

DRIVER DRUG TESTING – THC DETECTIONS OF DRIVERS IN SOUTH AUSTRALIA
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INTRODUCTION

Research shows that consumption of certain illegal drugs can negatively impact upon the driving task in a similar manner to alcohol impairment. The use of Cannabis in SA is widely known amongst the broader community. Findings from the 2007 National Drug Strategy Household Survey show that 34.9 percent of those surveyed 14 years and over admitted to using Cannabis in South Australia with 10.2 percent of those surveyed having used the drug recently (in the last 12 months). The recent use of the drug in South Australia was 8.9% above the national average of those surveyed.

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 were:

- Methylamphetamine (Speed)
- Delta 9 –Tetrahydrocannabinol
- 3,4-methylenedioxyamphetamine (MDMA or Ecstasy)

This paper will outline the results achieved by the driver drug testing regime established in South Australia, particularly in respect to THC.

METHOD

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

- Screening test
- Oral fluid analysis or blood test
- Laboratory confirmation.

Equipment used to conduct a screening test is a Drugwipe Twin II manufactured by Securetec Detektion-Systeme AG in Germany. Equipment to conduct an oral fluid analysis is a Cozart Drug

Detection System (DDS) manufactured by Concateno in the United Kingdom.

The detection of THC in oral fluid with devices using immunoassay technology is known to have its problems. The equipment has to be maintained in certain operating conditions and the drug can bind itself to the collection devices. These issues present challenges for both the manufacturers and the users of the devices in the detection of THC.

The regime established in South Australia 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, an expansion of the regime undertaken in 2008 saw all other traffic enforcement members undertake driver drug testing duties on an ad hoc or part-time basis, providing an additional 28,000 tests. A total of 40,000 tests for drugs are completed in SA each year.

2011 is the third year of the decentralised testing model established in South Australia.

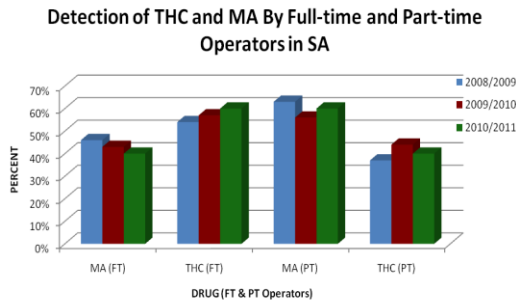
RESULTS

The results achieved in South Australia can be described as nothing but a success. Over 150,000 drivers have now been screened for a proscribed drug with over 4,000 drivers confirmed positive to a proscribed drug.

The detection of THC has significantly improved over the last 3 years with the rate of detection of the drug increasing from 52.1% of drivers tested being confirmed positive to THC to 63.9%. At the same time the detection of Methylamphetamine in drivers decreased from 74.3% to 61.3%. In 2009/2010 more THC was detected in drivers in South Australia than any other drug. This is despite the screening equipment known to be poor in its detection capabilities to THC and the fact that you only

have a window of approximately 5 hours to detect the drug in oral fluid compared to a 24 hour period for methylamphetamine.

In addition to the overall results, significant differences in detecting THC can be seen between the full time drug testing group and those members testing part time or on an ad hoc basis.



Observations of the data between the two groups show a reverse trend in the detection of THC whereby more methylamphetamine than THC is detected by the part time members. The detection of the drug amongst the full time members has been increasing consistently over the last 3 years.

Training, experience and equipment handling are all considered factors in the trend observed in this data although you must also consider the population base of the drivers being tested.

Obviously undertaking the function of driver drug testing on a full time basis provides the necessary skill set and experience to undertake the task. All officers in SA undergo extensive training for driver drug testing duties but it can be assumed that if the task is not regularly undertaken then a level of proficiency may not be maintained.

The equipment must also be used correctly in its handling and timing process. Inadequate timings may mean that a positive test, particularly to THC may be missed by the operator.

CONCLUSION

The regime established in SA and the subsequently expansion has been an outstanding success.

Unlike other jurisdictions in Australia, legislation in SA requires all police officers to be authorised before they can undertake the duties of driver drug testing. SA police has significant training requirements for its officers prior to having to undertake this task.

The training requirement coupled with the long term establishment of officers conducting these duties, and therefore experience, is seen as a contributing factor in the success of the detection of THC.

REFERENCES

1. AIHW 2008. 2007 National Drug Strategy Household Survey: first results. Cat. no. PHE 98. Canberra: AIHW
2. Blencowe, T., Pehrsson, A. & Lillsunde, P. 2010. "Analytical evaluation of oral fluid screening devices and preceding selection procedures." Deliverable D 3.2.2, Driving under the Influence of Drugs, Alcohol and Medicines (DRUID), Integrated Project funded by the European Commission under "1.6. Sustainable Development, Global Change and Ecosystem" of the 6th Framework Programme (Project No. TREN-05-FP6TR-S07.61320-518404-DRUID). Institute for Health and Welfare (THL), Helsinki, Finland.