Changing Trend of Drug Driving Detections in South Australia

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Abstract

Context
Driver drug testing has been operating in South Australia since 1 July 2006. The established regime targets 3 illicit drugs being Methylamphetamine, Delta 9 Tetrahydrocannabinol (THC) and 3,4 Methylenedioxymethamphetamine (Ecstasy). These drugs are represented in drivers and riders involved in fatal road crashes in South Australia. Drivers and riders are tested in a predominantly random roadside testing environment using oral fluid in a two stage testing process followed by a laboratory confirmation process for those drivers who provide a presumptive positive sample.

Objectives
To present the success of the driver drug testing regime that has been established in South Australia and examine the changing trends in drug detections between 2010/2011 and 2011/2012.

Key Outcomes
South Australia Police (SAPOL) screens 47,000 drivers for drugs per year. With a population base of 1.66 million people, SAPOL screens drivers for drugs approximately 4 times greater than any other Australian jurisdiction. SAPOL has decentralised its driver drug testing functions across the jurisdiction and has significant training requirements for its officers to undertake this task. This training requirement coupled with the long term establishment of officers conducting these duties is seen as a contributing factor in the success of drug driving detections in South Australia.

Discussion and conclusions
South Australia has seen a significant increase in its detection rate to Methylamphetamine between 2010/11 to 2011/12 with an associated decrease in the detection rate to THC. A significant increase in Ecstasy detections with detection levels back to those seen in 2009 was also observed. Overall, a marked increase in the detection of drugs in drivers has been noted with an increase of 41% in the overall detection rate of drugs for the 2011/2012 year compared to the previous 12 month period. There is a belief that the change in trends as to the types of drug detected in South Australian drivers is seen as an availability issue to the types of drugs. It is believed the significant rise in the overall drug detections amongst South Australian drivers is as a result of enforcement techniques as opposed to a general increase in drug driving prevalence.

Introduction
Research shows that the consumption of certain illegal drugs can negatively impact upon the driving task in a similar manner to alcohol impairment. In July 2006 the South Australian Parliament proclaimed legislation making it an offence to drive or attempt to drive a motor vehicle while a proscribed drug is present in your oral fluid or blood.

The drugs proscribed pursuant to this legislation are:
• Methylamphetamine (Speed)
• Delta 9 –Tetrahydrocannabinol
• 3,4-methylenedioxyamphetamine (MDMA or Ecstasy)

Over the 6 year period that South Australia Police (SAPOL) has been testing drivers for drugs there has been a significant increase in the detection rates of drivers identified with drugs in their oral fluid or blood. Until 2011/2012, the detection rates between the proscribed drugs were relatively the same. In 2009/2010, SAPOL detected more drivers with cannabis in their system than any other drug. In the two year period from 1 July 2009 the detection rate for both cannabis and methylamphetamine was the same. During the 2011/2012 year a significant change in the detection rates between the drugs was observed.

Method

The driver drug testing regime introduced in South Australia established a 3 step process to determine the presence of a proscribed drug primarily using oral fluid. The process included:

• A screening test
• An oral fluid analysis or blood test
• A laboratory confirmation.

Utilising oral fluid, the equipment used to conduct a screening test is a Drugwipe Twin II manufactured by Securetec Detektion-Systeme AG in Germany. The screening test occurs whilst the driver remains seated in the vehicle (through the car window). If the driver returns a negative test they are free to go with all positive drivers being required to exit their vehicle to undergo a second stage screening test (oral fluid analysis) in either a police vehicle at the roadside or at a police station. The equipment to conduct an oral fluid analysis is a Cozart Drug Detection System (DDS) manufactured by Concateno in the United Kingdom.

At the conclusion of the screening process, all positive samples are sent to a forensic laboratory for confirmation of the presence of a proscribed drug.

The regime established in South Australia was initially established under a centralised model. In 2008, the model was decentralised across all traffic enforcement officers. The decentralised model operates with a full time driver drug testing group of 13 members undertaking 12,000 drug tests of drivers a year. In addition to these members operating full time, other traffic enforcement members across the jurisdiction undertake driver drug testing duties on an ad hoc basis, undertaking an additional 28,000 tests. In 2011/2012 there were 615 officers trained to conduct a drug screening test and of those trained, 328 officers are further trained to undertake oral fluid analyses.

2012 was the fourth year of the decentralised testing model established in South Australia.

Results

2011/2012 saw a significant change in the detection rates between the various drugs detected as highlighted in Figure One. In the 12 month period since 2010/2011 the level of detection for methylamphetamine increased by 108% to 5.2% of all driver screenings. This observation is significant whereby the previous trend of detections of the drug over 4 years was an increase by only 56%.
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Figure One  Proscribed Drug Driving Detection Rates in South Australia

An analysis of the percentage of proscribed drugs of all positives detected (Figure Two) also shows the pronounced increase in the detection of methylamphetamine. Whilst the overall volume of all drugs detected has increased (Figure One), Figure two highlights the significant decrease in the percentage of cannabis being detected in 2011/2012 from all positive samples.

Figure Two  Percentage of Proscribed Drugs of All Drug Driving Positives Detected

During 2011/2012 the detection rate of methylamphetamine had increased by 14.6% compared to the previous year and the detection rate to cannabis had decreased by 11%. Of note was the emergence to ecstasy in the same period which had not been detected in drivers in South Australia for nearly 3 years.

The percentage of poly drug use also increased across the combination of proscribed drug categories compared to the previous 12 months. This was predominantly seen due to the re-emergence of ecstasy, but a 10.6% increase was noted in the combination of methylamphetamine and THC compared to the previous year.

In 2011/2012, 1 in every 16 drivers tested for a proscribed drug was positive. SAPOL saw a 38% increase in the number of drivers detected with a proscribed drug compared to the previous year. This increase was on top of a 35% increase experienced the previous year.
Discussion

There is no conclusive evidence as to why the increase in methylamphetamine and decrease in THC detections are being observed in South Australia. It can be argued that with detection time frames of 24 hours for methylamphetamine compare to a detection time frame of only 5 hours for THC that these results should be expected. This has not been the case previously in South Australia where we have seen significant detections to THC. It is possible that the emergence of synthetic cannabinoids may be a contributing factor.

Another contributing factor is the rise in the availability of methylamphetamine in Australia generally. This is supported by findings released by the Australian Institute of Criminology (Macgregor & Payne 2011) where the increase in methylamphetamine has been noted in the Drug use Monitoring Program in Australia. This is more than likely the reason for the change in trends of the type of amounts of drug being detected.

Overall, the increase in the detection rate of proscribed drugs in drivers in South Australia is attributed, not to the fact that more people are drug driving, but to the enforcement efforts being undertaken by SAPOL.

Conclusion

With a population base of 1.68 million people, SAPOL has been screening drivers for proscribed drugs per 100,000 population, approximately 4 times greater than any other Australian jurisdiction. That rate is set to increase with the number of drivers to be screened in South Australia during 2012/2013 increasing to 47,000 tests a year. The results achieved in South Australia can be described as nothing but a success. Over 230,000 drivers have now been screened for a proscribed drug with over 9,400 drivers confirmed positive.

The introduction of driver drug testing and the subsequent expansion which occurred in 2008 is helping to achieve goals set in the South Australia Police Road Safety Strategy 2011-2014 and the SA Road Safety Strategy 2020, Towards Zero Together.

Drivers who drive after the consumption of a proscribed drug are identified as dangerous drivers and SAPOL will continue to actively enforce this part of our legislation in an effort to help reduce road crashes.

References

Towards Zero Together, South Australia’s Road Safety Strategy 2020, Department of Transport, Planning and Infrastructure  

South Australia Police Road Safety Strategy 2011-2014, South Australia Police.