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**AT THE HEART
OF THE MATTER,
NZ DRUG
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Te Tūāpapa Tarukino o Aotearoa

New Zealand Drug Foundation submission on the Misuse of Drugs (Medicinal Cannabis) Amendment Bill

Submitted to Health Committee on **21 March 2018**

Tēnā koe

In this submission we propose a compassionate but practical alternative for the regulatory approach set out in the Misuse of Drugs (Medicinal Cannabis) Amendment Bill.

While preparing this submission we ran public workshops and talked to more than one hundred stakeholders including patients, support people, advocacy groups, service providers, herbalists and others. It was clear that all supported a more compassionate approach than that set out in the Bill.

Our submission is structured to address the three key aims of the Bill:

- **PART ONE** The statutory defence for terminally ill patients
- **PART TWO** Domestic production of cannabis products
- **PART THREE** Removing cannabidiol (CBD) as a scheduled drug

Thank you for considering our submission. We also request the opportunity to make an oral submission.



Ross Bell
Executive Director

The Drug Foundation is a charitable trust. We have been at the forefront of major alcohol and other drug debates for 28 years, promoting healthy approaches to alcohol and other drugs for all New Zealanders.

PART ONE - THE STATUTORY DEFENCE SHOULD BE WIDER

New Zealand can create a simple, enforceable system that is also compassionate

1. In a 2017 Curia poll, seventy-eight percent of New Zealanders agreed there should be no criminal penalty for “growing and/or using cannabis for any medical reasons, such as pain relief”. We would like to see the public’s compassion and desire to improve the lives of patients reflected in the law.
2. The Bill provides an exception and statutory defence for terminally ill patients who obtain or use botanical cannabis. This is intended to be a temporary defence to provide patients with peace of mind until domestic production of cannabis-based medicines is established.
3. Whilst this is an excellent aim, terminally ill people are probably far less in need of a legal defence than other patients. They are seldom if ever targeted by Police for possession of cannabis. Meanwhile, the Bill leaves many other vulnerable people at legal risk, and without good justification.
4. We have outlined our proposals to improve the defence below.

The exception and statutory defence should be expanded to include any “severe and debilitating” condition

If ‘chronic pain’ is too hard to define, why not choose a better term?

5. As part of their 100-day plan, the Government promised to provide medicinal cannabis access to patients with a terminal illness or chronic pain. The proposed regulatory scheme may eventually provide this. However until such a scheme is in place, only the terminally ill will be safe from criminal charges. The Foundation believes this is a lost opportunity to extend compassion to some very sick people.
6. In drafting the Bill, the Government expressed concern that the term “chronic pain” is too subjective, too hard to define, and could include too many people. The Government argued this would make a defence for patients with chronic pain too hard to enforce¹.

¹

www.health.govt.nz/system/files/documents/pages/chair_cabinet_business_committee_medicinal_cannabis_100_day_action.pdf

7. These concerns can easily be overcome by choosing a less subjective term, such as ‘severe and debilitating condition’. If a condition is severe and debilitating it would affect a patient’s ability to carry out regular activities. This could easily be confirmed by the patient’s doctor if the Police were in any doubt.
8. The term ‘severe and debilitating’ could be further defined for the sake of doubt by listing specific conditions that would always qualify. These could include illnesses where moderate to strong evidence exists that cannabis helps with the relevant condition. A list of conditions that fulfil these criteria are listed in Appendix 1.

This approach upholds human rights

9. In Canada, access to medicinal cannabis is regarded as a human rights issue. In 2015, the Supreme Court in *R v. Smith* held that prohibiting possession of non-dried forms of medical cannabis limited a patient’s right to liberty by imposing a threat of imprisonment and restricting reasonable medical choices.
10. We encourage the Committee similarly to think of access to medicinal cannabis as a rights issue. In fact the “right to health” is well-founded in international law. We believe that patients with severe and debilitating conditions should not face criminal prosecution for attempting to exercise their right to relieve their suffering in a way that does not damage others.

Extending the defence will benefit Māori, who bear the brunt of drug convictions

11. Māori are more likely to face conviction for drug use than other ethnicities. Currently Māori make up 42% low-level drug convictions² but only 11% of the population. Expanding the defence will reduce the chance that Māori with serious health conditions are prosecuted.

Extend the defence to include designated support people

People supporting patients deserve protection too

12. We agree with the concern expressed by the Ministry of Justice that whānau and friends of patients are not protected by the statutory defence. Many patients are too sick to obtain or consume cannabis by themselves and

² Ministry of Justice, 2016. Response to an Official Information Request by the NZ Drug Foundation. Sep 2017.

need the help of a family member or friend. Caregivers should not have to put themselves at legal risk to provide medicine to their loved ones.

Concerns about enforcement can be managed

13. The Government expressed concern that extending the defence to include a patient's support people would make it too difficult to enforce. We think this can be managed by limiting the number of support people who would be covered by the defence to two.
14. Patients could be required to inform their doctor of the names of their designated support people. Alternatively, they could be required to register the names with the Ministry of Health. There are international examples for both systems and there is no reason why such a system could not work here.

Patients (or a designated person) should have a legal defence if they cultivate a limited number of cannabis plants

Patients should not have to rely on the black market while they are waiting for products to become accessible

15. Under the current Bill, many patients will be forced to continue sourcing illicit cannabis until an affordable and accessible domestic supply is established. The Bill gives no protection to people who have in desperation started growing their own cannabis at home, or to compassionate growers who grow cannabis purely to help people in need.
16. For many patients, buying from the black market means risking prosecution, interacting with organised crime, dealing with variable supply, and potential exposure to hazards, such as moulds and pesticides.
17. We therefore recommend extending the statutory exception and defence to include the cultivation of cannabis for medicinal purposes. This would apply where a patient is either terminally ill or has a severe or debilitating condition.
18. Patients should be able to designate another person to grow for them by registering that person's name with their doctor or with the Ministry of Health. The number of plants covered by the defence could be limited to make the defence easier for the Police to enforce.

PART TWO – THE NEW REGULATORY SYSTEM MUST BE ROBUST, COMPREHENSIVE AND PATIENT-FOCUSED

Patients must be given a chance to feed meaningfully into the scheme

We have been asked to submit on a scheme that has not yet been developed

19. The power of this bill lies in the regulations underpinning it. These regulations will determine how the scheme will operate. But they have not yet been developed.
20. Essential information that has not been provided includes:
 - The type of products that will be supplied under the scheme. Will these include ‘whole plant’ products, for example?
 - The type of conditions that may be covered by the scheme. Will the doctor decide, or will the government provide a list?
21. Patients, their supporters and the general public cannot meaningfully input into a framework that hasn’t yet been developed.

Please use your influence to ensure patient voices inform the regulations as they are developed

Consider advising Parliament on how the regulations may look

22. In case we have no other formal opportunity to submit on how the future regulatory scheme may look, we set out our proposals here on both the Bill and how the system as a whole may work.
23. We presume the Health Committee has been asked to look only at the Bill itself. It may go outside your normal remit to advise on the future regulatory system. However, we request that you do provide advice to Parliament on how this may look.
24. We expect that people will be submitting to you on the types of products that should be available, and the types of conditions that should be covered. Please pass these recommendations to Parliament in your report. This may be the only opportunity the public has to submit on these important issues.

Ensure patients are kept in the loop

25. We also request that the Health Committee uses its influence to ensure that the regulations are developed with ongoing and genuine input from patients, medical practitioners, advocacy groups and compassionate growers. This may take the form of an advisory group. Alternatively, patients

could be given a further chance to make submissions on regulations as they are developed.

Some patients and compassionate growers have not submitted to you because they feared legal consequences

26. A number of patients and compassionate growers have expressed their concern to us that submitting to the Select Committee may put them at legal risk. We are aware that some have chosen not to submit for these reasons. Others who have made submissions have had to limit what they say publicly.
27. This is another reason to ensure ongoing (and confidential) consultation with patients and compassionate growers as the regulations are developed.

Consider Māori traditional uses of plants containing cannabinoids, and consult with Rongoā Māori practitioners

1. Some Māori patients prefer to follow traditional healing methods. These can include rongoā Māori, romiromi or mirimiri - customary remedies based on native plants, massage therapy and spiritual healing.
2. Although cannabis is not a traditional preparation, the plant *radula marginata* (Wairuakohu), which contains cannabinoids, has a long history of traditional use as a Māori herbal medicine.
3. The place of Māori traditional healing should be taken into account when the regulatory scheme is being developed. This could include a concerted effort to consult with Māori traditional healers, patients and other Māori service providers.

We can immediately improve accessibility and affordability (outside of the legislative process)

We support the government's proposal to convene a Medicinal Cannabis Advisory Committee

4. We would like to emphasise that for this committee to be effective, it must include patient representation. The sooner the Advisory Committee can be appointed, the better.
5. If the Advisory Committee is able to provide clear and up-to-date prescribing guidelines and advice to doctors, this will increase their confidence and willingness to prescribe.

Issues of affordability must be addressed

6. The government proposes to investigate ways to financially support people who are unable to afford cannabis products.
7. We would like to see this progressed now, rather than waiting for the regulatory scheme to be put in place. If not, patients who are unable to afford products such as Sativex will continue to use the black market and may face being criminalised.
8. A long-term solution may be to subsidise patients using money paid by the producers of cannabis-based medicines in licensing fees. In the meantime, other solutions will need to be found.
9. The Minister of Health may need to push this forward to ensure it happens promptly. It is unlikely to be a straightforward process.

More products could be made available

10. We would like the government to facilitate the import of cannabis-based products into New Zealand while we wait for domestic production to be established. They could do this by removing the importation fee and reducing the bureaucratic barriers that restrict the importation of products for personal use.

We wholeheartedly support the government's intention to facilitate domestic production of medicinal cannabis products

Patients face many barriers to access legal products

11. Over the past few weeks we have spoken to patients with serious health conditions that respond well to cannabis. Yet most find it very difficult or impossible to access legal medicinal cannabis products.
12. Current barriers to accessing legal products include a lack of quality products, difficulty importing, a burdensome sign-off procedure, and a lack of knowledge from medical professionals. And of course a huge barrier is cost. Sativex can cost patients \$1200 or more each month. This is well out of the range of a patient on a disability benefit.

Conclusive evidence is now available on the medical benefits of cannabis

13. Cannabis is not the cure-all elixir that it's sometimes made out to be, but it is clear that it has a range of valuable benefits for patients. Strong evidence shows that cannabis or cannabinoids are effective for the treatment of chronic pain, to combat nausea for chemotherapy patients, and for easing the symptoms of multiple sclerosis.

14. There is also moderate or limited evidence of its effectiveness in treatment for many other conditions (see Appendix 1 for more detail). In addition, there are a growing number of powerful personal stories about cannabis helping patients with symptoms that could not be relieved with other medicines.
15. Establishing domestic production should make products more accessible and affordable for patients in the long term.

The scheme must give access to a full range of affordable, safe products. If not, patients will continue to use the black market.

16. We set out our proposals below for a scheme that balances compassion and practicality.

There are plenty of international models to choose from. We favour the Canadian system.

17. New Zealand's regulatory model will need to balance patient access to a wide range of products with assurances that those products are safe. The system should focus on the right to access medicines, but it must be enforceable. It will need to ensure that young people are not exposed to risk and that patients are protected from cannabis dependence as much as possible.
18. Learning from international experience, we recommend a relatively strict regulatory distribution model. With some tweaks, the Canadian system would provide a good model for New Zealand.
19. Medicinal cannabis was legalised in Canada in 2001. Patients need a prescription from their doctor, They can then either buy their cannabis products from a licensed producer, grow their own at home or designate a third person to do so for them. Medicinal cannabis can only legally be supplied through the mail in Canada.

Patients would need a prescription from a medical practitioner.

20. As with any other medication, the prescription would note the dosage, potency, frequency and duration of use.
21. We support the prescription model proposed for New Zealand by patient advocacy organisation MCANZ³. The doctor would prescribe cannabis falling within a specified 'potency band'. The patient would then choose their

³ <http://mc2018.co.nz/wp-content/uploads/2018/02/Medical-Cannabis-in-Aotearoa-MCANZ-Policy-booklet.pdf>

preferred cannabis strain and type of product (whether tincture, oil, edible etc).

Distribution would be vertically integrated, with products sent by mail order

22. Canada licenses both production and sales⁴. To make this process easier, licensed producers in New Zealand could be vertically integrated - 'seed-to-sale', as proposed by MCANZ⁵. A single company would be responsible for cultivation, production, security and distribution of the final product. Patients would provide their prescription and the company would supply products by mail.
23. This simple distribution scheme has many advantages. A government regulatory agency can easily oversee the whole operation and all products would be traceable. The security and reliability of the product can be ensured. There is little chance of diversion into the recreational market.

We would allow products of “near pharmaceutical” grade

24. Until now New Zealand has restricted access to pharmaceutical grade medicinal cannabis products. These are prohibitively expensive and there are limited products available.
25. Canada strikes a good balance by requiring a standard of product that can better be described as 'near-pharmaceutical'. Products are held to high safety production standards to ensure they are safe and standardised. However, the manufacturing process is considerably cheaper than that of “pharmaceutical” grade products.
26. Medical cannabis products in Canada are tested for contaminants, residues and purity. Producers are responsible for sanitation, security and must have a recall system in place (see Appendix 3). The Ministry of Health has already demonstrated confidence in this model of production by approving the importation of a product developed by Tilray using these standards.
27. Product testing could be done by independent sites to standards defined by Ministry of Health.

We must ensure a wide range of products are available including ‘whole plant’

28. Different cannabinoids have different therapeutic effects. The new scheme must reflect this by allowing products that have different ratios of the

⁴ <https://www.canada.ca/en/health-canada/services/drugs-health-products/medical-use-marijuana/authorized-licensed-producers-medical-purposes.html>

⁵ <http://mc2018.co.nz/wp-content/uploads/2018/02/Medical-Cannabis-in-Aotearoa-MCANZ-Policy-booklet.pdf>

cannabinoids THC and CBD, from CBD-only products to high THC strains (see Appendix 2 for further explanation on this).

29. “Whole plant” products should also be developed. Cannabis includes over one hundred different cannabinoids⁶. We know only a limited amount about most of these components, and even less about how they interact with each other.
30. Some researchers and patients report more therapeutic value from the whole cannabis plant than from pharmaceutical products that only include specific compounds. This is known as the “entourage effect”⁷.
31. The company *Bedrocan* produces whole plant products. Whole dried cannabis flowers are standardised for quality, potency and dosage so doctors can still feel confident prescribing it.
32. If New Zealand’s new scheme does not supply a sufficient range of products, it is inevitable that patients will continue to grow illicitly, with all the legal risk that entails.

We would need to enforce the model consistently

33. We have proposed a regulatory framework similar to the Canadian one but we should ensure that we enforce the model consistently. In some provinces in Canada, illegal dispensaries and store fronts have popped up and products have been diverted to the recreational market.
34. This can easily be avoided in New Zealand by only allowing sales online and enforcing this consistently.

People with drug-related convictions should be allowed to apply for production licences

35. The Government will rightly want to ensure that licensed producers under the new model are of good character. We propose the good character test does not mean excluding those with previous drug-related convictions. This would exclude a number of producers who have excellent knowledge of the product and are trustworthy and reliable individuals.

⁶ The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research, the United States National Academies of Sciences, Engineering and Medicine, January 2017

⁷ <https://mcaawarenessnz.org/entourage-effect/>

Government needs to invest in research

36. The Government should follow the example of Israel and Australia and invest in research into products as they are developed. Government research backing will mean new products can come to market more quickly and will give medical practitioners the confidence to prescribe.
37. Government support will also help ensure the legitimacy of New Zealand products, meaning greater export opportunities.

We think medical practitioners are competent to assess patient needs

The Government should resist the temptation to restrict the conditions for which cannabis products can be prescribed

38. Doctors are trained to assess the benefit of a particular treatment for a given condition. They weigh this against any potential negative side effects, on a case-by-case basis. This is bread-and-butter stuff for doctors.
39. It is not common practise legally to limit the conditions for which doctors may prescribe a specific medication. We recommend that the Government does not do so in this case either.

It is illogical to require the Minister to sign off a doctor's prescription

40. We trust doctors to prescribe a range of powerful drugs with potentially deadly side effects. This is precisely what they are trained to do. Logic dictates they can also be trusted to prescribe cannabis products, which have fairly mild side effects compared to many other medicines.
41. The current requirement that the Minister of Health sign off prescriptions for medicinal cannabis is based on politics rather than good sense. It has unjustifiably restricted patient access to medicinal cannabis products. It should be changed.

A medical specialty could be developed for doctors working in this field.

42. Doctors currently receive little or no training on the endocannabinoid system. As a result, many are cautious or outright opposed to prescribing cannabis products. Training will be essential to remedy this and changes may take time.
43. In the meantime, we recommend creating a medical specialty along the lines proposed by patient advocacy group MCANZ. This would ease any

concerns that patients may pressure some doctors to prescribe cannabis products, or that they may 'doctor shop'.

44. Instead, where doctors are unsure about how to prescribe they could refer patients to a specialist. The patient could then access medicinal cannabis while remaining under the care of their General Practitioner.

Patients and designated support people should be allowed to grow their own plants for medical use

Many patients cannot afford to buy cannabis products

45. Many patients are forced to grow their own cannabis because legal products are prohibitively expensive. As mentioned earlier, Sativex can cost patients more than \$1200 per month.
46. Once a domestic scheme is working here we would hope this cost would fall significantly. However, for some patients with limited means it will still be cheaper for them to grow their own. We don't believe these patients should risk criminal conviction.

Some patients have philosophical objections to relying on companies to provide what they can grow themselves for free at home

47. Rightly or wrongly, many people are distrustful of the western medicine model, and of pharmaceutical companies. Some patients have told us that they prefer a product that they have grown under their own control. And many trust a whole plant more than a product that comes in a bottle or a tablet.
48. It is worth remembering that until very recently, pharmacists made most of their own products themselves from plants. We are certainly not advocating a return to the past (!). However we would like the committee to consider the possibility that as long as people are not harming themselves or others they should be allowed to choose to use a product that aligns with their values.

We can follow the Canadian example to allow home cultivation with minimal risk

49. International experience tells us that only a minority of patients are likely to want to grow their own in a regulated system (roughly 1 in 20 in Canada, for example⁸). It should therefore not be overly difficult to monitor.
50. In Canada, a patient may choose to grow their own or designate someone to grow for them. They must register this intention with Health Canada.
51. Individuals can produce a limited number of plants based on a formula that takes into account the individual's daily dose (i.e. the quantity authorised by their physician) and the average yield of a plant grown indoors or outdoors. This formula should be easy to modify for New Zealand use.
52. The side effects of cannabis use are usually relatively mild. The danger of diversion to recreational use can be managed as above. We therefore find it hard to see the justification for not allowing people to grow their own at home.

Take this opportunity to deschedule drug utensils from the Misuse of Drugs Act

The current law is unclear on the legal status of vaporisers

53. Many patients use vaporisers to reduce the negative health effects of smoking cannabis.
54. It is currently a criminal offence to import cannabis utensils such as bongs and pipes into New Zealand. Although there is no specific law banning vaporisers, Customs interprets these as cannabis utensils. This means they are often destroyed at the border.

As the Government intends to increase access to medicinal cannabis it should ensure vaporisers can be imported legally

55. There are two options available to the Select Committee:
Option one – deschedule and regulate the sale of all drug utensils (our preferred option)
56. The Law Commission recommended this in 2011⁹. The Commission noted that the offence “possession of a drug utensil” does not appear to deter

⁸ This is a rough estimate based on the number reported growing and the number of registered patients; <https://news.lift.co/10000-canadians-authorized-to-grow-their-own-medical-cannabis/>; <https://www.canada.ca/en/health-canada/services/drugs-health-products/medical-use-marijuana/licensed-producers/market-data.html>

⁹New Zealand Law Commission. Controlling and Regulating Drugs – A Review of the Misuse of Drugs Act 1975. 2011.

drug use and certainly does not reduce drug-related harm. The Drug Foundation shares this view.

57. The Government has intended for some time to review current regulations around drug utensils and we understand that they also favour this approach¹⁰. This is the ideal time to implement the findings from that review.

Option two – Specify in the regulations that vaporisers should not be treated as drug utensils under the Misuse of Drugs Act 1975

58. This is a less comprehensive solution, but significantly better than doing nothing. It would give clarity to Customs about what could be imported, and reassure patients that their expensive purchases will not be destroyed at the border.

¹⁰ National Drug Policy 2015-2020, p25

PART THREE – DESCHEDULING NON-PSYCHOACTIVE CANNABINOIDS

Deschedule all non-psychoactive cannabinoids, not just CBD

59. There are potentially many non-psychoactive cannabinoids with therapeutic value. Most are not yet fully understood. The government should take the opportunity to deschedule all of these now. If they don't we may end up playing whack-a-mole, descheduling cannabinoids one by one as they are shown to be therapeutically beneficial.

Scheduling the whole cannabis plant made sense at the time but now non-psychoactive cannabinoids can be extracted from the plant

60. Drugs are scheduled under the Misuse of Drugs Act “based on the risk of harm the drug poses to individuals, or to society, by its misuse.”¹¹ We are not aware of any research to indicate that non-psychoactive cannabinoids are harmful. Therefore, they should not remain scheduled under the Act.

Cannabinoids other than CBD have already been shown to have therapeutic value

61. Research indicates there are several non-psychoactive cannabinoids, other than CBD, that have therapeutic value (see Appendix 2). The evidence base is expanding as more money is being invested in medicinal cannabis.

62. For example, cannabigerol is being trialled in the Netherlands for psoriasis and eczema¹². Cannabidivarin is being trialled in New South Wales for Retts Syndrome¹³. If all non-psychoactive cannabinoids are descheduled now, medical practitioners will be able to prescribe these products in the future without the ‘illicit drug’ roadblock. It will also make it easier for New Zealand to participate in clinical trials.

¹¹ Misuse of Drugs Act 1975, Section 3A

<http://www.legislation.govt.nz/act/public/1975/0116/latest/DLM436190.html>

¹² <https://globenewswire.com/news-release/2016/05/17/840760/0/en/AXIM-Biotech-Begins-Human-Clinical-Trials-With-Cannabigerol-CBG-for-Psoriasis-and-Eczema-in-Patients.html>

¹³ <https://www.medicinalcannabis.nsw.gov.au/clinical-trials/paediatric-epilepsy-trial>

FINAL RECOMMENDATIONS

Widen the statutory defence

1. The exception and statutory defence should be extended to protect
 - patients with “severe and debilitating” conditions
 - designated support people
 - those who cultivate cannabis for a patient with a terminal illness or a severe and debilitating condition

Ensure the new regulatory system is robust, comprehensive and patient-focused

2. Patients, medical practitioners, Māori traditional healers, advocacy groups and compassionate growers should be consulted when developing the new regulations
3. The Advisory Committee should
 - include patient representation
 - prioritise developing prescribing guidelines and advice to doctors
4. The Government should
 - financially support people who are unable to afford legal cannabis products
 - facilitate the importation of cannabis-based products by removing importation fees and reducing bureaucratic barriers
5. Deschedule drug utensils, particularly vaporisers, so possession is no longer a crime
6. Follow our proposals for a regulatory scheme modelled on the Canadian system, for example by
 - licensing producers from “seed-to-sale” with products delivered by mail order
 - aiming for “near pharmaceutical” grade product standards
 - ensuring access to a full range of affordable, safe products
 - including ‘whole plant’ products in the scheme
7. Allow people with drug-related convictions to apply for production licences
8. Invest in medical cannabis research

9. Do not restrict the medical conditions for which cannabis products can be prescribed
10. Remove the need for the Ministry of Health to sign off medicinal cannabis prescriptions
11. Develop a medical cannabis specialty for doctors
12. Allow registered patients or a designated person to cultivate cannabis at home, within strict guidelines

Deschedule non-psychoactive cannabinoids

13. Deschedule all non-psychoactive cannabinoids, not just CBD

Appendix 1: The Health Effects of Cannabis and Cannabinoids

The most recent and authoritative comprehensive review of the current evidence regarding the health effects of cannabis is probably a 2017 report by the United States National Academies of Sciences, Engineering and Medicine¹⁴. This found that:

There is **conclusive** or **substantial** evidence that cannabis or cannabinoids are effective:

- for the treatment of chronic pain in adults;
- as anti-emetics in the treatment of chemotherapy-induced nausea and vomiting; and
- for improving patient-reported multiple sclerosis spasticity symptoms.

There is **moderate** evidence that cannabis or cannabinoids are effective for:

- improving short-term sleep outcomes in individuals with sleep disturbance associated with obstructive sleep apnoea syndrome, fibromyalgia, chronic pain, and multiple sclerosis.

There is **limited** evidence that cannabis or cannabinoids are effective for:

- increasing appetite and decreasing weight loss associated with HIV/AIDS;
- improving clinician-measured multiple sclerosis spasticity symptoms;
- improving symptoms of Tourette syndrome;
- improving anxiety symptoms in individuals with social anxiety disorders; and
- improving symptoms of post-traumatic stress disorder.

In many cases the review was not able to make a conclusion about the efficacy of cannabis for certain conditions, or could only point to limited evidence. This was due to the lack of good clinical research rather than the existence of studies showing that cannabis was not effective for those conditions. This is an important distinction.

¹⁴ The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research, the United States National Academies of Sciences, Engineering and Medicine, January 2017

Appendix 2: A table of Cannabinoids and their effects¹⁵

	THC	CBD	CBG	CBN	CBC	THCv	CBGa	CGCA	CBCa	THCa	CBDa
Relieves pain Analgesic	●	●		●	●		●				
Suppresses appetite/Helps with weight loss Anorectic						●					
Kills or slows bacteria growth Antibacterial		●	●						●		
Reduces blood sugar levels Anti-diabetic		●									
Reduces vomiting and nausea Anti-emetic	●	●									
Reduces seizures and convulsion Anti-epileptic		●				●					
Treats fungal infection Antifungal									●		
Reduces inflammation Anti-inflammatory		●	●		●		●	●		●	●
Aids sleep Anti-insomnia				●							
Reduces risk of artery blockage Anti-ischemic		●									
Inhibits cell growth in tumors/cancer cells Anti-proliferative		●	●		●					●	●
Treats psoriasis Anti-psoriatic		●									
Tranquilizing, used to manage psychosis Antipsychotic		●									
Suppresses muscle spasms Antispasmodic	●	●		●						●	
Relieves anxiety Anxiolytic		●									
Simulates appetite Appetite Stimulant	●										
Promotes bone growth Bone Stimulant		●	●		●	●					
Reduces function in the immune system Immunosuppressive		●									
Reduces contractions in the small intestines Intestinal Anti-prokinetic		●									
Protects nervous system degeneration Neuroprotective		●									

¹⁵ [https://mcaawarenessnz.org/individual-cannabinoids/](https://mcawarenessnz.org/individual-cannabinoids/)

Appendix 3: Canadian Good Production Standards for Medicinal Cannabis Products¹⁶

Licensed producers in Canada are subject to Good Production Practices. These are meant, among other things, to ensure the cleanliness of the premises and equipment. The licensed producer is required to employ a quality assurance person with appropriate training, experience, and technical knowledge to approve the quality of fresh and dried marijuana, marijuana plants and seeds, and cannabis oil prior to making it available for sale.

Product Quality

Licensed producers must conduct tests on their products, including, as applicable:

- for microbial and chemical contaminants of fresh and dried marijuana, and cannabis oil
- for disintegration of capsules or similar dosage forms of cannabis oil
- for residues of solvents in cannabis oil for content of delta-9-tetrahydrocannabinol, delta-9-tetrahydrocannabinolic acid, cannabidiol and cannabidiolic acid

The Technical Specifications for Testing Dried Marijuana for Medical Purposes guidance document provides specific information for licensed producers to help them meet some of these requirements.

Other requirements

Licensed producers must also meet other requirements under Good Production Practices under the ACMPR including, but not limited to:

- Sanitation Program
- Standard Operating Procedures
- Establishment of a Recall System

¹⁶ <https://www.canada.ca/en/health-canada/services/drugs-health-products/medical-use-marijuana/licensed-producers/additional-information-licensed-producers-under-access-cannabis-medical-purposes-regulations.html#a2>

Packaging, Labelling and Shipping- Consumer Information

The ACMPR sets out requirements for packaging, labelling and shipping. For example, fresh and dried marijuana, cannabis oil, and marijuana seeds and plants must be sold or provided in tamper-evident containers or packages. Fresh and dried marijuana and cannabis oil must be sold or provided in child-resistant containers. Separate labelling requirements apply depending on the product type (i.e. fresh and dried marijuana, cannabis oil, cannabis oil in capsule or similar dosage forms, and marijuana plants and seeds). In addition, all licensed producers are required to attach a client-specific label, similar to a patient-specific prescription drug label, to the container, package or plant.

Under the ACMPR, each shipment sold to a client needs to be accompanied by a copy of the most current version of the Health Canada document entitled "Consumer Information - Cannabis (Marihuana, marijuana)". This document provides a summary of the known information about the uses and risks of cannabis for medical purposes so that individuals can be informed about their treatment choice.

Information on Packaging, Labelling and Shipping can mainly be found in Subdivision F of the ACMPR.

Import and Export permit

A licensed producer must obtain a permit from the Minister of Health prior to importing or exporting marijuana or cannabis for the purpose of testing cannabinoid content. Information on Import and Export can mainly be found in Subdivision G of the ACMPR.

Security Clearance

The following individuals are required to have a valid security clearance under the ACMPR:

- the individual who holds a producer's licence
- all officers and directors of a corporation (if the producer's licence is issued to a corporation)
- the Senior Person in Charge
- the Responsible Person in Charge
- the Alternate Person(s) in Charge