Northern Ireland Assembly

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DRUG DRIVING TESTING MECHANISMS USED GLOBALLY

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This Paper looks at the current ways which police can detect for motorists who are driving on drugs. It looks at the testing procedures, and the devices used. It also examines the effects of driving on various drugs looks at the research that has taken place on an international level.

Introduction:

- In the UK, there is currently no device being used at the roadside which can detect drug use via saliva, urine, blood sample.

- Saliva testing devices are currently being used in Victoria, Australia

- Unlike the relative simplicity of alcohol testing, it can be very difficult to test for the toxicity of drug use, particularly if a number of drugs, whether legal or illegal, are used.

- Evidence from the Republic of Ireland suggests that drug driving is particularly a male problem.

- Although blood samples may be more accurate for testing for drug driving, saliva screening offers practical advantages over other types of screening for cannabis, however further evaluation studies of oral fluid screening devices are needed.

- There has been criticism in recent years that drug driving is rarely prosecuted compared to drink driving.

- Some European countries prosecute for impaired driving whilst on drugs, while other European countries take a zero-tolerance approach.

- Prosecution will only take place after the result is tested as positive from a laboratory.

- The *Department for Transport* (DfT) estimates that one in five drivers or riders killed in road accidents may have an impairing drug – legal or illegal – in their system.

1 Testing for drug driving[1]:

In *February 2002*, the European Commission's expert working group on drugs, medicines and driving (EMCDDA) recommended that police involved in traffic control receive mandatory training in recognising the signs of impairment due to drugs.

Usually after stopping a driver, the police officer may need to perform an initial screening for drug use, by analysing behaviour or biological samples.

Such screening tests may include for example:

- examination of the size of the pupils;
- coordination tests;
- behavioural tests (e.g. asking the driver to close eyes and count to 30);
- reactions;
- manner of speaking.

By 2007, only four EU countries (Belgium, Portugal, Sweden, United Kingdom) reported obligatory training in this area for traffic police, while 11 reported some ad hoc training. Furthermore, the tests are not the same in each country.

Oral fluid (saliva) is the most acceptable method for roadside screenings of drivers.

Roadside Testing Devices:

The reliability of devices for roadside saliva testing has yet to be confirmed. Of the nine on-site saliva-testing devices evaluated by the *EU's Rosita-2*[2] project between 2003 and 2005, not one could be recommended for roadside screening of drivers.

The limitations of the devices might be compensated for some extent by modifying the testing protocol.

Since 2004, a system in Victoria, Australia uses two saliva tests in series at the roadside to achieve a low false positive rate; prosecution will be based on the results of a subsequent laboratory confirmation of the second sample.

In the EU, while France uses roadside saliva tests, prosecution is based on the results of a blood test.

2 Effects of Drugs on Driving[3]:

[1] http://www.emcdda.europa.eu/attachements.cfm/att_90966_EN_TDAD09002ENC.pdf

[2] http://www.rosita.org/

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) published a detailed response to the issue of drug driving.

Studies on the effects of psychoactive substances on driving performance suggest that while both illicit and therapeutic drugs can affect driving, the effects and extent can vary greatly from substance to substance.

The latest research suggests that:

- cannabis can reduce performance;
- benzodiazepines are generally impairing;
- of the opioids, heroin can impair severely, methadone less so, and buprenorphine even less;
- The data for stimulant drugs such as cocaine, amphetamines and ecstasy are more mixed, but suggest that high doses are associated with impairment.
- An objective measure for impairment for each drug, similar to the blood alchohol concentration, remains elusive.

Definition of 'Drug Driving' according to EMCDDA:

"Driving under the influence": Depending on the country's laws, this may refer to a driver who has: a measured reduction of cognitive or psychomotor skills, impulsivity; or more than a defined amount of the drug in the blood, expected to produce such effects at that level; or any trace of drugs in the blood.

Snapshot of Key Issues:

- Few countries have reliable statistics on the prevalence of driving under the influence of drugs.

- Obtaining sound scientific evidence on behavioural effects, prevalence and accident risk is difficult with the available data. Many of the studies have small samples and it is often difficult to generalise from their results.

- Various psychoactive medicines, which might or might not be legally prescribed and consumed, can impair driving skills.

- Currently, police experience considerable difficulty with the accurate and rapid identification of drug driving at the roadside.

[3] http://www.emcdda.europa.eu/attachements.cfm/att_90966_EN_TDAD09002ENC.pdf

3 Current Research on Drug Driving[4]:

Extent of Studies Conducted in EU:

While some studies considered only drivers involved in fatal accidents, others looked at sample groups of injured drivers involved in accidents, and drivers suspected of driving under the influence of alcohol or drugs. However, the results of these various studies are not scientifically comparable.

Overall, the evidence points to much higher prevalence of both illicit and prescription drugs, often in combination with alcohol, among drivers involved in accidents or suspected of driving under the influence of drugs or alcohol.

Barriers to Building up Scientific Evidence:

More than 30 studies on the prevalence of drugs among drivers have been carried out across Europe since 1999. However, these studies have used various methods and sampled different groups of drivers, making it difficult to draw overall conclusions.

New international guidance for standardisation of study designs have been drawn up with the assistance of the EMCDDA and the European Commission's DG Transport. It takes into account differences between countries' legislation and testing policies, providing over a hundred recommendations subdivided into areas of behaviour, epidemiology and toxicology.

Penalties for Drug Use Whilst Driving in Europe:

- Eleven countries penalise impaired driving, whether caused by illicit drugs or medicines.
- Eleven other countries have adopted a 'zero-tolerance' policy, penalising any driving after drug-taking.
- In seven countries, these two approaches are combined in a tiered response to drug driving offenders.
- Some zero-tolerance countries make no distinction between psychoactive medicines and illicit drugs, others do.
- In Finland and Sweden, new zero-tolerance laws for illicit drugs were passed following the experience that the offence of impaired driving was extremely difficult to prove.
- Belgium and the United Kingdom specifically prohibit use of a test result for drug driving as evidence for any other offence.
- Threshhold levels for drugs may be set at the lower limit of detection, or at levels where impairment may be expected to start. However, while some drugs, including cannabis and opioids, appear to have a dose-dependent impairing effect, others such as amphetamines do not.

[4] http://www.emcdda.europa.eu/attachements.cfm/att_90966_EN_TDAD09002ENC.pdf

- Tolerance and interactions with alcohol or other drugs complicate calculations further. In France, drivers found combining drugs with alcohol receive a higher penalty.

Motorists using Psychoactive Medicines:

- Psychoactive medicines, such as painkillers, sedatives, antidepressants and antihistamines can sometimes have considerable effects on the capabilities of drivers.

- Results from studies suggest that drivers may be using these drugs either for medical reasons following prescription, or misusing them with illicit substances.

- Most countries' laws penalise impairment from any drug whether illicit or medicinal.

- In France, Austria and Portugal, some impairing psychoactive medicines such as benzodiazepines are not covered by the drug driving law, though they may be covered by a general offence such as dangerous driving.

- Seven countries (Belgium, Czech Republic, Germany, Latvia, Luxembourg, Slovakia, and Finland) have adopted a two-stage system that penalises any trace of an illicit substance with a non-criminal or lower-level criminal fine, but more severely penalises impairment by any substance.

4 Prevalence of Drug Driving in Europe:

TIPSOL Operation[5]:

Over 850,000 motorists were checked in TIPSOL[6] Europe-wide drink and drug driving clampdown in a single week. The operation took place in 23 countries between December 10th and December 16th 2007

Below are some examples of the prevalence of drug driving from the TIPSOL operation:

Figure 1.

Country	Number of Negative Drug Tests	Number of Positive Drug Tests
Switzerland	845	43
France	402	117
Italy	848	106
Poland	258	3
Belgium	2	4
United Kingdom	125	21

[5] The TISPOL Organisation has been established by the traffic police forces of Europe in order to improve road safety and law enforcement on the roads of Europe.
[6] https://www.tispol.org/node/3535

5 Republic of Ireland:

The Republic of Ireland's *Medical Bureau of Road Safety*[7] produced a study on drug driving.

Methodology of Report:

2,000 blood and urine samples were taken by Gardai from stopped erratic drivers were examined by the *Medical Bureau of Road Safety* at the *Department of Forensic Medicine* in *UCD*.

A total of 1,000 drivers were above the alcohol limit, and 1,000 below the limit or with zero alcohol.

Results:

- A third of those driving under the alcohol limit (i.e. either no alcohol or under the legal limit of 80mg) had taken one or more drugs, mainly cannabis.
- In Dublin, 60% of drivers with no alcohol had taken drugs.
- A total of 331 out of 1,000 drivers under the legal alcohol limit had taken drugs.
- One in six drivers over the alcohol limit was also on drugs when stopped by the Gardai.
- The vast majority of drug drivers – more than 90% -- were male.

The report concludes: "The results of this study demonstrate that there is a significant driving under the influence of drugs problem in Ireland".

Prosecutions for Drug Driving:

According to the Irish Independent[8] (*August, 2006*): "There has been sustained criticism that Gardai rarely bring prosecutions even where drugs show up in tests. However, Gardai have pointed out that the difficulties in bringing a prosecution for drug driving because solicitors can claim drugs remain in their client's system for a prolonged period".

[7] http://www.ucd.ie/legalmed/mbrs.html

[8] http://www.independent.ie/national-news/shock-study-shows-70pc-of-erratic-drivers-are-on-drugs-84091.html

6 Victoria, Australia, -- An Example where Roadside Saliva Testing Device is used:

In the case of a prescribed illicit drug, any concentration of the drug present in the blood or oral fluid of that person means that they are 'drug driving'.

Any trace of a prescribed illicit drug will mean that an offence has been committed. Therefore, no concentration of prescribed illicit drugs is lawful for the purposes of these offence provisions, unlike the legal limit which applies in relation to drink driving offences.

Drug driving penalties in Victoria:

- Drivers who test positive for a prescribed illicit substance are either fined and lose three demerit points, or are prosecuted in court.

The roadside drug testing process:

- Drivers are chosen for testing at random, in the same way that drivers are selected for roadside blood alcohol testing;
- Drivers are asked to provide a sample of saliva by placing a small absorbent pad on their tongue for a few seconds;
- The saliva sample is tested by police at the roadside using the *'Securetec Drugwipe II Twin'* device;
- If the test returns a positive result, drivers are asked to accompany police to a drug bus, similar to a 'booze bus', to provide two further saliva samples;
- One of these samples is given to the driver to keep. The other sample is tested on the spot by police either by using the *'Securetec Drugwipe II Twin'* device again, or the alternative *'Cozart Rapiscan'* device;
- If this second test returns a positive result, the saliva sample is sent to a laboratory for further testing.

How reliable are roadside drug testing devices?

13,176 drivers were tested under the program over the period *13th December 2004* to *12th December 2005*. 287 drivers tested positive.

The Minister for Police and Emergency Services noted in a media release on *30th November 2004* that full laboratory testing would provide a back-up to roadside testing before any prosecution could proceed.

According to Victoria's *Parliamentary Library Research Service*[9]*,* media reports mention that the fourth driver who was stopped when drug screening began in Victoria on *13th December 2004* returned two positive roadside saliva samples. However, on *22nd December 2004,* his laboratory tests returned a negative result.

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http://www.parliament.vic.gov.au/research/2006DBroadsafety.pdf

Laboratory tests also returned a negative result in relation to another of the first three drivers to test positive at the roadside at the commencement of the programme.

Practicality of Saliva Testing:

A detailed analysis of recent literature on the accuracy of roadside drug testing devices is contained in a 2004 report of the *Monash University Accident Research Centre*. The report notes that oral fluid has been identified as the preferred specimen for roadside drug testing in the European Union (in relation to drug impairment), and that the majority of roadside drug testing device research has been conducted in Europe as part of a large research program on drug driving known as the 'ROSITA' project.

The ROSITA research confirms that oral fluid testing is the most promising alternative to blood testing. The study concludes that saliva screening in the field offers practical advantages over other types of screening for cannabis, however further evaluation studies of oral fluid screening devices are needed.