Transport for NSW

Responses to post-hearing questions

Portfolio Committee No. 1 – Premier and Finance

Impact of the regulatory framework for cannabis in New South Wales

Hearing date – 2 April 2025

QUESTIONS ON NOTICE

QUESTION 1. P35

The Hon. SUSAN CARTER: What strategies are currently in place to deter cannabis-impaired driving? Are these the same as those for alcohol-impaired driving or are they different?

BERNARD CARLON: New South Wales and most of the jurisdictions in Australia have adopted a mobile drug testing program, which is modelled on the drink drive program. That has been an RBT, which has been in place since the '80s and has seen a significant reduction in the number of people who drink drive and also those who have been killed in crashes involving drink driving. That system is a broadscale oral-fluid roadside testing program, which detects illicit drugs, including THC. In New South Wales the policy framework in our Road Safety Action Plan is to conduct 200,000 roadside drug tests. The evaluation of the Victorian scheme has indicated a significant positive road safety benefit in the roadside drug testing program. We do have the information on the specifics of the number of fatalities and serious injuries that they have demonstrated have been prevented as a result of that broadscale roadside drug testing program, which is modelled on the RBT program.

The Hon. SUSAN CARTER: If you could provide those on notice, I'd be very grateful.

BERNARD CARLON: Yes.

ANSWER:

Roadside drug testing (RDT) is modelled on the random breath testing (RBT) program which was introduced in NSW in 1982. The RBT program in NSW has been highly successful as a deterrence to drink driving and therefore as a means of reducing the significant negative impacts of drink-driving on community safety. In real numbers, in NSW in 1980, 389 people were killed in alcohol related crashes alone, compared to 36 in 2022.

High-visibility and high-volume roadside testing is critical for achieving a level of general deterrence across the community. That is why roadside drug testing programs operate across the states and territories, and Australia is considered to be at the international forefront in combating drug driving.

An evaluation of the Victorian random drug testing program conducted by the Monash University Accident Research Centre (MUARC), found that a system of broad base roadside drug testing, directly comparable to the approach in NSW, has a positive impact on road safety. Specifically, the report found that:

- The expansion in roadside drug testing in Victoria from 42,000 in 2015 to 100,000 per year from 2017 onwards has saved more than 30 lives and almost 80 serious injuries on the State's roads each year.
- Further increases in roadside drug tests in Victoria were justified on economic criteria as well as the additional savings in fatal and serious injury crashes.

NSW has committed to evaluating enforcement initiatives as part of the 2026 Road Safety Action Plan.

References

National Drug Driving Working Group (2018), Australia's second generational approach to roadside drug testing. https://www.roadsafety.gov.au/sites/default/files/2019-11/infra3728_stp_drug_driving_report_1018_web_accessible_2_nov18.pdf

Cameron, M., Newstead, S., Clark, B., & Thompson, L. (2022). Evaluation of an increase in roadside drug testing in Victoria based on models of the crash effects of random and targeted roadside tests. *Journal of Road Safety*, *33*(2), 17-32. https://doi.org/10.33492/JRS-D-20-00272

QUESTION 2. P35

The Hon. SUSAN CARTER: Who collects the data on how many drug detections there are?

BERNARD CARLON: New South Wales police conduct the tests. Certainly we share that information and that data on the detection for that program as well. Around 50 per cent of the detections are THC detections. In my understanding, around a quarter of those are poly use, so we do get the detection of THC with the other drugs that are being tested for in the program. So, yes, THC alone — we also have the data on how many are just THC detections.

The Hon. SUSAN CARTER: If you could provide that on notice, that would be great. And the drug tests are also alcohol tests?

ANSWER:

The NSW Police Force are responsible for conducting roadside alcohol (breath) and drug (oral fluid) tests, and providing data on total test numbers, which is shared with Transport for NSW. Information about the total number of roadside drug and alcohol tests completed in NSW is also publicly reported on the National Road Safety Enforcement Dashboard.

- Road Safety Enforcement Dashboard - Road safety enforcement data | Bureau of Infrastructure and Transport Research Economics (Australian Government)

Information about the total number of oral fluid samples submitted to the NSW Health laboratory for analysis, and the drug types detected in the sample, is collated by NSW Health. Reports are made available to Transport for NSW. Based on these reports held by Transport for NSW, between 2019 and 2024, 54 per cent of oral fluid samples that were positive at the roadside and submitted for laboratory analysis had THC present. This compares to 54 per cent for methylamphetamine, four per cent for MDMA and 13 per cent for cocaine. About 29 per cent had THC only. Around one third of samples had more than one drug present.

	2019	2020	2021	2022	2023	2024
Total oral fluid samples submitted	9,450	12,652	16,958	18,340	16,178	23,583
THC samples	4,425	6,812	9,492	10,778	8,935	12,194
THC-only samples	1,930	3,286	5,216	6,444	5,184	6,433
THC detection rate	46.8%	53.8%	56.0%	58.8%	55.2%	51.7%
THC-only detection rate	20.4%	26.0%	30.8%	35.1%	32.0%	27.3%

While the NSW Police Force and NSW Health hold roadside enforcement data and the laboratory results from roadside drugs tests (which is shared with Transport for NSW), Transport for NSW also holds information about the drug analysis results of drivers who are involved in fatal crashes as part of the crash dataset. These results are from mandatory blood and alcohol testing after fatal crashes. Of the fatal crashes where cannabis was detected, about a quarter had illegal levels of alcohol.

QUESTION 3. P41

The Hon. CAMERON MURPHY: But not everybody. There'll still be people who will have been using their medicinally prescribed cannabis, according to the instructions of their doctor, that will still be picked up, won't there?

LOUISE HIGGINS-WHITTON: A lot of the research of what we know about how THC is eliminated from oral fluid — we definitely see after use a very significant spike in the THC levels and then quite a rapid drop-off in the oral fluid. We do know that those peaks are associated with close after the drug has been used. Most of that research comes from clinical studies that have been done of people using a recreational drug, but there has been some research that's looked at what happens to oral-fluid levels after prescribed cannabis medicine has been used. Swinburne university did a study only last year, I believe, which looked at this. It does show that you have the same pattern of a peak after use and then a rapid drop-off.

Some of those levels, the peak is lower than what you'd get for recreational use being consistent with the THC level, for some patients, not being as high. Within participants that were part of that study that looked specifically what happens for a person with a prescription, there was significant variation. It was a semi-naturalistic study. Participants were taking what they'd been prescribed. Those who were prescribed higher dosages presumably may have been those participants who had higher levels for a longer period.

The Hon. CAMERON MURPHY: You're still going to pick up people who are using it in accordance with their instructions.

LOUISE HIGGINS-WHITTON: That's right. However, most drivers in that study had dropped well below a detection level by six hours post-use. We can provide that study to the Committee, if you want to have a look.

The Hon. CAMERON MURPHY: If you can, that would be useful.

ANSWER:

As noted at the hearing, Transport for NSW is finalising a study into the knowledge, attitudes, and behaviours of driving after taking drugs, which includes a survey of over 5000 drivers. While many took cannabis medication according to their prescription, among those who reported using prescribed cannabis in our research, 54 per cent did not use it as prescribed. This includes use for recreational purposes, or at higher doses, or more frequently than prescribed, or using medically prescribed cannabis without their own prescription.

This research also found that among those who were using medically prescribed cannabis as prescribed, two per cent reported they had been charged with a drug driving offence, whereas 17 per cent had been charged among those who were using medically prescribed cannabis illicitly (includes using medically prescribed cannabis for recreational purposes, at higher frequencies or doses than prescribed or sourced elsewhere, not from their own prescription). About 10 per cent of illicit medically prescribed cannabis users had also been charged with a drug driving offence. However, it is unknown what drugs were detected when drivers were charged with a drug driving offence and if this was prior to their use of medically prescribed cannabis.

Swinburne University recently undertook research on medically prescribed cannabis users taking their own prescription. It found that, while there was variation in study participants,

THC in oral fluid dropped rapidly in the immediate hours after use, and by six hours would have dropped to a level that would not likely be detected by NSW roadside oral fluid testing devices or confirmed in laboratory processes. The study notes that the median oral fluid level among the participants after six hours is 0ng/mL declining from a median level of 17.58 after one hour, 4.65 after two hours and 2.9 after four hours. This is one of the few studies Transport for NSW is aware of, which involved participants taking their own prescribed amounts of THC.

Reference

Manning, B., Arkell, T.R., Hayley, A.C. & Downey, L.A. (2024). A semi-naturalistic open-label study examining the effect of prescribed medical cannabis use on simulated driving performance. *J Psychopharmacol*. 38(3):247-257. https://doi.org/10.1177/02698811241229524

QUESTION 4. P42

The Hon. STEPHEN LAWRENCE: I have one more question, and you might want to take it on notice because there's not a lot of time. In terms of the amount of fatalities where benzos or opioids of a prescription type are found in bloods, I remember reading Institute of Criminology stats and various stats from different sources that seemed to reflect that those two prescription drugs were — if you combine them — certainly turning up at a higher rate than cannabis. Can you take that on notice and give us some information about how often they're turning up in fatalities blood samples? I think you said, Mr Carlin, that there's more cannabis use going on than prescription drug use, for example.

BERNARD CARLON: Illicit use, yes.

The Hon. STEPHEN LAWRENCE: But if I'm correct in my recall of those stats, which is that if you put them together, they actually turn up in more fatalities than cannabis, then I'm interested in what that says about this link between accident and use.

BERNARD CARLON: Yes, absolutely, we can have a look at that data.

LOUISE HIGGINS-WHITTON: We can have a look at what we can provide. As I mentioned, at the moment we don't have a framework for looking at those substances. There are obviously a lot of drugs that can fall within that benzos class. Some of them, a person may have taken their particular medication, and it may appear in a fairly low and therapeutic level. I think it might depend on the study. If the study is just looking for the presence of benzodiazepines, then you may find that they are present there in a level that's consistent with prescribed use across the community of those particular types of drugs, to some extent. There would probably also be misuse.

ANSWER:

Between 2019 and 2023, there were 349 motor vehicle controllers (MVCs) (drivers or riders) involved in fatal crashes who had an illicit drug present and 572 who had an 'other drug' present.

Detailed analysis at this level is challenging, particularly in relation to pharmaceutical drugs. Information as to whether a drug has been prescribed or taken illicitly is unknown, whether the drug is at a therapeutic or other level, as well as whether a drug may have been administered post-crash. The above may also not be complete data, and robust categorisation would need to be undertaken by a pharmacologist before any proper analysis could be undertaken.

An initial Transport for NSW analysis suggests that in the 'other drug' category, approximately nine per cent of motor vehicle controllers had benzodiazepines present and six per cent had opioids present. This is in comparison to 12 per cent of MVCs with the presence of THC. This analysis only includes MVCs involved in fatal crashes. It does not include data on total fatalities including passengers or pedestrians.

Of these drivers and riders with benzodiazepines present, 18 per cent also had illegal levels of alcohol and 41 per cent had illicit drugs present; 49 per cent had no other illicit drug or illegal levels of alcohol.

Of these drivers and riders with opioids present, eight per cent also had illegal levels of alcohol and 33 per cent had illicit drugs present; 62 per cent had no other illicit drug or illegal levels of alcohol.

Of the drivers and riders with THC present, 25 per cent also had illegal levels of alcohol and 30 per cent had illicit drugs present; 50 per cent had no other illicit drug or illegal levels of alcohol.

This analysis does not consider combinations of different prescription drugs. The analysis does not capture the amount of benzodiazepines or opioids present. Crash investigation and the decision to charge someone with a drug driving offence after a fatal crash involves consideration of various factors, including outcomes of the police investigation, witness testimony, potential polydrug or alcohol use in combination with pharmaceutical drug(s) presence, and expert opinion from a pharmacologist.