

Synthesis title:

Drug Driving (Riding)

Category: Drivers



Other Relevant Topics:

- ▶ Fitness to Drive (Drivers)
- ▶ Drink Driving (Drivers)
- ▶ Young Drivers (Drivers)
- ▶ Convictions and Violations (Compliance and the Law)
- ▶ Type Approval (Compliance and the Law)

Keywords:

Drug driving,
Drug riding,
Casualties,
Risk, Impairment

About the Road Safety Observatory

The Road Safety Observatory aims to provide free and easy access to independent road safety research and information for anyone working in road safety and for members of the public. It provides summaries and reviews of research on a wide range of road safety issues, along with links to original road safety research reports.

The Road Safety Observatory was created as consultations with relevant parties uncovered a strong demand for easier access to road safety research and information in a format that can be understood by both the public and professionals. This is important for identifying the casualty reduction benefits of different interventions, covering engineering programmes on infrastructure and vehicles, educational material, enforcement and the development of new policy measures.

The Road Safety Observatory was designed and developed by an Independent Programme Board consisting of key road safety organisations, including:

- ▶ Department for Transport
- ▶ The Royal Society for the Prevention of Accidents (RoSPA)
- ▶ Road Safety GB
- ▶ Parliamentary Advisory Council for Transport Safety (PACTS)
- ▶ RoadSafe
- ▶ RAC Foundation

By bringing together many of the key road safety governmental and non-governmental organisations, the Observatory hopes to provide one coherent view of key road safety evidence.

The Observatory originally existed as a standalone website, but is now an information hub on the RoSPA website which we hope makes it easy for anyone to access comprehensive reviews of road safety topics.

All of the research reviews produced for the original Road Safety Observatory were submitted to an Evidence Review Panel (which was independent of the programme Board), which reviewed and approved all the research material before it was published to ensure that the Key Facts, Summaries and Research Findings truly reflected the messages in underlying research, including where there may have been contradictions. The Panel also ensured that the papers were free from bias and independent of Government policies or the policies of the individual organisations on the Programme Board.

The Programme Board is not liable for the content of these reviews. The reviews are intended to be free from bias and independent of Government policies and the policies of the individual organisations on the Programme Board. Therefore, they may not always represent the views of all the individual organisations that comprise the Programme Board.

Please be aware that the Road Safety Observatory is not currently being updated; the research and information you will read throughout this paper has not been updated since 2017. If you have any enquiries about the Road Safety Observatory or road safety in general, please contact help@rospa.com or call **0121 248 2000**.

How do I use this paper?

This paper consists of an extensive evidence review of key research and information around a key road safety topic. The paper is split into sections to make it easy to find the level of detail you require. The sections are as follows:

Key Facts	A small number of bullet points providing the key facts about the topic, extracted from the findings of the full research review.
Summary	A short discussion of the key aspects of the topic to be aware of, research findings from the review, and how any pertinent issues can be tackled.
Methodology	A description of how the review was put together, including the dates during which the research was compiled, the search terms used to find relevant research papers, and the selection criteria used.
Key Statistics	A range of the most important figures surrounding the topic.
Research Findings	A large number of summaries of key research findings, split into relevant subtopics.
References	A list of all the research reports on which the review has been based. It includes the title, author(s), date, methodology, objectives and key findings of each report, plus a hyperlink to the report itself on its external website.

The programme board would like to extend its warm thanks and appreciation to the many people who contributed to the development of the project, including the individuals and organisations who participated in the initial consultations in 2010.

Key Facts

- Drug driving includes driving under the influence of both illicit and medicinal drugs. The current UK law defines 'drug' as '*any intoxicant other than alcohol*'. This includes illegal drugs such as cannabis but also prescribed medicines and over the counter remedies.
- In Great Britain during 2015, the number of people estimated to have been killed in an accident involving the contributory factor '*driver/rider impaired by drugs (illicit or medicinal)*' included 63 fatal accidents (4 per cent of all road accidents which involved a fatality), whilst the total number of casualties was 889 (1 per cent of all road casualties) (RRCGB, DfT, 2016).
- The evidence associated with the prevalence of drug driving (riding) in the UK is weak. There have been few studies that have focused on drug driving (riding) in the UK and the majority of these are dated (Everest et al., 1989; Tunbridge et al., 2001; Elliot et al., 2009). Large European research programmes provide further details on the prevalence of drug driving and show that it is an important road safety issue (Klemenjak et al., 2005; Schulze et al., 2012).
- The relative risk of a serious or fatal injury has been calculated for drug use. A slight risk for the use of a single drug (1 to 3 times higher than unimpaired driving) was found for cannabis and a medium risk (2 to 10 times higher) was found for cocaine and illegal opiates. For the use of medicines a medium risk was found (2 to 10 times higher). For multiple drug use drivers are at a 5 to 30 times higher risk of being involved in a severe or fatal traffic accident (Schulze et al., 2012).
- The distribution of drug prevalence for illicit drugs is broadly similar across Europe for those involved in road accidents, with cannabis being the most common drug. Cocaine use has increased since the mid-1990s. There has also been recent interest in 'legal highs'. The overall pattern of drug use suggested that the prevalence of drug driving has increased (Jackson & Hilditch, 2010).
- Illicit drugs tend to be detected among young (under 35 years) male drivers, at all times of the day, but mainly at the weekend. The combined use of alcohol and drugs is most prevalent at night time among young (under 35 years old) male drivers. Multiple drug driving is most common in male drivers. Medicinal drugs are mainly detected in female drivers over 35 years old during daytime hours. This is the same for those involved in accidents impaired by medicinal drugs (Schulze et al., 2012).

Summary

- Driving while impaired by drugs is thought to be a major contributor to death and injury on the roads. However, the evidence associated with the prevalence of drug driving in the UK is weak. STATS 19 data collected by the police includes a contributory factor of '*driver/rider impaired by drugs (illicit or medicinal)*' but may be under-reported (Department for Transport, 2013).
- The police acknowledge that the extent of drug driving is unknown. A number of common findings on drug driving in Great Britain are outlined in a review of evidence submitted to the North Review Team, drawing together a number of data sources (Jackson & Hilditch, 2010). Cannabis is the most prevalent drug with the use of cocaine increasing since the 1990s. 'Legal highs' have also been identified as an emerging issue, but evidence of the effect they may have, or whether they are being used whilst driving, is limited.
- A few studies have identified the prevalence of drugs in road user fatalities in Great Britain by analysing HM Coroners' data. The findings show that there has been an increase in illicit and medicinal drug use in fatalities. Cannabis was the most frequently detected drug in drivers and motorcyclists (Everest et al., 1989; Elliot et al., 2009; Tunbridge et al., 2001).
- Because of the lack of specific information associated with drug driving and riding in Great Britain, it is useful to identify drug use in the general population. National household surveys provide data on drug use and show that the main drug used is cannabis, but cocaine has recently increased in prevalence (Crime Survey for England and Wales, 2013).
- The proportion of drug drivers across Europe has increased, and consumption alongside other psychoactive substances has become more frequent (Schulze et al., 2012).
- The role of medicines in UK road accidents is unclear, due to the lack of robust studies (The North Report, 2010).
- Drugs act on the central nervous system and impair many functions associated with individuals' abilities to drive safely. Information on specific effects of drugs on driving has been found combining laboratory behavioural studies, on-road driving studies and epidemiological studies (The North Report, 2010).
- There is limited evidence determining the attitudes and behaviours of drug drivers. Some qualitative evidence is available from Great Britain and large European projects outlining key attitudes and behaviours (Hopkin et al., 2010; Klemenjak et al., 2005; Schulze et al., 2012).

- There is some evidence from Finland to suggest a link with those driving under the influence of drugs being involved in other criminal activity (Impinen & Lillsunde, 2013). Although we cannot be certain that the same link exists in the UK (due to there being no equivalent data from the UK), it seems plausible.
- The main countermeasures associated with drug driving are legislation, enforcement, education and campaigns. The role of healthcare professionals is vital in managing the risk of drivers impaired by medicine (The North Report, 2010).
- Large scale European projects (IMMORTAL, DRUID) have identified a number of countermeasures based on formal theory (Klemenjak et al., 2005; Schulze et al., 2012). However the review of research found very few evaluations that had been undertaken. There is a lack of evidence showing the effectiveness of interventions addressing the risk of drug driving.
- The government has provided a response to The North Report that outlined 23 recommendations to the Department for Transport on the drug driving law. The Department for Transport agreed in principle with the proposals and is in the process of implementing a number of the recommendations (Secretary of State for Transport, 2011).
- The recent consultation of drug driving law by the Government proposed several options. Option 1 is preferred and includes a zero tolerance approach to eight controlled drugs that impair driving (e.g. cannabis). Option 2 details limits for 15 controlled drugs following an expert panel's recommendation. Option 3 proposes a zero tolerance approach for 16 controlled drugs. The results from this consultation are pending (Department for Transport, 2013).
- In Great Britain the main roadside tool used to detect drug driving is the Field Impairment Test carried out by the police. However, evidence for the extent to which the test is used, and its effectiveness, is limited (Jackson & Hilditch, 2010).
- There are inconsistencies with the accuracy of the labelling of drugs providing warnings about drowsiness and dosage. It has been suggested that Great Britain introduce a standard symbol warning of drowsiness (The North Report, 2010).
- A number of evidence gaps have been highlighted following the review of drug driving and riding. This includes the prevalence and emerging patterns of drug driving in Great Britain, attitudes and behaviours of drug drivers and effective interventions to reduce the number of injuries and fatalities associated with drug driving.

Methodology

A detailed description of the methodology used to produce this review is provided in the Methodology section of the Observatory website at <http://www.roadsafetyobservatory.com/Introduction/Methods> .

This synthesis was compiled during November to December 2013.

Searches were carried out on the pre-defined sources identified in this link. Search terms used to identify relevant papers included: drug, driving, riding, fitness to drive, motivation, behaviour, attitudes, offences, risk perception, safety, screening, detection, illicit drugs, medicinal drugs, impairment, accident, intervention, enforcement, publicity, legislation, education, training, campaigns, policy, evaluation, effectiveness.

Selection criteria

Research articles were scored on their relevance and quality. A rating of 'high', 'medium' and 'low' was given to each article under the following criteria.

For relevance

- 'High' refers to data on a metric clearly relevant to the topic under investigation
- 'Medium' refers to data on a metric that is probably relevant to the UK (e.g. interventions targeting drug driving with a similar prevalence to the UK)
- 'Low' does not refer to data relevant to the topic under investigation

For quality

- 'High'= from a high-quality peer-reviewed publication, with clear and appropriate methods
- 'Medium'= from an academic source (e.g. book chapter, conference) but without peer-review, and/or possessing some methodological weakness (e.g. some possible confounding factors)
- 'Low'= from a more 'general' source (e.g. conference, trade paper) and/or clearly being methodologically weak or inappropriate (e.g. failing to address random variability by use of appropriate statistical techniques)

Thirty-nine pieces of research, statistical reports or policy documents have been included in this review.

The review covers research associated with both drug driving and riding. The vast majority of the research found focuses on driving, but where there is reference to drug riding this will be included.

Key statistics

The current legal provisions concerning driving and riding under the influence of drugs are contained in sections 4-11 of the Road Traffic Act 1988 (the Traffic Act). The principal offences relevant to drug driving can be summarised as:

- Driving, attempting to drive or being in charge of a mechanically propelled vehicle whilst unfit to drive through drink or drugs (sections 4(1) and (2)); and
- Failing to provide a specimen for analysis or failing to permit a specimen to be tested in a laboratory (sections 7(6) and 7A (6)).

(The North Report, 2010)

The word 'drug' is defined in section 11 of the Traffic Act as including '*any intoxicant other than alcohol*'.

The offence relating to drug driving is an impairment offence, and evidence of impairment is necessary to secure a conviction. The Road Traffic Act 1988 does not distinguish between illegal drug use and prescribed medicinal drug use.

In the UK the penalties for drug driving are the same as drink driving:

- A minimum 12-month driving ban.
- A criminal record.
- A fine of up to £5000.

The Misuse of Drugs Act 1971 is the main legislation covering drugs and categorises illegal drugs into three classes (Class A, B and C) linked to the harm they cause. Class A drugs are considered the most harmful. The classes of drugs are termed 'controlled substances', so it also controls medicinal drugs.

Prevalence of drug use in the general population

There is paucity of evidence on the prevalence of drug driving and riding in Great Britain; therefore it is also useful to identify prevalence in the general driving population.

A large European project titled 'Driving Under the Influence of Drugs and Alcohol' (DRUID) was undertaken between 2006 and 2012 to provide evidence-based conclusions relevant to EU and Member States policy makers on drink and drug driving. A total of 37 partners from 17 Member States and Norway took part in the project. The project comprised seven separate work packages covering areas such as epidemiology, enforcement and rehabilitation. The reports forming the DRUID project are summarised in the

DRUID Final Report (2012). The key findings relating to the prevalence of drug driving are summarised below:

- The prevalence of medicines (1.4%) in the driving population is less than alcohol (3.5%) and illicit drugs (1.9%).
- The estimated EU mean prevalence for all illicit drugs is 1.9% (individual countries range from 0.2 to 8.2%). The most commonly used drugs are cannabis and cocaine, followed by amphetamines and ecstasy. A similar pattern is found across most European member states.
- Illicit drugs tend to be used in combination with other psychoactive substances, mainly alcohol. Cocaine and other stimulants are found in combination with alcohol, whereas the proportion of fatalities testing positive for cannabis and alcohol is much lower. The proportion of drug drivers has increased and mixed consumption has become more frequent.
- There is a lack of evidence determining the distribution of illicit drugs and medicines among casualties and fatalities.

(Schulze et al., 2012)

The similarity of the prevalence of drug use in drivers across Europe means that such data can be used with some confidence to estimate levels of drug use in drivers in Great Britain. Where there is an absence of data, European drug driving research may provide further insight into the issue.

- A study identifying drivers and riders killed in road accidents in Norway during 2001-2010 showed that the prevalence of alcohol or drugs was lower among riders (motorcycle and moped) than in drivers (cars and vans).

(Christopherson & Gjerde, 2013)

National household surveys such as the Crime Survey for England and Wales (CSEW) and the Scottish Crime and Justice Survey (SCJS) provide data on drug use in the population.

- The CSEW identifies the extent of and trends in illicit drug use among adults aged 16 to 59. In 2012/13, 8.2% (1 in 12 adults) had taken an illicit drug compared with 8.9% in 2011/12. The 2012/13 CSEW suggests that 2.6% of adults had taken a Class A drug in the last year, and that cannabis was the most commonly used drug (6.4% of adults had used it in the last year). This was followed by powder cocaine (1.9%) and ecstasy (1.3%). Young adults (aged 16 to 24) were shown to be more likely to have used drugs than older adults.

(Crime Survey for England and Wales, 2013)

- The SCJS 2010/11 estimated that 23.7% of adults in Scotland (aged 16 years and over) had taken one or more illicit drugs at some point in their lives. 6.6% had used one or more illicit drugs in the last year. 3.5% of adults had used one or more illicit drugs in the last month. Cannabis was the most commonly reported drug (5.6% had used cannabis in the last year). Cocaine and ecstasy were the next most commonly used drugs (1.9% and 1.4% respectively had used in the last month). Males were found to report higher levels of illicit drug use than females; 9.5% of males were reported to have used one or more illicit drugs in the last year, which was over twice as high as the percentage of women (3.9%).

(Scottish Crime and Justice Survey, 2012)

Prevalence of drug driving (riding) in Great Britain

The evidence concerning the prevalence of drug driving and riding is limited. Estimates are available through roadside surveys of drivers, or self-report surveys.

- The only country in Great Britain to have undertaken a roadside survey of drug driving is Scotland. This was conducted as part of a larger European project called IMMORTAL (Impaired Motorists, Methods of Roadside Testing and Assessment for Licensing) which started in January 2002 and completed in June 2005, to provide key information supporting EU policy on licensing and roadside testing. The survey showed estimates of prevalence of drugs in Glasgow drivers at or above concentration levels proposed by the Substance Abuse and Mental Health Services Administration. The prevalence of ecstasy or similar drugs alone was 4.10% and 0.02% for opiates. Ecstasy alone and cannabis alone was 3.14%, suggesting these drugs have the highest prevalence. The survey estimated that 10.8% drivers were drug users.

(Klemenjak et al., 2005)

An independent review of Drink and Drug Driving law was conducted by Sir Peter North and the 'Report of the Review of Drink and Drug Driving Law' was published in May 2010 (subsequently to be referred to as the North Report). North studied the legal framework in Great Britain and was asked to consider: *'the legal framework applying to drink and drug driving in Great Britain; the evidence on the nature of drink and drug driving problems which the nation faces; the evidence on the impact of potential measures to reduce drink and drug driving casualties; discussions with, and representations received from, interested groups and individuals'* (The North Report, 2010, p.6). A report was submitted to the North Review Team with evidence relating to drug driving in the UK (Jackson & Hilditch, 2010).

A number of common findings in Great Britain have been outlined by the North Report from various data sources provided in Jackson and Hilditch (2010):

- Cannabis is the most common illicit drug and has been identified in a number of surveys and data sources. A slight increase in the prevalence of cocaine has been seen since the mid-1990s identified through drug use in the general population, drug driving submissions to forensic toxicology laboratories, and examining those injured in road traffic accidents.
- Regional variations occur with drug use, for example, at the time of writing, benzodiazepines were the most prevalent drugs in Scotland.
- There has been an increase in polydrug use in drivers since the 1990s. Scottish data in 2006 showed 75% of drivers impaired due to drugs testing positive for the presence of two or more drugs and 25% positive for 4 or more drugs. Submissions to the Forensic Science Service in 2008 showed 16% of submissions with more than one drug.
- 'Legal highs' (now termed 'psychoactive substances') have become more prevalent according to recent surveys, media reports and anecdotal evidence. However, there is limited evidence on whether these drugs are being used in conjunction with driving or the effect they may have.

(Jackson & Hilditch, 2010)

Prevalence of drugs in road user fatalities in Great Britain

Evidence regarding the contribution of drugs in road user fatalities is weak. There is a lack of recent data from Great Britain indicating the impact of drug driving and casualty rates.

- According to the reported road casualties in Great Britain in 2012 for the contributory factor '*Driver/Rider impaired by drugs (illicit or medicinal)*' broken down by severity, there were 28 fatal accidents (2 per cent), 187 serious accidents (1 per cent), and 407 slight accidents (0.4 per cent). Of all 114,696 road traffic accidents in 2012 where police attended the scene and recorded a contributory factor, '*impaired by drugs (illicit or medicinal)*' was present in 622 cases (0.5 per cent). It should be acknowledged that contributory factor data is largely subjective (dependent on the skill and experience of the reporting officer), and as such is likely to underestimate the role of drugs in road accidents.

(Reported Road Accidents, Great Britain, 2012)

- It has been over ten years since a survey has been undertaken exploring the incidence of drugs in road accident fatalities.

(Jackson & Hilditch, 2010)

There have been a few studies examining the presence of drugs in road user fatalities in the UK, although these are fairly dated.

- A Transport Research Laboratory (TRL) study analysed urine and blood samples from 1,184 road accident fatalities between 1996 and 2000. A six-fold increase in the incidence of illicit drugs was detected in the sample since a similar TRL study undertaken in 1989 (Everest et al. 1989), from 3% in 1989 to 18% in 2000.
- A three-fold increase in drug use (illicit and medicinal) was found from 7.4% to 24.1%. Cannabis was found to be the most prevalent drug. Polydrug use of those fatalities testing positive for drugs increased significantly between the two studies, from 6.3% of fatalities testing positive for multiple drugs in 1989 to 26% in 2000. Figure 1 shows data broken down by road user type.

Tunbridge et al. (2001)

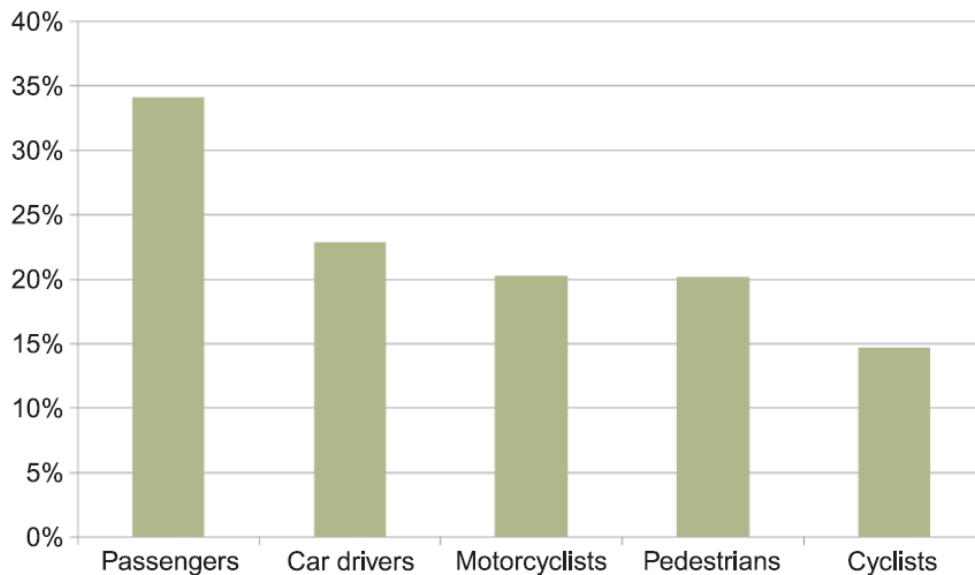


Figure 1: Percentage of different road user fatalities testing positive for one or more drugs (Tunbridge et al., 2001 in Jackson & Hilditch, 2010)

- The most recent analysis of the HM Coroners' data analysed blood and urine samples from road accident fatalities between 2000 and 2006. The data were used to compare different road users. This study differs from the previous TRL studies as it focuses on coroners' submissions and not a random sample of cases, therefore the cases of drugs and alcohol will be higher. 54% of the cases tested positively for drugs. Motorcyclists were the only group of road users where 'alcohol only' was not the predominant finding of impaired driving. The 'drug only' condition was the most frequent finding (44%). Cannabinoids were the most frequently detected drug in drivers and motorcyclists. In Figure 2, there is a high percentage of anti-depressants for cyclists due to little data.

(Elliott et al., 2009)

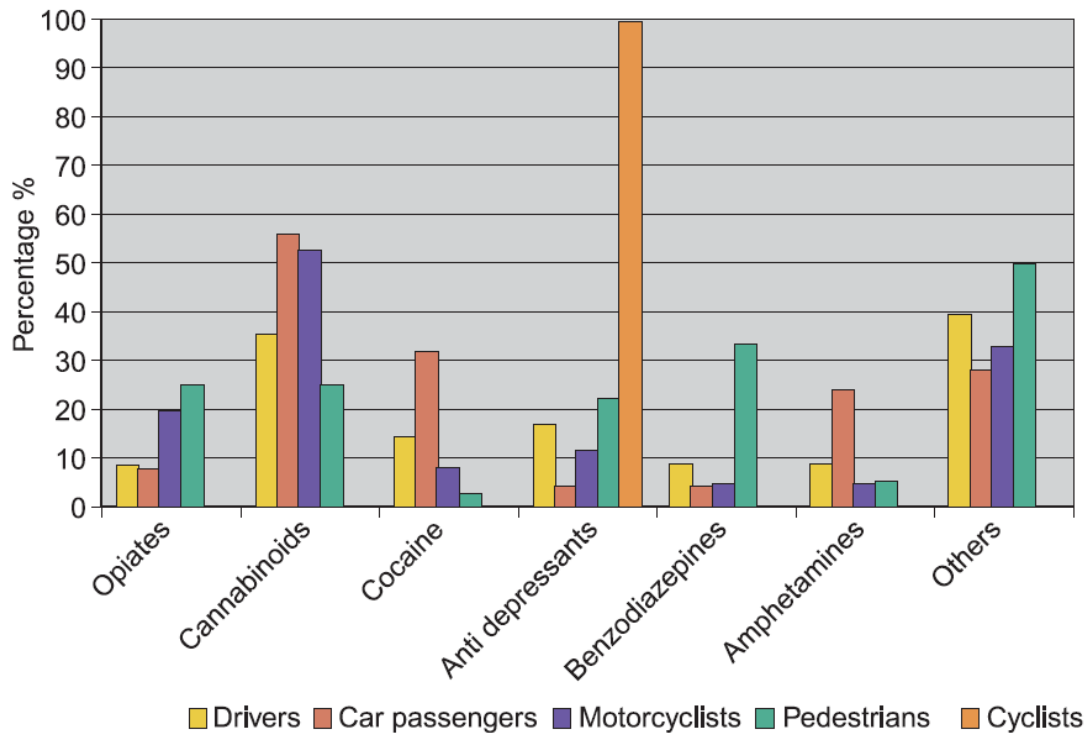


Figure 2: Percentage frequency of drug types detected in the victim groups (Elliot et al., 2009 in Jackson & Hilditch, 2010)

- The data available now and several years ago shows significant changes in the patterns of drug use. Therefore it is problematic to rely on historic data. There is evidence to suggest that cannabis is still the most prevalent illicit drug, there has been a rise in cocaine use among young adults and recent interest in 'legal highs' is described as concerning.

(The North Report, 2010)

Medicines most frequently detected in suspected driver impairment include benzodiazepines, sedative hypnotics, first generation antidepressants, muscle relaxants and narcotic analgesics. The evidence associated with the role of medicines in road accidents is unclear, due to the lack of robust studies.

- The combination of alcohol with cannabis, benzodiazepines or any other psychoactive substances increases the risk of accident involvement. The risk associated with the use of more than one substance is higher than the use of a single substance. Drivers who combine more than one psychoactive substance and/or alcohol show an increased risk to themselves and other road users.

(The North Report, 2010)

Relative risk of serious or fatal injuries

A comparison of the prevalence of drugs and medicines in ordinary traffic and drivers that have been seriously or fatally injured provides an indication of the risk involved. A European project calculated risk estimates from aggregated data from a number of countries to provide an overall assessment of the magnitude of risk. The highest risk was found combining alcohol with other psychoactive drugs.

Use of a single drug

- A slight increase in risk was found for cannabis that was comparable with $10 \text{ mg/mL} \leq \text{alcohol in blood} < 50 \text{ mg/mL}$ (1 to 3 times higher).
- A medium increase in risk was found for cocaine and illegal opiates that were comparable with $50 \text{ mg/mL} \leq \text{alcohol in blood} < 80 \text{ mg/mL}$ (2 to 10 times higher).

Use of medicines

- A medium increase in risk for sleep medication, tranquilisers and strong painkillers was comparable with $50 \text{ mg/mL} \leq \text{alcohol in blood} < 80 \text{ mg/mL}$ (2 to 10 times higher).

Use of multiple drugs

- Approximately 0.4% of all drivers had used multiple drugs according to the DRUID project and made up 7.4% of drivers fatally or seriously injured. Such drivers are 5 to 30 times at higher risk of a severe or fatal traffic accidents when compared with non-impaired drivers, comparable with $80 \text{ mg/mL} \leq \text{alcohol in blood} < 120 \text{ mg/mL}$.

Alcohol in combination with drugs

- An extreme increase in risk was found when combining alcohol and drugs that was comparable with alcohol in blood $\geq 120 \text{ mg/mL}$ (20-200 times higher risk).

(Schulze et al., 2012)

Effect of age and gender

There is a lack of evidence in the UK addressing the effect of age and gender on drug driving, however European studies have indicated that there is a difference between groups driving under the influence of illicit and medical drugs.

- Illicit drugs tend to be detected among young (under 35 years) male drivers, at all times of the day but mainly at the weekend. The combined use of alcohol and drugs is most prevalent at night times among young (under 35 years) male drivers. Driving while under the influence of multiple drugs was found to be most common in middle aged male drivers.

(Schulze et al., 2012)

- A study of road accidents involving drivers who tested positive for drugs in Denmark showed that illicit drugs tend to be used by young people who are well functioning in work or training and are non-academics. Other drug-positive drivers were middle aged or older, using prescribed drugs and tended to show a former alcohol dependency.

(Klemenjak et al. 2005)

Convictions for driving under the influence of drugs

The North Report outlines that during 2008 in England and Wales, there were estimated to be 73,223 drink driving offence proceedings, compared with fewer than 3,000 proceedings which could be drink or drug driving offences (failed to provide a specimen). Less than 10% of the cases were recorded as drug driving.

- Hampshire Police have considerable experience of using the FIT test and report that in 2009, 475 FIT tests were conducted with 63 found to be positive for impairment. Of the 63 cases, 38 led to a prosecution in which 33 (52% of all cases) were found guilty in court. This was higher than 2008 where only 25% of cases led to a conviction.
- The Ministry of Justice provide statistics on the number of proceedings and convictions for drug driving offences in Magistrates' Courts in England and Wales. In 2008, drug-related proceedings (253) represented less than 1% of drink-related proceedings (73,223). This shows how few proceedings are carried out for drug driving.

(North Report, 2010)

- A study carried out in Finland showed that *driving under the influence* offenders are more likely to be involved in criminal activity than is the case for the general population. This is suggested to be due to substance abuse problems and low respect for the law.

(Impinen & Lillsunde, 2013)

Research findings

There is a lack of research currently being undertaken in the UK on drug driving and riding, but there are some recent large scale European projects that provide insight into the area.

Types of drugs

- Illicit drugs are those that are produced and consumed illegally. The Misuse of Drugs Act 1971 categories illegal drugs into three classes. Class A drugs are those that are considered most harmful and include heroin, ecstasy, LSD and cocaine. Class B drugs include cannabis and amphetamine. Class C drugs include minor tranquilisers such as ketamine.

(The North Report, 2010)

- Medicinal drugs are generally obtained through a medical prescription with advice from a medical practitioner or 'over the counter' in pharmacies with the advice of a pharmacist by self-medication and recommendations printed on the package. A number of medicines are used without a prescription and misused. Poor compliance rates with prescriptions have been shown where patients frequently take more of the medicine than they have been prescribed.

(PRAISE, 2010)

The effects of drugs on driving/riding

Driving is a complex task that requires the coordination of cognitive, motor and perceptual tasks. The link between the skills required for safe driving, and the effects caused by drug use means that drugs have the potential to negatively affect driving skill and reduce driving performance (Wolff et al., 2013). Drugs interfere with the driver's ability to operate a vehicle safely (The North Report, 2010).

- Skill and attention are required to drive safely through the road environment. The effects of drugs and medicines vary according to the type of drug and there may even be differences within a single type of drug.

(SWOV, 2011)

Information on the effects of drugs on driving are outlined in the North Report combining laboratory behavioural studies, on-road driving studies and epidemiological studies (2010). Ethical considerations have limited the studies being carried out on the effects of drugs on driving. However the psycho-motor impairment effects of drugs that impinge on driving include:

- *Cannabis* – has hallucinogenic and central nervous system depressant properties. Difficulty maintaining lane position and headway have been found in on-road driving experiments. The effects of marijuana on driving ability include increased error rates, poor coordination and slowed reaction times (Stough & King, 2010). The combination with alcohol seems to increase the effects considerably leading to a decrease in visual search activity, weaving out of the lane and even slower reaction times (Department for Transport, Research Report No.12; Ramaekers, Robbe & O’Hanlon, 2000).
- *Stimulants* – these include amphetamines, methamphetamine and cocaine and affect drivers differently in the acute phase (shortly after administering the drug) and the post-acute phase (drug withdrawal). Immediate effects include producing intense excitement and euphoria which may be distracting and disorientating. Reaction times are increased but result in less reasoned action and impulsive responses. If taken at a low dosage, stimulants can offset fatigue, but this can lead to excessive daytime drowsiness due to the sleep loss experienced whilst under the influence of the drug.
- *Central nervous system depressants* – these include benzodiazepines, sedative hypnotics, antidepressants, muscle relaxants and some antihistamines. The effects of these drugs are difficult to determine as often an ill driver is treated with a potentially impairing drug and this can lead to improved driving performance, compared with that which would have occurred if the ill driver were not treated. However, the problem occurs when the drugs are misused or abused. This leads to difficulty maintaining lane position, not adapting driving speed to the conditions and slow reactions. Accident risk seems to be elevated during the first few weeks of use (Van Laar & Volkerts, 1998).
- *Narcotic analgesics* – these include heroin and morphine. People who are stabilised on moderate doses have some tolerance to the effects of these drugs. However, recreational abuse can offset the tolerance and lead to euphoric effects which may in turn lead to unsafe driving.
- *Hallucinogens, dissociatives and inhalants* – these drugs alter perceptions of reality. They not only affect driving but also an individual’s normal daily activities and are less frequently found in suspected impaired drivers or those that have been involved in a fatal accident.
- *Legal highs* – there is a lack of evidence associated with the effects these drugs may have on driving or road safety.

The police have identified a number of symptoms to establish whether a driver is under the influence of drugs. These include:

- Difficulty responding to questioning.
- Inability to think coherently.
- Aggressive behaviour.
- Shaking.
- Blurred vision.
- Impaired coordination.

(Claridge, 2013)

Understanding the drug driver

There is little evidence about the attitudes of drug drivers and riders in Great Britain.

A study undertaken in Scotland examined the qualitatively the aspects of recreational drug use. The research involved semi-structured interviews with people attending night clubs, questionnaires about drug use and driving behaviour, surveys of drivers crossing a main toll bridge and focus groups. The main findings included:

- Drug use is more common with younger than with older age groups and among males compared with females.
- Cannabis is the most commonly used illicit substance.
- Respondents views on the effects of different types of drugs on driving ability suggested that cannabis driving was considered less dangerous than driving under the influence of ecstasy, cocaine and amphetamines.
- Emphasis was placed on the wide range of factors that could influence driving beyond drug use.
- Respondents had poor knowledge of the legal position on drug driving.
- Roadside testing was perceived as an effective and acceptable way of detecting drug consumption but a number of problems were highlighted including accuracy of the tests, over-use by police and breaches of civil liberty.

(Neale et al., 2000)

- A report summarising self-report and survey data on drug driving in Great Britain and Scotland suggests that drug driving is reported as less prevalent than drink driving, and is more prevalent among those under the age of 40 than among older people. Drug driving also occurs more among single people and those who drive less frequently. Drug driving journeys are often for social reasons and occur over short distances. However, for problem drug users, all driving is under the influence of drugs.

(Hopkin et al., 2010)

- The Government's THINK! brand of road safety publicity campaigns was launched in 2000. An annual survey is undertaken to determine the awareness and attitudes towards the various THINK! campaigns and general attitudes towards road safety. The July 2013 survey showed that nine in ten respondents agreed completely that it is dangerous to drive after taking Class A drugs. Only 5% of respondents claimed they knew someone who drove under the influence of Class A drugs, while 9% knew someone who drove after smoking cannabis. The reported frequency of individuals driving under the influence of drugs was very low, 1% reported driving after smoking cannabis and less than 1% reported driving after taking Class A drugs.

(Think! Annual Survey Report, 2013)

Due to the limited evidence about attitudes of drivers and riders in Great Britain it is useful to identify research carried out in other countries. Research has been undertaken as part of large European projects and individual studies.

The IMMORTAL (2002-2005) project involved qualitative research determining the characteristics and attitudes of drivers impaired by drugs and involved in accidents. The main findings included:

- Illicit drug drivers tend to be male, young, well-functioning, training or working and non-academics.
- Middle aged or older, early retired individuals tended to use prescribed drugs and there was often a former alcohol dependency.
- Knowledge about drugs and attitudes from interviews showed that young drivers acquired knowledge from school, they do not mix drugs and alcohol, but they think alcohol is worse than drugs when driving.
- In general, middle aged and older drivers were not aware of the risks of drug driving. They were concerned with their use of medicine, took prescribed medicines, but some were also impaired by alcohol.

(Klemenjak et al. 2005)

The DRUID (2006-2012) project identified some characteristics of drink and drug impaired drivers following qualitative interviews carried out in Sweden and Hungary with a group of people who were addicted to alcohol and drugs:

- The interviewees did not think alcohol impaired their driving and thought drugs improved their driving.
- Respondents caught for drink driving were more ashamed than those caught for drug driving. The main concern was friends disapproving of their behaviour.
- Respondents who undertook treatment for drug driving would look back in shame.
- The sleeping patterns of respondents who drove whilst under the influence of drugs meant they got up later in the morning and went to bed later at night; however drug users drove less than other driver groups during the late hours.

(Schulze et al., 2012)

- A study in Queensland showed that previous offending behaviours, perceptions of apprehension certainty, and drug consumption were all significantly related to self-reported intentions to offend.

(Davey et al., 2008)

- A sample of Queensland motorists completed a self-report questionnaire. The data showed that 20% of participants reported drug driving in the last six months. Offenders with low apprehension certainty (perceived they would not get caught) were identified as intending to drug drive in the future. Those concerned with informal sanctions were found to be less likely to drug drive in the following six months. However, many were unconcerned about their peers' views and had been a passenger in a vehicle where the driver was under the influence of illicit drugs.

(Freeman et al., 2010)

- A telephone survey was carried out in New South Wales with 501 licensed drivers who had used illicit drugs in the last three months. The main reasons for choosing to drive while impaired by drugs included having no other transport options (29%), and feeling fine and not seeing why they should not drive (22%). The respondents were more likely to drive after taking drugs than drinking alcohol and provided the following three reasons: drugs do not affect driving (29%), drugs are less dangerous than alcohol (26%), and you are unlikely to be caught (25%).

(Gavin et al., 2008)

- Research has explored the theoretical basis of driving whilst under the influence of illicit substances. The facets of deterrence theory (certainty, severity and swiftness) were not predictive of intentions to drug drive. However, defiance constructs such as experiencing feelings of shame and deviance constructs such as having a criminal conviction were predictive of drug driving intentions. The findings on the deterrence theory are concerning due to the prevailing reliance on traffic enforcement.

(Watling & Freeman, 2011)

Review of the drug driving (riding) law

The North review made 23 recommendations to the Department for Transport with regards to the drug driving law. The recommended action on drug driving involved improving the evidence, streamlining the current procedures and longer term legislative steps to strengthen legal regulation of drug driving. The North Report identified five stages of development in improving the process of detecting and deterring drug driving and improving the legal framework:

- Stage 1: improving the current process
- Stage 2: preliminary drug screening tests
- Stage 3: a specific offence
- Stage 4: roadside screening
- Stage 5: evidential drug testing

The Department for Transport responded to the report in 2011, and is in the process of implementing several of the recommendations. DfT agreed in principle with the proposals which identify a step-by-step programme of new measures aiming to create a more effective regime. DfT propose to implement the following recommendations:

- By 2012, section 7 (3) (c) of the Road Traffic Act 1988 should be amended to allow nurses also to take on the role currently fulfilled by the forensic physician in determining whether the drug driving suspect has 'a condition which might be due to a drug'.
- Appropriate training should be provided to all health care professionals who undertake the role of assessing whether suspects have a 'condition which might be due to a drug' in accordance with section 7 (3) (c) of the Road Traffic Act 1988, to ensure an undertaking of their specific role and of the potential medical complications which may arise in relation to persons in custody.

- The training of forensic physicians and custody nurses to carry out the role under section 7 (3) (c) of the Road Traffic Act 1988 of determining whether a suspect 'has a condition that might be due to a drug' should be clear in describing the limits of that role. The training should encourage discussion between the healthcare professionals and the police officers involved in the case, as the observations of the officers might well assist healthcare professionals in answering the question. However, training should discourage their becoming involved in consideration of the evidence of impairment in court, since this is not required under the legislation.
- Steps should be taken for the earliest practicable type approval and supply to police stations of preliminary drug screening devices to be used in accordance with section 6C of the Road Traffic Act 1988. This should be achieved within two years. Type approval ought in the first instance to focus on devices capable, in aggregate, of detection of those drugs or categories of drugs which are the most prevalent including amongst drivers, namely: opiates; amphetamines; methamphetamine; cocaine; benzodiazepines; cannabinoids; methadone; ecstasy (MDMA).

Work and consultation is continuing on a number of other recommendations including the prescribed levels for drugs, whether a 'zero tolerance' offence should be introduced, ensuring doctors are consistently reminded to provide patients with clear advice and effects of prescribed drugs on driving, and in conjunction with the pharmaceutical industry address the quality and clarity of the patient information provided over-the-counter.

(Secretary of State for Transport, 2011)

- In April 2013, new legislation was brought in to prosecute drug driving in the Crime and Courts Act 2013, which inserts a new section 5A in the Road Traffic Act 1988. During 2013 a consultation will take place on the regulations under this Act to specify the drugs and the limits over which it will be an offence to drive.

(UK Government, 2013)

How effective?

The countermeasures against drug driving and riding consist of a range of legislative measures, enforcement, education and media campaigns. The role of healthcare professionals is also vital in managing the risk of drivers and riders impaired by medicines.

The evidence determining the effectiveness of interventions targeting drug driving is weak. Therefore many of the countermeasures against drug driving are only outlined in this section. A number of large scale European drug driving projects have identified a range of countermeasures based on formal theory.

- The majority of measures against driving under the influence are aimed at alcohol consumption and only limited measures against use of drugs and medicines whilst driving.

(SWOV, 2011)

Drug driving legislation

- The Department for Transport ran a consultation from the 9th July 2013 to 17th September 2013 seeking feedback on proposals for drug driving limits to be specified in regulations. The government's preferred policy option is to make it an offence to drive if any of the 16 controlled drugs are found in blood over a specific limit. A zero tolerance approach has also been proposed for 8 drugs most associated with illegal use. Analysis is currently being undertaken on the feedback and the outcome will be published shortly.

(Department for Transport, 2013)

Enforcement

The main enforcement method associated with drug driving is the detection and testing of drivers impaired by drugs.

- Increasing drug enforcement is cost-effective for countries that have low enforcement levels, but is not beneficial when the increase is financed at the cost of drink-driving enforcement.

(Schulze et al. 2012)

Field Impairment Test

In Great Britain, police may use the Field Impairment Test (FIT) to detect whether a driver is suspected of being unfit to drive due to drug use. This is based on an observation of impairment, instead of a biological test.

- There is a lack of data on the implementation of the FIT across police forces, therefore making it difficult to conclude the effectiveness of the FIT tool to help judgement of drug drivers.

- Department for Transport records show that approximately 200 police constables have been approved as FIT instructors since 2005. There are no records to show whether refresher training has been undertaken.
- The number of police constables trained to actually administer FITs is not known due to a lack of requirement for the data. Therefore there is a lack of evidence about who is trained to administer FITs, who is actively using FITs and the number of FITs administered.
- Limited evidence is available from a 2009 Christmas drink-drive campaign (data between 1st December 2009 and 1st January 2010) on the use of FIT tests from the Association of Chief Police Officers statistics submitted to the North review. In 2009, 489 FITs were conducted compared with 481 in 2008. 87 (18%) resulted in an arrest on suspicion of drug driving. During the same time period in 2009 223,423 breath tests were administered for drink driving. However only 7600 (4%) resulted in an arrest. These data are not representative of normal policing activities. It is useful to compare the amount of FITs and breath tests conducted that result in an arrest.

(Jackson & Hilditch, 2010)

- An evaluation by the University of Glasgow of the FITs conducted between 2001 and 2003 concluded that the FIT is an effective screening tool, but further development would be beneficial to improve specificity and predictive value of all the tests. (Oliver et al., 2006)

Detection

- In England and Wales police forces submit blood samples for analysis to a laboratory that is approved under the police National Procurement Framework.
- If a FIT is undertaken, the police procedures specify that any sample taken is sent with the appropriate forms (Manual of guidance drink and drug driving) with details of the observations from the FIT. (Home Office, 2013)
- If additional information is not supplied to the laboratories then they apply a standard panel of drug tests to attempt to find common misused drugs.
- The prosecution of drivers with positive blood tests is provided by the Ministry of Justice. In 2007 for drugs there were 646 proceedings with 412 findings of guilt (63.8%). This figure is much lower for proceedings in 2008 (253) and 168 findings of guilt. When compared to proceedings for drink driving offences, drug-related offence proceedings represent about 1% of drink driving offence proceedings.

(The North Report, 2010)

Roadside drug testing update

- “The Railways and Transport Safety Act 2003 gave British police the power to require a driver suspected of being unfit to drive because of drugs to undertake a preliminary drug test” (p.40)

(Jackson & Hilditch, 2010)

- The DRUID project tested the practicality of available oral fluid drug screening devices with police officers. The results showed that the majority of systems investigated were not effective when taking into account specificity and sensitivity. Therefore the detection of drugs may be influenced by the device used. It is also noted that large-scale random drug testing is expensive and requires the collection and analysis of samples. From the 13 devices investigated, eight were rated as ‘promising’.

(Schulze et al., 2012)

- The Home Office has recently type approved a station screening device.

(UK Government, 2013)

Setting limits

- The recent consultation of drug driving law by the Government proposed several options. Option 1 is preferred by Government and includes a zero tolerance approach to eight controlled drugs that impair driving (e.g. cannabis). Option 2 details limits for 15 controlled drugs following an expert panel’s recommendation. Option 3 proposes a zero tolerance approach for 16 controlled drugs. The results from the consultation are awaiting publication.

(Department for Transport, 2013)

- Zero tolerance laws have been found to be unsuccessful at deterring offenders driving under the influence of drugs. However, in Sweden, following the introduction of zero tolerance laws over 10 years ago, the cases of driving under the influence of drugs and successful prosecutions have increased.
- It is difficult to determine values that represent impairment in the general population due to the complex nature of drugs. The zero tolerance approach overcomes difficulties proving impairments and deciding cut-off levels, but may have the potential to penalise drivers who are not impaired and pose no risk to safety.

(Jackson & Hilditch, 2010)

Campaigns

The Department for Transport THINK! campaign on drug driving aimed to:

- Increase awareness of drug driving and clarify the misconceptions around the law and the effects of drugs on driving ability.
- Support and amplify awareness of enforcement campaigns and local stakeholders' activities.
- Raise awareness of the potential effectiveness of medicine on driving ability whilst reminding consumers to take their medication as instructed.

(Department for Transport, 2009)

An evaluation was undertaken using a qualitative approach investigating campaign awareness and communication, attitudes towards drug driving and perceived consequences of drug driving. However, the campaign did not determine the extent of drug driving pre- and post-campaign. The campaign included TV, press, online and poster advertising. Data were collected in July and September 2009, with the campaign being launched in August 2009.

Campaign awareness:

- 71% of respondents had heard or seen the advertising or publicity. For the target group (17-34 year olds) awareness of the campaign was 76%.
- The target group under the age of 35 (76%) and men (75%) were significantly more likely to be aware of the campaign overall.

Campaign Communication:

- The TV advertising had the highest impact with 40% respondents stating that it stuck in their mind.
- 38% said they realised as a consequence of the advert that drug driving had the same penalty as drink driving.

Attitudes towards recreational drugs and driving:

- A higher percentage of respondents felt that the issue of drug driving was being taken seriously by the government following the campaign (47% pre-campaign, 64% post-campaign).

Likelihood of being stopped by police and detected for drug driving:

- There was no significant change in the perception of being caught drug driving following the campaign.

- 76% perceived that it would be 'easy' for the police to tell if a driver was impaired by drugs, and 28% 'very easy'.

Consequences of drug driving:

- 69% of respondents felt a driver was likely to be convicted if caught drug driving.
- The greatest worry for being convicted of drug driving is being given up to 6 months imprisonment and a criminal record.

(Angle et al., 2009)

International evidence

The European project DRUID identified a number of countermeasures to address both driving under the influence of illicit drugs and driving while impaired by medicines, based on empirical research evidence generated in the project.

Driving under the influence of illicit drugs:

- Target groups (young male drivers; drivers with combined consumption of illicit drugs and alcohol).
- Legal regulations (European agreement regarding the body fluid to be used for drug detection; regulations should be based on scientific findings; European harmonisation of drug analyses).
- Enforcement strategies (increased of drug enforcement cost-beneficial for countries with low enforcement, but not at the cost of drink driving enforcement; use of screening devices which fulfil practical and scientific requirements is advised; training of police officers to improve drug detection required; drug detection at the roadside should be targeted).
- Rehabilitation measures (driver rehabilitation) should be standardised, legally regulated and based on a defined criteria; drug offenders should be treated in different groups to alcohol offenders; non-addicts and addicts should be identified as they will require different interventions).
- Withdrawal measures (should be combined with adequate rehabilitation programs).

Driving impaired by medicines:

- Target groups (healthcare providers and patients; female drivers above 50 years – especially those using benzodiazepines and medicinal opiates).

- Legal regulations (no thresholds should be defined for medicines; information about possible side effects and how to decide to use the medicines in a safe manner while driving are an adequate countermeasure; implementation of the four level classification).
- Enforcement strategies (only appropriate for misuse by patients or healthy drivers; focus should be on combined consumption of medicines and alcohol).
- Rehabilitation measures (misuse same as recommendations for illicit drugs).
- Withdrawal measure (misuse and combined consumption with alcohol same as illicit drugs).

(Schulze et al., 2012)

The IMMORTAL project also provided some conclusions and recommendations based on research undertaken to support EU Policy on licensing and roadside testing:

- Drug recognition methods still need to be improved and saliva test devices tend to be error-prone.
- Due to the increase in the combination of alcohol and drugs, and combined use of different drugs it is important that the impairment of alcohol and drugs is recorded.
- Good screening instruments for the impairment of drugs need to be used alongside random breath test devices.
- Licensing needs to maintain consistent standards and be reliable.
- Interventions should target specific groups of drug users.
- Rehabilitation programmes for various conditions should be implemented by adopting best practice models throughout the EU.
- Healthcare professionals need to be informed about the effects of medicines on driving performance and communicate this information to patients.
- Zero tolerance legislation (with the exception of Heroin) aimed at single use of illegal drugs seems to lead to high costs and minimal road safety benefits.

(Klemenjak et al., 2005)

The USA has a goal of reducing the amount of drug driving by 10% in 2015 as detailed in The National Drug Control Strategy. To achieve this goal the strategy outlines the following areas:

- States to adopt a *Per Se* (someone is guilty of driving under the influence if they test positive for a certain level and no additional proof of impairment is necessary to obtain a conviction) drug impairment law.
- Collection of further data on drug driving.
- Enhancing prevention of drug driving by educating communities and professionals.
- Provision of increased training to law enforcement on identifying drug drivers.
- Development of standard screening methodologies for drug-testing laboratories to detect the presence of drugs.

(USA Government, 2013)

The main countermeasures for drug impaired driving identified by the international evidence include targeting specific groups, drug detection at the roadside, rehabilitation programmes and the role of healthcare professionals in communicating the effects of medicines on driving performance.

The role of the healthcare professionals

The impairing effects on driving may be similar for illicit and medicinal drugs, however there are significant differences in how to intervene. Medicinal drugs have the potential for healthcare professionals to manage the risks medicines may cause.

- Healthcare professional advice provided to patients, medical categorisation and labelling of medicines by the pharmaceutical industry all have a role in reducing the risk of medicines impairing drivers.

(The North Report, 2010)

- Effective communication provided by physicians and pharmacists about the potential dangers of combining driving and riding with medicines that impair driving and riding skill could contribute to a reduction in the number of casualties.

(SWOV, 2011)

Healthcare professionals' advice

- A study identified the attitudes of health professionals advising patients about their fitness to drive as set out by the DVLA (Driver Vehicle Licensing Agency) medical standards. Various methods were used including surveys, questionnaires, interviews, focus groups and workshops.

- The findings suggested doctors receive little tuition on medical aspects of fitness to drive and knowledge is derived from specialist clinical training, post-graduate courses and clinical placements. Other healthcare professionals received no formal training on fitness to drive. The majority of health professionals were aware of the guidelines provided by the DVLA, had consulted with them in the past two years and advised at least one patient to stop driving in the previous three months. However, the majority of healthcare professionals were unable to reliably determine those medically unfit drivers, borderline drivers and fit drivers. 91% of patients interviewed felt it was the healthcare professionals that should advise them on medical conditions that may affect fitness to drive. The focus of this study was on medical conditions; however it is not unreasonable to suggest that healthcare professionals may not be advising patients fully on the impairing effects of some medicines.

(Hawley et al., 2010)

Medical categorisation

- Following the review of the most significant categorisation systems in Europe the DRUID project proposed a four-level classification and labelling system for medicines regarding their influence on driving performance. The categories were a) no or negligible influence, b) minor influence, c) moderate influence, and d) major influence on fitness to drive

(Schulze et al., 2012)

Labelling of medicines

- Wording for prescribed medicines is recommended by the British National Formulary for cautionary and advisory labels. Pharmacists are recommended to use one of three labels providing a warning about drowsiness on a number of medicines. Medicines for use by adults should also advise against driving or using machinery if drowsiness is a symptom.
- Over-the-counter medicines tend to be labelled by the manufacturer.
- There is a statutory requirement (since 1994) on warning for drowsiness when using antihistamines and the need for caution if driving or using machinery. However, a review of over one hundred over the counter medicines with the potential to cause drowsiness showed that there were inconsistencies in accuracy of the information of drowsiness and dosage (Barrett & Horne, 2001). It was recommended that Great Britain should introduce a standard symbol warning of drowsiness.

(The North Report, 2010)

Gaps in the evidence

Despite the growing concern for drug driving and riding in Great Britain there are a number of gaps in the evidence. The key areas include:

- The current prevalence of drug driving/riding and recent trends in drug use.
- The current prevalence of drug driving and riding as a contributory factor to road users involved in accidents and fatalities.
- The attitudes, behaviours and motivations towards drug driving and riding.
- The specific target groups to focus countermeasures on to deter drug driving and riding.
- The effectiveness of countermeasures against drug driving, specifically legislation, enforcement and campaigns.
- The effectiveness of the Field Impairment Test and extent to which it is being used by police forces across Great Britain.

References

(References are listed by order given in the review synthesis)

Title:	Reported Road Casualties Great Britain: 2012 Annual Report
Published:	Department for Transport (2013)
Link:	https://www.gov.uk/government/publications/reported-road-casualties-great-britain-annual-report-2012
Free/priced:	Free
Objectives:	Presents detailed statistics about the circumstances of personal injury accidents, including the types of vehicles involved, the resulting casualties, and factors which may contribute to accidents happening.
Methodology:	<ul style="list-style-type: none"> • Most of the statistics in the publication are based on information about accidents reported to the police (using 'STATS 19' forms). • Other sources of information include mortality, survey and hospital data as well as population and traffic data to provide a wider context.
Key Findings:	<ul style="list-style-type: none"> • According to the reported road casualties in Great Britain in 2012 for the contributory factor '<i>Driver/Rider impaired by drugs (illicit or medicinal)</i>' breaking down by severity there were 28 fatal accidents (2 per cent), 187 serious accidents (1 per cent), 407 slight accidents (0.4 per cent). Of all 114,696 road traffic accidents in 2012 where police attended the scene and recorded a contributory factor, '<i>impaired by drugs (illicit or medicinal)</i>' was 622 (1 per cent).
Keywords:	Accidents, casualties, drugs, killed or seriously injured
Comments:	National statistics

Title:	Reported Road Casualties Great Britain: 2013 Annual Report
Published:	Department for Transport (2014)
Link:	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/359311/rrcgb-2013.pdf
Free/priced:	Free
Objectives:	Presents detailed statistics about the circumstances of personal injury accidents, including the types of vehicles involved, the resulting casualties, and factors which may contribute to accidents happening.
Methodology:	<ul style="list-style-type: none"> • Most of the statistics in the publication are based on information about accidents reported to the police (using 'STATS 19' forms). • Other sources of information include mortality, survey and hospital data as well as population and traffic data to provide a wider context.
Key Findings:	<ul style="list-style-type: none"> • In 2013, '<i>Driver/Rider impaired by drugs (illicit or medicinal)</i>' was recorded as contributing to: • 31 fatal accidents (2 per cent of reported fatal road accidents) • 181 serious accidents (1 per cent of reported serious road accidents) • 382 slight accidents (0.3 per cent of reported slight road accidents). • Of all road traffic accidents in 2012 where police attended the scene and recorded a contributory factor, '<i>impaired by drugs (illicit or medicinal)</i>' was 594 (1 per cent).
Keywords:	Accidents, casualties, drugs, killed or seriously injured
Comments:	National statistics

Title:	Reported Road Casualties Great Britain: 2014 Annual Report
Published:	Department for Transport (2015)
Link:	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/463797/rrcgb-2014.pdf
Free/priced:	Free
Objectives:	Presents detailed statistics about the circumstances of personal injury accidents, including the types of vehicles involved, the resulting casualties, and factors which may contribute to accidents happening.
Methodology:	<ul style="list-style-type: none"> • Most of the statistics in the publication are based on information about accidents reported to the police (using 'STATS 19' forms). • Other sources of information include mortality, survey and hospital data as well as population and traffic data to provide a wider context.
Key Findings:	<ul style="list-style-type: none"> • In 2014, '<i>Driver/Rider impaired by drugs (illicit or medicinal)</i>' was recorded as contributing to: • 47 fatal accidents (3 per cent of reported fatal road accidents) • 197 serious accidents (1 per cent of reported serious road accidents) • 440 slight accidents (less than 1 per cent of reported slight road accidents). • Of all road traffic accidents in 2014 where police attended the scene and recorded a contributory factor, '<i>impaired by drugs (illicit or medicinal)</i>' was 684 (1 per cent).
Keywords:	Accidents, casualties, drugs, killed or seriously injured
Comments:	National statistics

Title:	The incidence of drugs in road accident fatalities
Published:	J.T. Everest and R.J. Tunbridge TRL (1989)
Link:	https://trl.co.uk/reports/RR202
Free/priced:	Free
Objectives:	A nationwide programme of research was initiated in England and Wales in late 1985, based on the analysis of body fluid and tissue samples obtained from road users killed in accidents to determine the causation of drugs in road accidents.
Methodology:	<ul style="list-style-type: none"> • Analysis of body fluid and tissue samples obtained from road users killed in accidents (England and Wales). • Samples from 1273 fatalities were analysed.
Key Findings:	<ul style="list-style-type: none"> • The overall incidence of fatalities involving all categories of road user who had taken drugs likely to affect the central nervous system was 7.4%. For car drivers and motorcycle riders, the overall incidences of central nervous system (CNS) active drugs were 6.7 and 8.0%. • Drugs of abuse, notably cannabis, were most common among young and middle aged male drivers and motorcycle riders; in 40% of occasions cannabis was used in combination with alcohol. • The rate of use of CNS active drugs was reasonably constant with age among the under sixties, the rate being slightly higher for men than women – mainly because of the use of cannabis by men. • The greatest incidence of medicinal CNS active drugs among fatalities was found to occur for road users over sixty years of age.
Keywords:	Alcohol, drugs, fatalities
Comments:	Study to measure the incident of drugs in fatal road accident casualties

Title:	The incidence of drugs and alcohol in road accident fatalities
Published:	R.J. Tunbridge, M. Keigan and F.J. James, TRL (2001)
Link:	https://trl.co.uk/reports/TRL495
Free/priced:	Free
Objectives:	<p>To establish the incidence of drug and alcohol use in road accident casualties aged 16 or over who died within twelve hours.</p> <p>To monitor any trends in drug use in road casualties during the period of the study.</p> <p>To relate blood alcohol levels in fatal road accident casualties with any associated drug use.</p>
Methodology:	<ul style="list-style-type: none"> • In 1996 TRL was commissioned by the DETR to conduct a new survey into the incidence of alcohol and drugs in fatal road accident casualties. • DETR contacted each of the 197 Coroners and Procurators Fiscal in Great Britain and 552 pathologists located at 259 hospital pathology laboratories and mortuaries to request their co-operation. • Samples were taken from road users aged 16 or over, who died within 12 hours of being involved in a road accident. • Study began in October 1996 and was carried out for a period of just over 3 years. • Majority of samples from the Greater London area were obtained over the period from May 1999 to May 2000.
Key Findings:	<ul style="list-style-type: none"> • At least one medicinal or illicit drug was detected in 24.1% of the 1184 casualties. • Of the 1184 fatal casualties 17.7% tested positive for a single drug and 6.3% test positive for multiple drug use. • Drivers made up the largest group of road users, 45% in total. • Males made up the majority of the casualties (82.7%). • Drug use was highest (38.5%) among those reported as being unemployed, this group had a high incidence of cannabis and multiple drug use.
Keywords:	Alcohol, drugs, fatalities
Comments:	A study to look at the current incidence of drugs in road traffic fatalities

Title:	The prevalence of drugs and alcohol found in road traffic fatalities: A comparative study of victims
Published:	S. Elliot, H. Woolacott and R. Braithwaite (2009) Science & Justice, 1, 19-23
Link:	http://www.sciencedirect.com/science/article/pii/S1355030608000749
Free/priced:	Priced
Objectives:	To determine the prevalence of drugs and alcohol in road traffic fatalities.
Methodology:	<ul style="list-style-type: none"> • Analysis of blood and urine samples taken from road accident fatalities between 2000 and 2006 from HM Coroners' data.
Key Findings:	<ul style="list-style-type: none"> • Results of 1047 cases indicated 54% victims were positive for drugs and/or alcohol. • Highest percentage of positive findings occurred in pedestrians (63%). • Males aged 17-24 were most likely to be involved in a traffic accident, whether in control (driver) or involved indirectly (car passenger). • Wide range of drugs detected, but alcohol and cannabinoids were the most frequent substances across the victim groups. • The presence of drugs and/or alcohol was similar frequency for victims in control (55% driver, 48% motorcyclists, 33% cyclists) and not in control of the vehicle (52% car passengers, 63% pedestrians). • Show the involvement of drugs and alcohol in road accidents and effect they have on driving ability and impairment.
Keywords:	Drugs, RTA, Alcohol, Toxicology, Drivers
Comments:	Comparative study of drug and alcohol in various victim groups

Title:	FINAL PROGRAMME REPORT Public IMMORTAL
Published:	W. Klemenjak, E. Braun, J. Alvarez, I.M Bernhoft and L. Fjerdingen (2005)
Link:	http://ec.europa.eu/transport/roadsafety_library/publications/final_programme_report.pdf
Free/priced:	Free
Objectives:	IMMORTAL (Impaired Motorists, Methods of Roadside Testing and Assessment for Licensing) is a special EU research programme dealing with accident risk associated with different forms of driver impairment. The project investigated the influence of chronic and acute impairment in order to make a more current risk assessment, to recommend criteria for high risk categories, and to provide key information to support EU Policy on licensing and roadside testing.
Methodology:	<ul style="list-style-type: none"> • Acute and chronic impairment was investigated by case control and field studies, experiments, interviews, literature analyses and literature reviews.
Key Findings:	<ul style="list-style-type: none"> • The field studies and case control studies point at an increase of drug driving. The main substances were cannabis, benzodiazepines and alcohol. • Legal framework for both prosecution and further research is important and still has to be established in some cases. • A drug recognition method tested in the context of IMMORTAL still needs further improvement; also saliva test devices seemed to be error-prone. • Combination of alcohol and drugs and combined consumption of different drugs have increased, it is vital that, besides impairment by alcohol, also the impairment by drugs is recorded. This means that alongside random breath test devices, also good screening instruments should be available to clarify the impairment of drugs. • Licensing procedures that have standards that are consistent, reliable and valid are sought after. • Target group-specific processing is recommended on the basis of the IMMORTAL results. • For illegal drugs that are taken alone, with the exception of heroin, zero-tolerance legislation would, however, seem to result in very high costs and hardly any road safety benefits. • For most medicinal drugs, like antidepressants, benzodiazepines, codeine, barbiturates and even morphine, therapeutic levels may be adequate as legal limits, at least for the time being.
Keywords:	Drug driving, prevalence, relative risk, fitness to drive, licensing, assessment methods
Comments:	European research programme to provide key information to support EU policy on licensing and roadside testing

Title:	DRUID Final Report: Work performed, main results and recommendations
Published:	H. Schulze, M. Schumacher, R. Urmeew and K. Auerbach, (2012)
Link:	http://www.druid-project.eu/Druid/EN/Dissemination/downloads_and_links/2012_Washington_Brochure.pdf?_blob=publicationFile
Free/priced:	Free
Objectives:	Overall objective of the DRUID (Driving Under the Influence of Drugs and medicines) project was to provide scientific support to EU road safety policy makers by making scientific based recommendations concerning combating driving under the influence of psychoactive substances.
Methodology:	<p>Project split into 7 work packages (WP)</p> <ol style="list-style-type: none"> 1. To enable policy makers to refer to a substance blood concentration threshold defined for driving a power-driven vehicle (methodology and experimental research). 2. To deliver reference studies of the impact on fitness to drive for alcohol, illicit drugs and medicines (epidemiological studies, relative risk calculation). 3. To evaluate mobile drug detection devices and to implement cost-benefit analysis of enforcement strategies (enforcement: methods and devices, enforceable legislation). 4. To introduce classification and labelling system for medicines with regard to their influence on driving performance (developing a classification system for medicinal drugs). 5. To provide authorities with recommendations concerning effective driver rehabilitation schemes, adapted to individual driver's situation (rehabilitation – good practice). 6. To recommend strategies of driving bans, which are compatible with the road safety objectives and at the same time respect the need for mobility (withdrawal – existing practices and recommendations). 7. To define responsibility of health care professionals vis-à-vis dangerous patients consuming psychoactive substances and the role they can play with regard to road safety. To develop information and dissemination instruments for different target groups (dissemination and guidelines, training measures).

Key Findings:	<p>Illicit drugs</p> <ul style="list-style-type: none"> • Prevalence of illicit drugs in the general driving population is much lower than the prevalence of alcohol. • Cannabis is the most prevalent drug, followed by cocaine and amphetamines. • Injury risk is extremely increased with combined use of drugs and alcohol. • Due to the national variability in prevalence rates of illicit drugs use of countermeasures should be adapted to national requirements. • Countermeasures should be target-group-specific and take into account driver characteristics. • Interventions targeting young drivers should be addressed including enforcement strategies, educational activities and legislative measures. • Illicit drugs can be detected by on-site drug screenings, but lack specificity and sensitivity. • Checklists (Clinical Signs Inventory) are a good method to support on-site drug screenings, but DRUID results were not encouraging. • Driver rehabilitation should be part of a wider countermeasure system with legal regulation to ensure interventions are undertaken by offenders. <p>Psychoactive medicines</p> <ul style="list-style-type: none"> • The prevalence of medicines (1.4%) in the driving population is less than alcohol (3.5%) and illicit drugs (1.9%). • DRUID suggests the implementation of a four level classification and labelling system regarding the influence of medicines on driving performance. • Where medicines are misused by patients and healthy drivers legal procedures need to be undertaken.
Keywords:	Drug driving, policy, illicit drugs, medicines, fitness to drive
Comments:	European research programme to advise policy

Title:	A Review of Evidence Related to Drug Driving in the UK: A Report Submitted to the North Review Team
Published:	P.G Jackson and C.J. Hilditch DfT (2010)
Link:	http://webarchive.nationalarchives.gov.uk/20100921035225/http://northreview.independent.gov.uk/docs/NorthReview-ReviewofEvidence.pdf
Free/priced:	Free
Objectives:	Sir Peter North has been invited to advise Ministers on the merits of specific proposals for changes to the legislative regime for drink and drug driving. In order to assist the North Review team in the work being undertaken, Clockwork Research has been contracted to submit a review drawing together and synthesising evidence on a variety of issues relating to drink driving.
Methodology:	<ul style="list-style-type: none"> • Report has been compiled from a review of a broad range of data sources including; UK Government research reports; European Council reports; Reports from transport authorities in other jurisdictions; EU research programmes reports; Papers that have appeared in academic journals; and information and reports provided by independent drug expert organisations. • Semi-structured interviews were conducted with relevant UK stakeholders, including coroners and their clerks, toxicologists, police officers and a representative from the Home Office Scientific Development Branch.
Key Findings:	<ul style="list-style-type: none"> • Cannabis, cocaine and benzodiazepines remain the drugs of most concern, given the frequency with which they are detected in drivers arrested for impaired driving or injured as a result of traffic accidents. • The Railways and Transport Safety Act 2003 gave British police the power to require a driver suspected of being unfit to drive because of a drug to undertake a preliminary drug test, to date a type-approval specification for such a device has not been produced. • No readily available data on the number of officers who are trained to administer Field Impairment Tests and how many are actively doing so. • Recent increased prevalence of drugs defined as 'legal highs' and recommends that toxicology laboratories be encouraged to screen for a broader range of drugs beyond the standard panel of illicit drugs.
Keywords:	Drug driving, prevalence, legal limits, field impairment test, legal highs
Comments:	Evidence to support policy

Title:	Drug Misuse: Findings from the 2012 to 2013 Crime Survey for England and Wales
Published:	Home Office (2013)
Link:	https://www.gov.uk/government/publications/drug-misuse-findings-from-the-2012-to-2013-csew/drug-misuse-findings-from-the-2012-to-2013-crime-survey-for-england-and-wales
Free/priced:	Free
Objectives:	To determine the extent and trends in illicit drug use among adults aged 16 to 59 measured by the 2012 to 2013 Crime Survey for England and Wales (CSEW)
Methodology:	<ul style="list-style-type: none"> • Crime survey for England and Wales
Key Findings:	<ul style="list-style-type: none"> • Around 1 in 12 (8.2%) adults had taken an illicit drug in the last year, a fall compared with 2011/12 (8.9%). This equates to around 2.7 million people • According to the 2012/13 CSEW, 2.6% of adults aged 16 to 59 had taken a Class A drug in the last year • Cannabis was the most commonly used drug, with 6.4% of adults aged 16 to 59 using it in the last year • The next most commonly used drugs in the last year were powder cocaine (1.9%) and ecstasy (1.3%). Along with cannabis, these were also the most used drugs in 2011/12 • Young adults (those aged 16 to 24) were more likely to have used drugs in the last year than older adults
Keywords:	Crime, illicit drugs
Comments:	National survey

Title:	Report of the Review of Drink and Drug Driving Law
Published:	P. North, (2010)
Link:	http://webarchive.nationalarchives.gov.uk/20100921035225/http://northreview.independent.gov.uk/report
Free/priced:	Free
Objectives:	The Review of Drink and Drug Driving law was requested by the Secretary of State for Transport to carry out a study into the legal framework in Great Britain governing drink and drug driving
Methodology:	<ul style="list-style-type: none"> • Sets out the current law and procedure in relation to drug driving. • Considers the key issues identified from the examination of the evidence and stakeholder opinions in relation to drugs and driving.
Key Findings:	<ul style="list-style-type: none"> • The report presented 23 recommendations regarding drug driving law including: <ul style="list-style-type: none"> - Ensuring coroners test for, and provide data on, the presence of drugs in road fatalities. - Commissioning research to understand better the prevalence of drug driving in Great Britain. - Improving the clarity of information on drug driving. - Invest in training constables to conduct the Field Impairment test. - The principal drug driving offence in section 4(1) of the Road Traffic Act 1988 should be included in the 'Offences Brought to Justice' determined by the Home Office and monitored by the police forces in England and Wales. - Within a year, section 7 (3) (c) of the Road Traffic Act 1988 should be amended to allow nurses also to take the role currently fulfilled by the forensic physician in determining whether the drug driving suspect has a 'condition with might be due to a drug' . • Report identified five stages of development in improving the process of detecting and deterring drug driving and improving the framework; improving the current process; preliminary drug screening tests; a specific offence; roadside screening and evidential drug testing
Keywords:	Drink driving, drug driving, legal framework
Comments:	Independent review

Title:	A Qualitative Study of Drinking and Driving: Report on the Literature Review
Published:	J. Hopkin, W. Sykes, C. Groom and J. Kelly Department for Transport (2010)
Link:	http://webarchive.nationalarchives.gov.uk/20120606181145/http://assets.dft.gov.uk/publications/rsrr-113/review.pdf
Free/priced:	Free
Objectives:	To provide more in-depth understanding of the attitudes, behaviour and motivation of individuals who drive after drinking and taking drugs
Methodology:	<ul style="list-style-type: none"> • Review of UK literature, most sources included were published or made available since 2000
Key Findings:	<ul style="list-style-type: none"> • Drug driving is reported as being less prevalent than drink driving • Drug driving is more prevalent among those under the age of 40 than among older people • Drug driving occurs more among single people and those who drive less frequently than among others • Drug driving journeys are often for social reasons and over short distances • For problem drug users, all driving is under the influence of drugs
Keywords:	Drug driving, prevalence, attitudes
Comments:	Literature review

Title:	Increase criminal activity among people suspected of driving under the influence of alcohol or drugs. A register-based population study.
Published:	A. Impinen and P. Lillsunde (2013) 20 th International Council on Alcohol, Drugs and Traffic Safety Conference
Link:	http://t2013.com/wp-content/uploads/2013/08/160813_ICADTS_Proceedings.pdf
Free/priced:	Free
Objectives:	To examine difference in the range of criminal activity between people who had a history of driving under influence of alcohol, drugs and reference population with no history of driving under the influence.
Methodology:	<ul style="list-style-type: none"> • Data on arrested driving under the influence suspects and age-sex matched reference population was linked to criminal records.
Key Findings:	<ul style="list-style-type: none"> • At least one offence was found in 94% of driving under the influence of alcohol suspects and 96% of driving under the influence of drugs suspects. • Most common offences were traffic violations and crimes against property. • Almost half of the suspects driving under the influence of drugs had a history of violent crime.
Keywords:	Criminal, alcohol, drugs
Comments:	Register-based population study in Finland

Title:	The Government's Response to the Reports by Sir Peter North CBE QC and the Transport Select Committee on Drink and Drug Driving
Published:	Presented to Parliament by the Secretary of State for Transport by Command of Her Majesty (2011)
Link:	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/4429/report.pdf
Free/priced:	Free
Objectives:	Government's response to the independent report on drink and drug driving in Great Britain commissioned by the previous Government from Sir Peter North in December 2009. The paper responds to the 51 recommendations (28 on drink-driving and 23 on drug-driving).
Methodology:	<ul style="list-style-type: none"> • Response to each of the recommendations.
Key Findings:	<ul style="list-style-type: none"> • Agree in principle with the main thrust of the proposals for drug driving, which envisage a step-by-step programme of new measures aimed at creating a more effective regime than at present. The steps are: <ul style="list-style-type: none"> - To approve preliminary testing equipment which can be procured by police forces for use initially in police stations, and later at the roadside. - To implement other measures to make the law against drug driving work more effectively. - To continue research into equipment which could be approved for the police to test for these substances. - On the basis of the work, examine the case for a new specific offence (alongside the existing one) which would relieve the need for police to prove impairment case-by-case where a specified drug had been detected. • Propose to implement recommendations 7, 8, 9 and 11. • Work is continuing on recommendations 13 to 15, 21 and 22. • Recommendation 23, on penalties, is a matter for the Sentencing Council.
Keywords:	Drink, Drug, Legislation
Comments:	Policy paper

Title:	Drug driving: proposed regulations (closed consultation)
Published:	Department for Transport (July 2013)
Link:	https://www.gov.uk/government/consultations/drug-driving-proposed-regulations
Free/priced:	Free
Objectives:	Seeking views on proposals for drug driving limits to be specified in regulations.
Methodology:	<ul style="list-style-type: none"> • Consultation on the government's preferred policy option of making it an offence to drive if any of the 17 controlled drugs are found in blood over a specified limit. • A zero tolerance approach to limits is proposed for 8 drugs most associated with illegal use. • A road safety risk approach to limits is proposed for 8 drugs most associated with medical users. • For amphetamine a limit is not proposed, but the government is seeking views on what a suitable limit may be due to the significant illegal and medicinal use it has.
Key Findings:	<ul style="list-style-type: none"> • Currently analysing feedback – after taking into account responses from the consultation, regulations containing the final proposals would need to be approved by Parliament before they could become law.
Keywords:	Drug driving, regulations, law, consultation
Comments:	Government consultation on drug driving regulations

Title:	The Road Traffic Act 1988
Published:	HM Government
Link:	http://www.legislation.gov.uk/ukpga/1988/52/part/I/crossheading/motor-vehicles-drink-and-drugs/enacted
Free/priced:	Free
Objectives:	An Act to consolidate certain enactments relating to road traffic with amendments to give effect to recommendations of the Law Commission and the Scottish Law Commission.
Methodology:	<ul style="list-style-type: none"> • Legislation
Key Findings:	<ul style="list-style-type: none"> • Key section related to motor vehicles: drink and drugs. Driving, or being in charge, when under influence of drink or drugs.
Keywords:	Legislation, drug driving
Comments:	Legislation related to drug driving

Title:	Alcohol and drugs among motorcycle riders compared with car and van drivers killed in road crashes in Norway during 2001-2010
Published:	A.S Christopherson and H. Gjerde (2013) 20 th International Council on Alcohol, Drugs and Traffic Safety Conference
Link:	http://t2013.com/wp-content/uploads/2013/08/160813_ICADTS_Proceedings.pdf
Free/priced:	Free
Objectives:	To investigate the prevalence of alcohol and drugs above the legislative limits among motorcycle/moped riders killed in road traffic crashes and compare with car and van drivers killed.
Methodology:	<ul style="list-style-type: none"> Blood samples were selected from those routinely submitted by the police for analysis of alcohol and drugs in fatal accidents during 2001-2010. This was combined with data from the Norwegian Road Traffic Accident Registry. The samples analysed for alcohol and drugs.
Key Findings:	<ul style="list-style-type: none"> Alcohol or drugs were found in samples from 40% and 27% of killed car/van drivers and motorcycle/moped drivers. Illicit drugs were most commonly found in those 25-34 years old. Medicinal drugs were most commonly found in those 35-54 years old.
Keywords:	Alcohol, drugs, blood samples, motorcycles/mopeds, car, van
Comments:	Study in Norway linking blood samples and fatal accidents

Title:	2010/11 Scottish Crime and Justice Survey: Drug use
Published:	Scottish Government Social Research (2012)
Link:	http://www.scotland.gov.uk/Resource/0039/00390472.pdf
Free/priced:	Free
Objectives:	To identify the extent of self-reported illicit drug use ever, in the last year and in the last month and examine the experience of first drug use and drug use in the last month by adults aged 16 or over.
Methodology:	<ul style="list-style-type: none"> The Scottish Crime and Justice Survey is a large-scale continuous survey measuring people's experience and perceptions of crime in Scotland, based on approximately 13,000 in-home, face-to-face interviews conducted with adults (aged 16 or over) living in private households in Scotland.
Key Findings:	<ul style="list-style-type: none"> 23.7% of adults in Scotland had taken one or more illicit drugs at some point in their lives. 3.5% of adults had used one or more illicit drugs in the last month.
Keywords:	Crime, drugs
Comments:	Scottish survey

Title:	Driving under the influence of drugs: Report from the Expert Panel on Drug Driving
Published:	K. Wolff, R. Brimblecombe, J.C. Forfar, A.R. Forrest, E. Gilvarry, A. Johnston, J. Morgan, M.D. Osselton, L. Read, D. Taylor (2013)
Link:	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/167971/drug-driving-expert-panel-report.pdf
Free/priced:	Free
Objectives:	To establish whether there was sufficient evidence in the scientific literature to be able to determine a relationship between the use of psychoactive drugs and an effect on driving performance in average member of the general public.
Methodology:	<ul style="list-style-type: none"> • The Panel considered both epidemiological and experimental data to assess the relationship between the use of a psychoactive drug and the potential to affect the ability to driver safely.
Key Findings:	<ul style="list-style-type: none"> • The Panel made recommendations for the threshold limits for drug driving of a number of drugs including cannabis and cocaine. • The Panel made a number of additional recommendations with regard to drug driving including a number of areas of interest; blood sampling; long distance driving; medical information; healthcare providers; healthcare professionals; event's organisers; Medicines and healthcare products Regulatory Agency; public awareness and laboratories.
Keywords:	Drug-specific, drug driving, prevalence
Comments:	Expert Panel convened by the Department for Transport to provide technical advice related to a new offence on drug driving

Title:	“PRAISE”: Preventing Road Accidents and Injuries for the Safety of Employees: Fitness to drive
Published:	(2010) European Transport Safety Council
Link:	http://www.etsc.eu/documents/PRAISE%20Report%203.pdf
Free/priced:	Free
Objectives:	PRAISE is a project co-funded by the European Commission and implemented by the ETSC on Preventing Road Accidents and Injuries for the Safety of Employees. It presented the work-related road safety standards of EU Member States and undertakes advocacy work at the EU level.
Methodology:	<ul style="list-style-type: none"> • Review of the area ‘driving under the influence of illegal drugs and prescription medicine and work-related road safety.
Key Findings:	<ul style="list-style-type: none"> • Drivers driving for work may still be under the influence of illegal drugs from the evening before. • Increasing number of medicines used without prescription. • EU level legislation “driving licenses shall not be issued or renewed for applicants or drivers who are dependent on psychotropic substances or who are not dependent on substances by regularly abuse them”. • Prescription medicines – information not clearly stated with advice as to when not to drive or how to decide whether driving is possible under treatment. • Recommendations provided from the ETSC to Member States on illegal drug driving including disseminating effective information about the effects of illegal drug driving. • Recommendations provided from the ETSC to Member States on prescription medicine use included stressing the role of the doctor. • Recommendations to employers on illegal drugs and prescriptive medicines included developing clear internal policies on screening.
Keywords:	Fitness, drugs, employee, employer, illicit, prescriptive
Comments:	Overview of driving under the influence of drugs presenting the work-related road safety standards of EU Member States

Title:	SWOV Fact sheet
Published:	SWOV (2011)
Link:	http://www.swov.nl/rapport/Factsheets/UK/FS_Drugs_and_medicines.pdf
Free/priced:	Free
Objectives:	Factsheet to provide an overview of the area of drug driving relevant to a Dutch situation.
Methodology:	<ul style="list-style-type: none"> • Synthesis of research in the area of drug driving.
Key Findings:	<ul style="list-style-type: none"> • Use of drugs by road users plays a role in road accidents. • The combined use of alcohol and drugs leads to higher risks and are most frequently used by young males. • Drug limit could contribute to counteracting the use of drugs among drivers. • Certain medicines have an adverse road safety effect. • Effective communication by physicians and pharmacists about the potential dangers of combining driving and medicines that impair driving could contribute to the reduction in road casualties in this group.
Keywords:	Drugs, medicines, affect, risk, Dutch
Comments:	Summary of driving under the influence of drugs and medicine from the Netherlands

Title:	Drugs and driving
Published:	Stough and King (2010) Prevention Research Quarterly, March 2010, DrugInfo Clearinghouse
Link:	http://www.druginfo.adf.org.au/reports/prq-drugs-and-driving
Free/priced:	Free
Objectives:	To investigate the role of alcohol and other drugs in road deaths and serious injuries.
Methodology:	<ul style="list-style-type: none"> • Examines the impact of alcohol and other drug use, including pharmaceuticals on road deaths and injuries. • Outlines a number of strategies currently being implemented to minimise and reduce the number of drivers taking drugs.
Key Findings:	<ul style="list-style-type: none"> • Outlines the impact of cannabis, amphetamines, ecstasy, ketamine and other medication on driving. • Discusses prevention and early interventions for drugs use in schools, advertising campaigns, role of pharmacists and role of venues. • Outlines the detection of impaired driving due to drugs using the sobriety testing.
Keywords:	Drugs, alcohol, deaths, injury, prevention, effects
Comments:	Overview of drugs and driving from the 'Drugs and Driving Research Unit' in Melbourne, Victoria

Title:	Cannabis and driving: a review of the literature and commentary
Published:	Department for Transport, Road Safety Research Report (No.12)
Link:	http://webarchive.nationalarchives.gov.uk/20090902170359/http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme3/cannabisanddrivingareviewoft4764
Free/priced:	Free
Objectives:	To summarise current knowledge about the effects of cannabis on driving and accident risk
Methodology:	<ul style="list-style-type: none"> • Review of literature published since 1994
Key Findings:	<ul style="list-style-type: none"> • The effects of cannabis on laboratory based tasks show clear impairment with respect to tracking ability, attention and other tasks depending on the dose administered • These effects are not as pronounced on tasks of greater ecological validity
Keywords:	Cannabis, driving
Comments:	Literature review

Title:	Marijuana, alcohol and actual driving performance
Published:	Ramaekers, Robbe & O'Hanlon, 2000 Human Psychopharmacology: Clinical and Experimental, 15, 7, 551-558
Link:	http://www.ncbi.nlm.nih.gov/pubmed/12404625
Free/priced:	Priced
Objectives:	To assess the separate and combined effects of marijuana and alcohol on actual driving performance.
Methodology:	<ul style="list-style-type: none"> • 18 subjects treated with drugs and placebo according to a balanced, 6-way, crossover design. • On separate evenings given weight calibrated THC doses of 0, 100 and 200 µg/kg with and without an alcohol dose sufficient for achieving blood alcohol concentrations of 0.04 g/dl while performing a Road Tracking and Car Following Test in normal traffic. • Main outcome measures were standard deviations of lateral position, time drive out of lane, reaction time and headway.
Key Findings:	<ul style="list-style-type: none"> • THC doses alone, and alcohol alone, significantly impaired the subjects performance both driving tests. • Performance deficits were minor after alcohol and moderate after THC doses. • Combination of THC and alcohol dramatically impaired driving performance. • Low doses of THC moderately impair driving performance, but the combination with a low dose of alcohol severely impaired driving performance.
Keywords:	Marijuana, alcohol, driving performance
Comments:	6-way, crossover design investigating marijuana and alcohol effects on driving performance

Title:	Driving and benzodiazepine: Evidence that they do not mix
Published:	Van Laar and Volkerts, 1998 CNS Drugs, 10, 5, 383-396
Link:	http://link.springer.com/article/10.2165/00023210-199810050-00007?no-access=true
Free/priced:	Priced
Objectives:	To review the available evidence of driving and benzodiazepine use.
Methodology:	<ul style="list-style-type: none"> • Review the data associated with driving and benzodiazepine use. • Data is sparse, but there are some epidemiological studies that show benzodiazepine use increase the relative risk of being involved in a traffic accident by a factor of 1.5 and 6.5 depending on dose, number of benzodiazepines used and regency of use.
Key Findings:	<ul style="list-style-type: none"> • Impairing effects of diazepam on driving performance may persist at least during the 3 weeks after administration. • Elderly patients may be more sensitive to the sedative and performance-impairing effects than younger people, although the evidence is equivocal. • Inter-individual differences in sensitivity to behavioural effects of benzodiazepines suggest that careful monitoring of patients is important. • Healthcare professionals should educate patients of the risk of driving when using benzodiazepine.
Keywords:	Driving, benzodiazepine
Comments:	Review article

Title:	Driving and Drugs
Published:	J Claridge (2013) Your Driving Licence
Link:	http://www.yourdrivinglicence.co.uk/driving-and-drugs.html
Free/priced:	Free
Objectives:	To provide information on types of drugs, symptoms of drug use whilst driving and penalties.
Methodology:	<ul style="list-style-type: none"> • Overview of the area.
Key Findings:	<ul style="list-style-type: none"> • Increasingly common for drivers to be found under the influence of drugs. • Types of drugs outlined; LSD, Cannabis, Cocaine, Ecstasy. • Police officer will be looking for a number of symptoms including, for example, difficulty responding to questioning.
Keywords:	Drugs, Driving, Types, Police, Symptoms
Comments:	Website information on drugs and driving for the general public

Title:	Recreational drug use and driving: A qualitative study
Published:	J. Neale, N. McKeganey, G. Hay & J. Oliver (2000), The Scottish Executive Central Research Unit
Link:	http://www.scotland.gov.uk/Resource/Doc/156503/0042020.pdf
Free/priced:	Free
Objectives:	To examine the qualitative aspects of recreational drug driving
Methodology:	<ul style="list-style-type: none"> • National household survey by System Three Social Research provided quantitative information on the prevalence of drug driving behaviour among 17-39 year old drivers. The current research provides qualitative information to complement this survey. • Research comprised four elements: <ol style="list-style-type: none"> 1. Semi-structured qualitative interviews with 61 individuals attending night clubs in Scotland. 2. 88 people who attended dance/nightclubs completed a questionnaire about drug use and driving behaviour. 3. Survey of drivers crossing Scotland's main toll bridges at peak drug driving times. 4. 10 focus groups with individuals considered likely to have a range of views on drug use and driving.
Key Findings:	<ul style="list-style-type: none"> • Drug driving campaigns must be directed at those most at risk (e.g. drivers attending dance events). • Information about the dangerous effects of particular drugs on driving ability is required by drivers to show that is unsafe. • Cannabis was the most common illegal drug taken and perceived to be less dangerous than driving on other illegal drugs. • Roadside testing should be targeted at particular times of days and accuracy improved. • To reduce drug driving other options such as public transport need to be made available. • The effectiveness of drug driving campaigns will increase if they are honest; based on research; not vague or frightening; include prescriptive drugs; target those most at risk and informed by drug users. • Role of peers in preventing drug driving behaviour could be developed further and use strategies to discourage or prevent drug driving.
Keywords:	Drug driving, behaviour, attitudes, policy
Comments:	Qualitative study

Title:	THINK! Road Safety Survey 2013
Published:	TNS (2013)
Link:	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/251297/think-annual-survey-2013.pdf
Free/priced:	Free
Objectives:	<p>To determine awareness, attitudes towards and perceptions of the THINK! road safety brand.</p> <p>To determine general attitudes towards road safety, and it's perceived importance in relation to other social issues.</p> <p>To determine attitudes towards driving, and influences on driving behaviour.</p> <p>To determine driving and road safety behaviour among different users, including the prevalence of dangerous driving behaviour.</p>
Methodology:	<ul style="list-style-type: none"> • Annual survey was undertaken from 24th to 28th July 2013. • Interviews were conducted using the TNS Omnibus survey. • Interviews were conducted in-home, using Computer Assisted Personal Interviewing. • In total, 1,853 interviews were conducted with those aged 16+ in England and Wales.
Key Findings:	<ul style="list-style-type: none"> • Nine in ten respondents agreed completely that driving after taking Class A drugs was dangerous. • Driving after smoking cannabis is regarded as less dangerous amongst all groups than driving after taking Class A drugs. • Similar to the findings of previous surveys, only a few respondents claimed that they know people who take drugs and drive. • The reported frequency of individuals themselves driving under the influence of drugs was very low, at 1% for driving after smoking cannabis.
Keywords:	Road safety, drug driving
Comments:	National survey

Title:	The self-reported impact of legal and non-legal sanctions on drug driving behaviours in Queensland: A study of general motorists and convicted offenders
Published:	J.D. Davey, J.E Freeman, G.R. Palk, and A.L Lavelle 2008 Proceedings Australasian Road Safety Research, Policing and Education Conference, 416-425. Adelaide, SA.
Link:	http://eprints.qut.edu.au/15664/1/15664.pdf
Free/priced:	Free
Objectives:	To examine a group of Queensland motorists' perceptions of legal (certainty, severity and swiftness) and non-legal (social, internal and physical) sanctions associated with drug driving, as well as investigate the impact of random roadside drug testing and non-legal sanctions on intentions to drug drive.
Methodology:	<ul style="list-style-type: none"> • 6 month period a snowball sampling approach was used. Second part involved 49 participants recruited through the Illicit Drugs Court Diversion Program. • A questionnaire was used to determine demographic details, self-reported drug use and deterrence (legal and non-legal sanctions).
Key Findings:	<ul style="list-style-type: none"> • Considerable proportion of the sample were undecided on the changes of being caught drug driving, which may reflect the lack of awareness and understanding that a large proportion of the sample reported regarding the implementation of roadside drug testing in Queensland. • Non-legal sanctions were considered more positive, with the largest proportion of the sample reporting being concerned about the alleged penalties as losing their friends' respect and being ashamed if their friends were notified of their drug driving. • Previous offending behaviours, perceptions of apprehension certainty and drug consumption were all significantly associated with self-reported intentions to offend. • Convicted offenders were more likely to have reported previous drug driving behaviours. • Drug offenders perceived the chances of being caught to be higher than the general population and time between apprehension and conviction to be swift. • Despite being recently apprehended for drug use, almost a third of the convicted offenders reported intentions to offend in the next 6 months.
Keywords:	Drug driving, legal sanctions, deterrence, drug offenders
Comments:	Predominantly a self-report study that may have self-selection bias

Title:	Perceptual deterrence versus current behaviours: a study into factors influencing drug driving in Queensland
Published:	J.E Freeman, C.N. Watling, J.D. Davey and G.R. Palk (2010) Road and Transport Research, 19 (3), 3-13.
Link:	http://eprints.qut.edu.au/39281/1/c39281.pdf
Free/priced:	Free
Objectives:	To determine whether deterrence-based perceptual factors are influencing offending behaviours or whether self-reported drug driving is dependent on illicit substance consumption levels and past offending behaviour.
Methodology:	<ul style="list-style-type: none"> • Sample of 899 Queensland motorists' completed a self-report questionnaire collecting information on drug driving, drug consumption practices, conviction history and perceptual deterrence factors.
Key Findings:	<ul style="list-style-type: none"> • 20% of respondents reported drug driving at least once in the last six month. • Variability in respondent's perceptions of certainty, severity and swiftness of legal sanctions. • Largest proportion of sample did not consider sanctions to be certain, sever or swift. • Behaviours rather than perceptions had the greatest level of influence on the current sample's future intentions to offend.
Keywords:	Drug driving, deterrence, roadside drug screening
Comments:	Self-report study on drug driving in Queensland

Title:	Knowledge, attitudes and behaviours of NSW drug drivers
Published:	A. Gavin, P. Bryant, E. Walker, E. Zipparo and C. Samsa (2008) 2008 Australasian Road Safety Research, Policing and Education Conference
Link:	http://acrs.org.au/files/arsrpe/RS080128.pdf
Free/priced:	Free
Objectives:	To examine knowledge, attitudes and self-reported behaviours with regards to drug driving to identify any behavioural shifts following the commencement of roadside drug testing in NSW.
Methodology:	<ul style="list-style-type: none"> • Telephone survey of 501 licensed drivers who used illicit drugs in the past three months.
Key Findings:	<ul style="list-style-type: none"> • Drug driving prevalence rate of 3.6% in NSW, and the majority of drug users (80%) are aware that police have the ability to conduct roadside drug testing. • Three most common reasons for drug driving included; drugs do not affect driving drugs are less dangerous than alcohol; unlikely to get caught when drug driving.
Keywords:	Drug driving, impaired driving
Comments:	Self-report study on knowledge, attitudes and behaviours of NSW drug drivers.

Title:	Exploring the theoretical underpinnings of driving whilst influenced by illicit substances
Published:	C.N. Watling and J. Freeman (2011) Transportation Research Part F, 14, 567-578
Link:	http://www.sciencedirect.com/science/article/pii/S1369847811000635
Free/priced:	Priced
Objectives:	To evaluate the contribution of deterrence, defiance, and deviance theories on intentions to drug drive to determine factors that might facilitate or reduce drug driving.
Methodology:	<ul style="list-style-type: none"> • 922 individuals completed a questionnaire that assessed frequency of drug use and a variety of perceptions on deterrence, defiance, and deviance constructs.
Key Findings:	<ul style="list-style-type: none"> • Defiance constructs (e.g. experiencing feelings of shame) and the deviance constructs (e.g. having a criminal conviction) were predictive of drug driving intentions. • Facets of the deterrence theory were not found to be significant predictions or drug driving intentions.
Keywords:	Deterrence, defiance, deviance, drug driving, substances abuse
Comments:	Self-report study in Queensland on driving whilst influenced by illicit substances

Title:	Policy: Making roads safety
Published:	UK Government (2013)
Link:	https://www.gov.uk/government/policies/making-roads-safer
Free/priced:	Free
Objectives:	To outline policy around making roads safer.
Methodology:	<ul style="list-style-type: none"> • Provides a description of the issue, actions, background, who has been consulted, who the government are working with, bills and legislation.
Key Findings:	<ul style="list-style-type: none"> • Actions include approving roadside drug testing device for the policy by 2015. • Action to prosecute drivers under new drug driving legislation through the Crime and Courts Act 2013, which inserts a new section 5A in the Road Traffic Act 1988, to come into effect via regulations by 2015.
Keywords:	Policy, drug driving
Comments:	Policy

Title:	Monitoring the effectiveness of the UK Field Impairment test
Published:	J.S Oliver, A. Seymour, A. Wylie, H. Torrance and R.A Andreson (2006) Publisher (if journal article, include full reference)
Link:	http://www.dft.gov.uk/rmd/project.asp?intProjectID=10081
Free/priced:	Priced
Objectives:	To identify the prevalence of drugs among drivers. To examine the nature of the effects which different drugs have on driving behaviour. To devise techniques to address the problem by enforcing the law.
Methodology:	<ul style="list-style-type: none"> • Collect data on the extent of drug driving and monitor the success of new police enforcement techniques introduced in August 2000.
Key Findings:	<ul style="list-style-type: none"> • Assessment of impairment by police using FIT was supported by a forensic medical examiner (followed by clinical examination) in 77% of cases. • Roadside application of FIT demonstrated sensitivity of 65%, specificity of 77% and accuracy of 66%. • FIT is usable in its current form, however further development is required. • Drug recognition skills of police were good.
Keywords:	Effectiveness, Field Impairment Test
Comments:	Evaluation study of the FIT test

Title:	Manual of guidance drink and drug driving (MGDD)
Published:	Home Office (August 2013)
Link:	https://www.gov.uk/government/publications/manual-of-guidance-drink-and-drug-driving-mgdd
Free/priced:	Free
Objectives:	Provides access to the 6 forms used by forces in England and Wales when dealing with drink and drugs driving offences.
Methodology:	<ul style="list-style-type: none"> • The police service and the Crown Prosecution Service have produced a series of standard forms to aid officers' investigations.
Key Findings:	<p>The following forms are provided:</p> <ul style="list-style-type: none"> • MGDD Form A: drink/drugs station procedure. • MGDD Form B: drink/drugs station procedure: specimens/impairment supplement. • MGDD Form C: drink/drugs hospital procedure. • MGDD Form D: Technical defences and back calculations. • MGDD Form E: drug drive laboratory submissions. • MGDD Form F: roadside impairment testing.
Keywords:	Drink, drug, driving, manual, offences, police
Comments:	Manuals provided by the Crown Prosecution Service

Title:	Speech: Public policy exchange event
Published:	UK Government (2013)
Link:	https://www.gov.uk/government/speeches/public-policy-exchange-event
Free/priced:	Free
Objectives:	Video address mentioning driving speed limits, road safety, local sustainable transport funding, on-the-spot penalties and drug driving.
Methodology:	<ul style="list-style-type: none"> • Video address from Robert Goodwill MP.
Key Findings:	<ul style="list-style-type: none"> • It is now an offence to drive a motor vehicle if you have certain controlled drugs in your body above set limits. • The Home Office has type approved a station screening device. • Roadside screeners will take a bit longer to reach the market.
Keywords:	Policy, drug driving
Comments:	Policy exchange

Title:	THINK! Drug Driving Campaign
Published:	Department for Transport (2009)
Link:	http://drugdrive.direct.gov.uk/home.shtml
Free/priced:	Free
Objectives:	Provide information on the drug driving associated with the THINK! campaign
Methodology:	Provides information on the following sections: <ul style="list-style-type: none"> • Is drug driving against the law? • Do drugs impair your driving? • Can the police spot a drug driver? • Can the police test for drugs? • What will happen if you get caught? • What about illegal drugs?
Key Findings:	<ul style="list-style-type: none"> • Road Traffic Act 1988 – motor vehicles: drink and drugs. • Drug drivers may have slower reaction times, erratic and aggressive behaviours, an inability to concentrate properly, nausea, hallucinations, panic attacks, paranoia, tremors, dizziness and fatigue. • Whilst drugs are wearing off, the driver may feel fatigued and this could influence their concentration. • Police undertake a Field Impairment Assessment to spot and test drug drivers. • Consequences of a drug drive conviction are the same for drink driving. Drivers will receive a minimum 12-month driving ban, a criminal record and a fine up to £5000. • It is an offence to drive or attempt to drive while unfit through drugs. • It is the driver’s responsibility to ensure they are safe to drive when they are taking medicine. • Healthcare professionals prescribing or dispensing medicines need to consider whether the patient is at risk taking the medication and driving.
Keywords:	Think!, campaign, drug driving, law, impairment, police
Comments:	Government THINK! campaign website addressing drug driving

Title:	THINK! Road Safety Campaign Evaluation: Post evaluation of the 'Eyes' THINK! Drug Drive campaign Report
Published:	H. Angle, S. Bone, E. Goddard, and E. Johns (2009) tns:bmrbr
Link:	http://webarchive.nationalarchives.gov.uk/20120606112243/http://think.dft.gov.uk/pdf/332982/3329861/0910-drugdrive-post-eyes.pdf
Free/priced:	Free
Objectives:	To evaluate the Think! Drug driving road safety advert campaign 'Eyes'. The 'Eyes' campaign aimed to inform drivers that they can get caught and penalised for driving after taking recreational drugs. The message let the audience know that the consequences are the same as for drink driving. The campaign launched in August 2009.
Methodology:	<ul style="list-style-type: none"> • Interviews were conducted using the BMRB's Omnibus survey. This is a survey that is run each week by BMRB, with different client placing questions onto a common questionnaire, and sharing the costs of fieldwork and analysis. The sample was drawn using Random Location sampling. • 1,991 interviews were conducted with people over 15 years old in Great Britain.
Key Findings:	<ul style="list-style-type: none"> • 71% respondents had seen or heard advertising or publicity about driving after taking recreational drugs in one of the sources used in the 'Eyes' campaign. • Those under the age of 35 (76%), as well as men (75%) were significantly more likely to be aware of any drug driving campaign advertising and publicity overall. • 40% of respondents agreed that the advertising stuck in their mind. • 25% said that they liked the advertising. • Over two-thirds felt drug driving was being taken seriously by the government, increasing by seventeen percentage points post campaign. • There was no significant change in the perception of being stopped by police after taking recreational drugs.
Keywords:	Drug, driving, campaign
Comments:	Evaluation of a government campaign on drug driving

Title:	Office of National Drug Control Policy
Published:	USA Government – The White House (2013)
Link:	http://www.whitehouse.gov/ondcp/drugged-driving
Free/priced:	Free
Objectives:	Highlight the growing problem of drugged driving.
Methodology:	<ul style="list-style-type: none"> • Provides an overview of the National Drug Control Strategy. • Provides information on recent surveys to show the issue of drug driving in the USA. • Provides information on what people can do to encourage safe driving (activity guide, partner programs, and resources).
Key Findings:	<ul style="list-style-type: none"> • The National Drug Control Strategy has a goal of reducing drug driving in the USA by 10% by 2015. The Strategy calls for: <ul style="list-style-type: none"> - States to adopt a Per Se drug impairment law. - Collection of further data on drug driving. - Enhancing prevention of drug driving by educating communities and professionals. - Provision of increased training to law enforcement on identifying drug drivers. - Development of standard screening methodologies for drug-testing laboratories to detect the presence of drugs. • Provides information on a number of recent surveys showing the prevalence of drug driving in the USA (e.g. 2007, one in eight weekends, night time drivers tested positive for illicit drugs).
Keywords:	Drug, Policy, USA
Comments:	Overview of policy and prevalence of drug driving in the USA.

Title:	The attitudes of health professionals to diving advice on fitness to drive
Published:	C. Hawley et al. (2010) Department for Transport (Road Safety Research Report No. 91)
Link:	http://assets.dft.gov.uk/publications/pgr-roadsafety-research-rsrr-theme6-report91-pdf/report91.pdf
Free/priced:	Free
Objectives:	<p>To explore health professionals' current state of knowledge regarding medical aspects of fitness to drive.</p> <p>To investigate the attitudes and other factors that may influence their decisions on whether to discuss fitness to drive during routine clinical contacts.</p> <p>To explore the organisational barriers to the dissemination of up-to-date knowledge in the field, and the obstacles to including advice on fitness to drive as a routine part of consultations.</p> <p>To suggest ways of improving medical and other health care personnel's knowledge and their willingness to give advice to their patients.</p>
Methodology:	<ul style="list-style-type: none"> • Multi-method approach incorporating surveys, questionnaires, interviews, focus groups and workshops.
Key Findings:	<ul style="list-style-type: none"> • General knowledge about fitness to drive set out in the DVLA medical standards was poor. • Little tuition is provided to doctors on the medical aspects of fitness to drive. • Other healthcare professionals received no formal training on fitness to drive. • Majority were aware of the guidelines provided by the DVLA, had consulted with them in the last two years and advised at least one patient to stop driving. • Healthcare professionals were unable to reliably determine those medically unfit drivers, borderline drivers and fit drivers. • 91% of patients felt it was the healthcare professionals that should advise on medical conditions and fitness to drive.
Keywords:	Fitness to drive, healthcare professionals, attitudes
Comments:	Qualitative study determining the attitudes of health professionals giving advice to patients on fitness to drive

Title:	Over-the-counter medicines and the potential for unwanted sleepiness in drivers: A review
Published:	P. Barrett and J.A. Horne (2001) Department for Transport, Road Safety Research Report (No.24)
Link:	http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme3/overthecountermedicinesandth4772
Free/priced:	Free
Objectives:	To identify medicines available over the counter (OTC) that have the potential to cause drowsiness, and therefore potential to be hazardous to drivers and other road users.
Methodology:	<ul style="list-style-type: none"> • Review of medicines individually.
Key findings:	<ul style="list-style-type: none"> • A total of 102 medicines were identified with the potential to cause sedation. • The labelling of the medicines warning the consumer of potentially sedative effects was not consistent. • Several medicines that were recommended by the British National Formulary (BNF) to have labelling had none on the packaging. • Even within classes of medicines there appeared to be no labelling consistency. Several mentioned drowsiness as a side effect on the package insert, but no mention of this was made on the exterior packaging.
Keywords:	Over-the-counter medicines, sleepiness, drivers
Comments:	Literature review

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