



Hemployment Australia
P.O. Box 399
Mermaid Beach QLD, 4218
T [REDACTED]
E info@hemployment.com.au
www.hemployment.com.au

6 July, 2016

Research Director
Health, Communities, Disability Services and Domestic and Family Violence Prevention
Committee
Parliament House, George Street
Brisbane Qld 4000

To Whom It May Concern,

I am writing on behalf of Hemployment Australia regarding the proposed Queensland Medicinal Cannabis Bill. There are two major points that I would like to address regarding the proposed bill, though I am sure that anyone who has the time and patience to read through the whole bill would find many more. I appreciate you taking the time to read these complex bills on our behalf, and I appreciate you taking the time to reflect upon my following concerns;

1. The continued classification of Cannabis as a dangerous drug, and the contention that this bill is necessary to protect the people of Queensland from the unlicensed growing or use of a natural plant.
2. The meaning of "Cannabis Products" appears to be contradictory; does it include "Synthetic Cannabis Products" or not?

Number One - Cannabis is not a dangerous drug in the sense we have previously understood it for many reasons:

First, strains of Cannabis that contain negligible amounts of THC are not psychoactive, no matter the consumption method or volume, and there is absolutely no evidence, throughout history, that this plant causes harm. There is only scientific evidence of incredible health, ecological, and economical benefit of the varied uses of this plant. The emerging cannabis treatment population is documented.(Hamilton, Lloyd, Monaghan, & Paton, 2014)

Similarly, strains that contain significant levels of THCa will produce an altered state of consciousness *only* if the plant is used in such a manner to convert the THCa to THC. A person could eat a pound of Cannabis without decarboxylation (converting THCa to THC by heating it up), and they would feel no "high". Inside their body, however, their Endo-Cannabinoid System would use the ingested Cannabinoids for whatever natural physiological processes it requires. There is significant anecdotal evidence of the incredible healing power of raw Cannabis in its natural form.

https://scholar.google.com/scholar?q=cannabis+nutrition&btnG=&hl=en&as_sdt=0%2C5&as_ylo=2012

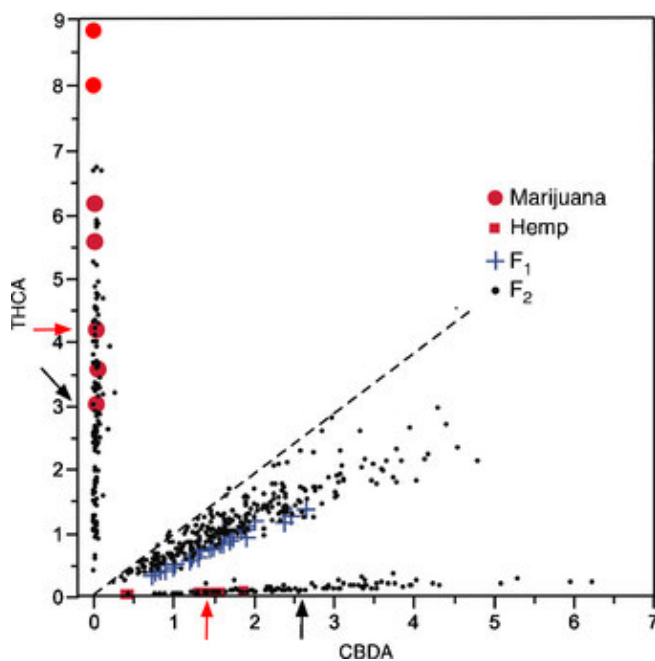
Second, if someone chooses to ingest Cannabis (by cooking, smoking, or vaporizing the plant) to experience a high, they are going to do it whether they get it from the guy around the block, or their doctor, or the shop in the city. Through research, education, and regulation of the sale of the plant, we are able to eliminate adulterants in the products, better understand its benefits and risks, minimise black market sales, and assist people who are at risk of dependence or negative health effects. Just like we do with alcohol, and cigarettes, and food; all of which, interestingly, have a worse track record for negatively impacting our health than Cannabis ever has.

“
When growing marijuana
has a longer sentence than
raping someone we are
facing a national crisis.
VICTOR SIMS

Alcohol induces an altered state of consciousness, and so does coffee. Being “high” isn’t a good or a bad thing – it’s purely dependent on the situation, how the substance is being used, and whether is empirically benefitting or harming your life and the lives of those around you. Sadly, the demonisation and criminalisation of Cannabis has actually had a much more detrimental effect on our community at large, than the use of the plant itself (<http://www.leap.cc/>)

In the bill it states that “*Cannabis remains a prohibited substance as it is a dependence-forming drug and there is evidence that over time it causes harm, particularly in young people*”

There is absolutely no evidence that Cannabis itself is biologically dependence-forming other than that of dopamine level adjustment after periods of prolonged heavy high THC content usage such as currently available ‘hydro’ known by most adult users. Hydro is established indoor and is prolific. It uses chemicals and other short cuts that do not meet food standards. It is naïve to think current policy enabling this illegal market is better for our communities’ health than an openly regulated and supported industry.



Interestingly, it has been evidenced that in outdoor growing regions where Cannabis Sp. are most prolific, the overall THC content or potency is reduced, compared to urban equivalents.

Figure 1. Delta9-tetrahydrocannabinolic acid (THCA) versus cannabidiolic acid (CBDA) content as a % of dry weight (DW) in mature pistillate inflorescences of Cannabis sativa derived from a marijuana parent and siblings, a hemp parent and siblings, the F1 parent and siblings, and the F2 cohort. Red arrows point to the hemp and marijuana parents; black arrows point to mean THCA content and CBDA content for marijuana-like and hemp-like F2s, respectively. The dashed line indicates the expected ratio of THCA to CBDA

if the two main cannabinoid synthase enzymes were equally competitive for their common precursor, cannabigerolic acid.(Weiblen et al., 2015)

A visit to Feng Shui, Shandong province PRC, allowed me to participate in a traditional ceremony that involved consuming a meal infused with Cannabis, and I was amazed to discover that the effect was so mild that my ability to negotiate unstable terrain on a motorcycle was unimpaired. I have since learned that most home-grown Cannabis is naturally reduced to a mild sedative effect for Indica strains and an even less prolonged experience in Sativa edibles and inhalants.

The current systems' management allows for well protected Hydroponic Farms to be scattered throughout cities globally, catering to a long established market. Quality seed is also often used and prolonged use is being encouraged by design in breeding and supplements being used. Adult users with a plant or two grow much milder organic produce if permitted to at home in urban areas but often refrain as the anxiety of being caught outweighs the benefit overall. Increasing the amount of Cannabis grown for textile and food (less than 1% THC) rapidly causes nearby home-grown varieties of other strains to reduce in THC after cross pollination. Even in our suburbs each generation of uncontrolled breeding reduces psychoactive components and is balanced by strain varieties adequate in number to meet demand through tolerance management. Not to mention the unforeseen by-product of natural reductions in opioid overdose as seen in areas where Cannabis use is legalized and regulated.(Bachhuber, Saloner, Cunningham, & Barry, 2014)

A further control measure for personal adult use is to make seed available at known THC concentrations and limit home grown Cannabis potency to mid-range strains. A regional seed sale will raise money to fund regulation of the industry and establish a solid support network. Growers could use an ABN to register and develop a relationship with their chosen dispensary. In addition to existing databases matching strains to chronic conditions, a local grower database supported by a regional platform will increase numbers of potential new treatments. Understanding our health in relation to Cannabis is Traditional Knowledge re-discovery at its finest. Cannabis is a healer of Earth's soils, nutritious and sustainable, it offers hope in a time of massive change. Hope creates stability in our homes and our region. De-regulation of the Cannabis industry will provide a win-win for community health and small business, if guided with community consultation.

From chronic illness treatment to better building materials, Australian industries will continue to benefit from our research and development efforts. With nine billion people within the next 35 years forecast to be consumers, it is worth pursuing now in a wide and varied way; we can develop strategies for assured competence in meeting that demand.(Godfray et al., 2010). The people have already denied centralized reliance on regulation and distribution of commodities, as the resulting regional instability causes far more harm than good. Community education and support for a safe, affordable and organic market is the best way forward.

As lower THC strains become available, the risk of any biological dependence is greatly reduced. As there is no current evidence that moderate use of Cannabis has any biological reason for dependence, but here is some anecdotal evidence that people become dependent on it, it has

to be a psychological dependence. It's the same kind of psychological dependence that people have on gambling, or eating too much or too little, or shopping.

Many studies have proven that addiction in general is due to life factors and not the substance itself. Even if the substance is physiologically addictive (like caffeine, alcohol, sugar, opiates, or cigarettes) when a person's life factors are re-balanced and they are given support to work through the physiological withdrawals, they are able to cease the addiction. Through education, support, and regulation, we can minimise the harm that comes with psychological dependence of any substance, and demonising the substance only takes us further away from harm-reduction. <http://reset.me/story/isolation-breeds-addiction-not-drugs>)

The most commonly cited study regarding the long term negative health impacts of Cannabis use purported that it impacted the volume of grey matter in the brain. This study has been dismissed as it didn't exclude important socio-economic or other lifestyle factors (especially alcohol and cigarette use among the participants). Once those variables had been excluded, the long-term negative effects of Cannabis were non-existent. There are reviews from prestigious journals that like to claim links to addiction and 'not enough long term data (Volkow , Baler , Compton , & Weiss 2014), however this criteria also exists with sugar and other pleasures of life. In fact, Cannabis has been used as a therapeutic instrument in dealing with toxic substance addiction such as opiates, although the studies are not peer reviewed. This is about to change with the FDA speaking with several States in the USA about medicinal Cannabis research programs. <http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm421163.htm>

Lastly, the claim that it causes harm over the long term to young people is important. It is important that we are setting up our children with the best possible future and ensuring they are informed about the risks and benefits of anything they might come across as they grow. Education, unbiased information, and research, are our strongest tools to ensuring our children are given the best possible opportunities to make safe decisions about what they put in their bodies.

Why, for instance, is the number one cause of childhood obesity and skyrocketing instances of childhood diabetes still available in brightly coloured packages, marketed towards children, at every turn? Sugar is more physiologically addictive than Cocaine.(Ahmed, Guillem, & Vandaele, 2013) Why do we give children a "treat" as a 'reward' when it causes the same developmental issues as addiction? How much sugar did your kids consume this week? And how did they react when you said "no" when they wanted more?

Now *that* is a harmful addiction, and it has been implanted in us since we could walk.

I know I haven't addressed the issue of childhood Cannabis use, and that's because I simply don't know enough about it. As Cannabis continues to be a prohibited substance, it is incredibly difficult for researchers to gain approval and funding for their studies – and probably more difficult to want to test their theories on children. Irrespective of your stance on whether or not Cannabis is a "Dangerous Substance" I don't think anyone would suggest that forcing a child to get high is the right thing to do. Just because it's available, doesn't mean we have to use it; again, just like coffee and alcohol. We give our children sugar daily; this is a mind-altering, addictive

substance, which *is proven* to be detrimental in the long term, but it's still available. And it should be, because it is our right to have a choice.

That's where education, information, and support are incredibly important.

Interestingly, it can be argued that *all* Cannabis use is medicinal, whether or not we are treating a symptom of an existing illness or preventing disease. Diabetes and the complications thereof cost Australians every year tens of billions annually.(Lee et al., 2013) A recent study has proven that regular cannabis use (smoking, even though that is the least healthy way to consume it) reduces the likelihood of developing diabetes by 66%. Cannabis regulated as a specialty food has the potential to ease this burden on individual health and community sustainable development.

I don't want my kids to grow up in a world where they have to fear persecution from an anonymous government body for what they put inside their own bodies – I want to know that my government supports my right as a citizen to make informed health choices for myself and my family based on fact-based evidence, un-biased research, and transparent regulation.

Number Two: The meaning of “Cannabis Products” appears to be contradictory, whether or not it includes “Synthetic Cannabis Products”, and this is of utmost importance.

“Clause 7(c) ensures synthetic cannabis products **will be included within the meaning of cannabis product for the purposes of the Bill.** Clause 7(c) is not intended to apply more generally to other products that have some similar effects to cannabis **or synthetic cannabis products.** “

Synthetic Cannabis Products, derivatives therein, and isolated extracted compounds from the Cannabis plant do *not* have the same medicinal benefit as whole plant extracts, and in some cases are extremely dangerous. (<https://www.theguardian.com/world/2016/jan/15/french-drug-trial-one-person-in-coma-and-five-critically-ill>).

The anecdotal, clinical, and observable benefits of Cannabis have come from safe (not one single death has been attributed Cannabis alone, in its natural form, ever) examination of how the whole plant interacts with our biology. Growers, Doctors, and family members have worked with patients and users to monitor their symptoms and adjust the strain / dosage / delivery method accordingly. Every individual has a unique psychological profile and variations within their Endo-Cannabinoid System which results in yet more variability for the results of the medicine.

Over time, this has resulted in an enormous body of research which specifically details the best strains and delivery methods for specific conditions. Patented systems are already operational in this field.(Ruben, 2015) Our hesitation in providing suitable legislation to compete internationally, through education and research funding in this field, is diminutive to our opportunity to lead or even enter the global marketplace.

Creating synthetic variants of a safe, naturally-occurring plant, and isolating compounds of that plant have both proven to be difficult to manage safely as medicine and dangerous in the wrong hands.(Castaneto et al.) Simply regulate the production and sale of that plant so the consumer

knows exactly what they are buying; the consumer is then able to make informed adjustments to relieve their symptoms.

This, in my opinion, is the only reason why we should even be talking about regulating the sale and production of this plant. We can grow it in our own homes, (and should be able to, so long as we aren't selling it without being able to identify its genome and prove that its free from chemical adulterants), but the benefit of having lab-tested, pure product at a licensed dispensary is incredibly valuable.

I've experienced this first-hand in Colorado, and it has not only bolstered their economy enormously, but it has provided the security of understanding exactly what you are purchasing and how it is likely to affect your body. This transparency and ease of access is the only reason we now know so much about the amazing healing benefits of Cannabis today. Even the smell of different strains can have different impacts on our biology.(Khodadadi, 2016)

The benefit of regulating the sale and production of whole-plant Cannabis and whole-plant Cannabis extracts is that we are able to make an informed purchase regarding the strain's cannabinoid profile, how and where it was grown, and whether it contains chemicals, adulterants, or other toxins, while still allowing the user to have access to the full plant. If pharmaceutical companies can create valuable, functional medicines from the plant, that's wonderful too. They must, however, be classified separately from the plant itself.

I believe it is incredibly important for users and doctors to be able to make educated decisions about their medicine without being forced to use an adulterated (not to mention, expensive) compound that is less effective than the plant they could buy on a street corner. Cannabis is an incredibly complex plant, and the effects it has on the human body are even more so; please do not limit the incredible potential of this plant by over-regulating it into something it is not.

The purpose of the health industry is to promote general health through the latest research, technology, and education available – lately it seems more like a function of big business.

We don't have to be sick, and we don't have to wait for someone to figure out how to get rich off of us before we get better. We know the right thing to do, we just need to do it.

Sincerely,

Lorna Bremner
Chief Business Officer
Hemployment Australia

John Richter
Chief Academic Officer
Hemployment Australia

References

- Ahmed, S. H., Guillem, K., & Vandaele, Y. (2013). Sugar addiction: pushing the drug-sugar analogy to the limit. *Current Opinion in Clinical Nutrition & Metabolic Care*, *16*(4), 434-439. doi: 10.1097/MCO.0b013e328361c8b8
- Castaneto, M. S., Gorelick, D. A., Desrosiers, N. A., Hartman, R. L., Pirard, S., & Huestis, M. A. Synthetic cannabinoids: Epidemiology, pharmacodynamics, and clinical implications. *Drug & Alcohol Dependence*, *144*, 12-41. doi: 10.1016/j.drugalcdep.2014.08.005
- Hamilton, I., Lloyd, C., Monaghan, M., & Paton, K. (2014). The emerging cannabis treatment population. *Drugs and Alcohol Today*, *14*(3), 150-153. doi: doi:10.1108/DAT-01-2014-0005
- Khodadadi, S. (2016). Role of herbal medicine in boosting immune system. *Immunopathologia Persa*, *1*(1).
- Lee, C. M. Y., Colagiuri, R., Magliano, D. J., Cameron, A. J., Shaw, J., Zimmet, P., & Colagiuri, S. (2013). The cost of diabetes in adults in Australia. *Diabetes Research and Clinical Practice*, *99*(3), 385-390. doi: <http://dx.doi.org/10.1016/j.diabres.2012.12.002>
- Ruben, A. (2015). Selective enhancement of cannabis: Google Patents.
- Volkow, N. D., Baler, R. D., Compton, W. M., & Weiss, S. R. B. (2014). Adverse Health Effects of Marijuana Use. *New England Journal of Medicine*, *370*(23), 2219-2227. doi: doi:10.1056/NEJMra1402309