



A Submission To

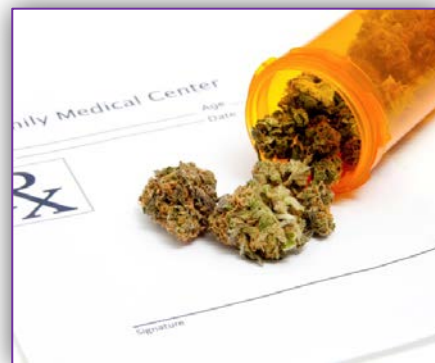
The Legislative Council Inquiry into Legalised Medicinal Cannabis: *Providing a Compassionate Choice*

Presented By

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Introduction

On behalf of the Tasmanian Greens, I welcome this opportunity to present to the Legislative Council Inquiry into the legalisation of medicinal cannabis in Tasmania and warmly commend the Committee for embarking on this field of enquiry. I would also appreciate an opportunity to personally speak to this submission when hearings commence.



The Greens support the legalisation of cannabis medications for those chronic conditions for which conventional medicines are failing to provide relief or ease symptoms. While we recognise that there are significant challenges to the legalisation of medicinal cannabis in Australia, and/or Tasmania, we do not believe these challenges are insurmountable.

The first step is to allow a regulated, carefully controlled trial of medicinal cannabis in Tasmania, with appropriate ethical, law enforcement and medical oversight.

We note that the establishment of such a trial has the support of a number of key stakeholders including; families and individuals suffering distressing symptoms of Multiple Sclerosis, chemotherapy treatment, HIV/AIDS, seizures and other neuromuscular disorders; leading figures in Tasmania's opioid poppy industry; local government; the Country Women's Association (CWA) Tasmania and the Australian Nursing and Midwifery Federation (ANMF) in New South Wales and Tasmania.

In its 2014 position statement on medicinal cannabis, the Australian Medical Association (AMA) nationally, acknowledges cannabis has constituents that have potential therapeutic uses, and calls for appropriate clinical trials of potentially therapeutic cannabinoid formulations.

In 2013, a New South Wales Parliamentary Inquiry unanimously endorsed law reform to enable greater access to medicinal cannabis for certain chronic conditions. With input and support from the Liberal, Labor, Greens, National and Shooters' Party, the Inquiry found that:

"... medicinal cannabis has potential as an effective treatment for some medical conditions with appropriate safeguards in place. Our reading of the evidence gathered during the inquiry – including rigorous scientific evidence – is that cannabis products are emerging as a promising area of medicine, most notably in respect of a number of painful conditions that do not respond to existing treatments. Given this evidence, a compassionate approach is appropriate here."

The Tasmanian Greens also believe this issue must be viewed through the lens of compassion and common sense, and that the over-riding concern must be for good public health outcomes. This approach is what has driven the legalisation and regulation of medicinal cannabis in more than 20 nations globally, including 23 American states.

We also note that the legalisation and availability of medically prescribed cannabis treatments has strong public support, with a national Reachtel poll conducted in July this year indicating 65.9% support, 14.4% oppose and 19.7% of those polled, undecided.

An Australian Institute of Health and Welfare (AIHW) survey conducted in 2010 also reports 69% of Australians support legalisation of medicinal cannabis, with 74% supporting further clinical trials to investigate the use of cannabis to treat medical conditions.

Studies on Medicinal Use of Cannabis

Very early studies into medicinal cannabis use - such as that explored by Dr Jacques-Joseph Moreau in 1841, in his book *Hashish and Mental Derangement* - concluded that hashish calmed inpatients of the mental asylum he worked in, also increasing their appetites and helping them sleep (Booth, 2004). This, along with many studies conducted when academic science was in its infancy could be disregarded if it wasn't for findings being supported by modern research.

In the 1830's, Irish doctor William O'Shaughnessy, made similar observations as Moreau, while working in India. Also adding that hashish was also an anti-convulsive remedy of great value and it also worked as a pain reliever in terminal patients. However, early scientists found achieving reliable results complex because the dosage was difficult to control due to cannabis not being water-soluble.

In 2013, the Medical Journal of Australia reported:

'Smoked cannabis has been found to be effective in reducing pain intensity and improving sleep.'

The authors of this article note that although smoking cannabis is the fastest route to pain relief, the dosages obtained through smoking are unreliable and smoking is:

'... not acceptable to many patients, nor is it medically acceptable.'

The Greens recognise the harms caused by smoking any substance and support the view that the best way for medicinal cannabis to be administered, according to the authors of the Medical Journal of Australia, is through a vaporiser, tincture or oil. Cannabis is not water-soluble, making ingestion also a slow and unreliable method of administration. Vaporisers and sublingual sprays overcome many of the problems associated with effective titration, according to the Journal of Clinical Nursing (Green, 2010).

Mather et al, 2013 conclude:

'the benefits of cannabinoid pharmacotherapy can be substantial. The risks are generally modest and must be weighed against those of not treating the symptoms or alternative treatments. The authors also note that in Australia, medicinal cannabis has strong community support.'

Medical Use

Through numerous medical trials and studies, Cannabis has been demonstrated to reduce neuropathic pain. Throughout the 1970s and 1980s, patients undergoing chemotherapy for cancer discovered that cannabis was an effective antiemetic, reducing nausea and pain and stimulating the appetite. This was also true of sufferers of muscular dystrophy and multiple sclerosis, quadriplegics, paraplegics, and those suffering severe arthritis. The ability of cannabis to act as a muscle relaxant and anti-convulsant has been known for centuries and it is this quality which renders cannabis, for many patients, a very significant and positive treatment.

One cancer sufferer described the difference between using cannabis and not:

'... it is that without cannabis one is dying of cancer whilst with cannabis, one is living with cancer.'
(Booth, 2003)

Medicinal Effects of Cannabis

Many studies have shown that cannabis acts to promote pain relief in some patients, and has been shown to assist with sleep. HIV patients often suffer significantly disturbed sleep patterns. The Lopez et al study entitled, *'Increased Sleep Disturbances in Patients with HIV-Related Neuropathy'* concludes that:

'HIV patients reported significantly increased sleep latency, decreased sleep efficiency, decreased total sleep time, and a trend for increased wake after sleep onset.'

The studies on cannabis and sleep that were conducted in the 1970's (see Roehrs and Roth, 2011) give some information about the possible effects of cannabis on sleep. Low doses of THC (4-20 mg) mildly decreased REM sleep in both regular users and nonusers. Interestingly, deep sleep was increased when cannabis was initially used but this effect disappeared after repeated use. With high doses of THC (50-210 mg), REM sleep was decreased in both regular users and nonusers (Cline, 2007).

Other studies have focussed on the relief of pain for HIV patients that has resulted from the use of cannabis. In one study conducted by University of California's Barth Wilsey MD, using a double blind method and smoked cannabis, the author concluded:

'There was an analgesic response to smoking cannabis' and 'the psychoactive effects were minimal and well-tolerated, with some acute cognitive effects, particularly with memory, at higher doses.'

(Wilsey, 2008).

Other research suggests results can be significantly improved with the use of vaporised cannabis, both for controlling dose and the longevity of the effects. Donald Abrams MD's study on vaporisation concluded that:

'Blood levels of vaporized marijuana are similar to those of smoked marijuana' and "30 minutes after drug administration and beyond were significantly higher in vaporised marijuana as compared to smoked marijuana.'

(Abrams, 2005).

It has also been shown that the use of cannabis oil makes controlling the dose more reliable.

Dr William Notcutt, a British consultant anaesthetist at James Paget Hospital in Great Yarmouth and director of the hospital's Pain Relief Clinic, stated in 2000:

'There appears to be a Puritanism concerning the use of cannabis in medicine, a reluctance to use in case it leads to intoxication and a psycho-active reaction.'

He goes on to say that pain can make people's lives unbearable and can lead to depression. Given the legality, availability and use of anti-depressants, despite their highly addictive nature and negative side effects, there is some hypocrisy in rejecting the use of cannabis in assisting people suffering chronic illnesses (Booth, 2003).

Legal Status and Use Worldwide

The use of medicinal cannabis is legal in many countries around the world, including Austria, Canada, Czech Republic, Finland, Germany, Israel, Italy, The Netherlands, Portugal and Spain. The Netherlands is the only western country to date to legalise the recreational use of Cannabis.

In the USA, federal law prohibits the use of cannabis. However, 22 states and the District of Columbia have legislated to decriminalise the possession and sale of cannabis, on the proviso that individuals comply with the state regulations on its sale.

The legal status of cannabis in the United Kingdom is somewhat ambiguous. In 2006, the Home Office licensed Sativex which can be prescribed by doctors at their own risk. More recently, Sativex was approved for Multiple Sclerosis sufferers in Wales.

Cannabis is not recognised as having any therapeutic value in the UK. Pharmacists, however, are permitted to possess and dispense it to patients holding a prescription, who can lawfully possess it. In 2010, the Medicines Healthcare Regulatory Products Agency authorised Sativex as an extra treatment for patients with spasticity due to Multiple Sclerosis, they are also authorised to prescribe Sativex for other purposes, but do so at their own risk. In 2013, Sativex was separated from Cannabis and is now considered a Class B drug despite it being a derivative of cannabis.

Australia

In Australia, cannabis is currently a prohibited plant in all jurisdictions, and cannabis and cannabinoid products are not listed as therapeutic goods under the Australian Register of Therapeutic Goods. There are, however, provisions for limited exceptions in relation to accessing cannabis for medical, clinical or scientific research purposes.

Until it is registered as a therapeutic product on the Australian Register of Therapeutic Goods (ARTG), cannabis may not be produced, prescribed, or marketed for use as a therapeutic product. Under the Commonwealth *Therapeutic Goods Act 1989*, before any product can be marketed in Australia it must be registered on the ARTG. To secure approval for registration, the application must provide pharmaceutical, toxicological and clinical information.

The Greens understand there is currently limited ARTG approval for the use of nabiximols (registered name Sativex) for one condition only, treating intractable spasticity associated with multiple sclerosis. This treatment is expected to cost patients between \$500 and \$800 a month, rendering it out of reach to many Australians suffering from MS who might otherwise benefit from its use.

Approval and regulation of a product through the ARTG is a lengthy process, and the Greens would argue that it is unfortunate there is a requirement to 'reinvent the wheel' here, given the weight of scientific evidence that has enabled the legalisation of medicinal cannabis in more than 20 countries globally.

As previously stated, we believe the starting point is to facilitate a safe, secure trial here in Tasmania.

Tasmania

In Tasmania, the first mention of Indian Hemp was in the *Dangerous Drugs Act 1959*, when Tasmania became the last official state in the Australian Commonwealth to make cannabis illegal. This Act passed through the Parliament without division, suggesting that it was uncontroversial.

The fact that Tasmania did not legislate until 1959 - when the first Act criminalising cannabis in Australia went through the Victorian Parliament in 1926, and the import and export of cannabis was made illegal under Commonwealth law in 1926 - suggests that the legislation against cannabis in Tasmania was not a reaction to a real or perceived problem in Tasmania but an effort to keep pace, and peace, with the other states.

History of Cannabis Use

The medicinal use of cannabis is as old as civilisation itself. The earliest reference to cannabis - or Indian Hemp - in written text is the *Shu King*, a book dating back to 2350BC. Here it is referred to in an accounts ledger, recording it as an export from Hunan province; although claims suggest the Chinese had been using cannabis medicinally since the 28th century BC.

Indian hemp was used to produce the first paper in China, and in India it is featured in the Vedas as a gift to humanity from the god Shiva (Schaffer, 2012). In the Fourth book of the Vedas, written between 2000 and 1400BC, it is written that bhang (cannabis) releases people from anxiety.

There are many references to cannabis use medicinally throughout ancient Persian, Greek and Roman writings. Most, but not all, refer to it as a relaxant.

The first legislative mention of cannabis was in America in 1619, which required every household to grow Indian Hemp. The reasoning behind this legislation was the usefulness of the plant. It was, and remains, a very versatile plant used for textiles, ropes, paper, sails and bowstrings.

Cannabis has been called many names. One of the names associated with cannabis is 'weed', originally because it grows anywhere there is a piece of cultivated ground. It is found in the wild throughout most of the temperate regions of the world, growing as high as 8,000 feet above sea level. (Booth, 2004)

It has been argued that cannabis was little known or used until the 1960s in Australia. Federal law banned the importation of it in 1926, and all states passed laws banning its use, beginning with Victoria in 1926 and ending with Tasmania in 1959 (Cody, 2008). The evidence, however, suggests that the laws banning cannabis were a reaction to similar laws passed in the USA and Britain, and did not refer to real or perceived social or public health issues in Australia.

In the USA, cannabis use was associated with opium use in Chinese, Mexican and African-American sub-cultures and was, therefore, considered undesirable by 'white' Americans. In Australia, this view of the drug was endorsed by a nation grappling with an identity crisis that wanted Australia to remain exclusively Caucasian, despite its geographical location in the Asia-Pacific.

From America in the 1930s came the 'Reefer Madness' campaign, which further demonised the use of cannabis. This campaign claimed the use of cannabis led to *"almost uncontrollable sex mania, able to obtain satisfaction only from the most appalling perversions and orgies"* (Manderson, 1993).

The media followed the lead of other countries in promoting the theory that cannabis use would lead to heroin use, a still unproven theory. Public perception of cannabis use has been distorted, by media-led moral panics, which have two consequences – firstly, an unfounded fear of the drug, and secondly, a temptation for some to use the drug through its illicit nature (Cody, 2008). Neither of these consequences results in an informed or dispassionate debate about the benefits of cannabis for medicinal use.

The 'reefer madness' campaign in America, Booth argues, was the result of, Harry Anslinger's passionate campaign against the drug, and was fuelled by the belief that cannabis was associated with other cultures threatened the jobs of 'white' Americans, a theme that resonated in the context of the great depression of the 1920's. Anslinger was the first director of the U.S. Federal Bureau of Narcotics (FBN) and he developed a fixation about cannabis that lasted the length of his career. In 1937, he is quoted in *The Washington Herald* describing cannabis as:

'If the hideous monster Frankenstein came face to face with the monster marijuana, he would drop dead of fright'.

The 'Reefer Madness' film alongside others which equally damned cannabis such as, 'The Burning Question', 'The Dope Addict', 'Doped Youth and Love Madness' were supported and partly funded by a major alcohol distilling company. At this time, distilling companies were emerging from prohibition in America and feared that if cannabis was legal, its use would undermine profits.

In 1962, the Kennedy administration commissioned a report on cannabis by retired US Supreme Court judge, E. Barrett Prettyman, who stated that:

'Marijuana was not proven to be linked to criminality and that reports of its dangers were grossly overstated.'

The move to decriminalise cannabis was stalled upon President Kennedy's death.

Types of Cannabis

There are two distinct species of cannabis - although arguable when discussing interbreeding - *cannabis indica*, named as it was first identified in India, and *cannabis sativa*. There is a third species called *cannabis ruderalis*, which is discounted in many studies because it has very few psychogenic properties.

Cannabis contains at least 460 compounds, 80 of them are cannabinoids. The most psychoactive chemical contained in the cannabis plant is tetrahydrocannabinol commonly referred to as THC. Other compounds studied are delta-8-tetrahydrocannabinol (CBD) and cannabinol (CBN). THC, CBN and CBN have been shown to interact with receptors in the human brain and it is these chemicals which can be used medicinally.

CBD is a major component of medicinal cannabis and is non-psychoactive and is found in highest concentrations in *cannabis sativa*. Studies have shown that CBD has the potential to relieve anxiety, depression and psychosis. Due to the potential to relieve these conditions, it has been stated that CBD may relieve some of the symptoms of multiple sclerosis and seizures (Campos et al, 2012)

Russo suggests that studies into the medicinal benefits of cannabis are in their infancy, due to the sheer number of chemicals in the plant that may be beneficial. Russo finds that an effective study and propagation program of plants high in one or another of the chemicals present could result in numerous and significant medical breakthroughs. (Russo, 2011).

Cultivation of Cannabis

Cannabis has a life cycle of three to five months. It germinates within six days and within a fortnight it is well established. It can grow at a rate of 15 centimetres a day although 2 to 5 centimetres is normal. It requires little water and will grow in a range of soils, although for best results a loamy soil is preferred. (Booth, 2004). Cannabis prefers direct sunlight and is not tolerant of frost or low temperatures. Hydroponically, the plant takes three months to come to fruition and produces up to 450gms of product for 600watt light (Booth, 2004).

The THC is found in the highest quantities in the flower heads of the female plants, which is technically a resin that the plant produces. Cannabis has distinct male and female plants and in order to maximise output of THC, or other cannabis compounds, the male plants are removed to stop them fertilising the females and reducing their THC content.

Cannabis oil can be harvested from the plants prior to the production of flowers. In some countries, where the plant is used for fibre, the THC content of cannabis plants has been almost entirely bred

out. In others, plants are stunted to increase the production of THC, like most modern farming plants are genetically modified to capitalise on its intended use.

Cannabidiol is a non-psychoactive cannabinoid. Due to the drug market in California, Cannabis has been cultivated to maximize psycho-activity, which is mainly a function of THC content. Because CBD and THC are in an either/or relationship at the genetic level, breeding for high THC means breeding out CBD. So it was widely assumed that the Cannabis available nowadays in California contains only trace amounts of CBD.

Surprisingly, six strains with buds ranging from 5%-7% CBD have been detected in the year since Steep Hill analytic lab began testing samples from dispensaries and individual growers. Only two of these high-CBD strains have been made available to patients; and only intermittently, as quantities delivered by the growers sell out in a day or two.

“Soma A-plus” has been dispensed at Harborside Health Center in Oakland, and “Pineapple Thai” at Herbal Solutions in Long Beach. The other four strains were being grown out as clones, and were anticipated to be available in 2010 to collectives wishing to dispense them.

Eventually, medical practitioners involved want to test the effectiveness of cannabis with consistent CBD/THC ratios in treating various conditions. There were hopes for high-CBD strains, where psycho-activity is reduced, which may enable patients to take larger doses while remaining functional. Californiamedical practitioners are tracking the progress of G.W. Pharmaceuticals - the British company that has been growing cannabis, as well as making and testing whole-plant extracts for medical use since 1998, with government approval and backing from corporate partners Bayer, Almirall, and Otsuka.

G.W.’s flagship product is *Sativex*, an oral spray that contains about equal amounts of CBD and THC. The rationale for the combination was set forth in “A Tale of Two Cannabinoids,” a 2005 article by doctors Ethan Russo and Geoffrey Guy in the online journal Medical Hypotheses. The summary is below:

“CBD is demonstrated to antagonise some undesirable effects of THC including intoxication, sedation and tachycardia, while contributing analgesic, anti-emetic, and anti-carcinogenic properties in its own right. In modern clinical trials, this has permitted the administration of higher doses of THC, providing evidence for clinical efficacy and safety for cannabis based extracts in treatment of spasticity, central pain and lower urinary tract symptoms in multiple sclerosis, as well as sleep disturbances, peripheral neuropathic pain, brachial plexus avulsion symptoms, rheumatoid arthritis and intractable cancer pain. Prospects for future application of whole cannabis extracts in neuroprotection, drug dependency, and neoplastic disorders are further examined. The hypothesis that the combination of THC and CBD increases clinical efficacy while reducing adverse events is supported”

(St, Pierre, 2009).

Conclusion

The Legislative Council Committee will, no doubt, hear from a number of families and individuals who are currently accessing medicinal cannabis oils or tinctures in the knowledge that they may be doing so unlawfully, but in order to provide significant relief for a range of debilitating conditions.

I am sure Committee members, like many members of both Houses, have received numerous moving and compelling personal testimonials from Tasmanians who experience significant health benefits from the use of medicinal cannabis and whose frustration with the current regulatory and legislative regime around this medical product is tangible.

It is for these Tasmanians that the Tasmanian Parliament must move in an informed, carefully considered manner towards the legalisation of medicinal cannabis.

The work of the Legislative Council Inquiry is an important step in the right direction.



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