Answers to Questions on Notice

on

Medical use of Cannabis

to the

General Purpose Standing Committee No. 4

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1. Questions

During the hearing on Monday 18 March 2013 of the General Purpose Standing Committee 4, Dr David Phillips, President, FamilyVoice Australia, was asked to provide further details regarding the following matters:

1. *"A study has been of the states where the medical use of cannabis is permitted in the United States and those where it is not. Roughly, the use of marijuana in those permissive states is approximately double that of the other states, and the abuse of the drug is also approximately double that in other states."*

   Dr David Phillips,
   Transcript of Inquiry into the Use of Cannabis for Medical Purposes, p 40.

2. *"Neurological studies indicate that from about puberty on to mid-twenties, the human brain is undergoing rapid development, and new pathways and connections are being made in the brain. If cannabis is taken at that time, it modifies the development of those pathways and can make permanent changes to the mental capacity of people. One of the illustrations is that there is evidence of a reduction of the intelligence quotient [IQ] of about eight points."*

   Dr David Phillips,
   Transcript of Inquiry into the Use of Cannabis for Medical Purposes, p 40.

3. *"I have spoken, for example, to the Director of Pain Management at the Flinders University, South Australia, and he has advised that in his experience with proper pain management he is able to provide a regime that can satisfy the needs of any patient. That will range with different patients—his comment is that it will range depending on the attitude of the patient. Pain management usually has other effects such as a reduced level of activity. Some patients will prefer to be medicated to remove the pain even if it means their level of conscious interaction is reduced; others will prefer to bear the pain and have greater interpersonal engagement."*

   Dr David Phillips,
   Transcript of Inquiry into the Use of Cannibis for Medical Purposes, p 41.

2. Answers

2.1 Medical use of cannabis in the US

> *"A study has been of the states where the medical use of cannabis is permitted in the United States and those where it is not. Roughly, the use of marijuana in those permissive states is approximately double that of the other states, and the abuse of the drug is also approximately double that in other states."*
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Table 1 (below) shows that while 3.57% of people in states *without* legal medical marijuana use had used marijuana in the previous year, 7.13% of people in states where marijuana use is legal had used the substance in the previous year ($P<0.0001$).[1] Likewise, in states where marijuana is illegal, only 1.27% of the population abused the drug in the previous year, as compared with 2.61% in states where marijuana is legal for medical use ($P=0.0009$).

Table 1
Marijuana use and marijuana abuse/dependence by state legalization of medical marijuana use up to 2004, NESARC.

Outcomes of interest	State-level analyses[a] State legal medical marijuana use up to 2004		Multi-level analysis[b]
	No % (95% CI)	Yes % (95% CI)	OR (95% CI)
Past year marijuana abuse/dependence	1.27 (1.00, 1.54)	2.61 (1.96, 3.25)	1.81 (1.22, 2.67)
Past year marijuana use	3.57 (3.10, 4.03)	7.13 (6.02, 8.24)	1.92 (1.49, 2.47)
Past year marijuana abuse/dependence among current users	35.34 (29.46, 41.21)	37.68 (23.70, 51.66)	1.03 (0.67, 1.60)

NESARC: National Epidemiologic Survey on Alcohol and Related Conditions; 95% CI: 95% confidence interval.
[a] Adjusted for state-%-youth, state-%-males, state-high-school-graduation-rates, state-%-whites.
[b] Adjusted for age, sex, race/ethnicity, education, income, marital status, urbanicity, state-%-youth, state-%-males, state-high-school-graduation-rates, state-%-whites.

Thus the study found statistically significant results showing that both marijuana use and abuse/dependence were about twice as prevalent in states where marijuana had been legalised for medical use.

Other research has shown that medical marijuana diversion is a significant problem among adolescents in Colorado, which has had legal use of marijuana for medical purposes since November 2000.[2] This study, of teenagers being treated for substance abuse, found that nearly 75% of participants (clinically-ascertained adolescents) reported using another person's medical marijuana a median of 50 times. In addition, use of marijuana was perceived by most adolescents as having 'slight or no risk'.

Legalising marijuana for medical use combines the risks of increasing availability and normalising of drug-taking behaviour, leading to a greater frequency of marijuana-taking at an earlier age, increased abuse and dependency, and more 'conduct disorder' symptoms among adolescents.

2.2 Cognitive effects of cannabis use

> *"Neurological studies indicate that from about puberty on to mid-twenties, the human brain is undergoing rapid development, and new pathways and connections are being made in the brain. If cannabis is taken at that time, it modifies the development of those pathways and can make permanent changes to the mental capacity of people. One of the illustrations is that there is evidence of a reduction of the intelligence quotient [IQ] of about eight points."*
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> Dr David Phillips,
> Transcript of Inquiry into the Use of Cannabis for Medical Purposes, p 40.

A longitudinal study of 1037 participants in New Zealand found that 'the most persistent adolescent-onset cannabis users evidenced an average 8-point IQ decline from childhood to adulthood'.[3] Researchers ruled out interference from

a) past 24-h cannabis use,

b) past-week cannabis use,

c) persistent tobacco dependence,

d) persistent hard-drug dependence,

e) persistent alcohol dependence, and

f) schizophrenia.

The results remained significant after controlling for years of education (p. E2658).

This cognitive impairment was also found to affect daily functioning, with close friends and relatives of participants reporting 'significantly more attention and memory problems' among those dependent on cannabis (p. E2662).

2.3 Cannabis and pain management

> *"I have spoken, for example, to the Director of Pain Management at the Flinders University, South Australia, and he has advised that in his experience with proper pain management he is able to provide a regime that can satisfy the needs of any patient. That will range with different patients—his comment is that it will range depending on the attitude of the patient. Pain management usually has other effects such as a reduced level of activity. Some patients will prefer to be medicated to remove the pain even if it means their level of conscious interaction is reduced; others will prefer to bear the pain and have greater interpersonal engagement."*
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As long as 22 years ago, **Dr David Cherry** of the Pain Management Unit, Flinders Medical Centre, South Australia was confident that the area of pain management medications had developed sufficiently to ensure that "patients can generally decide for themselves on an acceptable level of pain relief" from a precise range of options.[4] The reference paper summarises his views, saying, "Because unacceptable suffering can now be prevented in most cases, few patients need fear severe prolonged pain in a terminal illness."[5]

Dr Cherry added that it was hardly ever patients themselves who brought up the subject of euthanasia, but rather close friends or relatives who were struggling to accept the presence of a terminal illness in their loved one.

In the two decades since, an even broader range of pharmaceuticals has become available.

Dr Megan Best, MAAE, BMed(Hons), ClinDipPallMed, bioethicist and palliative care doctor, HammondCare NSW, advised in March 2013 that specialist palliative care units are equipped to manage pain issues for over 95% of patients. She was not aware of either anecdotal or scientific evidence of anyone who has found marijuana necessary to control symptoms, even among those suffering from cancer and radiotherapy. She commented, "It is well known in palliative care circles that not all pain is physical. The existential and emotional suffering at the end of life can be experienced as pain which no medication can relieve, apart from sedation."

Dr Best was also hesitant to consider marijuana use for appetite enhancement. Clinical trials are currently being run using dexamethasone and Megestrol, however Dr Best was not aware of any currently testing the effectiveness of cannabis. She upheld the importance of controlled clinical trials rather than the opinion of individual patients in any decision-making process regarding medical cannabis use, and would support a TGA decision on the issue.

Dr Antoinette Turnbull is a general practitioner in SA who has a total of nearly four decades experience and has worked for the last 15 years in nursing home palliative care. After stating that she had never encountered a situation where a patient's pain level could not be controlled satisfactorily, she observed,

> *"What I have not been able to control is their emotional pain. I have struggled with patients who are suffering and they are needing help from their priest, pastor or pastoral care worker. They are in pain for a reason, something which needs resolution."*

Dr Turnbull referred to a study of the patients who applied for euthanasia while it was legal in NT, concluding that they suffered from social isolation, loneliness, fear, hopelessness – but not one was suffering from unmanageable physical pain.[6]

This emotional pain leads some to seeking death through euthanasia, but others to drugs such as marijuana as a means of escape. Legalising medical use of marijuana is an inappropriate response to a non-medical problem.

Regressing to untested, plant-based products taken through such a dangerous means of delivery as smoking is unsafe, unscientific and unnecessary.

3. Endnotes

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1 Cerda, M., Wall, M., Keyes, K.M., Falea, S. and Hasin, D., "Medical marijuana laws in 50 states: Investigating the relationship between state legalization of medical marijuana and marijuana use, abuse and dependence", *Drug and Alcohol Dependence* 120 (2012) p 24.

2 Salomonsen-Sautel, S., Sakai, J., Thurstone, C., Corley, R. and Hopfer, C., "Medical Marijuana Use Among Adolescents in Substance Abuse Treatment", *Journal of the American Academy of Child & Adolescent Psychiatry* 51:7 (2012) p 694-702.

3 Meier, M.H., Caspi, A., Ambler, A., Harrington, H., Houts, R., Keefe, R.S.E., McDonald, K., Ward, A., Poulton, R. and Moffitt, T.E., "Persistent cannabis users show neuropsychological decline from childhood to midlife", *PNAS* 109 (40) p E2663.

4 "Reference Paper on Euthanasia", *Social Responsibilities Committee of the Diocese of Adelaide of the Anglican Church of Australia* (1991) p 9.

5 *Ibid.*

6 Kissane, D.W., Street, A., Nitchske, P., "Seven deaths in Darwin: case studies under the Rights of the Terminally Ill Act, Northern Territory, Australia", *The Lancet* 352, 3 October 1998, p 1097-1102.