

Creating Efficiencies In Roadside Driver Drug Testing

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Abstract

Driver drug testing is expensive and how the task is undertaken creates demand on police and the public. South Australia Police (SAPOL) has implemented efficiencies to reduce demand and cost in the drug testing process whilst increasing detections. This paper will present the success of changes implemented in South Australia to improve efficiencies in the roadside drug testing program. The outcomes of these changes have been economic improvements in both capital and operating costs, a reduced demand on police and the public, an increase in detections and a more simplified process to the previous model.

Introduction:

SAPOL has been undertaking the process of testing drivers for illicit drugs since July 2006. The drugs detected in the program are:

- Methylamphetamine (MA)
- Methylenedioxymethamphetamine (MDMA)
- Delta 9 tetrahydrocannabinol (THC)

The program established in South Australia is currently one of the world's largest screening at a rate of 45 tests per 1,000 licensed drivers.

The program implemented was based on a 2 stage screening process involving:

- An initial screen using a Drugwipe II Twin
- An oral fluid collection and analysis using a Cozart DDS instrument.

Positive results from the screening process were then forwarded to a laboratory for confirmation. This process is the same as introduced by other jurisdictions around Australia and the way the majority of Australian jurisdictions have operated their programs to date. This program has been successful in South Australia with 1 in every 10 drivers screened for an illicit drug returning a positive result during 2016/2017 fiscal period.

In 2016 SAPOL had to consider the drug testing process moving forward due to the second stage screening apparatus, the Cozart DDS, being removed from production and no longer supported.

Discussion:

Research was undertaken to look at how the program was operating in South Australia, the performance of instruments that were being used around Australia for the second screening stage of oral fluid analysis (OFA) and what changes could be made to the South Australian program to create efficiencies.

The examination of the program recognised that SAPOL was already determining a screening result at the first and second stage. Modelling was undertaken to consider outcomes if the second screening was removed. It was identified through this process that if the second stage screening test (OFA) was eliminated it would:

- Remove the requirement to purchase an instrument.
- Lead to a cost reduction of consumables to collect an oral fluid sample.
- Create human resource efficiencies on the servicing and management of instruments.
- Provide a more simplified process for Police and the Public.
- Likely increase the number of positive detections in the laboratory.

Modelling showed that eliminating the second stage screening instrument would remove the false negative rate experienced at the second stage. It was hypothesised that this would lead to more positive detections being confirmed in the laboratory.

Outcomes

As a result of the research and modelling into the driver drug testing program in South Australia a decision was made by SAPOL to change the program in late 2016.

Before the change could be implemented changes were required to South Australian Legislation to remove the requirement of an instrument at the second stage. The change in legislation was passed by both houses of Parliament and assented on 12 December 2017.

With the passing of legislation SAPOL redesigned the driver drug testing program. The redesigned program now involved:

- An initial screen using a Drugwipe II Twin
- An oral fluid collection using a Pathtech Oral Fluid Collection Kit.

Positive results from the screening process would then be forwarded to a laboratory for confirmation.

The new program also meant that police officers no longer had to convey drivers to police stations or testing sites to obtain the oral fluid and undertake a second test. The oral fluid collection could be undertaken at the roadside saving time for police and members of the public.

On the 22 February 2018 the new drug driving process was implemented. The new process was also mirrored in the South Australian Harbours and Navigation Act and the Rail Safety National Law (South Australia) Act at the same time.

Results:

Whilst no formal or independent review of the changes has been made, SAPOL has monitored and reviewed the changes implemented. The implementation of the new program saw immediate results.

Cost reductions were made in the following areas:

- 100% capital savings on the purchase of oral fluid analysis instruments
- 100% recurrent costs on servicing instruments
- 28% reduction on the cost of oral fluid collection consumables

There was a demand reduction on the human resource in managing oral fluid analysis instruments. South Australia had 50 instruments which were required to be serviced, distributed state-wide and managed on a daily basis which no longer had to occur.

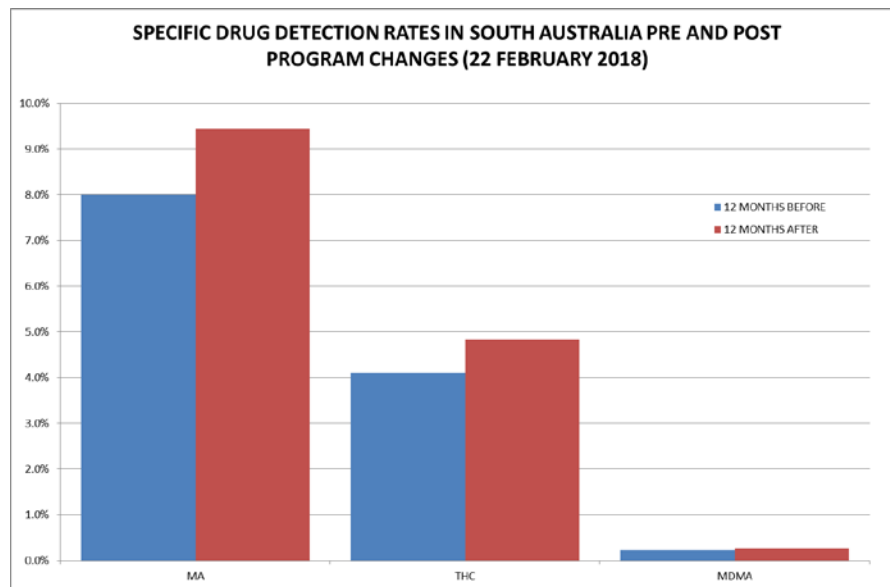
A review of the performance of the new program identified a 19.6% increase in the detection rate of drivers returning a positive test as identified in the following table:

Program Comparison	12 months Before	12 months After
Screening Tests	50668	50846
Laboratory Positive	5043	6055
Detection Rate	10.0%	11.9%

Table One – Comparisons before and after Implementation (22 February 2018)

Table One identifies an additional 178 drug screening test undertaken compared to the previous 12 months, but this resulted in an additional 1,012 driver samples returning a positive test in comparison. The detection rate under the new program was 11.9% of 1 in every 8.4 drivers screened returning a positive result.

A breakdown of the specific drugs saw an increase in the detection rate across all drugs.



Examining the variance increase of all drugs saw a consistent percentage increase under the new program as identified in Table Two below.

Drug	Variance Increase
MA	18.1%
THC	17.8%
MDMA	20.3%

Table Two – Specific Drug Detection Variance following Program Implementation

Although there are many factors that impact on detection rates the consistent variance across all drugs is likely attributed to the change in the driver drug testing program.

Conclusion:

The changes implemented for the driver drug testing program in South Australia has shown to have improved efficiencies from all aspects. More drivers are being detected, program costs have been reduced and the process for a positive driver is quicker.

The process is now less complicated and more stream-lined which can enable the program to be expanded beyond specialised police officers in the future.