Medicinal Cannabis and Driving Laws in Australia

June 2024 - In Australia, it is an offence to drive with any trace of a proscribed drug in a body fluid. Cannabis is one of the proscribed drugs (as identified through delta-9-tetrahydrocannabinol - THC). Since 2004, all Australian jurisdictions have introduced roadside drug testing (RDT) programs to enforce the ban on drug-presence driving. As a 'presence' offence, no evidence of impairment is required. Furthermore, any trace of the drug in a body fluid is sufficient. The offence of cannabis-presence driving does not distinguish between recreational and medicinal cannabis.

Impairment: The definition of 'impairment' in the scientific literature sets a very low bar. A cannabis-related impairment is defined as a statistically-significant decrement from peak performance, for a group of subjects, on a purportedly driving-related task, after taking cannabis. When such an 'impairment' is reported for a group of subjects, many of the individuals will actually have performed better after taking the cannabis. If the group is large enough, very small decrements in performance can achieve statistical significance. Humans are over- engineered for safety, and any small (albeit statistically-significant) decrement in group performance will usually be within safety margins for most of the individuals in the group.

Research on impairing effects of cannabis that is conducted in the laboratory, in a driving simulator, or on the road, often fails to demonstrate *any* statistically-significant impairment from the use of cannabis. According to a recent review, where statistically-significant impairments were found, they were roughly equivalent to those of alcohol at a BAC of 0.05 (the legal limit in Australia). According to a recent study, cannabis should be considered to be a *mood-altering* rather than an impairing drug. It follows that a driver could easily be *under the influence* of cannabis without being impaired by it.

Two recent studies of *daily users* of cannabis failed to find *any trace* of impairment for either simulated driving performance or for laboratory measures of psychomotor skills. Those findings, which replicate many earlier findings, can be explained by the development of tolerance to the impairing effects of cannabis. Surveys have shown that nearly half of all adults who report any use of cannabis, report a pattern of *daily* or *almost-daily* use. It follows that tolerance to cannabis is very common, that the majority of THC-positive driving is done by drivers who are tolerant, and that the majority of drivers who are charged with THC-positive driving offences are therefore not impaired.

Crash Risk: The role of cannabis in road crashes is often exaggerated by commentators who focus on *prevalence* rather than *causality*. And reports of high THC prevalence often fail to distinguish between the prevalence of *THC alone* (which is usually low) and the prevalence of *THC in combination* with alcohol and/or other legal or illegal drugs. When other drugs are used in combination with cannabis, those other drugs are more likely than the cannabis to have played a causal role in the crashes, because of their generally stronger impairing and risk-taking effects.

Epidemiological literature on the risk of crashing after using drugs show that the increase in risk after using *cannabis alone* is no greater than 50% (i.e., the THC-crash odds ratio is no greater than 1.50). While a 50% increase may seem substantial, it needs to be seen in context. The base-rate of crash risk is very low, such that the 50% increase is still very low. To further contextualise: the 50% increase for cannabis is only half the 100% increase from driving at the legal BAC cut- off for alcohol (BAC = 0.05), and half the 100% increase from driving at 55 km/h

in a 50 km/h zone. And the 50% increase for cannabis is far less than the 500% increase in crash risk from cycling compared to driving a car, and the 3,000% increase from riding a motorcycle compared to driving a car.

It should be noted that three recently published epidemiological reviews agree that, when study biases are properly accounted for, it is possible that the recent use of cannabis has *no effect at all* on the risk of crashing. That possibility is consistent with the effects of cannabis on the reduction of travelling speeds and on the lengthening of headways. In this context, and assuming that medicinal users are more responsible than recreational users, it seems reasonable to presume the appropriate medicinal use of cannabis poses *no danger at all* on the roads.

There has been some limited research on the impairing effects of medicinal cannabis. A team of Swinburne researchers recently completed a study "to measure the driving performance and cognitive function of Victorians prescribed medicinal cannabis" and published its findings. The forty participants were regular users of THC-based medicinal cannabis for a range of chronic health conditions. They undertook a simulated drive and a battery of driving- related cognitive tests before, and after, self-administration of their standard dose of medicinal cannabis. No trace of impairment was found for either their driving performance or their cognitive functioning. The recently-published findings of three Australian attitudinal studies support the findings of the Swinburne laboratory research. The studies found that medicinal users were more careful about their consumption than recreational users, and more cautious in relation to their driving behaviour.

Arguments in favour of a medical exemption for cannabis. One major argument for the medical exemption points to the injustice of treating the medicinal use of cannabis differently from the medicinal use of other potentially impairing psychoactive medicine. All drugs can be used both legally and illegally. The illegal use of benzodiazepines and opioids is widespread. Furthermore, as recent Australian research on Coronial databases has shown, both benzodiazepines and opioids account for twice as many road-crash deaths as cannabis. In other words, between them, benzodiazepines and opioids account for *four times as many* road-crash deaths as cannabis. And yet, neither is included in RDT programs. There is a compelling argument that Australia's RDT programs should be extended to incorporate testing for benzodiazepines and opioids (at high thresholds to identify recreational use).

Victoria Police introduced a behavioural impairment-testing program in December 2000, and it has been assessed by them to be an effective means of detecting and removing drivers from the road who are impaired by a drug or drugs other than alcohol. It comprises two stages: a brief behavioural impairment screening stage, followed by a comprehensive second stage. The brief screening stage is known as a Roadside Impairment Assessment (RIA). It takes only about five minutes to complete. All commissioned officers in Victoria Police were trained to administer the RIA. For any jurisdiction that wanted to confirm that drivers weren't impaired, it would be a relatively simple matter to add the RIA to their roadside enforcement procedures. The lengthy second stage of impairment testing would rarely, if ever, be required. A further option would be to introduce the medical exemption program (with or without the RIA component) as a trial with an end-date. The program would only become permanent on the successful completion of the trial (noting that the original Victorian RDT program underwent a similar trial before its formal implementation).

*** For brevity, this paper does not cite any references. References can be provided ***