following legalisation of recreational cannabis in US states, there has been an increase in the number of children who accidentally ate products containing cannabis, leading to intoxication and sometimes hospitalisation.[38]
- Cannabis use is higher risk for people with a personal or family history of mental health conditions. People who are vulnerable to mental health conditions, including psychosis, are more likely to develop a condition after using cannabis.[22,71,72] It's safest for people with a personal or family history of these conditions to avoid using cannabis altogether.

- Using cannabis during pregnancy has risks of causing harm to the mother and baby. Maternal cannabis use increases the risk of anaemia, low birthweight, and childhood developmental and behavioural problems.[73,74] It's safest for pregnant women to avoid using cannabis altogether.
- Cannabis use is higher risk for people with heart conditions. Cannabis use increases a person's heart rate in a dose-dependent way and might make heart conditions worse.[75] It's safest for people with a history of heart disease to avoid using cannabis altogether.

Most health-related harm is suffered by those who use cannabis young, at high potency and on most days – this harm happens whether or not cannabis is legal. Lower-risk cannabis use guidelines have been developed by researchers based on evidence of the least harmful approaches to cannabis use.[i68] Questions have been raised about the likelihood of people following these guidelines as there is currently little or no support for addiction treatment and education to steer people towards lower-risk use of cannabis.[76] The strategies to reduce harm include:

1. Choosing not to use cannabis
2. Not starting to use cannabis until after 25
3. Using cannabis products with a low THC content or higher CBD:THC ratio
4. Not using synthetic cannabis products
5. Using non-smoking options to consume cannabis
6. If smoking, avoiding deep inhalation and long holding of the breath
7. Minimising use as much as possible
8. Not driving or operating machinery while impaired
9. Completely avoiding cannabis use if you have a personal or family history of psychosis, substance use problems, or are pregnant
10. Avoid combining behaviours that are considered higher-risk

See *How might legalisation change the health impacts of cannabis?* (Page 33)

How might legalisation change the health impacts of cannabis?

The health impacts of cannabis use aren't the same for everyone. Some can be beneficial and some harmful.[68,77-81] It depends on who is using it, what they are using it for and how often. The health impacts also depend on the type of cannabis being used. Cannabis is variable – it comes in different strengths and products, different parts of the plant can be consumed, and sometimes it is combined with other substances. Cannabis use has health impacts regardless of whether it is legal or illegal, but the impacts may change depending on how the legal market is regulated.

Cannabis use has health impacts regardless of whether it is legal or illegal, but the impacts may change depending on how the legal market is regulated

- Trying cannabis is unlikely to cause harm, but ongoing use can have negative health impacts. As well as the intoxicating effects experienced immediately after use, heavy cannabis use can have a range of health impacts. Research into the health impacts of cannabis has been limited by its illegal status and it is difficult to assess the adverse health impacts that are specifically caused by cannabis. What we do know has been summarised by the Royal Society Te Apārangi in Cannabis: How it affects our health. In short:
    - Cannabis use can be addictive but most people don't become addicted.

      See *What is cannabis use disorder?* (Page 30)
    - Cannabis use can alter brain development. This can occur for people who start using cannabis regularly or intensively early in adolescence while the brain is still developing, but can change back after time without use.[82,83] Regular use over a long time can also lead to reduced memory and attention span.[79]
    - Smoking cannabis can cause lung damage. People who smoke cannabis may experience symptoms of chronic bronchitis and other respiratory symptoms such as cough and wheeze.[22]
    - Cannabis use can increase the risk of psychotic symptoms or psychosis in some people. Cannabis can contribute to psychotic symptoms – when people experience changes in how they perceive reality and find it hard to know what is real – but most people that use cannabis do not experience these symptoms and most cases are not caused by cannabis.[22,75,84-91] Psychotic symptoms associated with cannabis use are often very mild.[92] Cannabis can also contribute to more serious psychotic illness and the risk of this outcome is substantially increased for people who start using cannabis young, often and in more potent forms. [93] Around one in ten people who started using cannabis before they were 15 will go on to develop psychosis by age 26, and it is more likely for those who used it often.[94,95] People with psychosis who keep using cannabis have a worse prognosis than those who stop using it.[93] The risk is higher for people who have a family history of psychotic illness. Part of the link might also be explained by people suffering from psychosis being drawn to using cannabis.[91]
    - There is a weak association between cannabis use and depression. This could suggest a causal link or could be explained by people with depression being more likely to use cannabis.[94,96,97] We cannot draw a definitive conclusion about the direction of effect.
- *Changes in rates of use may impact the prevalence of these health conditions*.
    - See *Will cannabis use increase if it is legalised?* (Page 26)

- *Potency limits may reduce some negative health impacts***.** The more potent the cannabis, the more likely it is to cause health-related harms. In the illicit market, cannabis potency has been steadily increasing.[98] For example in the illicit market in the USA, the average THC level from seized cannabis increased from around 4% in 1996 to around 17% in 2017, with an increase in THC:CBD ratio from 23 to 104.[20] The proposed regulation includes a limit on THC of 15% for dried plant material, which is thought to be the upper end of the illegal market in Aotearoa New Zealand, though there is limited data on this.[67] We would expect a range of low THC and high CBD to also be available. The THC limit needs to strike a balance between reducing harm and drawing users away from the illegal market. A potential consequence of a lower limit is that it could maintain an illegal market for higher potency cannabis. Limits on other products are yet to be determined, but provisions for concentrates also indicate higher-strength cannabis would be available. Stronger cannabis could still be grown through home grow provisions in the law.
- *Age restrictions may limit young people using cannabis, but could lead to them accessing illicit cannabis instead.* Preventing people under 20 from using cannabis would reduce the negative health impacts associated with adolescent use. Though the number of young teenagers trying cannabis has been declining in recent years, young people up to age 25 are still the highest users of cannabis.
    - See *Is all cannabis use harmful?* (Page 31)
- *Public health messaging and education may help to promote lower-risk use***.** A benefit of legalising cannabis is that it becomes easier to educate the public about the risks and harms associated with cannabis use, including public health messaging about who might be more likely to be harmed from use. Because of the increased harm from adolescent use, specific preventative programmes aimed at school-age children may reduce harm.
    - See *Is all cannabis use harmful?* (Page 31)
- *If legal, there may be better access to health services that can support people with cannabis addiction.*
    - See *Will legalising cannabis burden the healthcare system?* (Page 35)

Will legalising cannabis burden the healthcare system?

A key goal of legalising cannabis is to shift cannabis use towards 'health issue' and away from 'criminal issue'. This can be achieved by reducing harm caused by problematic use of cannabis and lowering the use of cannabis over time through education and addiction services. Because of this, legalising cannabis could change demands on the healthcare system for addiction services, emergency needs and longer-term health needs.

Legalising cannabis could change demands on the healthcare system for addiction services, emergency needs and longer-term health needs

- *People who need help to manage their use of cannabis aren't seeking it and there's not enough help available.* The illegal status of cannabis can deter people from seeking treatment, for fear of condemnation, judgement or arrest. There is currently no or very minimal resource for treatment of cannabis-related harms, especially for young people, and availability of treatment for people with cannabis use disorder varies widely across the country. Currently, only a small proportion of people who have cannabis problems seek help to manage their use. In 2012/13, around one in 100 New Zealanders who use cannabis had received help to reduce their level of use in the last year and around one in 25 people who wanted help did not get it.[26] For the roughly 10% of people who use cannabis and suffer from unwanted psychotic symptoms, there are very limited resources for recovery and treatment to address problematic use of cannabis and psychosis. Unlike tobacco, alcohol and opioids, there are no proven medications to treat cannabis use disorder and very limited specialist treatments for are available. Behavioural interventions and school-based interventions are known to be modestly effective and could be made more widely available within a legal framework.[99]
- *Māori suffer disproportionately from addiction issues*. Inequitable health services and access to treatment, among other factors, have contributed to Māori being significantly impacted by cannabis use disorder.[53] The social harms of addiction on Māori communities include whānau breakdowns, economic deprivation, criminal offending and reoffending, housing difficulties, employment issues and stigmatisation.[57]
    - See *How would legalisation of cannabis impact Māori specifically?* (Page 30)
- *If legal, more people may seek help and more help could be available*. People are likely to be more confident to seek help for problematic use of cannabis if it is legal because of a decrease in stigma or fear of prosecution. In the 2014 Global Drug Survey, New Zealanders answered that they strongly agreed that drug policy liberalisation would increase confidence in seeking help.[100] The law proposes to reduce harm through education and addiction services so better support is likely to be available for people who have problematic use of cannabis through revenue raised by cannabis sales. Legalisation has been too recent overseas to know how demands on addiction treatment services may change.[38]
    - See *How much revenue would the Government make if cannabis was legal?* (Page 41)
- *Increased demands for addiction treatment might happen anyway*. People may be more open to asking for help for a legalised drug, but even in countries where cannabis remains illegal (throughout Europe and Australia) more people are seeking treatment to help quit or control their addiction to cannabis.[95,101-103] The recent changes to the Misuse of Drugs Act[9] to take a more health-oriented approach mean that regardless of whether the law changes, demands on treatment services for people with cannabis problems may increase. More help needs to be available, though this would be without a potential funding source from cannabis sales.

- *Other cannabis-related health impacts could increase demands on the healthcare system*. Legalisation in overseas jurisdictions has been too recent to know how demands on treatment services change for other health issues such as bronchitis or chronic psychosis disorders.[38] Early evidence from the US showed that emergency department visits for cannabis-related presentations increased following the legalisation of recreational cannabis, with several studies reporting the very low base rate roughly doubled.[104-106] Early evidence also suggests an increase of around 5 more poison exposures being reported per million people each quarter in US states after legal cannabis was available through licensed dispensaries. No significant burden on the healthcare system has been reported elsewhere, suggesting that any changes are small.
    - See *How might legalisation change the health impacts of cannabis?* (Page 33)

How does cannabis compare to alcohol and tobacco?

It is generally accepted that cannabis does less harm than alcohol and tobacco in society.[107,108] Part of the reason is likely to be because more people use alcohol and tobacco than cannabis, but it also relates to the different impacts on people who use them and the frequency of use among those who try the substances.

It is generally accepted that cannabis does less harm than alcohol and tobacco in society

Studies have shown that cannabis causes lower levels of harm than alcohol and tobacco across different measures of harm, including physical harm, dependence on the substance, and social harm.[108-110] One particular study from the UK based on expert ranking of the harm caused by cannabis, alcohol and tobacco concluded that cannabis only ranked higher than tobacco for intoxication and social harm – for all other measures it was lower than both alcohol and tobacco (the data from this study is pulled out in *Table 2*).[108] This study is from 2007 and as the potency of cannabis products increases over time, harm from cannabis is also likely to increase.

A separate analysis put forward a counter view and pointed out that, based on the US National Survey on Drug Use and Health, the self-reported rate of dependence and abuse are higher for cannabis than alcohol per user.[111] The research suggests that by including people who have merely tried cannabis in the assessments of risk from the substance, it dilutes the harm to those who use it on an ongoing basis, and concludes that it would be far more accurate to say "Cannabis is safer than alcohol, but it is also more likely to harm its users."[111]

Table 2 Comparison of the mean harm scores for cannabis, alcohol and tobacco based on a four-point scale of risk from no risk (0) to extreme risk (3), scored by independent groups of experts from a 2007 study

	Cannabis	Alcohol	Tobacco
Physical harm	1.0	1.4	1.2
- Acute	0.9	1.9	0.9
- Chronic	2.1	2.4	2.9
Dependence	1.5	1.9	2.2
- Pleasure	1.9	2.3	2.3
- Psychological	1.7	1.9	2.6
- Physical	0.8	1.6	1.8
Social harm	1.5	2.2	1.4
- Intoxication	1.7	2.2	0.8
- Social harm	1.3	2.4	1.1
- Healthcare costs	1.5	2.1	2.4

We can learn from the experiences of trying to reduce harm caused by alcohol and tobacco and apply these to cannabis. There is clear guidance on how society can reduce its alcohol-related problems.[112,113] These include restricting the marketing of products, increasing the price, reducing accessibility, setting a higher minimum legal purchase age, strengthening drink driving countermeasures and increasing treatment opportunities for heavy users. Some equivalent measures for cannabis have been included in the proposed regulatory framework, including a ban on marketing and having a higher legal purchase age than alcohol. Setting the price of legal cannabis needs to strike a balance between having a competitive price to draw people away from the illegal market while also maintaining a price that deters frequent use.

Lessons from tobacco show that health warnings increase perceptions of risk, decrease use, and increase the use of services to help quit smoking.[114] Under the proposed legal framework, health warnings will be mandatory on cannabis products. Restrictions on advertising and marketing tobacco products have also been influential in reducing use and social norms and this is proposed for the regulatory framework for legal cannabis.

Some harm reduction measures may also need to be culturally specific. Drawing on evidence from alcohol use, the proportion of Pacific people who drink alcohol is lower than the general population but the drinking patterns for those who do drink appear to be more harmful (e.g. consume more, report violence and injury).[115] In the development of alcohol harm reduction strategies for young Pacific people, traditional beliefs, church, family and peer groups are particularly important.[115] Harm reduction strategies for cannabis may require similar approaches across different cultures in Aotearoa New Zealand's highly multicultural context.

Why is the age limit 20?

It is safer to wait until age 18 before using cannabis, and even better to wait until age 25, but young people are the biggest users of cannabis. The age limit for legalised cannabis needs to strike a balance between reducing access for young people and making sure access is safer for young people who use cannabis through regulation and education. The proposed legal age limit of 20 is a relatively arbitrary cut-off to strike that balance.

Evidence to support the decision for a minimum legal age is limited. A recent Canadian study found that most later-life outcomes are better for individuals starting cannabis at age 19 than those starting it at age 18 but not worse than those starting cannabis between age 20 and 25.[116]

Young people are the biggest users of cannabis

The age for using and purchasing cannabis is not consistent with the limits for alcohol and tobacco, which also differ (see *Table 3*). It does align to the age limit for gambling in a casino. Other states and countries that have legalised recreational cannabis have aligned the cannabis age to the alcohol age limit. However, we know that the current age limit of 18 for alcohol and tobacco contributes to the harms associated with those substances. In particular, alcohol-related harms increased when the minimum purchase age of alcohol was lowered from 20 to 18 in 1989.[117]

Table 3 Legal use age verses legal purchase age

Product	Legal use age	Legal purchase age
Alcohol	None	18
Tobacco	18	18
Cannabis (proposed)	20	20

Will there be more accidents if cannabis is legalised?

Motor vehicle and workplace accidents are important public health issues related to cannabis use and are an issue even when cannabis is illegal. In Aotearoa New Zealand, around one in three people who use cannabis reported driving under the influence of cannabis in the past year.[26] How cannabis-impaired driving might change following legalisation for recreational use is not clear and depends on the rules and testing for cannabis-impaired driving, which are not covered in the proposed bill – see *What happens if you get caught with cannabis now? How would it change?* (Page 23)

In Aotearoa New Zealand, around one in three people who use cannabis reported driving under the influence of cannabis in the past year

Cannabis affects each person differently – the level of impairment depends on how much cannabis is consumed, how it is consumed (smoked, inhaled, ingested), how much, how strong it is and the user's physiology. Because of the illegal status of cannabis, research to understand its impacts on driving impairment has been difficult. As a result, there is no guidance to drivers about how much cannabis can be consumed before it is unsafe to drive or how long to wait to drive after consuming cannabis. There is a small (1.3–3 fold) increased risk of motor vehicle accidents with cannabis use, with risk increasing in a dose-related way for stronger cannabis (higher THC concentration) or frequency of use.[118] In comparison, a person aged 30 and above is about 5.8 times more likely to be involved in a fatal crash at the legal blood alcohol limit compared to a blood alcohol reading of zero, with the risk increasing for younger people and in a dose-related way.[119] The risk is substantially higher when cannabis and alcohol are combined.[68,120]

There is conflicting evidence about the impact on traffic fatalities where cannabis has been legalised overseas, partly because of limited data and partly because there may be increased testing for cannabis after a motor vehicle accident once it is legalised.[15,38,104,121-127] For example, two studies found no effect of legalised recreational cannabis on traffic fatalities,[125] two more recent studies found fatal crash rates increased after stores opened[126] and another study found conflicting results between two different states.[128] A non-peer reviewed study found that legalisation of retail sales of cannabis was associated with an increase in auto insurance collision claims.[129]

There is conflicting evidence about the impact on traffic fatalities where cannabis has been legalised overseas

There are two main ways these studies have been done so far. One way is researchers testing whether there are correlations between, for example, the number of car accidents and the timing of the law change. The limitation with this approach is that the drivers are not actually tested to see if they had used cannabis so the results could be caused or influenced by something other than cannabis. The other way is to test for the presence of cannabis (specifically THC) in the blood of drivers who crash. This method is still limited because it doesn't actually test how impaired the driver was at the time of the crash and doesn't take into account who was at fault in the crash. Because of the limitations in how these studies are done, all research into car accidents and cannabis legalisation should be interpreted with caution.

Because of inherent limitations in studies relating to impairment, the same caution should be applied to studies of cannabis use and workplace accidents.

Has cannabis always been illegal in New Zealand?

No – humans have a long history of cannabis use and criminalisation is relatively recent.[77] When Europeans arrived in Aotearoa New Zealand they brought drugs with them in the form of medications. This included the children's cough medicine chlorodyne that contained both cannabis and opium and Dr TK Douglas' 'Māori cigarettes' that claimed to cure asthma, hay fever and whooping cough. Cannabis was cheap, freely available, and even listed in the popular book New Zealand Family Herb Doctor (1889).[130]

Despite its widespread acceptance, opposition to cannabis emerged in the 19th century. By 1927, the Dangerous Drugs Act brought Aotearoa New Zealand in line with international restrictions by listing cannabis as a dangerous drug. In 1955, Aotearoa New Zealand agreed with the World Health Organization to end cannabis imports. As a result, there was little use or knowledge of cannabis here until the 1960s. But overseas influences meant things soon changed and the drug-taking message quickly spread. Before 1964, annual drug arrests numbered fewer than 50, but by 1990 there were more than 18,000 prosecutions and over 150,000 cannabis plants seized.[130]

How much revenue would the Government make if cannabis were legal?

Estimates of the potential revenue from a legal cannabis market in Aotearoa New Zealand need to be interpreted with caution because many estimates were made prior to the details of the parameters for taxes, levies and licensing fees being shared in the final draft bill. All estimates also depend on the size of the market, which is uncertain. Rather than being a profit-making enterprise for the government, it is more helpful to consider that a legal framework will allow for more meaningful spending associated with cannabis use – shifting from enforcement costs to health-related costs.

- *The government cannot source revenue from cannabis sales while it is illegal***.** Under prohibition, it is impossible to generate tax revenue or benefit from economic development from cannabis production or sales.
- *A legal market can generate revenue for the government through taxes.* The amount of revenue from a legal cannabis market depends on total sales and the way the government taxes sales. If tax is a proportion of the sale, tax revenue would decrease as the price of cannabis decreases unless this is offset by an increase in total sales. The taxation level and price of legal products will be critical factors in the extent to which consumers shift from illegal to legal retail sources.[131]
- *Spending on enforcement currently outweighs spending on harm reduction***.** Under prohibition, the government spends substantially more on cannabis enforcement than cannabis-focused prevention or professional help (e.g. treatment) services through the health system. It is possible these spending patterns could change under prohibition if enforcement lessened.
- *There will be new and different costs associated with a legal market***.** The development of infrastructure and administration to regulate cannabis and improved health services will require additional expenditures. Enforcement of remaining offences also carries a cost.
- *Health resources for cannabis users could be supported more meaningfully under a legal framework.* Legalisation provides an opportunity to save money on expenditures for enforcement of prohibition and generate tax revenue from cannabis production or sales. This revenue could be directed to health-oriented and harm-reduction measures related to cannabis.

Is legalising cannabis the first step to legalising other drugs?

Worldwide, there is a shift towards health-centred approaches, with an increasing number of jurisdictions implementing legalisation. Many others have decriminalised possession, meaning that people caught with small amounts do not get criminal convictions but those who are caught with large amounts, growing or dealing cannabis still do. No country has legalised all drug use, but Portugal has decriminalised possession of all drugs and penalties for personal possession of all drugs are generally decreasing throughout Europe.

> *No country has legalised all drug use but Portugal has decriminalised possession of all drugs*

A change in cannabis policy has the potential to affect wider drug policies. If legalisation of cannabis reduces negative outcomes and demonstrates a more effective balance between law enforcement and public health objectives, it may gradually result in countries being more open to extending this approach to other drugs.[132] Monitoring the impacts of cannabis legalisation will be crucial in determining whether that is appropriate. Importantly, popular support is a large driver of cannabis law reform globally and such wide support does not currently exist for other drugs.

If cannabis is legal, will it be a gateway to other drugs?

People use drugs for complex reasons. The pathway to drug use is not as simple as one being a gateway to using other illicit substances. That said, legalising cannabis has the potential to impact people's use of other illegal substances in a few different ways.

- *Legalising cannabis can disconnect cannabis purchase from the illegal market*. Throughout Aotearoa New Zealand, methamphetamine is currently more available than cannabis. It is thought that dealers favour selling methamphetamine because it is more profitable.[133] Providing a way to purchase cannabis that is disconnected from the illegal market may reduce exposure to other drugs, including methamphetamine. In the Netherlands, there is little or no evidence of a gateway effect between cannabis and cocaine despite cannabis being available for purchase from coffeeshops since the 1970s.[134]
- *Regular use of cannabis might make people want to try other psychoactive substances*. Most people who use cannabis do not progress to use of other illegal drugs, but people who use cannabis often are more likely to use other drugs.[22,91] This can be partly explained by people being more interested in trying other psychoactive substances after using cannabis, but may also be related to contact with the illegal market (discussed above) and social and personal factors that drive drug use.

Legal cannabis may not necessarily reduce use of synthetic cannabis. It is possible that the availability of legal cannabis would reduce the use of synthetic cannabis, but given that some of the reasons for using synthetic cannabis include the cheaper price and it not being picked up on routine drug tests, it is not guaranteed.[135,136]

Further reading

Key resources and reports for more information about cannabis and drug law reform.

Overseas cannabis law reform

- Cannabis Stats Hub, Statistics Canada (ongoing). A website that houses statistics related to health, justice, the economy and prices of cannabis for Canada following legalisation of cannabis in 2018, reported quarterly.[137]
- How will cannabis legalisation affect health, safety, and social equity outcomes? It largely depends on the 14Ps, Beau Kilmer (2019).[58] An essay by a drug policy expert about 14 factors that should be considered during design of cannabis regulation to improve impacts of legalisation.
- What Have Been the Public Health Impacts of Cannabis Legalisation in the USA? A Review of Evidence on Adverse and Beneficial Effects. Leung et al (2019).[38] A summary of the empirical research on the adverse and beneficial public health impacts of cannabis legalisation in states in the US.
- Uruguay's Middle-Ground Approach to Cannabis Legalisation, Cerda et al (2018).[138] An overview of the cannabis law reform in Uruguay, including a summary of the success and hurdles during implementation from 2013-2017.
- Non-medical cannabis in North America: an overview of regulatory approaches, Lancione et al (2020).[139] A summary of the regulations for legalised cannabis among the 11 US States, DC and Canada.
- A Framework for the Legalisation and Regulation of Cannabis is Canada, Task Force on Cannabis (2016).[140] The final report from the task force assembled in Canada to inform the government through recommendations to minimise harm through regulation.
- Assessing the public health effects of the legalisation of recreational cannabis use, Forum in World Psychiatry (Volume 19, Number 2, June 2020).[141] A series of articles and commentaries by leading experts relating to the health impacts of legalising cannabis.
- Monitoring and evaluating changes in cannabis policies: insights from the Americas, European Monitoring Centre for Drugs and Addiction (2020).[8] A technical report that reviews the new cannabis regimes in the Americas and their consequences.

Social harm from cannabis prohibition

- Drug law reform: balancing justice's racist scales, Matters of Substance (November 2019).[10] A series of articles by various authors in the Drug Foundation's November publication that focus on the inequities in social harm that result from the current prohibitive cannabis laws.
- The case for YES in the cannabis referendum, The Helen Clark Foundation (2019).[142] A report highlighting evidence to support harm reduction through regulation of cannabis for recreational use, focusing on social harms.

- Count the Costs, Transform Drug Policy (2015).[143] A series of reports detailing the impacts of the prohibition of drugs. Of particular relevance are the 'Harming, not protecting, young people'[144] and 'Creating crime, enriching criminals' reports.[145]

Health impacts of cannabis

- The Consequences of Cannabis Use, University of Otago (2020).[22] A website that summarises the key findings related to cannabis from two of the world's leading longitudinal studies that are run out of the University of Otago. Both studies followed around 1000 people born in the 1970s, one group in Dunedin and one in Christchurch. The website outlines findings related to health and social outcomes from cannabis use.
- Cannabis: How it affects our health, Royal Society Te Apārangi (2020).[77] A report summarising the evidence for how medicinal and recreational use of cannabis impacts health and highlighting knowledge gaps.
- The health and social effects of nonmedical cannabis use, World Health Organization (2016).[146] Building on contributions from a broad range of experts and researchers from around the world, this report summarises the current knowledge on the health impacts of nonmedical cannabis use.
- Lower-Risk Cannabis Use Guidelines: A Comprehensive Update of Evidence and Recommendations, Fischer et al (2017).[68] A review of evidence on behavioural factors that contribute to adverse health outcomes from cannabis that users can change.
- Public health implications of legalising the production and sale of cannabis for medical and recreational use. Hall et al (2019).[147] An academic article assessing the current and possible future public health impacts of cannabis legalisation.
- The Health Effects of Cannabis and Cannabinoids, National Academies of Sciences, Engineering, and Medicine (2017).[148] A comprehensive review of scientific evidence related to the health effects and potential therapeutic benefits of cannabis, including the current knowledge gaps and research needs.

Drug policy reform

- NZ's cannabis referendum 2020: Some facts and recommendations about the process of cannabis legalisation, New Zealand Institute of Economic Research (2020).[149] A discussion paper about the possible economic effects of legalising cannabis in Aotearoa New Zealand, in which the authors estimate that taxing cannabis could raise $490 million in revenue a year.
- International Guidelines on Human Rights and Drug Policy, United Nations Development Programme (2019).[150] Guidelines developed by a coalition of UN Member States, WHO, UNAIDS, UNDP and leading human rights and drug policy experts to practically integrate international human rights commitments into national, regional and global drug policies and programmes.

- Taking control of cannabis: A model for responsible regulation, NZ Drug Foundation (2019).[6] An accessible overview of the government's proposed regulation and suggestions of further inclusions in the legislation that could help to reduce cannabis-related harm in Aotearoa New Zealand.
- Considering Marijuana Legalization: Insights for Vermont and Other Jurisdictions, RAND (2015).[151] A detailed report that highlights the various policy options available for a regulated framework for cannabis
- What can we learn from the Portuguese decriminalization of illicit drugs? Hughes et al (2010).[152] An evidence-based analysis of the criminal justice and health impacts of drug reform in Portugal compared to neighbouring Spain and Italy.
- A Comparison of the Cost-effectiveness of Prohibition and Regulation of Drugs, Transform Drug Policy Foundation (2009).[153] An accessible document that provides a clear assessment of the regulatory issues related to cannabis law reform.
- Advancing Drug Policy Reform: A New Approach to Decriminalisation, Global Commission on Drug Policy (2016).[154] A report on decriminalisation that provides a clear assessment of current drug policy regimes and on the health costs.
- A Quiet Revolution: Drug Decriminalisation Across the Globe, Release (2016).[49] An an assessment of decriminalisation, rather than legalisation, that includes details about the key harms of criminalisation.

Cannabis law reform: overseas experiences

Cannabis law reform is taking place across the world. Many countries have taken steps to decriminalise cannabis use or to legalise medicinal use of cannabis. Very recently, a few countries and states have legalised recreational use of cannabis. Research to understand the impacts of these policy changes on public health, public safety, youth and social outcomes is underway and ongoing, but there is insufficient evidence to draw firm conclusions. The limited evidence from overseas examples is mixed and constantly evolving – outcomes from early studies appear to be both positive and negative.

There are many knowledge gaps and limitations in our understanding of the impacts of cannabis legalisation and commercialisation. The biggest issue is that because cannabis has been legalised for recreational use so recently it is difficult to draw conclusions about the potential effects. We also need to interpret available data with caution. There is sometimes a considerable delay between the law changing and the changes being implemented, which means a simplistic look at the data can lead to incorrect conclusions. Changes to the legal status of cannabis might mean that people are more likely to report use in surveys or to healthcare workers, possibly making cannabis use appear to increase when it has not.

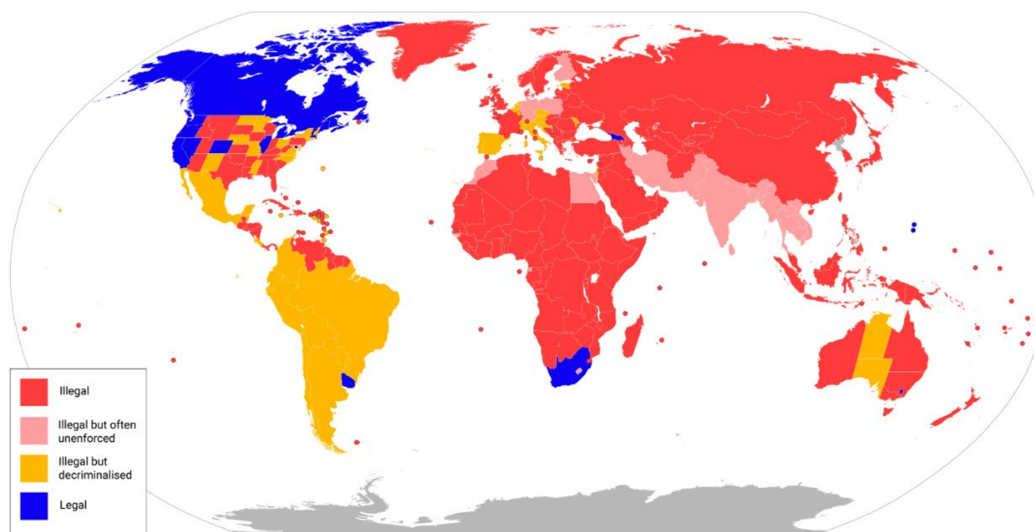

Figure 1 Status of cannabis law reform for recreational cannabis use worldwide CC BY-SA 4.0. Various jurisdictions have legalised recreational cannabis, including states in the US, Canada, Uruguay, ACT (Australia) and South Africa. For ACT and South Africa, there is no commercial market or way to purchase cannabis through regulated stores, only home grow is allowed. In contrast, the other places that have legalised cannabis allow for purchase, with Uruguay having a government-controlled market, most US states having commercial markets, and Canada having a commercial market with tighter regulation.

Legalisation

*New Zealanders are voting to legalise cannabis at the upcoming referendum***.** In general, it is too early to tell the full effects of cannabis legalisation and we are unlikely to know these for decades. Even in the future, we may be limited in drawing firm conclusions about the effects of legalising and commercialising cannabis due to the lack of historical data. Nevertheless, lessons can be learned from early adopters, including Uruguay (Page 55), Canada (Page 49), and some states in the US (Page 52).

Decriminalisation

*New Zealanders are NOT voting to decriminalise cannabis at the upcoming referendum***.** However, decriminalisation has been in practice in some jurisdictions for a long time and can give some insight into the impacts of taking the threat of criminal justice out of using cannabis. This includes the Netherlands (Page 50), Australia (Page 48), Spain (Page 52), and Portugal (Page 51).

Case studies

Explore our series of case studies: overseas examples of cannabis legalisation or decriminalisation, and how they compare to the proposed legislation here in Aotearoa New Zealand.

Australia: Legalisation, decriminalisation and depenalisation

Australia's states and territories have taken different approaches to cannabis law reform. Cannabis remains prohibited under federal law, but in January 2020 the Australian Capital Territory (ACT) became the first to legalise recreational cannabis use. In the ACT, there is no cannabis market, hydroponic cultivation is banned and gifting is not allowed. There is a personal possession limit of 50 grams of dry material, 150 grams of wet material, and a home grow limit of 2 plants per individual up to 4 plants per household.[155] It is too soon to see the impacts of this law change.

Cannabis regulation differs by state, with each having variations on decriminalisation or reliance on police discretion. South Australia and the Northern Territory have decriminalised cannabis for possession of small quantities, and though Western Australia had also, the law was repealed in 2011. In New South Wales, Queensland, Victoria and Tasmania, cannabis has not been decriminalised. These states rely on police discretion for convictions related to possession of small amounts of cannabis. Many states have formalised diversion schemes that cover cannabis and prevent convictions for minor cannabis offences. Cannabis-related arrests make up the highest proportion of drug arrests in Australia, but 39% of these are addressed using caution, diversion or infringements.[156]

Overall, regulation has been trending towards being more prohibitive since 2001, which correlates with a decline in use from around one in eight people using in the past 12 months to one in ten in 2013, largely among higher socioeconomic status groups. This might suggest an association between a tightening of the regulations and reduced cannabis use rates.[155,157] Australians are also waiting longer to try cannabis. The average age of first use of cannabis among Australian youth increased by over 12 months from 15 and a half in 2001 to nearly 17 in 2016.[158]

Indicators of cannabis supply and demand in Australia provide a mixed picture, but overall point to a large, relatively stable market. In 2017-18, the number of national cannabis arrests decreased for the second consecutive reporting period However cannabis-related drug arrests remain the highest among all drug arrests at 72,381 for the reported period. Of these arrests, 39% were addressed using caution, diversion or infringements.[156]

Canada: A controlled, commercial model

Canada legalised recreational use of cannabis in 2018.[58] The regulation allows a controlled commercial model for cannabis where production is licensed at a federal level (most are for-profit and some are publicly traded) and the provinces are responsible for retail distribution, allowing the state to control products and prices if it wishes. As a result, there is variation across the country as to whether cannabis can be purchased at privately-owned or government-owned physical stores. There is a national online sale system and tobacco and alcohol companies are allowed to own or invest in these companies.

The amount of cannabis that can be purchased in one transaction and the personal public possession limit is 30 grams and home grow limit is four plants per household, with equivalents for different products e.g. 0.25 grams of concentrates. There is no formal limit on market size/production but each province and territory controls this locally. There are strict prohibitions on most advertising, with requirements for plain packaging and mandatory health warnings.

The federal government set the minimum age at 18 years and all jurisdictions except one have set the minimum age to parallel that of alcohol purchase (some are 19). There is variation in the areas where it is legal to use cannabis – some states limit consumption to private property only and some allow in public spaces where tobacco is permitted.

The government regulates the amount and types of cannabis that can be purchased. Initially, only flower products and oils could be sold. Edibles and concentrates were legalised later.[58] Products are taxed as a function of THC levels. The Canadian Ministry of Health (2018) published the list and limits of active ingredients, which can differ depending on whether the product is fresh cannabis and plants, dried cannabis, or cannabis oil. Import and export of cannabis are prohibited. Driving under the influence is a criminal offence. The minimum standard for all jurisdictions is ≥2 nanograms per millilitre of blood, but there are also consequences for those with lower amounts of THC in the blood or with alcohol. The government imposes taxes for cannabis.

Because the legalisation of cannabis for recreational use was so recent, the impacts of regulation on social and health outcomes are not yet clear.[159] Statistics Canada's Cannabis Stats Hub reports on data collected quarterly – e.g. Q3 2019 showed stability in national rates of use overall (17% people over 15 reporting use in previous three months, higher than the 15% reporting use before legalisation), but some age groups and regions, including seniors and people aged 25-44, had an increase in use.[33,160] Early studies suggest that the trends of increasing use prior to legalisation are continuing for adults, and trends of declining use are continuing among young people, but whether this is true will not be known for some time. Many people still purchase cannabis from illegal sources due to cost and supply issues, but the number of people reporting purchase for legal sources continues to increase, with latest estimates at over 50% of people obtaining at least some from a legal source. In the year since legalisation, the percentage of Canadians reporting daily or almost daily use remained unchanged at 6%.[161] Increase in prevalence of use overall, the age of people who use cannabis generally, and significant rate increases for select older age groups, but this is all part of a longer-term trend that started many years before legalisation.[162] Smoking remains the most popular way to consume cannabis.[163]

Within the first year of legalisation, 52% of people who use cannabis reported obtaining at least some from a legal source. Obtaining cannabis from illegal sources dropped from 51.7% to 40.1%.[161] However, legalisation appears to have strengthened rather than weakened the illegal market for cannabis sales, largely because more cannabis is available from legal sources to sell illegally.[59] In the year since legalisation, the likelihood of reporting driving within two hours of using cannabis did not change – remaining at 13.2% of people with a driver's license who use cannabis.[161]

How does this compare to Aotearoa New Zealand's proposed law?

Aotearoa New Zealand's proposed legal cannabis framework aligns closely to that implemented in Canada. The New Zealand law will also be a national law ensuring greater uniformity in cannabis regulation than has been the case in Canada. The proposed regulation for advertising and public health messaging appears to be more comprehensive for Aotearoa New Zealand than Canada as it does not just apply to youth. Unlike the age limit for purchase in Canada, which aligns to the alcohol age limit and is 18 in most provinces, Aotearoa New Zealand's age limit is higher than the alcohol age limit by two years. Aotearoa New Zealand's purchase limit and home grow limits are lower than Canada's. Regulation for product types and where cannabis can be consumed are similar across the two countries. Aotearoa New Zealand will not allow online sales. Unlike Canada, licence holders in Aotearoa New Zealand will not be allowed to produce or sell alcohol or tobacco.

The Netherlands: Illegal supply for 'legal' consumption

Purchasing cannabis from licensed 'coffeeshops' and possessing small amounts of cannabis is tolerated in the Netherlands due to steps taken in the 1970s where a formal written policy of non-enforcement for violations involving possession or sale of a limited amount of cannabis was adopted.[164] Cannabis production and wholesale distribution remain illegal but simple possession has been formally depenalised from a crime to a low-priority minor offence. The sale of cannabis inside licensed premises (coffeeshops) is de facto decriminalised and tolerated, with a well-defined set of national criteria to permit coffeeshops that includes no advertising, minimum purchase age 18, limit to five grams per person per day (reduced from 30 grams), and sale limited to residents (though this is largely ignored in Amsterdam).

Over time, the enforcement of the regulations has changed and some of the details have become more restrictive. For example, it took until 1997 for officials to begin to close coffeeshops for non-compliance. In 2008, tobacco smoking in coffeeshops was banned and shops located near schools began to be closed. In 2010, a town was able to ban foreigners from buying cannabis there.[165]

Since decriminalisation came into effect, the rates of cannabis use have not dramatically differed for people in the Netherlands compared to their European neighbours where cannabis is illegal.[165] In contrast, arrests and convictions for possession for personal use are very low and arrests and criminal records for use or minor possession are extremely rare. The numbers of people who use cannabis, have ever used cannabis, or have used it recently are on par with the European average and the Netherlands has the lowest level of problem drug use in the EU.[166] Arrests and convictions for use of illegal substances and possession for personal use are very low and arrests and criminal records for use or minor possession are extremely rare.[166] First-time cannabis admissions to specialised drug treatments increased and decreased in association with variations in potency (THC level).[167] Evidence suggests that the depenalisation steps did not lead to increasing rates of cannabis use, but that the commercialisation steps that came later may have led to increases in use, including among young people.[168]

Despite better public health and social outcomes, the country still faces issues with this regulatory system. A burgeoning local black market of cannabis production has drawn more heavy law enforcement in recent years. A pilot of a fully regulated recreational cannabis market is underway to guide possible policy changes in the near future. Six to ten municipalities are participating in a trial in which coffeeshops will be supplied with cannabis under strict conditions within a regulated, closed circuit. The aim is to provide an evidence base by 2025 that will allow the government to decide upon future steps in Dutch cannabis policy.[169]

Portugal: Decriminalisation of all drugs, including cannabis

Portugal decriminalised all drug use, including cannabis, in 2001.[152] At the same time, the country greatly increased funding for drug treatment and outreach services. The consumption, acquisition and possession for personal use of narcotic drugs and psychotropic substances is decriminalised and punished with administrative infringements e.g. fines. Cannabis policy is the same as other drugs and the law aims for health and social protection of people who use cannabis.

In the time since 2001, rates of drug use have not changed significantly but the health and social outcomes for people who use drugs have improved – mostly due to changes in injecting drug use.[164] For the period 2001–2005, Portugal had the absolute lowest lifetime prevalence rate for cannabis for the 15-64 age group, the most used drug in the EU.[170]

It is still illegal to supply or sell cannabis. Cannabis social clubs exist though these are technically illegal. In 2019, the Portuguese parliament rejected two proposals to legalise the cultivation and sale of cannabis for recreational purposes.

Spain: Decriminalised non-profit distribution model

Spain has taken a liberal approach to cannabis regulation since the 1970s.[171] A de facto legalisation of cannabis supply has arisen from the persistent testing of Spain's legal boundaries by civil society. Grey areas in the legislation meant that cannabis social clubs (CSCs) emerged in the early 2000s, producing cannabis for non-profit distribution solely to a closed group of adult members. These non-commercial organisations do not have specific formal regulation or nation-wide criteria, but certain areas have enforced regulation of some aspects of CSCs.

Because of the lack of clear regulation, associations have had to improvise and invent solutions in order to standardise their activities, including development of self-regulative documents. There is no specific formal regulation for cannabis social clubs and no nationwide criteria with regards to locations, but some areas have enforced regulation of some aspects of CSCs. Guidelines differ by region, e.g. maximum number of members, quantity of cannabis to each member, residence criteria for membership etc. There is a variety of models and the practice of some individual CSCs has deviated from their federations' code of conduct.[172]

There are few studies of the impact of decriminalisation of cannabis and the emergence of cannabis social clubs in Spain. For the Catalonia region, estimates suggest 250,000 individuals used cannabis in the past 30 days and 165,000 people who use cannabis were members of cannabis social clubs, around 3% and 2% of the population respectively.[172]

United States: An open, commercial approach that varies by state

Eleven states in the US have legalised recreational cannabis use though cannabis remains prohibited under federal law – Colorado and Washington in 2012, Alaska and Washington DC in 2015, California, Massachusetts and Oregon in 2016, Maine and Nevada in 2017, Michigan and Vermont in 2018, and Illinois in 2020.[139] For many states this law change followed the establishment of a medicinal cannabis market and previous decriminalisation of cannabis use.

In most states where recreational use of cannabis has been legalised, cannabis can be purchased in unlimited strengths and forms from retail stores, with the exception of Washington DC and Vermont. All states have a highly commercialised industry with privately run retail stores and advertising is allowed, except Vermont and DC where retail stores are illegal and cannabis use is limited to home growing and gifting. The state governments impose taxes on cannabis and sometimes local governments add taxes. The differences between the state and federal laws create a number of issues and while prohibited at a federal level there are limits to the expansion of the state-specific industries.

The minimum age of purchase of 21 aligns to the age limit for alcohol. Consumption is allowed on private property and some jurisdictions allow onsite consumption. Limits on the amount that can be purchased in one transaction and the personal public possession limit range from 28 grams to 71 grams across states, as does the home grow limits (where it is allowed) ranging up to 15 plants with only two or three mature plants, but prohibited in a few states. Except for Washington, none have a cap on the total amount of cannabis (or THC) that can be produced and sold but all have limits on THC in edibles.[58] Driving under the influence is a criminal offence – varying thresholds applied in different states from zero tolerance to <5 ng THC.[58]

The body of evidence on the impacts of legalisation of cannabis across different states is growing but conflicting in many cases due to regulatory, contextual and study differences. For example, the effects on traffic fatalities, incidence and prevalence of mental health issues and other substance use, including alcohol and opioids, are unclear.[38,39] A study that evaluated the effect of changes in cannabis policy on per capita cigarette and alcohol consumption found no strong positive or negative effect on either alcohol or cigarette sales.[173] In Washington, there were no significant changes in the amount of people using cannabis and alcohol together or overall alcohol consumption, but there was a significant increase in any cannabis use and decreases in alcohol-related harms at home and alcohol-related financial harms.[174]

Evidence is more consistent that emergency room visits have increased for cannabis-related medical conditions, including short-term psychological effects such as anxiety, suicidal ideations/tendencies and psychotic symptoms, vomiting, and accidental poisoning of children from ingestion.[38] An increase in cannabis exposures reported to the US National Poison Data System of 5.06-5.80 more exposures per 1,000,000 population per quarter (67-77% increase relative to the pre-legalisation average) was observed following recreational cannabis commercialisation in the US.[161] There is also evidence that the price of legal cannabis has decreased in places where recreational cannabis use has been legalised – for example, wholesale prices declined more than 60% from January 2015 to October 2018, from $2007 to $758 for a pound of cannabis.[58]

The impacts on rates of use are unclear and differ by age group. Including data following legalisation of medicinal cannabis there has been an increased frequency of use and of cannabis use disorder among adult users but no clear impact on rates of use or of cannabis use disorders in youth.[38,39] For example, one study in Washington State showed an increase in use and declining perception of the harmfulness of cannabis for 8th and 10th graders, but no change for 12th graders.[40] Another study showed a decrease in youth use.[41] In Colorado, no significant change in perception of harm or prevalence of use in youth has been observed following legalisation.[40] Another study found that the increase in rates of cannabis use disorder in 12-17 year olds is 25% higher in states where cannabis has been legalised, but these findings may be caused by other factors, and no differences were reported for those aged 18-25.[36] Evidence suggests potential increases in college student use.[39] An increased use among pregnant and parenting women after cannabis legalisation has been reported in Washington, but this was not associated with changes in the prevalence of low birth weight or small for gestational age births during the same interval.[59]

Cannabis-related criminal activity and other reported crimes (rape, property crimes and thefts) have decreased, and police clearance rates either remained unchanged or improved following recreational cannabis legalisation.[59] A decrease in cannabis arrests in Colorado has occurred, with a decline in lower level offences, but not more serious crimes, and an increase in organised crime.[104] In Washington, there has been no change in the racial disparity of cannabis-related arrests after legalisation, with disparities in arrest rates for African Americans increasing for those of legal purchase age and remaining unchanged for youth.[175] In Oregon, the disparities in arrest rates between African Americans and Caucasians decreased following legalisation, but were unchanged for Native Americans.[176] There was also an increase in youth cannabis offences following legalisation that was not explained by an increase in use.

Legalisation has stimulated innovation in products, with a proliferation of products on offer, including highly potent products and different ways to consume these.[38] For example, a new store in Oakland, California reports selling over 500 products and data from sales in Colorado and Washington suggest that cannabis flower accounts for a decreasing share of cannabis products purchased. While edibles and THC-infused beverages account for some of the non-flower market, the fastest growing segments of the markets are the extracts for inhalation which include vaporiser pens, oils and waxes.[58] Impacts of these on public health may take some years to become apparent.

The illegal market for cannabis remains even in states where legal purchase is possible, but it is decreasing. This likely reflects the time it takes for the commercial industry to take hold. An increasing share of people are sourcing their cannabis from the legal market in states that have been established for a longer time, such as in Colorado.[177] The illegal status of cannabis in neighbouring states is thought to be a contributing factor to the illegal market remaining, as well as compliance costs to get into the legal cannabis business. For example, despite legalising cannabis in 2016, California still has a thriving illegal market, with as much as 80% of all cannabis sales being linked to illegal sources. Recent economic estimates suggest that California's illicit cannabis market is worth approximately $3.7 billion—more than four times the size of the legal market in the state.[59]

How does this compare to Aotearoa New Zealand's proposed law?

Compared to the majority of US states where recreational cannabis has been legalised, Aotearoa New Zealand's proposed law has stronger regulations for the production and sale of cannabis. Being a national law, the law in Aotearoa New Zealand law will result in greater uniformity in regulation than what is seen among states in the US. Aotearoa New Zealand's home grow and purchase limits are lower than those in the US states. There will also be limits to THC potency, which are only applied to edibles in the US states with legal cannabis. Unlike most of the US states, advertising will not be allowed. The US age limit is higher than Aotearoa New Zealand's, matching their higher alcohol age limit. Aotearoa New Zealand's island nation status would mean the issues the US states face around illegal trade across borders is not directly comparable, though illicit cannabis traffic could increase across the Tasman while cannabis remains illegal in Australia.

Uruguay: A government-controlled market

In response to fears around public security, and despite public opposition, the Uruguayan government legalised recreational use of cannabis in 2013.[58,138,178] The government-controlled market is regulated by the new cannabis regulatory agency (the IRCCA) and advertising is prohibited in all its forms.

Uruguayan citizens and permanent residents (not tourists) who are 18 years or older and want legal cannabis have to register for use and choose one method of:

- Home growing (limited to six plants with a total annual production not exceeding 480 grams);
- Cannabis social clubs (with limits for the number of members and plants) or
- Purchasing from an authorised pharmacy that is supplied by licensed producers (limited to 10 grams per week or 40 grams per month).

Implementation of the law has been slow, with sales at pharmacies only commencing in 2017. The government has full control over large-scale cannabis production, limiting licenses to companies who can grow recreational cannabis (so far five) and limiting the number of pharmacies that are authorised to sell it (so far 17). There is strict separation of production and supply. Only raw plant material with a maximum THC content of 9% is available for legal purchase at a fixed price set by the government – no edibles, oils, concentrates or alternative products can be sold. Driving under the influence is a criminal offence with a zero-tolerance THC threshold if drivers are tested. Wherever it is illegal to smoke cigarettes (e.g. enclosed public areas) it is also illegal to smoke cannabis.

Very few studies of the impacts of legalisation in Uruguay have been undertaken, so little is currently known about the public health or social impacts of legal recreational cannabis. The IRCCA reports (in Spanish) on cannabis statistics quarterly. Due to supply issues and reluctance of people who use cannabis to register for use, approximately 90% of cannabis is still sold through an illegal trade but an increasing proportion of users are served through the legal market for some purchases (54% as of Jan 2019).[178] Of those who do register, purchase through pharmacies is the preferred method, followed by home grow then social clubs, for registered users.[179] Frequent users rely on multiple methods to access cannabis, with the illegal cannabis trade remaining because of supply shortages and tourists wanting access.

The evidence so far indicates that rates of lifetime cannabis use continued on the same increasing observed before legalisation: from 5.3% in 2001 to 20.0% in 2011 and to 33.6% after legalisation in 2016. Cannabis use in the last 12 months also increased from 1.4% (2001) to 8.3% (2011) to 15.4% (2016).[37] A study found no evidence that cannabis legalisation impacted rates of adolescent cannabis use or their perceived risk of cannabis, but that it increased their perception of cannabis being available.[44] A single study found a correlation between increased traffic fatalities and legalisation of cannabis, but had many limitations, including that it did not test for THC levels in drivers, did not have a credible control group, and has not been replicated.[121]

There is significant opposition to legalisation, with people believing that the new cannabis law will worsen public security conditions, serve as a gateway to the use of harder drugs, and will be ineffective at stopping illegal drug trafficking[180] – however, people who use cannabis overwhelmingly support the current regulation even though many of them are reluctant to register.[181] People who use cannabis perceive social clubs positively, but there are concerns that genuinely social cannabis social clubs may be losing ground to quasi-dispensary clubs.[179]

How does this compare to Aotearoa New Zealand's proposed law?

Compared to Uruguay's government-controlled legal cannabis market, Aotearoa New Zealand's proposed regulatory system for legal cannabis will be more commercial. The not-for-profit aspects of Uruguay's cannabis social clubs may be able to be mirrored in Aotearoa New Zealand's licensed consumption premises, but a distinct difference is that our proposed law does not allow for an organisation to grow cannabis on behalf of customers.

Aotearoa New Zealand's purchase and home grow limits and maximum potency are higher than those in Uruguay and there are no limits on annual production or requirements for user registration. Compared to Uruguay's strict limit on product types, Aotearoa New Zealand's proposed law allows a wide range of products, including edibles, oils, creams, etc. Aotearoa New Zealand will not have a fixed price as regulated in Uruguay, but will have an excise tax. While Uruguay's age limit to purchase cannabis mirrors that for alcohol, Aotearoa New Zealand's does not.

Our panel

We gratefully acknowledge the contribution of our expert panel to this work

Panel members and OPMCSA staff at the first panel meeting in September 2019. From left to right: Juliet Gerrard, Joseph Boden, Tracey McIntosh, David Newcombe, Hinemoa Elder, Chris Wilkins, Khylee Quince, Benedikt Fischer, Doug Sellman, Michelle Glass, Tamasailau Suaalii.

Professor Joseph Boden, University of Otago

Professor Joseph Boden is a member of the Department of Psychological Medicine at the University of Otago, Christchurch. Originally earning a PhD in experimental social psychology, Joe held university lectureships in the UK and Australia before coming to New Zealand in 2002. Since 2005 he has been employed as a researcher on the long-running Christchurch Health and Development Study (CHDS), a longitudinal study of over 1000 New Zealanders born in Christchurch in mid-1977. In 2015 Joe was appointed Deputy Director of the CHDS and in 2019 he was appointed Director of the CHDS. His research interests include the psychosocial causes and consequences of substance use, abuse, and dependence; mental health and substance use epidemiology; and the social and psychological determinants of maladaptive behaviour including aggression and violence, among other topics.

Dr Hinemoa Elder, University of Auckland

Ko Pārengarenga te moana
Ko Tawhitirahi te maunga
Ko Awapoka te awa
Ko Te Aupouri, ko Ngāti Kurī, ko Te Rarawa, ko Ngāpuhi nui tonu oku iwi
Ko Hinemoa taku ingoa

Hinemoa Elder is a Fellow of the Royal Australia and New Zealand College of Psychiatrists and has been a consultant child and adolescent psychiatrist since 2006. Hinemoa is the Māori Strategic Leader for the Centre of Research Excellence (CoRE) for the Ageing Brain. In addition to her initial medical qualifications, Hinemoa has a PhD (Massey University, 2012) and is former HRC Eru Pomare Post-Doctoral Fellow (2014–18) in which she developed a novel recovery approach grounded in Te Ao Māori (Māori world view), for Māori with traumatic brain injury, their whānau (extended families) and professionals which is now being used in community rehabilitation services. She continues to work clinically as a neuropsychiatrist and youth forensic psychiatrist. She is an expert in the areas of psychological trauma and cultural psychiatry. She also currently works at the Child and Family Unit, Starship Hospital.

Hinemoa has served on several Ministry of Health reference groups. She is a deputy psychiatrist member of the NZ Mental Health Review Tribunal and a Specialist Assessor under the Intellectual Disability (Compulsory Care and Rehabilitation) Act 2003. She is a member of the International Science Advisory Board to the National Science Challenge ‘E tipu e rea, a better start’.

Professor Benedikt Fischer, University of Auckland

Benedikt Fischer is the inaugural Hugh Green Foundation Chair in Addiction Research and Professor in the Schools of Population Health & Pharmacy at the University of Auckland. He holds additional academic appointments with the Department of Psychiatry, University of Toronto, Canada; the Centre for Applied Research in Mental Health & Addiction (CARMHA), Simon Fraser University, Vancouver, Canada; and the Department of Psychiatry, Federal University of Sao Paulo (UNIFESP), Brazil. Prior to moving to New Zealand in 2018, Benedikt held senior academic appointments in Canada, as senior scientist at the Centre for Addiction & Mental Health and the Addiction Psychiatry Chair at the University of Toronto (until 2018) and as the CIHR/PHAC Applied Public Health Research Chair and Director of CARMHA at Simon Fraser University, Vancouver (2008–2014).

Benedikt’s scientific work focuses on the social, behavioural and health outcomes of, and evidence-based prevention and treatment interventions for psychoactive substance use and related co-morbidities (e.g. mental health, pain, infectious disease) in an interdisciplinary, public health-oriented framework. His scientific work is strongly geared towards knowledge translation for improved interventions, systems and policy. For more than two decades, he has made major scientific contributions to public health-oriented cannabis control and interventions, including as lead-author of the internationally adopted ‘Lower-Risk Cannabis Use Guidelines (LRCUG)’.

Benedikt acted as Senior Science Advisor to the Canadian government for the development of its cannabis legalisation framework, and has advised other governments (e.g. Uruguay) on cannabis and health policy issues. He is a co-author of several international books: ‘Drug Policy & the Public Good’ (Babor et al., 2018) and ‘Cannabis Policy: Moving Beyond Stalemate’ (Room et al., 2010). He has served in science advisory roles for preeminent institutions (e.g., CIHR’s Institute of Neuroscience, Mental Health and Addiction; the Mental Health Commission of Canada, Health Canada). Benedikt is a frequent and sought-after expert speaker and commentator to academic, media and general public audiences on his topics of expertise.

Professor Michelle Glass, University of Otago

Michelle Glass took up the position of Head of the Department of Pharmacology and Toxicology and the University of Otago in July 2018. This appointment came after 17 years at the University of Auckland, including six years as the Head of Pharmacology and Clinical Pharmacology. As a molecular pharmacologist, Michelle's research focuses on the expression, function and molecular pharmacology of the cannabinoid receptors and their potential role in treatment of neurodegenerative diseases.

Following her PhD, in which she mapped the then newly discovered cannabinoid CB1 receptor in the human brain, she worked on cannabinoid receptor signalling as a postdoctoral fellow at the National Institutes of Health in Bethesda, Maryland for five years before returning to New Zealand in 2000 to take up a role as a lecturer (and researcher) within the Department of Pharmacology at the University of Auckland. She has published over 90 papers on cannabinoids, and numerous book chapters.

Her contributions to the field have been acknowledged by an early career award from the International Cannabinoid Research Society in 2009 and by election to President of this society in 2015.

Professor Tracey McIntosh MNZM (Co-Chair), University of Auckland

Tracey McIntosh is of Ngāi Tūhoe descent and is Professor of Indigenous Studies and co-head of Te Wānanga o Waipapa (School of Māori Studies and Pacific Studies) at the University of Auckland. She was the former co-director of Ngā Pae o te Māramatanga – New Zealand's Māori Centre of Research Excellence. She previously taught in the sociology and criminology programme at the University of Auckland. She was a Fulbright Visiting Lecturer in New Zealand Studies at Georgetown University in Washington D.C. and lectured at the University of the South Pacific in Fiji. She has sat on a number of assessment panels including PBRF panels (Māori Knowledge and Development and Social Sciences), the Marsden Social Science panel, Rutherford Discovery, James Cook Fellowship and Health Research Council panels. In 2012 she served as the co-chair of the Children's Commissioner's Expert Advisory Group on Solutions to Child Poverty. In 2018–2019 she was a member of the Welfare Expert Advisory Group and Te Uepū Hapai i te Ora- The Safe and Effective Justice Advisory Group. She sits on a range of advisory groups and boards for government and community organisations. She currently delivers education and creative writing programmes in prisons.

Her recent research focused on incarceration (particularly of Māori and Indigenous peoples), gang whānau issues and issues pertaining to poverty, inequality and social justice.

Associate Professor David Newcombe, University of Auckland

Associate Professor David Newcombe is Academic Director of postgraduate addiction programmes and Head of the Section of Social and Community Health in the School of Population Health, and Associate Director of the Centre for Addiction Research. He has been working in the addiction sector for more than 20 years in various clinical and research roles both in Australia and New Zealand. Prior to moving to New Zealand, David was Senior Project Manager at the World Health Organization (WHO) Collaborating Centre for Research in the Treatment of Drug and Alcohol Problems at the University of Adelaide. Here, he managed an international multisite evaluation of opioid pharmacotherapies for the treatment of opioid dependence and the Australian site of the validation of the WHO Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) study.

His current research interests include: screening for problematic substance use and assessing the efficacy of brief interventions in different at risk groups; the clinical pharmacology and psychopharmacology of drugs of abuse; and clinical effectiveness of pharmacotherapies used to treat alcohol and drug problems.

Associate Professor Khylee Quince, Auckland University of Technology

Khylee Quince is from the iwi of Te Roroa/Ngapuhi and Ngati Porou. She teaches criminal law, advanced criminal law and youth justice. Her research interests lie within those fields – in particular, Māori and the criminal justice system, tikanga Māori and the law, restorative justice and alternative dispute resolution, Māori women and the law, and indigenous peoples and the law.

Prior to joining the University of Auckland's Law Faculty in 1998, Khylee practiced in criminal and family law for three years. Khylee is now Associate Head of School and Director of Maori and Pacific Advancement at the AUT School of Law. She is also a trustee on the New Zealand Drug Foundation.

Professor Doug Sellman FRANZCP, University of Otago

Doug Sellman is a psychiatrist and addiction medicine specialist. He is recognised as a national leader in the addiction field in New Zealand having been Director of the National Addiction Centre (NAC), University of Otago Christchurch from 1996–2017. He has also contributed to the development of a highly successful national postgraduate training programme in the area of addiction and co-existing disorders. He has been involved in a broad range of addiction-related research projects with over 100 peer-reviewed publications involving alcohol, cannabis, opioids, nicotine, methamphetamine, gambling and food, primarily from a treatment perspective.

Over the past 15 years this work has turned increasingly towards public health and prevention. He was promoted to a Personal Chair within the University of Otago in 2006, and in 2009 was one of the initiators of Alcohol Action NZ, a medically-led advocacy group for alcohol law reform. His clinical work was in adult addiction services from 1987–1994 and then in youth services from 1994–2014. He is now partially retired and runs a small private practice with a special focus on food addiction and obesity, while continuing research and teaching work at the NAC.

Associate Professor Tamasailau Suaalii-Sauni, University of Auckland

Tamasailau Suaalii-Sauni currently teaches in the criminology programme. She completed both undergraduate and postgraduate university studies at the University of Auckland. She held teaching fellow, research fellow, lecturing and deputy director positions within the University of Auckland's Department of Sociology, Department of Maori and Pacific Health, and Centre for Pacific Studies 1998–2008. She moved to the University of Otago to take up a senior research fellow position with the Centre for International Health based at the National University of Samoa in Apia Nov 2008–July 2011. After this, she took up senior lecturer and programme director positions with Victoria University of Wellington's (VUW) Va'aomanu Pasifika Unit from 2011–2016. Tamasailau returned to the University of Auckland in October 2016 as Associate Professor in Sociology/Criminology at the School of Social Sciences. As well as working for the university sector, Tamasailau has also held honorary and part-time senior researcher and programme evaluator roles in the state and private sector – mainly with the Waitemata District Health Board's Clinical Research and Resource Centre (2003–2008), and with (as co-director) Pacific Research and Development Services Ltd (1998-2003). Tamasailau was a member of the Superu and VUW central ethics committees.

Associate Professor Chris Wilkins, Massey University

Chris Wilkins is the leader of the drug research team at SHORE & Whariki Research Centre, College of Health, Massey University. Chris has research expertise in drug trends, drug markets, public health, and drug policy. Over the past 20 years he has completed a range of studies of drug use in New Zealand with particular focus on methamphetamine, cannabis, legal highs, ecstasy and the non-medical use of pharmaceuticals. Chris Wilkins has published numerous journal articles on drug use, contributed to three books and regularly reviews manuscripts for Addiction, the International Journal of Drug Policy, Drug & Alcohol Review and Drug and Alcohol Dependence. Chris Wilkins has been an invited speaker at international meetings convened by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), and at the United States National Institute for Drug Abuse Community Epidemiology Working Group (CEWG). He regularly presents papers at the annual meetings of the International Society for the Study of Drug Policy (ISSDP).

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