

A Grown Up Chat with a Medical Cannabis Sceptic...



A Discussion Paper Prepared For
The Australian Parliamentary Group for
Drug Law Reform

by

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In public health policy, as in any area where a difference of opinion needs to be resolved, a useful approach is to place yourself in the skin of your antagonist, and to try to understand why they might be so resolutely opposed to something that seems to be so self-evident to you.

It's easy for a small group of experts, who are familiar with a complicated body of literature, to merely assume that everyone else enjoys 'deep-diving' into the subject. But unless that body of knowledge can be translated into the educated layman's terms, those experts shouldn't be surprised if that same layman (or elected representative) can't or won't make the voyage with them in implementing sequestered knowledge in to pragmatic policy.

For this exercise, we've invited our sceptical friend out for a pint, and asked them to state their best opposition to medical cannabis (the questions were actually derived from a meeting of the Australian Parliamentary Committee on Drug Law Reform, to whom the author extends his gratitude for such an enjoyable homework assignment!)

So, without further ado- let's have at it!

- 1. There is no credible medical or scientific evidence that medicinal cannabis is effective in treating medical conditions. The 'jury is still out' claim is correct and the trials and other research is not conclusive.*

Actually, not true. In a useful summary review from Germany, the authors found that the majority of evidence from controlled trials was favourable for use of cannabis in the treatment of a wide range of conditions (See Table)

Medical Condition	# of favourable trials	# of unfavourable trials
Chemotherapy-induced nausea and vomiting	✓✓✓✓✓✓✓✓✓✓ ✓✓✓✓✓✓✓✓✓✓ ✓✓✓✓✓✓✓✓✓✓ ✓✓✓✓✓✓✓✓✓✓	✗
chronic neuropathic pain	✓✓✓✓✓✓✓✓✓✓ ✓✓	✗✗
other chronic pain (cancer, rheumatism, fibromyalgia)	✓✓✓✓✓✓✓✓✓✓ ✓	✗✗
spasticity resulting from disseminated sclerosis	✓✓✓✓✓✓✓✓✓✓	✗✗✗
HIV/AIDS-related cachexia	✓✓✓✓✓✓✓	none
cancer-related cachexia	✓✓✓	✗

From Grotenhermen F, Müller-Vahl K. The therapeutic potential of cannabis and cannabinoids. *Dtsch Arztebl Int* 2012; 109: 495-501.

And it's not like there's ever been a historically 'even' playing field. Shirley Simson, a spokesperson for the National Institute on Drug Abuse (NIDA) in the US,

in the run-up to medical cannabis legalisation in America, admitted as much to the New York Times. “As the National Institute on Drug Abuse, our focus is primarily on the negative consequences of marijuana use. We generally do not fund research focussed on the potential beneficial medical effects of cannabis.”

There is no doubt that further clinical trials *are* needed to give us more information about the best ways to use cannabis for medical purpose, and to what conditions that it’s most suited as a therapy. Those trials aren’t needed to demonstrate efficacy in compassionate cases.

Creating a framework in which that research can be conducted is one of the most important aspects of addressing the current legislative impasse.

The only “jury that is still out” is the one that didn’t bother turning up for the trial.

Harris, G. Researchers find study of medical marijuana discouraged. New York Times January 19th 2010

2. Cannabis is a gateway drug and any moves to make it more easily available will increase recreational drug use in Australia. This is a valid 'slippery slope' argument.

The term ‘gateway drug’ refers to a theory- a hypothesis- which suggests that the use of ‘soft drugs’ (like cannabis) leads to the use of ‘hard drugs’ (like heroin). It’s largely been rejected as a theory by the likes of the US’s National Academy of Sciences (1999) (“*There is no evidence that marijuana serves as a stepping stone on the basis of its particular drug effect*”) and the Canadian Senate’s Special Committee on Illegal Drugs (2013) (“*Cannabis itself is not a cause of other drug use. In this sense, we reject the gateway theory.*”)

Interestingly, the use of the term gateway drug is a *de facto* acceptance of the fact that cannabis poses a less significant threat than the agents its use subsequently leads to!

At any rate, it seems difficult to see how introducing a tightly regulated medical cannabis market could increase the use of recreational drugs in Australia.

3. Legalising pot sends the wrong message. It signifies that smoking marijuana is acceptable.

‘Sending the wrong message’ is neither the language of science or medicine; it’s the language of politics, and it’s been used to defend untenable drugs policies around the world for generations. As an argument, it’s intellectually destitute. What message does depriving patients from a treatment that could minimize their suffering in the last months of their life send to Australians, or the rest of the world? That Australians don’t care about their frail and ailing citizens? That Australia considers an out-dated, narrow, moral perspective of the world to be more important than the suffering of patients? Recent surveys seem to suggest that population has moved on from this, and it’s probably time that those who claim the moral right to ‘own’ the message on drugs faced up to reality of an evolved *zeitgeist*.

And, at the risk of sounding pedantic, no-one is talking about legalising recreational cannabis. Many of the advocates for medical cannabis- including this author- are very aware of the potential harms associated with heavy cannabis consumption, and have even published on the topic. They’re just not as confused about the difference between medical and recreational cannabis as you seem to be.

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4. *Cannabis has dangerous side-effects. It is not a safe drug, especially for young people.*

For 'cannabis', please substitute any drug of your choice. All drugs, both prescribed and illicit can have dangerous side effects- the illicit ones often more so than the prescribed, precisely because they are used removed from medical supervision. Of course, you seem to be confounding recreational cannabis and medical cannabis- (again!). Many strains of cannabis used for medical purposes have minimal quantities of $\Delta 9$ -tetrahydrocannabinol ($\Delta 9$ -THC, the component that gets users 'high'), being bred instead for high cannabidiol (CBD) content. CBD has no psychoactive properties.

Morphine isn't a safe drug either- but we haven't abandoned its use in modern medicine, despite it being near identical in action and biological receptors profile to diacetylmorphine, or heroin. The latter is still used very effectively in the medical environment in the UK for the relief of severe pain. The way in which a drug is used and controlled is often what defines the risk of that drug.

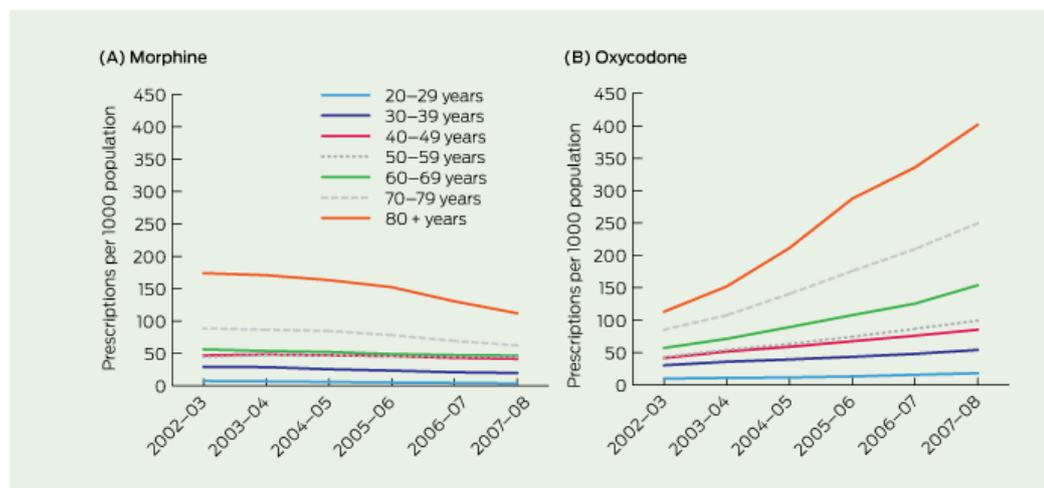
5. *Cannabis can be addictive and this has not been addressed by the pro-medicinal cannabis lobby.*

Cannabis can be addictive, under certain circumstances, but at several orders of magnitude and frequency less than the alternatives, such as the synthetic opiates, a fact that has not been addressed by the anti-medicinal cannabis lobby.

6. *There are other painkillers and medications available that can treat specific conditions and manage pain relief. There are even some cannabinoid products available.*

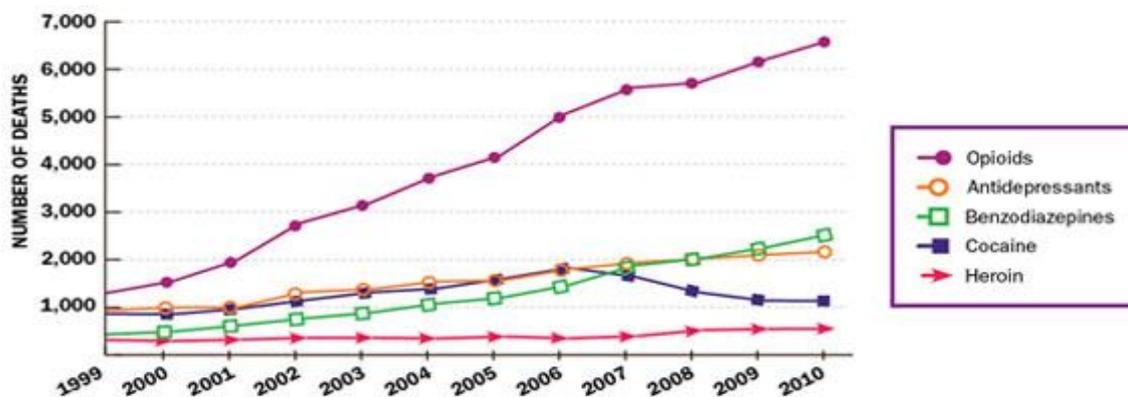
Two objections really, but we'll allow it... Here to help!

There definitely ARE other painkillers and medications available that can treat specific conditions and manage pain relief. Our patients love them, and as doctors, we love prescribing them (see graph below).



From Roxburgh A, Bruno R, Larence B, Burns L. Prescription of opioid analgesics and related harms in Australia. Med J Aust. 2011 Sep 5;195(5):280-4.

We just don't seem to be overly bothered by how many people we are killing with them (see graph below).



From <http://www.cdc.gov/vitalsigns/PrescriptionPainkillerOverdoses/>, July 2013

As to the availability of cannabinoid products, again, there definitely *are* some available. There's only 1 in Australia, mind you- Sativex- which is made from the cannabis plant, with a THC:CBD ratio of 1:1. It has only one licensed use (muscular spasm from multiple sclerosis), and as stated in the product's information leaflet, it can also get you 'high'. It is also *stunningly* expensive, costing upwards of AUD\$16,000 per annum. A recent report from The King's Fund in the UK concluded that it just isn't a cost-effective therapy.

Lu L, Pearce H, Roome C, Shearer J, Lang IA, Stein K. Cost effectiveness of oromucosal cannabis-based medicine (Sativex®) for spasticity in multiple sclerosis. *Pharmacoeconomics*. 2012 Dec 1;30(12):1157-71.

7. *People usually smoke cannabis and the health impacts of smoking cannot be ignored by pro-cannabis proponents.*

At last, we have something in common! We can both definitely agree on our mutual concerns regarding smoking cannabis. In fact, the theory of the 'reverse gateway' has recently gained some traction, with researchers concerned that smoking cannabis recreationally can lead to increased exposure of far more dangerous, yet legal, drugs like tobacco.

To be fair, though, the pro-cannabis proponents -as you call them- aren't ignoring this at all. We're actually very concerned by it. That is why a wide variety of alternative ways of using cannabis have been developed, ranging from oral products, to vaporisation. The Israelis have even developed a thermal metered dose inhaler, similar in operation to the Ventolin inhaler that many Australians use for their asthma, which has currently commenced clinical trials in Israel.

Eisenberg E, Ogintz M, Almog S. The pharmacokinetics, efficacy, safety, and ease of use of a novel portable metered-dose cannabis inhaler in patients with chronic neuropathic pain: a phase 1a study. *J Pain Palliat Care Pharmacother*. 2014 Sep;28(3):216-25.

8. *Doctors oppose medicinal cannabis. In Canada, their medical association has been highly critical of medicinal cannabis and in Australia the AMA are also opposed. If doctors say it is dangerous and wrong, then we should be listening to the medical experts.*

Whoa there, Nellie- hang up a second! You've identified 2 highly conservative organisations who have expressed an opinion on the basis of no declared clinical, pharmacological or toxicological expertise. They are not 'doctors'- they are a small subset of doctors with a particular political leaning. It's rather like saying "politicians don't believe in climate change".

It does beg the question though; why *are* some people so strongly opposed to medical cannabis? You could argue that there are probably 3 main reasons. The first, and the largest group, would consist of persons not overly familiar with the medical literature on the topic, or the pharmacology of the cannabinoids. To be fair, the topic of medical cannabis is a fairly specialised one, especially in light of the international approach to cannabis over the last century. Many discussions, even among medical professionals, confound what is known about high potency recreational cannabis, and the low potency product used for medical treatment. In some cases, this confounding is deliberate. It is up to advocates for medical cannabis to answer the concerns, misunderstandings, and not in-frequent misrepresentations raised by opponents in a tolerant, non-judgemental way, with rational, well-reasoned arguments. We welcome these questions!

The second group are those who have a moral or philosophical objection to the use of cannabis as a medicine. We respect that, much like we respect adult Jehovah's Witnesses wishes not to receive blood transfusions. But much as we wouldn't abandon the entire blood transfusion process for the majority of the population in deference to the philosophical beliefs of a very small minority, we shouldn't abandon the medical use of cannabis for the majority of Australians who believe that it should be available.

Finally, there is a clearly defined, small group of those who have an obvious conflict of interest on the issue. Sadly, this group includes a disproportionate number of medical professionals, receiving generous sponsorship from the manufacturers of the products that a regulated medical cannabis market could most significantly affect- the synthetic opioids. A recent investigation into the principle medical opponents of medical cannabis in the US revealed an alarming number on the payroll of Big Pharma, specifically companies involved in the manufacture of synthetic opioids. (see link below)

So be honest with yourself, and ask the question, "Why *am* I opposed to medical cannabis?" If it's because you're unfamiliar with the concept, or still think that medical and recreational cannabis are one and the same, we can help you over those factual hurdles. If you're morally opposed to the use of this class of drugs as a medicine, we will defend your right to hold that opinion, while insisting that you accept that yours is now a minority position in Australia. If you are effectively lobbying for the pharmaceutical industry, you're on your own- and history will be your judge.

<https://news.vice.com/article/leading-anti-marijuana-academics-are-paid-by-painkiller-drug-companies>

9. *Dosages can't be controlled. Vulnerable and sick people may take potent and dangerous doses of marijuana, and for your children the dangers are obvious.*

Seriously- after all we've chatted about so far, and you're *still* confusing recreational cannabis with medical cannabis? The most likely scenario in which vulnerable and sick patients might be exposed to 'potent & dangerous doses' of recreational cannabis is under the current regime, and outside of a tightly regulated medical market.

Plant scientists around the world manipulate botanical content or output of commercial crops with great accuracy, through a wide range of techniques, ranging from simple hydroponics through highly sophisticated gene manipulation. Cannabis is no exception. To date, the goal in cannabis cultivation by recreational producers, on behalf of the recreational consumer has been the increase in levels of $\Delta 9$ -THC, which has soared under the current international approach to cannabis. That's a simple result of market pressure- if you make a product illegal, and there remains a demand for it, manufacturers will find a way of making it purer, and hence easier to smuggle. It has happened for all of the naturally occurring products- opium (heroin), the coca leaf (cocaine, and then crack cocaine), and even khat (the cathinones). But 'international drug policy' is a subject for another discussion; the point is that *any* product of the cannabis plant can be manipulated using the same techniques. For example, in the USA, 'Charlotte's Web' is a strain of cannabis (named for Charlotte Figi, a paediatric patient with Dravet's Syndrome) that contains only 0.3% THC, making it classifiable as a 'hemp-derived food product'. In the Netherlands, the Office of Medical Cannabis- a government agency- tightly regulates the percentages of various cannabinoids in medical preparations, dependent on the medical requirements of the consumer (see table below).

	% dronabinol (THC)	% cannabidiol (CBD)	price per 5 gram
Bedrobinol	13.5	<1	€ 38
Bedrocan	22	<1	€ 38
Bediol	6.3	8	€ 38
Bedica	14	<1	€ 38

Data from <http://www.cannabisbureau.nl/en/>, accessed December 2014

10. *My parents always told me never to take drugs.*

Did that include antibiotics? Prescription painkillers? How about morphine? Cannabis has the current legal state that it does as a consequence of history, not harm- any harms associated with cannabis are largely as a consequence of increasing concentrations of THC in the recreational product, and the way society has responded to cannabis. There are very few parents who forbid doctors from using medicines on their children, especially if it's the only medicine that works for a debilitating and potentially life-threatening condition.

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There are more questions, I know, and we want to hear them- please don't hesitate to get in touch and ask them. Hopefully, we've been able to persuade you that having a tightly regulated medical cannabis market won't result in the sky falling down on your head, or a generation of primary school kids becoming 'stoners'.

In the end, it doesn't much matter whether or not we have been convincing; 'medical cannabis' has been used in Australia, regardless of anyone's blessing or permission, for over a decade.

Swift W, Gates P, Dillon P. Survey of Australians using cannabis for medical purposes. *Harm Reduct J.* 2005 Oct 4;2:18.

It's being used in a completely unsupervised, unguided manner, which is probably more hazardous than the very conservative measures being proposed currently. The suggested measures are far more supervised than those currently in place in the USA, often to the ire of Australian recreational consumers. With a supervised market, we can identify and record how and why people are opting for this therapy off their own bat, and rationalize that use.

The latest research from the USA seems to suggest that in states where they've introduced medical cannabis, they've reduced deaths from opiates by up to 25%. For any public health intervention to have this sort of result is astounding- isn't it something that we might want for Australia and Australians, given the threat?

Medical Cannabis Laws and Opioid Analgesic Overdose Mortality in the United States, 1999-2010 MarcusA. Bachhuber,;Brendan Saloner,; Chinazo O. Cunningham, MD, MS; Colleen L. Barry, PhD, MPP *JAMA Intern Med.* 2014;174(10):1668-1673.

Can we at least now agree that medical cannabis is a very different beast to recreational cannabis, and that the occasionally valid and real concerns regarding recreational cannabis don't really apply to the medicinal product? The legitimacy or otherwise of recreational cannabis is a completely different issue, and medical cannabis isn't the thin end of the wedge for the International Drug Conventions. The International Conventions actually permit this sort of use, although they're only now being applied in this way. Given how restricted cannabis research has been over the last century, it's actually surprising how *much* supporting evidence it has attached to it, evidence that can and should be built upon by Australian researchers. This field has the potential to open huge swathes of research, not just in how to treat unusual and intractable conditions, but in the very mechanism of diseases themselves. The legitimization of a medical cannabis program could also serve to de-glamourize cannabis as a recreational drug.

This isn't the end of this debate or discussion, it's just the beginning. The fact that you've read this far means that you are at least prepared to be persuaded, and we commend you for that. If you have any questions at all about your concerns regarding medical cannabis- get in touch. Seriously- let us know. We *want* to hear from you- your concern may be something that we need to research.

To ask more questions, or for any more information, please contact the Secretariat of The Australian Parliamentary Group for Drug Law Reform, on:

They know how to find us, and we'll get back to you!