Council, 20 May 2016

Health assessments for drug and alcohol offences

Executive summary and recommendations

Introduction

We do not require that registrants convicted of drug and alcohol related criminal offences routinely undergo a health assessment. Instead, we have adopted a case-by-case approach to gathering the information necessary to inform a decision about whether a registrant's fitness to practise may be impaired. The PSA has previously said that it considers that all regulators should consider requesting health assessments in these cases.

In its report of our accountability hearing published in 2014, the Health Committee noted our approach to handling these cases and said that it would revisit the issue in the following year. In our response to the Committee, we explained our position and said that we would commission research to look at the published evidence on this topic to inform our position and approach going forward. We have not subsequently been invited to appear before the Committee.

We commissioned a literature review from a team at King's College London (appendix two). We also gathered updated information from the other regulators about their respective approaches in this area (section four).

This paper explains our existing approach in this area; outlines the approach of the other regulators; and discusses the findings of the literature review.

Decision

The Council is invited to:

- discuss this paper and appendices including the findings of the literature review; and

- agree that the HCPC should maintain its existing case-by-case approach to managing cases where registrants are cautioned or convicted of drug or alcohol related offences.

Background information

See paper

Resource implications

- There would be resource implications if the Council was to change our existing approach, as indicated in the paper. The Council is invited to agree to maintain the existing approach.

Financial implications

- There would be financial implications if the Council was to change our existing approach – in particular, the costs of health assessments (see paper). The Council is invited to agree to maintain the existing approach.

Appendices

Appendix 1: Cases involving drug or alcohol related convictions (opened during 2014-15)

Appendix 2: Wolff, K., Gross, S., and Marshall, J. (2016). Cautions and convictions for alcohol related offences and the link to alcohol dependency and fitness to practise.

Appendix 3: Response to recommendations.

Date of paper

9 May 2016

Health assessments for drug and alcohol offences

1. Introduction

1.1 In February 2010, the Professional Standards Authority (PSA) - then the Council for Healthcare Regulatory Excellence - recommended that all regulators should as routine practice require registrants convicted of drug and alcohol related criminal offences to undergo a health assessment to determine whether their fitness to practise is impaired.[1]

1.2 The Fitness to Practise Committee considered a number of papers on this topic between 2010 and 2013, each time being content to confirm the HCPC's existing practice of a case-by-case approach to handling these types of cases. The Executive committed to keeping this approach under ongoing review.

1.3 In January 2014, the Health Committee held its first accountability hearing with the HCPC. The Committee's report references the PSA's views in this area. The Committee noted our approach in its report, saying that it would revisit the issue the following year. We have not subsequently been called to appear.[2]

1.4 In our response to the Committee's report we explained our position and said that we would commission research to look at the published evidence on this topic to inform our position and approach going forward. In 2014, we commissioned a literature review from a team at King's College London. We also sought updated information from the other regulators about their approaches in this area.[3]

1.5 This paper explains the HCPC's existing approach in this area; outlines the approach of the other regulators; and discusses the findings of the literature review.

1.6 The Council is invited to agree that the existing approach to managing cases involving registrants convicted of drug and alcohol offences should be maintained.

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[1] Council for Healthcare Regulatory Excellence (2010). Fitness to practise audit report Audit of health professional regulatory bodies' initial decisions. http://www.professionalstandards.org.uk/docs/audit-reports/ftp-audit-report-feb-2010.pdf?sfvrsn=0

[2] Health Committee (2014). 2014 Accountability hearing with the Health and Care Professions Council. First report of Session 2014-15. http://www.publications.parliament.uk/pa/cm201415/cmselect/cmhealth/339/339.pdf

[3] Health Committee (2014). 2014 accountability hearing with the Health and Care Professions Council: Health and Care Professions Council's Response to the Committee's First Report of Session 2014-15 http://www.publications.parliament.uk/pa/cm201415/cmselect/cmhealth/731/731.pdf

2. The PSA's position

2.1 The PSA considered that the practice adopted in 2010 by the General Medical Council (GMC) and General Chiropractic Council (GCC) requiring registrants convicted of drug and alcohol related offences to undertake a health assessment was good practice.

2.2 The PSA described such health assessments as a 'significant tool, which identifies underlying health difficulties that may pose a risk to the public' that might not otherwise be uncovered. They recommended that other regulators should consider adopting this practice, whilst acknowledging that regulators would need to adopt a proportionate approach, taking into account the circumstances of individual cases and the costs of such assessments. The PSA has on occasion restated this view when commenting on the HCPC.[4]

3. The HCPC's approach

3.1 The police normally notify us about criminal proceedings involving registrants where they decide there is a pressing need, this includes proceedings for drug and alcohol related offences. This information is also received through other sources, including self-referrals from registrants and information from employers.

3.2 Once received, the Executive will gather the information necessary to determine whether the matter meets the 'Standard of acceptance for allegations'. The standard of acceptance says the following.

Drink-driving offences should be regarded as meeting the standard of acceptance if:

- *the offence occurred in the course of a registrant's professional duties, en route to or directly from such duties or when the registrant was subject to any on-call or standby arrangements;*
- *there are aggravating circumstances connected with the offence (including but not limited to failure to stop or only doing so following a police pursuit, failure to provide a specimen, obstructing police, etc.);*
- *the penalty imposed exceeds the minimum mandatory disqualification from driving (12 months, with or without a fine); or*
- *it is a repeat offence.*[5]

3.3 If a case meets the Standard of acceptance, it will be considered by an Investigating Committee panel to decide whether there is a case to answer and if so, whether the case should be referred to the Conduct and Competence Committee or the Health Committee.

[4] Professional Standards Authority (2013). Performance review 2012-13. http://www.professionalstandards.org.uk/docs/scrutiny-quality/performance-review-report-2012-13.pdf?sfvrsn=0

[5] HCPC (2015). Standard of acceptance for allegations. http://www.hcpc-uk.org/assets/documents/100042ACStandardofAcceptanceJuly2013.pdf

3.4 There is no provision in the Health and Social Work Professions Order 2001 to compel registrants to undergo a health assessment or produce medical documents in these types of cases. If a matter is referred to the Health Committee, panels can invite a registrant to undergo a medical examination (but they cannot be compelled to undergo such an assessment).[6] However, the majority of cases which involve cautions and convictions are considered by the Conduct and Competence Committee.

3.5 The above approach means that registrants convicted of drug or alcohol offences are not invited to undergo a health assessment routinely. The case-by-case approach to the investigation means that information will be gathered to establish the circumstances of offences to assist in determining whether the Standard of acceptance is met and whether there is a case to answer. Health information is often provided during the course of investigations, for example, in mitigation by registrants, in information from their employers or is self-evident on the face of the complaint.

3.6 When this issue has been considered before, the Executive and Fitness to Practise Committee agreed that maintaining the existing case-by-case approach was preferable for the following reasons.

- There is a lack of conclusive evidence identified to date to support the suggestion that a conviction for a drug or alcohol related offence is indicative of an underlying health condition.

- The fitness to practise of a registrant with a health condition will not necessarily be impaired as they may be able to manage their condition so that it does not impact upon their ability to practise safely and effectively.

- Given the above, asking every registrant with a drugs or alcohol related conviction to undergo a health assessment may be disproportionate (and may unnecessarily add to costs and to the length of time of cases).

- Panels already consider allegations thoroughly to decide whether a registrant's ability to practise safely and effectively is negatively affected.

- The HCPC does not have powers to compel a registrant to undergo a health assessment in any event.

3.7 Our approach in this area was last reviewed by the Fitness to Practise Committee in February 2013. The Committee considered information about the approach of other regulators and the outcomes of research undertaken by the Picker Institute looking at public perceptions of 'public protection' and the factors that impair fitness to practise.[7] The Committee was content with continuing with the existing case-by-case approach.

[6] Health and Care Professions Council (Health Committee) (Procedure) Rules 2003
[7] Fitness to Practise Committee, 14 February 2013. Public protection research

3.8 Appendix 1 gives some information about cases involving drug or alcohol related offences in 2014-15.

4. The approach of the other regulators

4.1 Alongside the commissioned research, the Fitness to Practise Department contacted the other regulators (including the social worker regulators in the other countries) to update our understanding of their approaches in this area and to request data from the previous financial year (2013-14). A summary of what we can conclude from the responses follows.

- Five regulators (including the GMC, General Dental Council and Nursing and Midwifery Council) routinely request health assessments (although there is some variation in the detail of approaches).

- Four regulators (including the General Optical Council and the social work regulators in Scotland, Wales and Northern Ireland) make the decision on whether to request a health assessment on a case-by-case basis. The approach of one regulator was unclear.

- The number of health assessments undertaken by each regulator was, as expected, generally higher for those regulators that routinely request them than those that adopt a case-by-case approach (although these are also the regulators with the largest numbers of registrants).

- It is difficult to assess whether the health assessments exposed underlying health concerns otherwise not apparent as some regulators were unable to provide this information without reviewing each individual case, or answered a question on this in varying ways.

- The average cost of a health assessment based on the data provided (nine responses) was £932.85 for alcohol related offences and £954.96 for drug related offences. This may be because of different localities; different contractual arrangements; different levels of expertise; and different levels of assessment (for example, hair or blood testing). In any case, it is clear that health assessments are an additional cost to the investigation of a case and that it is difficult to accurately quantify that cost.

- The average length of time a health assessment adds to a case also varies between the regulators - in all cases it is at least over one month but in some cases considerably more.

http://www.hcpc-uk.org/assets/documents/10003EC3enc06-Publicprotectionresearch.pdf

5. Commissioned research

5.1 In late 2014, the Executive commissioned a research team at King's College London to undertake a literature review into the evidence about the relationship between cautions and convictions for alcohol related offences and alcohol dependency and fitness to practise / work.

5.2 The literature review was targeted on alcohol related offences given this was the focus of the PSA's position on this topic. We also receive more cases related to alcohol related offences than drug related offences.

5.3 The intention was that this literature review would inform evidence to the Health Committee when it next called us to appear. As the Committee did not request that we appeared the following year, the research team were given more time to complete this work.

5.4 The final report was agreed in January 2015 and is appended at appendix 2.

5.5 The following provides a brief summary of the key findings of the research which the Executive wishes to bring to the Council's attention.

- The literature found was drawn from western, English speaking countries, particularly the US and Canada. As a result applicability to the UK may be very limited – for example, because of differences in societal and judicial responses to drink driving (e.g. different drink drive limits).

- The review focused on drink driving offences rather than all criminal offences that could be interpreted as being alcohol related.

- There is generally a lack of evidence on cautions and convictions for alcohol related offences that can be directly linked to fitness to practise.

- The quality of the evidence found was variable.

- Individuals in managerial and professional occupations are more likely to drink more heavily than those in manual occupations.

- Individuals who drive after drinking are more likely to be male and younger men are more at risk.

- Drink drivers are overall more likely to have a diagnosis of an alcohol use disorder compared to community samples, and higher rates of psychiatric disorders and drug use disorders.

- There is variable evidence on the prevalence of alcohol use disorders amongst drink drivers (e.g. 3.8% in Poland; 15% in a US study).

- In the UK, there is currently no firm data on the proportion of drink drivers who also have alcohol problems.

- Individuals with two or more drink driving convictions show a greater severity of alcohol dependence than those with none or one conviction.

5.6 The researchers made six recommendations as a result of the literature review. Appendix 3 lists those recommendations with a response to each from the Executive.

5.7 In summary, the Executive does not agree with most of the recommendations made by the research team. The Executive would make the following observations.

- The evidential basis for the recommendations made is limited, particularly given a lack of evidence from the UK context, variable study quality and a lack of studies found which are focused on health and care professionals.

- The literature review does not provide a rationale or justification for the recommendations made and overall there is a lack of discussion describing how the findings in the literature relate to the research questions. As a result, some of the grey and peer reviewed literature cited does not appear to be relevant to the research questions.

- Some of the recommendations stray into the public health arena and suggest actions which are beyond our remit as a regulator.

- The recommendation that routine health assessments should be introduced is not explained and does not appear to be supported by the review which appeared to find little evidence about the role of such health assessments in managing the fitness to practise of individuals with alcohol use disorders.

- There is some useful evidence indicating a relationship between drink driving and alcohol use disorders but a lack of evidence found in the review which links this to impaired fitness to practise or work performance.

- The literature indicates that registrants with multiple convictions for drink driving are more likely to have alcohol dependency problems, supporting the proportionate approach taken in the standard of acceptance (see paragraph 3.2).

- Overall, the Executive considers that there continues to be a lack of conclusive evidence which would indicate that a change in approach is required or merited.

6. Conclusions

6.1 The Executive has made the following conclusions.

- There are a variety of different approaches amongst the other regulators, some of whom also adopt a case-by-case approach.

- There is inconclusive evidence – found in the literature or in the data collected from the other regulators – about the value of health assessments in identifying underlying health issues in these cases that were not otherwise apparent from other information collected as part of the investigation.

- Given the above, a policy of requesting health assessments routinely would be disproportionate, unnecessarily costly and unnecessarily delay the progression of cases.

- The literature review did find some limited evidence of a link between alcohol related offences and alcohol dependency but has not revealed any conclusive evidence that a change in approach is necessary.

6.2 The Council is invited to:

- discuss this paper and appendices including the findings of the literature review; and

- agree that the HCPC should maintain its existing case-by-case approach to managing cases where registrants are cautioned or convicted of drug or alcohol related offences.

6.3 This decision may need to be revisited in the light of any future changes to our legislation.

Appendix 1: Cases involving drug or alcohol related convictions (opened during 2014-15)

Investigating Committee Panel – ICP

Conduct and Competence Committee - CCC

	Summary of conviction or caution	**Outcome of FTP case**	**Comments**
1	Conviction in 2014 for a drink drive offence – disqualified from driving for 20 months and fined.	ICP - no case to answer.	The ICP took into account the Registrant referred the matter to their employer at an early stage and had complied with their requests for tests and demonstrated insight. Of the view it was a one-off incident.
2	Conviction in 2013 for a drink drive offence – disqualified from driving for 12 months.	Case did not meet the Standard of acceptance.	
3	Conviction in 2014 for a drink drive offence – disqualified from driving for 12 months.	Case did not meet the Standard of acceptance.	
4	Police caution in 2014 for possession of MDMA (class A).	ICP - no case to answer.	The ICP took into account the Registrant had demonstrated insight; had attempted to address their stress by attending counselling sessions; and that they were supported by their employer. Of the view it was a one-off incident.
5	Conviction in 2014 for one offence of possessing and two offences of supplying MDMA – sentenced to 14 months imprisonment suspended for 24	CCC - not well found at the impairment stage.	The CCC was satisfied on the evidence that the Registrant was remorseful and had demonstrated insight. Further that the offences were committed outside of the scope of their professional practice and were isolated to a particular set of circumstances. The CCC

	months and a community service order.		also took into account a number of positive testimonials about the Registrant.
6	Conviction in 2014 for a drink drive offence – disqualified from driving for 20 months.	ICP - no case to answer.	The ICP took into account the Registrant had self-referred and there was no evidence of any wider alcohol issues.
7	Conviction in 2014 for a drink drive offence and other offences relating to the same incident – disqualified from driving for 12 months and fined.	ICP - no case to answer.	The ICP took into account the Registrant had self-referred; the incident occurred when they were a student and did not relate to their working practices; and they were supported by their employer. Of the view it was a one-off incident.
8	Conviction in 2014 for a drink drive offence – received 10 penalty points and fined.	ICP - no case to answer.	The ICP took into account that the Registrant had demonstrated remorse and insight and the incident did not relate to their work. Of the view it was a one-off incident.
9	Police caution in 2014 for the possession of cocaine (class A).	CCC - caution for two years.	The CCC was satisfied on the evidence that: • the Registrant had developed insight and had undertaken counselling and reflected on their conduct; • the incident was an isolated lapse and the risk of repetition was low; • there were no wider health or behavioural issues; • the Registrant had made early admissions to the police, their employer and the HCPC; and • the incident did not relate to their work.
10	Conviction in 2007 for a drink drive offence – disqualified from driving for 16 months and fined.	ICP - no case to answer.	The ICP took into account that offence for the single conviction occurred 7 years previously and there had been no repetition of similar behaviour.

11	Conviction in 2014 for a drink drive offence – disqualified from driving for 13 months and fined.	ICP - no case to answer.	The ICP took into account the Registrant had demonstrated insight and had the support of their employers. Of the view it was a one-off incident.
12	Conviction in 2014 for a drink drive offence – sentenced to 3 months imprisonment suspended for one year and disqualified from driving for 20 months.	CCC - not well found at the impairment stage.	The CCC was satisfied on the evidence that the Registrant: • had demonstrated insight; • had a number of personal circumstances causing them stress at the time; • no longer abuses alcohol (the CCC received evidence from the Registrant's GP) and had developed other mechanisms to deal with stress; • made immediate admissions to the police and self-referred to their employer and the HCPC; and • had an unblemished record previous to the incident.
13	Conviction in 2014 for a drink drive offence – disqualified from driving for 17 months and fined.	ICP - no case to answer.	The ICP took into account the Registrant had demonstrated insight and was of the view that the incident was a one-off.
14	Conviction in 2014 for a drink drive offence – disqualified from driving for 3 years and a community service order.	ICP - no case to answer.	The ICP took into account the Registrant had demonstrated insight; the personal circumstances of the Registrant at the time of the offence; their assurances that they will control their use of alcohol in future and not use it as a coping mechanism; and a number of positive testimonials. Of the view it was a one-off incident.
15	Police caution in 2014 for possession of methylmethcathinone (class B).	ICP - no case to answer.	The ICP took into account the Registrant had demonstrated insight and was supported by their employer. Of the view it was a one-off incident.

16	Police caution in 2010 for possession of cocaine (class A).	ICP - no case to answer.	The ICP took into account the Registrant had demonstrated insight. It also noted a number of positive testimonials. Of the view it was a one-off incident.
17	Conviction in 2014 for a drink drive offence.	ICP - case to answer.	Aggravated by additional allegation that on a separate occasion the Registrant attended work under the influence of alcohol consumed the evening before. The case will be considered at a final hearing in due course.
18	Conviction in 2014 for a drink drive offence – disqualified from driving for 12 months and fined.	Case did not meet the Standard of acceptance.	
19	Conviction in 2014 for a drink drive offence – disqualified from driving 20 months and fined.	ICP - no case to answer.	The ICP took into account the Registrant had demonstrated insight and was supported by their employer. Of the view it was a one-off incident.
20	Conviction in 2014 for a drink drive offence – disqualified from driving for 17 months and fined.	CCC – no sanction.	The CCC was satisfied on the evidence that the Registrant had demonstrated insight; had made admissions to the police, their employer and the HCPC; and was supported by their employer.
21	Conviction in 2014 for failing to provide a specimen – disqualified for 12 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight. It also noted evidence from the Registrant's occupational health physicians that they were managing their health. Of the view it was a one-off incident.
22	Cannabis warning and a police caution for possession of MDMA in 2014.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and was supported by their employer.

23	Conviction in 2013 for a drink drive conviction – disqualified from driving for 17 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and was supported by their employer. Of the view it was a one-off incident.
24	Conviction in 2014 for a drink drive conviction – disqualified from driving for 12 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and was supported by their employer. Of the view it was a one-off incident.
25	Conviction in 2014 for failing to provide a specimen – disqualified from driving for 12 months and fined.	ICP – no case to answer.	The ICP took into account that the incident did not relate to the Registrant's professional practice and they had fully cooperated with the fitness to practise process. Of the view it was a one-off incident.
26	Conviction in 2014 for a drink drive offence – disqualified from driving for 12 months and fined.	Case did not meet the Standard of acceptance.	
27	Conviction in 2014 for a drink drive offence – disqualified from driving for 20 months.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and a number of positive testimonials. Of the view it was a one-off incident.
28	Conviction in 2014 for a drink drive offence – disqualified from driving for 20 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and their explanation of the behaviour and the circumstances in which it occurred. Of the view it was a one-off incident.
29	Conviction in 2014 for a drink drive offence – disqualified from driving for 16 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and there were no other aggravating factors.

30	Conviction in 2014 for a drink drive offence – disqualified from driving for 12 months and fined.	Case did not meet the Standard of acceptance.	
31	Conviction in 2014 for a drink drive offence – disqualified from driving for 42 months and a community service order.	Case was closed as Registrant passed away.	
32	Conviction in 2014 for failure to provide a specimen – disqualified from driving for 14 months and fined.	ICP – no case to answer.	The ICP took into account that the Registrant had demonstrated insight. Of the view it was a one-off incident.
33	Conviction in 2014 for a drink drive offence – disqualified from driving for 32 months and a community service order.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight; the incident occurred outside of their employment; and information from their employer and GP. Of the view it was a one-off incident.
34	Conviction in 2015 for a drink drive offence – disqualified from driving for 32 months and a community service order.	ICP - case to answer	Aggravated as Registrant admitted they were abusing alcohol at the time of the incident. The case will be considered at a final hearing in due course.
35	Conviction in 2014 for a drink drive offence – disqualified from driving for 24 months and fined.	ICP – no case to answer.	The ICP took into account a letter from the Registrant's employer which indicated that the incident was a one-off.
36	Conviction in 2015 for failure to provide a specimen – disqualified from driving for 12 months and fined.	ICP – case to answer.	Aggravated as the Registrant had not declared the conviction to their employer or the HCPC; had been dismissed by their employer; and had not engaged in the regulatory process. There was no evidence of insight or

			remorse. The case will be considered at a final hearing in due course.
37	Conviction in 2014 for a drink drive offence – disqualified from driving for 24 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and was supported by their employer. Of the view it was a one-off incident.
38	Conviction in 2015 for a drink drive offence – disqualified from driving for 17 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and was supported by their employer. Of the view it was a one-off incident.
39	Conditional discharge (12 months) in 2014 for drunk and disorderly behaviour.	Case did not meet the Standard of acceptance.	
40	Conviction in 2015 for a drink drive offence – disqualified from driving for 12 months and fined.	ICP – no case to answer.	The ICP took into account the Registrant had demonstrated insight and had provided evidence in the form of medical and occupational health documentation.

Institute of Psychiatry, Psychology & Neuroscience

at The Maudsley

LITERATURE REVIEW

CAUTIONS AND CONVICTIONS FOR ALCOHOL-RELATED OFFENCES AND THE LINK TO ALCOHOL DEPENDENCY AND FITNESS TO PRACTISE

FINAL REPORT

January 2016

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CONTENTS

EXECUTIVE SUMMARY

This review aimed to explore and draw conclusions from the evidence-based literature in order to determine:

1. the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency;
2. the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work;
3. any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

The review examined:

- relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency;
- the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work;
- the relevant literature about any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

Quality of the evidence

The evidence obtained was mainly from the United States and Canada, but studies from Europe, Australia and New Zealand were also reviewed. It is difficult to determine how applicable the findings are to the UK. There is very little available evidence on cautions and convictions for alcohol-related offences that can be directly linked to fitness to practice and so evidence from the drink-driving literature was used as a proxy measure. The quality of the evidence is also variable. The best evidence is provided by cohort studies that have sought to control for confounding factors. Evidence from weaker studies has been included as supplementary evidence to support key findings: the review was modelled on NICE (National Institute for Health and Care Excellence) review methodology.

GLOSSARY OF TERMS AND ABBREVIATIONS

AUD	Alcohol Use Disorder
AUDIT	Alcohol Use Disorders Identification Test
DALYS	Disability-adjusted life years
DSM-III-R	The Diagnostic and Statistical Manual of Mental Disorders (DSM), published by the American Psychiatric Association (APA)
DUI	Driving under the influence
DUIA	Driving under the influence of alcohol
DRUID	Driving under the Influence, Drugs, Alcohol and Medicines
DVLA	The Driver and Vehicle Licensing Authority
GLS	The General Lifestyle Survey
HCPC	The Health and Care Professional Council (HCPC) is an independent professional regulator responsible for regulating the members of 16 different healthcare professions
ICD 10	International Classification of Diseases Version 10
NICE	National Institute for Health and Care Excellence
NR	Not reported
PTSD:	Post-traumatic stress disorder
RCP	Royal College of Physicians
RCPsych	Royal College of Psychiatrists
RCGP	Royal College of General Practitioners
RTC	Road traffic collision
WHO	World Health Organisation,

CONTEXT

THE HEALTH AND CARE PROFESSIONS COUNCIL AND FITNESS TO PRACTISE

The Health and Care Professional Council (HCPC) is an independent professional regulator responsible for regulating the members of 16 different professions, and has approximately 320,000 registrants. The HCPC currently regulates the following health and care professions: arts therapists, biomedical scientists, chiropodists / podiatrists, clinical scientists, dieticians, hearing aid dispensers, occupational therapists, operating department practitioners, orthoptists, paramedics, physiotherapists, practitioner psychologists, prosthetists / orthotists, radiographers, social workers in England, speech and language therapists.

The HCPC can take action if a professional on the register falls below the required standards. Someone who is fit to practise is defined as having “the skills, knowledge and character to practise their profession safely and effectively”. Fitness to practise also includes acts by a registrant which may have an impact on public protection or confidence in the profession or the regulatory process. Fitness to practice proceedings are designed to protect the public from those who are not fit to practise. They are not designed to be punitive to registrants.

Until its repeal in March 2015, the nursing and medical professions fell under category 1 of the notifiable occupations scheme (Home Office Circular 6, 2006), as professions which carry special trust or responsibility, in which the public interest in the disclosure of conviction and other information by the police generally outweighs the normal duty of confidentiality owed to the individual. This means that police forces will routinely notify the HCPC when its registrants are convicted or cautioned for a criminal offence (if their profession has been correctly recorded by the police and/or court service. (This scheme has now been replaced with “police led Common Law Police Disclosure" (www.gov.uk, 2015) and guidance is awaited.

AIM AND OBJECTIVES

This report is an evidence-based literature review which meets the following objectives:

- To explore and draw conclusions from the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency;
- To explore and draw conclusions from the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work;
- To explore and draw conclusions from the relevant literature about any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

FINDINGS OF THE REVIEW

The main findings of the review are presented below. The methodology used to identify the evidence can be found in Appendix 1. The specific articles from which the evidence has been derived can be found in the Evidence Grid in Appendix 2. In all there were 25 articles upon which the recommendations have been based. The findings have been summarised in relation to the objectives (evidence statements) set out on page 6 and modelled upon the NICE review approach used by Killoran et al (2010).

EVIDENCE STATEMENT 1

- To explore and draw conclusions from the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency;

Risk factors for driving under the influence of alcohol (date from self-report surveys of driving after drinking in national samples)

- Self-reported 12-month prevalence rates of driving after drinking have declined in men but not in women.
- Drinking drivers compared with non-drinking drivers are more likely to be male; to be unmarried; to have a full-time job and a higher income.
- Individuals who are widowed/separated/divorced or never married are at greater risk of driving after drinking.
- Young men between 18-29 years report the highest rates of driving after drinking.
- Binge drinking is strongly associated with alcohol impaired driving

One study from the United States found a 22% decline in 12-month prevalence rates for drink driving between 1991-2 (3.7%) and 2001-2 (2.9%) (Chou et al, 2005, [++]). The decline was observed in men (5.8% vs 4.4%) but there was no change in rates for women. Young men between 18-29 years had the highest rates (11.6% vs 7.8%).

Results from a United States national epidemiologic survey on alcohol and related conditions (Chou et al, 2006,[+]) indicated that 11.3% of American adults reported engaging in at least one of four driver- or passenger-based drinking and driving behaviours (the passenger-based drinking and driving behaviours were greater than the driver-based measures). Age was inversely associated with risk and males were at greater risk with the male-to-female ratio being 3:1. Native Americans, and individuals who were widowed/separated/divorced or never married and those with a greater than high school education were all at greater risk of drinking and driving behaviours.

A Canadian study (Beirness and Davis, 2007 [+]) found that 11.6 % of licensed drivers reported driving after drinking. Less than 5% of licensed drivers accounted for more than 86% of the past-year drinking and driving occurrences. Drinking drivers compared with non-drinking drivers: more likely to be male, unmarried, to have a full-time job, higher income. They were more likely to have extensive problematic use of alcohol and more likely to report drug use.

In addition, a retrospective analysis of longitudinal data, collected from annual telephone surveys, using a brief health risk and health services questionnaire conducted in all states across America (Quinlan et al, 2005, [+]) found that alcohol impaired driving increased from 123 million in 1993 to 159 million in 2002. Over 80% of episodes were reported by those who also reported binge drinking.

Estimation of prevalence of Alcohol Use Disorders in national roadside samples

- About half of the drivers with high Blood Alcohol Concentration (BAC) values (over 0.08g/dl) meet criteria for an Alcohol Use Disorder (AUD). However most high BAC drivers do not show any clinical signs of an AUD but could be categorised as heavy drinkers.

One study from the USA (Furr-Holden et al, 2011, [++]) estimated the prevalence of AUDs among a sample of drivers at the roadside and found that 14% of all current

drinkers among weekend night-time drivers could be classified as either dependent or abusive. An additional 10% of the current drinkers reported heavy drinking. Nearly half of the drivers with high-BAC levels (over 0.08g/dl) fell into one of the three AUD categories. However most of the high BAC driver did not show any clinical signs of an alcohol use disorder but were categorised as heavy drinkers.

Comparison of prevalence of Alcohol Use Disorders (AUDs) in samples of drink-driving offenders with the prevalence of AUDs in national epidemiological samples

- Drink driving offenders have higher rates of AUDs and psychiatric disorders compared with community samples and should undergo assessment and treatment services for alcohol, drug and psychiatric disorders.
- Early intervention has the potential to reduce recidivism and crash rates.
- Follow-up of first offender DWI samples indicates a degree of persistence of addiction (alcohol dependence) and further risk of crash involvement.
- Younger age of initiation of drinking and co-occurrence of psychiatric and substance use appear are associated with a poorer trajectory of subsequent risky drinking behaviour.
- Women who are convicted of driving while impaired appear to start drinking later in life and are more likely to become abstainers than men.

An American study (Lapham et al, 2001,[++]) compared DSM-III-R diagnoses of lifetime and 12-month alcohol, drug use and psychiatric disorders in a sample of drink-driving offenders from New Mexico with prevalence rates for similar disorders from the National Comorbidity Survey (NCS) for the western region of the United States. They found that 85% of female and 91% of male offenders reported a lifetime alcohol use disorder compare with 22% and 44% respectively in the NCS. Of those with an AUD, 50% of women and 33% of men had at least one additional psychiatric disorder, mainly PTSD or major depressive disorder. They concluded that drink driving offenders needed assessment and treatment services for alcohol, drug and psychiatric disorders and that early intervention had the potential to reduce recidivism and crash rates.

Further work by this American research group investigated psychiatric disorders in repeat impaired-driving offenders (Lapham et al, 2006, [++]). Sixty-five present of men and 79.7% women had at least one lifetime disorder comorbid with alcohol abuse or dependence. They recommended that treatment services should be comprehensive and include care for both drug-use disorders and other psychiatric disorders.

The same group carried out a longitudinal study of a first-offender driving while impaired (DWI) sample, and reported elevated rates of alcohol abuse or dependence at 15 year follow-up, compared with respective rates in community samples, particularly among women (Lapham et al, 2011, [++]). These findings indicate a degree of persistence of addiction. Those with a lifetime diagnosis of alcohol dependence reported twice the rate of driving over the limit when compared with subjects reporting no diagnosis of an AUD. This first-offender population was also at high risk of crash involvement: rates of major depressive disorder and of post-traumatic disorders at follow-up were similar to rates in community samples).

Another report on this follow-up sample from the same authors (Lapham et al, 2012 [++]) found that younger age of initiation of drinking and co-occurrence of psychiatric and substance use appear to be associated with a poorer trajectory of subsequent risky drinking behaviour. Women who are convicted of driving while impaired appear to start drinking later in life and are more likely to become abstainers than men.

Relationship between severity of alcohol dependence and number of drink driving convictions

- Individuals with two or more drink driving convictions show a greater severity of alcohol dependence than those with none or one conviction.
- Individuals with two or more drink-driving convictions also have a higher prevalence of co-occurring lifetime psychiatric disorders.
- Women with two or more drink-driving convictions and who have a sibling with alcohol dependence show evidence of greater physiological and behavioural dependence on alcohol than men with a drink driving conviction.

A study using siblings of probands from the Collaborative Study on the Genetics of Alcoholism (McCutcheon et al, 2009, [++]) showed that those with two or more DUIs showed greater severity of alcohol dependence than those with none or one DUI. Those with two or more DUIs also had a higher prevalence of co-occurring lifetime psychiatric disorders compared with other studies of DUI offenders. Gender differences were uncovered: women with DUIs in this high risk sample showed evidence of greater physiological and behavioural dependence on alcohol than men with DUIs. They were more likely to drink despite negative consequences such as marital, health and emotional problems. Women had less success with quitting drinking than men. There was evidence that women who had committed even one DUI offence deviated more from women than do their male counterparts, suggesting greater behavioural under-control in women with DUIs.

Attitudes to drink driving offences and likelihood of future convictions

- Men with a drink-driving conviction may view this as a one-off mishap, and many continued to drink. Those who show a tendency to rationalise their conviction may have a higher likelihood of future DUI convictions.

A Japanese study (Okamura et al 2014, [+]) explored DUI-specific attitudes in a sample of male DUI offenders. Between one quarter and one third of this sample (26-36%) was potentially alcohol dependent, based on information from questionnaires and biomarkers. Most viewed their DUI as a one-off mishap, but many continued to drink and a subgroup showed a tendency to rationalise their DUI and were thought to have a higher likelihood of future DUI convictions.

Many DUI offenders lack insight into their DUI behaviour. They are likely to overestimate their capability to drive after drinking (Freeman et al, 2005 [-]) and need help to reflect on their past behaviour.

Relationship between drink driving and ethnicity

- There is limited support for the presence of ethnic disparities in rates of driving under the influence of alcohol (DUIA) as disparities disappeared after adjusting for the role of alcohol consumption.

A Canadian study (Ashbridge et al, 2010, [++]) provided limited support for the presence of ethnic disparities in rates of driving under the influence of alcohol (DUIA): disparities disappeared after adjusting for the role of alcohol consumption using AUDIT data (consumption patterns, binge drinking, adverse consequences). The authors concluded that the way in which ethnicity or race has been applied to many research studies in this field may be flawed.

EVIDENCE STATEMENT 2

- To explore and draw conclusions from the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work;

Alcohol related deaths by occupation

- Examining alcohol-related deaths by occupation in England and Wales reveals that the highest alcohol-related mortality rates were found in people working in the drinks industry

The Office of National Statistics (Health Statistics Quarterly, 2007, [++]) identified those occupations with the highest and lowest indicators of alcohol-related mortality between 2001 and 2005. Of 16, 666 alcohol-related deaths those in employment aged between 20 and 64 years, there were twice as many deaths among men (13, 001) as women (3, 655). It was noted that employment appears to have a generally protective effect against alcohol-related mortality for women.

High Risk Offender Schemes

- A system for identifying high-risk drink-drivers and a requirement for medical assessment to demonstrate fitness to drive for relicensing purposes is common practice

Many countries in Europe and in North America have schemes in place to ensure that repeat drink-drivers are kept off the roads. These individuals require medical assessment and confirmation that their drinking is within safe limits prior to return of their licences. For instance, in the UK the DVLA runs a High Risk Offender Scheme which required, that for relicensing purposes. In 2012, half of the 50,000 drivers who were banned for drinking-driving offences underwent a medical examination and blood tests (%CDT) to assess drinking behaviour prior to having their licence returned (DVLA Panel Minutes, 2013).

A study by Latata-los et al, 2014 [+]) of convicted drink-drivers referred to the Centre of Occupational Medicine in Poland for assessment in relation to relicensing (N: 5701 cases) found that 3.8% were diagnosed as alcohol dependent and 5% as having mental health issues.

In another study, of 21,135 offenders in Kentucky who underwent assessment, 15% met criteria for alcohol dependence (32% met criteria for lifetime alcohol abuse criteria) and 23% had multiple convictions (Webster et al, 2010 [-]).

EVIDENCE STATEMENT 3

- To explore and draw conclusions from the relevant literature about any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

Effectiveness of health assessments (diagnosis of Alcohol Use Disorders in drink-drive offenders)

- There is some evidence that under-reporting of alcohol use disorders in health assessments of those assessed following drink-driving offences
- There is some evidence that under-reporting of mental health disorders in health assessments of those assessed following drink-driving offences
- There is no evidence to suggest that personalised feedback reduces alcohol consumption in employees following an online health check

In an American study, Lapham et al (2004,[+]) evaluated the accuracy of offender alcohol diagnoses at screening by comparing the diagnosis in convicted 'driving under the influence offenders' with self-reported information from the same individuals 5-years later (in a voluntary interview). It was noted that missed diagnosis by the authority screening systems is a missed treatment opportunity.

In another study by the same group (Lapham et al, 2006, [++]) alcohol- and drug-use disorders and other psychiatric disorders were assessed using the DSM-IV in a sample of repeat driving under the influence (DUI) offenders. The offenders interviewed (385 men, 74 women) were also assessed using the Composite International Diagnostic Interview. Sixty-five percent of men and 79.7% of women had at least one lifetime disorder comorbid with alcohol abuse or dependence. The most prevalent lifetime non-substance-use disorder was major depressive or dysthymic disorder (30.9%) followed by PTSD (15.3%). It was recommended that assessment and treatment services for repeat alcohol-impaired driving offenders should be sufficiently comprehensive to provide care for drug-use disorders and other psychiatric problems.

In a further study (Korzec et al, 2001[+]) undertaken in Europe the diagnosis of alcohol dependence was investigated in high-risk drinking drivers comparing different diagnostic procedures with estimated prevalence of hazardous alcohol use. It was found that specific tools are required for accurately diagnose AUDs such as the SCID or CAGE.

Furthermore in a randomised controlled trial employees (N: 3,375) were recruited to take part in an online screening health check (including the AUDIT questionnaire) and brief alcohol intervention delivered in a workplace setting. Participants were mostly male (N: 75%) from the UK-based private sector organisation. The study found no evidence to suggest the use of personalised feedback within an online health check was helpful in reducing alcohol consumption among employees ((Khadjesari et al, 2014, [++]).

Remedial interventions with drink-drive offenders

- Treatment effects are probably underestimated in the literature due to over emphasis on education as a treatment for all offenders

A meta-analysis of the efficacy of remediation with drinking/driving offenders, which included 215 studies, found that the average effect of remediation on drinking/driving recidivism was an 8-9% reduction over no remediation (Wells-Parker et al, 1995 [++]). A combination of modalities, in particular those including education, psychotherapy/counselling and follow-up contact/probation, were more effective than other evaluated modes for reducing drinking/driving recidivism. It was concluded that treatment effects are probably underestimated in the literature due to overemphasis on education as a treatment for all offenders.

Brief interventions as part of health assessments

- Brief interventions are effective in reducing drink-driving offences and should be considered as part of a general health assessment
- Brief interventions are effective in the workplace for increasing alcohol–free days

In a naturalistic follow-up study of individuals initially untreated for alcohol problems, more extended participation in out-patient treatment and affiliation to AA was associated with a lower likelihood of driving while intoxicated (DWI) at one-years follow-up (Timko et al, 2010, [++]). Extended participation in AA over the first three

years was associated with a lower likelihood of reoffending (14%) at 16-year follow up (Timko et al, 2010, [++]). The study recommended that treatment providers consider actively referring individuals to AA to ensure ongoing affiliation.

In a randomised clinical trial to investigate the effectiveness of brief intervention (BI) conducted in the workplace for heavy drinkers. 304 participants were recruited from six companies in Japan and randomized into three groups: the brief interventions group (BI) group, BI with diary group and a control group: 277 participated in all follow-up evaluations. Alcohol-free days in the BI group were significantly increased by 93.0% at 12 months and total drinks at 12 months were reduced by 41 g per week in the BI group compared with the control group. It was concluded that BI in the workplace is effective for increasing the number of alcohol-free days. However, the effectiveness on decreasing alcohol consumption was unclear (Ito et al, 2015, [++]).

Workplace programmes

- Workplace programmes have the potential to prevent and reduce alcohol-related problems among employees

A review by (Roman and Blum, 2002 [+]) considered the literature between 1973 and 2000 concerning opportunities for workplace prevention and employer assistance programmes (EAPs) for employees with AUD and concluded that EAPS have considerable potential but further research is needed.

In a systematic review of workplace programmes employing brief interventions contained within health and lifestyle checks, psychosocial skills training and peer referral have the potential to produce results. However, it was noted that there were few methodologically adequate studies of work-place alcohol interventions (Webb et al, [++]). Further research is needed to develop this approach in the UK.

SUMMARY STATEMENT

There was limited evidence on the relationship between convictions and cautions for alcohol-related offences and alcohol dependency in the UK. There was also a lack of UK evidence on the relationship between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work, particularly in the health-related professions. Consequently, information has been sought from the international literature about this and associated issues.

Key findings are as follows:

Individuals who drive after drinking are more likely to be male and younger men are more at risk. Other at-risk characteristics include being unmarried (this includes being widowed/separated/divorced or never married); and of having a full-time job and a higher income.

About half of individuals convicted of drink-driving convicted meet criteria for an AUD. However most convicted drivers with a high BAC do not meet criteria for an AUD, but could be categorised as heavy drinkers.

Overall convicted drink-drivers are more likely to have a diagnosis of an AUD compared with community samples. Convicted drink-drivers are more likely to have higher rates of co-morbidity for lifetime psychiatric disorders and drug use disorders than the general population. Follow-up of first offender drink-driving samples indicates a degree of persistence of addiction (alcohol dependence) and further risk of crash involvement.

Individuals who meet criteria for alcohol dependence are over-represented in all alcohol-related road traffic collisions (RTCs), and in those who continue to drink and drive. Younger age of initiation of drinking and co-occurrence of psychiatric and substance use appear are associated with a poorer trajectory of subsequent risky drinking behaviour.

Women who are convicted of driving while impaired appear to start drinking later in life and are more likely to become abstainers than men. However women who offend repeatedly (>2) are more likely to continue drinking despite illness or health problems.

Early intervention has the potential to reduce recidivism and crash rates. A meta-analysis carried out on convicted drink-drivers demonstrated that treatment reduces reoffending and RTCs to a greater extent than criminal justice measures such as fines and licence suspensions.

RECOMMENDATIONS

1. It is recommended that HCPC registrants should be required to report all drink driving incidences to their employer;
2. Those who report a conviction for drink-driving in the last 3 years should undergo a formal assessment to investigate for alcohol and drug use disorders and also for co-morbid psychiatric disorders;
3. The HCPC should consider providing a generic leaflet for individual registrants with a drink-driving conviction, signposting them to their GP, and possibly a local drug and alcohol service and/or to mutual aid groups.
4. Workplaces employing HCPC-registered staff should have workplace drug and alcohol policies and these should be audited;
5. The HCPC should consider providing a health and well-being leaflet for all individual registrants that should include general advice/guidance on safe drinking levels and signposting to helpful websites such as NHS Choice, GP and mutual aid groups and;
6. Early detection is important for women. More intense interventions/treatment at an earlier stage may reduce recidivism. This is important for women who are more likely to have psychiatric co-morbidity and are less likely to seek early help for drinking problems;

BACKGROUND TO THE REVIEW

ALCOHOL CONSUMPTION AND ALCOHOL USE DISORDERS

The 2011 Health Survey for England (HSCIC, 2012) reported that 34% of men and 28% of women drank more than the recommended daily levels (4 units for men and 3 units for women) on at least one day in the previous week. The proportions of men and women exceeding recommended guidelines on at least one day in the last week were: 32 and 31% (16 to 24 years), 39 and 34% (25 to 44 years), 38 and 33% (45 to 64 years), and 20 and 12% (over 65 years) respectively. Similar patterns were evident for heavy drinking (exceeding 8/6 units) and very heavy drinking.

Public Health England estimated that in 2013-2014, 9 million people in England were drinking at levels that would pose a risk to their health; 1.6 million had some degree of dependence and 250,000 were moderately or severely dependent on alcohol (Public Health England, 2014). However, despite only 6.4% of dependent drinkers accessing treatment (NICE, 2011), the Department of Health estimates that the harmful use of alcohol costs the National Health Service around £3.5 billion per year and 7% of all hospital admissions are alcohol related (ONS, 2011). Indeed, disease burden is closely related to average volume of alcohol consumption, and, for every unit of exposure, is strongest in poor people and in those who are marginalised from society (Rehm et al, 2009). It has been estimated that the costs associated with alcohol use amount to more than 1% of the gross national product in high-income and middle-income countries, with the costs of social harm constituting a major proportion in addition to health costs (Rehm et al, 2009). In the workplace, alcohol misuse in England costs around £7.3 billion annually from lost productivity and absenteeism (Khadjesari et al, 2014); in Australia High-risk drinkers were up to 22 times more likely to be absent from work due to their alcohol use compared to low-risk drinkers. Short-term high-risk drinkers were also significantly more likely to be absent from work due to any illness or injury than employed low-risk drinkers (Roche et al, 2008).

The 2007 Adult Psychiatric Morbidity Survey (APMS) for England reported that the highest levels of alcohol dependence were found in men between the ages of 25 and

34 (16.8%) and women between the ages of 16 and 24 (9.8%) (McManus et al, 2009).

DEFINITIONS OF ALCOHOL USE DISORDERS (AUDs)

In the UK the consumption of alcohol is measured in “units”. One unit of alcohol is equivalent to 10ml of pure ethanol or 8 grams of alcohol. The following definitions are commonly used to characterise types of drinking behaviour (see Table 1).

Low risk: Individuals drinking not more than 2-3 units of alcohol per day for women and 3-4 units per day for men. This group typically drinks below the recommended weekly limits currently (≤14 units for women and ≤21 units for men (RCP, RCPsych, RCGP, 1995).

Binge drinking: This is defined as the consumption of ≥8 units during one drinking episode for men and ≥6 units during one drinking episode for women.

Increasing risk (hazardous drinking): This is defined as individuals drinking over the recommended weekly limit but without experiencing any alcohol-related problems. Such individuals will not usually seek treatment for an alcohol problem, although some realise that their drinking is putting them at risk. They will typically score 8-15 on the Alcohol Use Disorders Identification Test (AUDIT) (Babor et al, 2001).

Higher risk (harmful drinking): This is defined in ICD 10 (WHO, 2004) as a pattern of drinking which is already causing damage to health. Harmful drinking applies to those individuals drinking over the medically recommended levels, i.e., more than 50 units (400g) of alcohol per week for men and 35 units (280g) per week for women. This group will usually score 18-19 on the AUDIT.

Alcohol dependence: This is defined according to ICD 10 criteria (WHO, 2004). A diagnosis should only be made if three or more of the following criteria have been present at the same time during the previous year: compulsion to drink; experiencing withdrawal symptoms if intake is reduced or stopped and persistence in using

alcohol despite clear evidence of harm; continued use of alcohol despite recurrent negative (social, psychological and/or physical) consequences; evidence of physical dependence including the need to take increasing amounts for the same effect (tolerance); negative physiological symptoms when alcohol consumption ceases (withdrawal) and; an inability to stop drinking/compulsion. Individuals meeting criteria for alcohol dependence typically score over 20 on the AUDIT.

Table 1 Defining AUD according to units of alcohol consumed and AUDIT score (after Day et al, 2015)

Alcohol Use Disorders

Risk	Men	Women	AUDIT score
Low risk	<3-4 units per day (<21 units/week)	<2-3 units per day (<14 units/week)	≤7
Increasing risk (Hazardous)	>3-4 units per day (22-49 units/ week)	>2-3 units per day (15-35 units/week)	8-15
Higher risk (Harmful)	Regularly drinking more than 8 units per day (>50 units/week)	Regularly drinking more than 6 units per day (>35 units/week)	16-19
Dependence	3 or more of ICD 10 items should have been present at the same time in the past year		≥20

In the United Kingdom, NICE recommends that healthcare professionals should screen for alcohol problems as part of routine practice (NICE, 2011). The AUDIT (Babor, 2001: See Appendix 2) is a 10-item questionnaire that has been developed and validated for the identification of drinkers at increasing or higher risk. It also guides clinicians as to the correct intervention to be offered (e.g. motivational interviewing) (Day, Copello & Hull, 2015). It should be noted that the Chief Medical Officer has recently updated guidance on alcohol consumption, advising than men and women should limit their alcohol consumption to no more than 14 units per week (CMO, 2016). The new guidance has no effect on this report.

ALCOHOL RELATED OFFENCES

Alcohol-related crime is thought to be under-reported. Offenders are rarely tested for the presence of alcohol when caught, except in specific incidents such as injury caused by drink driving.

There are two main categories of alcohol-related offence:

(1) “Alcohol-defined” offences which include drunkenness offences or driving with excess alcohol and;
(2) Offences committed when the offender was under the influence of alcohol, which include assault, breach of the peace, criminal damage and other public order offences.

Most research evidence is based on drink-driving statistics and we have used drink-driving as a proxy measure for alcohol-related offences.

The Road Safety Act 1967 established a legal alcohol limit for drivers, set at 80 milligrams of alcohol in 100 millilitres (mg%) of blood and made it an offence to drive when over this limit. The Act also gave the police the power to carry out breathalyser testing to determine whether an individual’s alcohol level is above the limit of 35 micrograms of alcohol in 100 millilitres of breath.

Scotland reduced its legal alcohol limit from 80mg% to 50mg% in 2014. The lower figure is the recognised legal alcohol limit across Europe. Studies indicate that the lowering of the BAC limit in Europe has resulted in a fall in numbers of fatal accidents (Albalate et al, 2006). The effect was evident after 2 years and the greatest impact was seen between 3 and 7 years. There is evidence to indicate that lowering the BAC limit changes the drink-driving behaviour of drivers at all levels, and that in Europe it had a significant effect on younger drivers, on men and men in urban areas (Albalate, 2006).

The Driver and Vehicle Licensing Authority (DVLA) is the body responsible for granting driving licences and setting medical standards. These are set out in the “At a Glance Guide to the Current Medical Standards of Fitness to Drive” (DVLA, 2013) which can be accessed via the Department for Transport website. Drivers must not

drive while impaired by alcohol or drugs and they have a statutory duty to self-disclose a prescribed or prospective disability including “persistent alcohol misuse or dependency”. The GMC advises doctors to inform such patients of their obligation to notify the DVLA and if the patients do not do so, then the doctors are required in the public interest to inform the DVLA.

ALCOHOL AND THE WORKPLACE

Alcohol is a legal substance and there are few restrictions as to its availability to adults in Europe. Its use increases the likelihood of certain problems in the workplace including absenteeism; presenteeism (impaired workplace performance); personal injury, increased health problems and low productivity (Jenkins et al 1992; Marmot et al, 1993; Webb et al, 1994; Anderson, 2012). Alcohol use has an impact on cognitive function and is associated with poor performance and lower productivity at work; and more mistakes and accidents. The World Health Organisation has estimated that up to 40% of accidents at work involve or are related to alcohol (WHO, 2004).

Individuals in employment are more likely to drink frequently then those who are unemployed, and those in managerial (Harrison et al, 1998) and professional occupations drink seem to more heavily than those in manual occupations (ONS, 2011, 2013). Many employees are affected by alcohol consumption during the working day. A survey carried out for Aviva (Norwich Union) reported that a third of employees admitted to having turned up to work with a hangover (Aviva, 2008). Some working situations are associated with alcohol use and these are set out in Table 2, together with the workplace factors associated with an increased risk for use of alcohol and other substances (BMA, 2014).

Mortality data has been investigated historically with regard to alcohol consumption (Romelsjo et al, 1999; Andreasson et al, 1991; Andreasson et al 1988) and have been used to estimate occupations at risk for alcohol misuse. Coggon et al (2009) investigated data for men and women aged 16-74 years in England and Wales over the period 1991-2000. The highest mortality rates were observed for publicans and bars staff (both men and women); male caterers; cooks and kitchen porters, and seafarers. Data for the 2001-2005 period found that publicans and bar staff were at

high risk of alcohol-related deaths (Romeri et al, 2007) whereas women working with children were at low risk. The 2001-2005 data showed a substantial reduction in alcohol-related mortality rates for male doctors who had been in the higher risk group during the 1960s to 1980s: this was thought to reflect a reduction in drinking levels by doctors.

Table 2 Working situations associated with alcohol use (BMA, 2014)

Working Situations Associated with Drug and Alcohol Problems	Factors in workplace culture that present and increased risk for use of substances
Shift and Night Work	Availability
Travel Away from home	Work pressures
Working remotely	Peer group pressure
Business Meals	Co-worker Collusion
Poor Communication	Lack of supervision
Job Stress	Financial hardship
	Financial independence
	Physical danger
Longer hours (international evidence)	Interface with demanding or aggressive public

Research from New Zealand and Canada has shown that longer working hours were associated with higher rates of alcohol use and related problems (Gibb et al, 2012) and of risk drinking (Marchand et al, 2011).

It was estimated in 2003 that the workplace and wider costs of alcohol-related harm in England were in the region of £5.2-6.4 billion (PMSU, 2003). Four years later the costs to employers were estimated to be £7.3 billion (Lister, 2007). NICE has produced a portfolio of public health guidance for the workplace that addresses long-term sickness absence, promoting physical activity and mental wellbeing in the workplace, workplace interventions to promote smoking cessation, and guidance on obesity in adults and children. There is no specific NICE guidance on alcohol use in

the workplace, and this gap was identified in the recent Royal College of Physicians Staff Health Improvement Project (RCP, 2012):

> *"Alcohol was the topic area most frequently mentioned by trusts and provision was being made during health fairs and lifestyle checks to raise awareness of alcohol issues and educate staff. Several of the trusts interviewed possessed a formal workplace policy on alcohol but identified that NICE workplace guidance on alcohol would be helpful".*

The workplace provides excellent opportunities for the identification of alcohol problems and the implementation of a brief intervention/brief advice programme. Early intervention strategies should be a routine part of a workplace alcohol and drugs policies. However, there are barriers to voluntary screening and general health interventions are preferred by employers than those that focus solely on alcohol consumption (Cook et al, 2015).

IMPORTANCE OF IDENTIFYING ALCOHOL PROBLEMS IN THE WORKPLACE

There are several legitimate reasons why the HCPC should focus on workplace problems related to the consumption of alcohol, particularly in relation to the professional practice and behaviour of their registrants. Legislation is supportive of the early identification of alcohol use in the workplace. The *Health and Safety at Work Act (1974),* sets out the duty of care of employers to employees in the workplace. Section 2 places a duty on employers to provide a safe place of work and "competent" employees. Failure to deal with an employee who is under the influence of alcohol, who may constitute a risk to other employees, could leave an organisation open to prosecution.

Furthermore alcohol misuse may involve employers in both employment and even criminal law. The *Management of Health and Safety at Work Regulations (1999)*, (Regulation 3), places a "duty on the employer" to make a suitable and sufficient assessment of the risks to health and safety of employees and others affected by the employee undertaking the work. However, apart from certain industries, such as public transport, there is little legislation directly relating to drugs and alcohol in the

workplace. Common Law places a duty on the employer to take reasonable care of the health and safety of employees. The *Data Protection Act (1998)* views all health and medical information as sensitive personal data, thus all information surrounding possible alcohol misuse must be handled securely and confidentially.

There have been few attempts to corroborate data on convictions and cautions for alcohol-related offences and alcohol dependence, and fitness to practice/work in the UK. This literature review will endeavour to bring together the evidence-base.

EPIDEMIOLOGY OF DRINK DRIVING

Traffic deaths and injuries are among the most frequent causes of death and disability worldwide. The proportion of fatalities from road traffic collisions (RTCs) ranges from 1.5% in Italy to 40% in the USA and Slovenia, and 33-69% in low-income countries (United Nations Economic Commision for Europe (UNECCE), 2007). Mortality from motor-traffic accidents is a leading cause of death for men and women under 40 years of age, and about half of these deaths are reported to be alcohol-related (Klein et al. 1994, Kim et al. 2010).

In developed countries driving under the influence of alcohol (DUIA) has decreased substantially over the past three decades but it is still a major cause of death, injuries and suffering (Beadnell et al, 2012). Driving under the influence of alcohol increases the risk of being involved in a RTC (Lund and Wolfe, 1988; Zador, 1991).

The United Kingdom

In 2007 the average road death rate across the then 27 European Union member states (EU-27) was estimated at 8.6 per 100,000 of the population. Compared with other EU countries, the UK had the third lowest death rate, at 5.0 per 100,000 populations, while Lithuania had the highest rate, at 21.8 per 100,000 of the population (ONS, 2010).

Drink-driving incidents account for about 5% of RTCs and 15% of road deaths in the UK. The Department for Transport estimated that 9,990 people were casualties of drink-driving incidents in the UK in 2011, including 280 who were killed and 1290 who suffered serious injury (Department for Transport, 2012a).

There is a high incidence of alcohol or drug use in the population of drivers involved in RTCs. Of the 294,000 road traffic injury collisions recorded in Great Britain during 2008, the police requested breathalyser tests at 163,000 incidents (55%). Just over 5,500 of these incidents (3.4%) resulted in failed breathalyser tests (ONS, 2010). In 2013/14, 5.9% of drivers admitted to driving when they thought that they might have been over the drink drive limit (Department for Transport, 2015). This figure is unchanged over recent years. Men are more likely to drink and drive than women. In 2013/14, 8.1% of men admitted to driving when they thought that they might have been over the limit at least once; the figure for women was 3.5%. This difference is statistically significant. Younger individuals were more likely to offend, with the rates for 20-24 year olds being 9.1% compared with rates for individuals in their 30s (6.5%) and in the over 40s (5.6%).

Figures from 2013/14 also indicate that around 4% of all reported road traffic accidents involved at least one drink driver: this is the lowest number of drink drive accidents on record, down from the previous level of 5% (Department for Transport, Road Accident Statistics, 2015).

Alcohol seems to be a major risk at all ages while alcohol and cannabis are seen in younger drivers (Biecheler et al, 2008). The mortality and morbidity associated with drinking and driving makes its prediction important for health care professionals as identification of high-risk groups could enhance efforts to concentrate intervention and prevention approaches on those who could most benefit.

United States

It has been estimated that approximately 40% of all traffic fatalities in the United States are alcohol-related (NHSTA, 2000). (This compares with a figure of 15% in the UK in 2013). In 2001-2002 11.3% of American adults reported engaging in one of the four driver- or passenger-based drinking and driving behaviours (driving while drinking; driving after having too much to drink; riding as a passenger to a drinking driver and riding as a passenger while drinking) (Chou et al, 2006).

The Behavioural Risk Factor Surveillance System (BRFSS) is a United States nationwide annual telephone survey of adults that collects data on drink-driving and

other health-related behaviours. BRFSS data indicate that self-reported episodes of alcohol-impaired driving (AID) declined from 123 million to 116 million between 1993 and 1997, but increased again to 159 million in 1999 and 2002 (Quinlan et al, 2005). AID is strongly related to binge drinking.

In the US about 1.4 million motorists are arrested each year for driving while impaired (DWI) and approximately one third of arrests involve drivers with a previous offence (Furr-Holden et al, 2011). Between one third and a half of first DWI offenders can be classified as having a drinking problem. The rates of alcohol use disorders (AUDs) for multiple DWI offenders ranged from 60-84% (Furr-Holden et al, 2011).

BLOOD ALCOHOL CONCENTRATION (BAC)

In Europe DRUID researchers (Driving under the Influence, Drugs, Alcohol and Medicines, 2012) reported that amongst drivers who had a positive breath test, most had high blood alcohol concentrations (BAC): 90.5% of injured drivers and 87% of drivers who were killed had a BAC of ≥ 0.5g/L: that is ≥ 50 mg alcohol per 100ml blood (Table 3).

The mean and median values for BAC in these drivers were 1.59 g/L and 1.60 g/L (injured) and 1.61 g/L and 167 g/L (fatally injured), respectively. Alcohol was the only substance amongst those tested that appeared more often alone than in combinations with other drugs (DRUID, 2012).

The data in Table 3 show the odds ratios for serious and fatal injuries as a function of BAC. The difference in odds ratios (ORs) for BAC values between 0.5g/L and 0.8g/L and values above 0.8g/L are of note in light of the fact that the BAC for drink-driving level in Scotland was reduced to 0.5g/L in December 2014.

It is estimated that for each 0.02g/L rise in a drivers BAC above zero, there is a doubling in the risk of being involved in a fatal crash (Gomez-Talegon, 2006).

Table 3 Overview of Odds Ratios (ORs) of getting seriously injured or killed based on alcohol concentration from aggregated data from DRUID studies. (DRUID, 2012)

Seriously injured drivers (%)	Adjusted Odds Ratios (CI)	Fatally injured drivers (%)	Adjusted Odds Ratios (CI)
0.1 ≤ BAC < 0.5 g/L	1.18 (0.81-1.73)	0.1 ≤ BAC < 0.5 g/L	8.01 (5.22-12.29
0.5 ≤ BAC < 0.8 g/L	3.64 (2.31-5.72)	0.5 ≤ BAC < 0.8 g/L	45.93 (23.02-91.66)
0.8 ≤ BAC < 1.2 g/L	13.95 (8.15-21.88)	0.8 ≤ BAC < 1.2 g/L	35.69 (15.68-81.22)
BAC ≥ 1.2 g/L	62.79 (44.51-8.58)	BAC ≥ 1.2 g/L	(500.04 (238.07-inf)

BAC = Blood alcohol concentration in g/L; CI = 95% confidence intervals

In the United States data from the Fatal Accident Reporting System (FARS) and the National Mortality Follow-Back Survey in the United States indicate that individuals involved in a fatal RTC with BACs ≥ 1.5 g/L were more frequently classified by their families as ‘problem drinkers’ or ‘hard-core drinkers’ than those with BACs of zero (Baker et al, 2002).

BAC and Alcohol Use Disorders

Evidence from the DVLA suggests that drivers in the UK drivers continue to drive despite very having high BACs. One study revealed that, in 23% of car driver fatalities the driver had a BAC above the UK legal limit of 80mg/100ml (0.8 g/L), and 6% had a BAC of ≥ 200mg/100ml (≥2.0g/L) (DVLA, 2012a; 2012b). Drivers with a blood alcohol concentration (BAC) of between 20 mg/100 ml and 50 mg/100 ml have at least a three times greater risk of dying in a vehicle crash than those drivers who have no alcohol in their blood. This risk increases to at least six times with a BAC between 50 mg/100 ml and 80 mg/100 ml, and to 11 times with a BAC between 80 mg/100 ml and 100 mg/100 ml (DVLA, 2012a; 2012b).

Recent reports from the US National Roadside Survey (NRS) indicate that about one in four drivers were classified as having an Alcohol Use Disorder (AUD); nearly half the drivers with illegal BACs had an AUD, and one-third of all illegal BAC drivers were heavy drinkers. Dependent and abusive drinkers were almost 1.5 times more

likely to have a BAC ≥0.8g/L, while heavy drinkers were almost 5 times more likely to have an illegal BAC (Kim et al. 2010, Furr-Holden et al. 2011).

At roadside testing heavy drinking, binge drinking and monthly binge drinking were significant predictors of a positive BAC, and monthly binge drinking had the strongest association with a positive BAC compared with any other AUD category: individuals who reported monthly binge-drinking had the highest proportion of high BACs (Furr-Holden et al. 2009).

THE DRINK DRIVING POPULATION

The drink-driving population is heterogeneous in terms of personality characteristics, socio-demographic factors, reasons for drinking and risk of road traffic collision (RTC) involvement (Nochajski and Stasiewicz, 2006). However, the identification of a high risk drink-driving group is important as this could enhance efforts to concentrate on early intervention and prevention.

High rates of addictive disorders have been shown to persist in offenders over time and to exceed rates in the general population (Lapham et al, 2012).

Gender

Men are at greater risk of drinking and driving, particularly younger men (Chou et al, 2005) and the highest rates of road traffic collisions (RTC) are seen in younger men aged between 18 and 35 years. More men than women reported DUIA convictions at the first offence (M: 14%, F: 5%), when two offences had been committed (M: 6%, F: 2%), and in individuals who had offended on three or more occasions (M: 8%, F: 1%) (Mann et al, 2010).

There is evidence that the proportion of women being arrested for driving under the influence of alcohol (DUIA) is increasing in the United States. Arrests of men for driving under the influence (DUI) decreased by 6% in the United States between 1997 and 2006, whereas arrests for women increased by 29% over the same period, with arrests of women under the age of 18 increasing by 39%. Women were less likely than men to be repeat offenders and younger men were more likely to reoffend (McCutcheon et al. 2009). While women first-time offenders have been shown to

have lower rates of alcohol dependence than men (Lapham et al, 2001), women with more than one DUIA are reported to have higher rates of alcohol dependence than men; to have more work or school problems and to continue drinking despite illness or health problems (Lapham et al, 2006; LaPlante et al 2008; McCutcheon et al, 2009).

Women with multiple DUIs have also been shown to have more unsuccessful attempts to stop drinking. Women who commit even one DUIA offence deviate more from women who do not than do men, thus suggesting that this is a group of women who already may have a substantial alcohol problem. When this is considered together with the evidence that women are less likely to present for treatment, it highlights the importance of providing treatment for women with DUIs, especially those at the severe end of the alcohol dependent spectrum (McCutcheon et al, 2009).

Ethnicity

Research shows ethnic disparities in rates of DUIA. In the United States high numbers of ethnic minorities are arrested for DUIA and they are over-represented in first and repeat offences (see C' de Baca et al, 2004 for historical references). However, the picture is not clear since other studies have found lower rates of alcohol dependence in minority DUIA offenders (Caetano and Raspberry, 2000). Ashbridge et al (2010) carried out a study of 8276 adults in Ontario, Canada and found that those who identified as Irish had significantly higher rates of DUIA than those of Italian and Chinese ethnicity. However the ethnic disparities disappeared after adjusting for the role of alcohol consumption using AUDIT data (consumption patterns, binge drinking, adverse consequences). The authors concluded that the way in which ethnicity or race has been applied to many research studies in this field may be flawed.

Education

Many studies report the drink driving is associated with low levels of education. However, Chou et al's study from the National Epidemiological Survey found that those with a greater than high school education were at greater risk (Chou et al, 2006).

Marital status

Studies suggest that individuals who are single, divorced or separated are more at risk of being convicted of driving under the influence of alcohol (Donovan et al. 1983; Kruzich et al. 1986; McCutcheon. 2009; Mann et al. 2010; Oksanen et al, 2015). Results from the National Epidemiological Survey in the United States found that individuals who were widowed/separated/separated/divorced or never married were at greater risk of drinking and driving behaviours (Chou et al, 2006)

Alcohol Use Disorders and Mental Health Co-morbidity

Early reports found that DUIA offenders had a propensity for social aggressiveness and risk-taking, a tendency to drink heavily, and a deficiency in the social skills with which to manage and express anger, stress and frustration. It was also reported that the use of alcohol and driving, either alone or in combination, provided the individual with increased feelings of personal power, mastery, and control of his environment (Selzer, 1961; Macdonald, 1989).

Studies documenting the prevalence of alcohol, drug and psychiatric disorders have found that DUI offenders more closely resemble clinical rather than population-based samples (Chou et al, 2005a and 2005; Lapham et al, 2001). A study of lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in convicted drivers compared rates with estimates from a US population based survey (Lapham et al, 2001). The sample included 612 women and 493 men who had been convicted of driving while impaired five years previously. Ninety one percent of men and 85% of women were found to meet life-time criteria for an AUD compared with 44% and 22% respectively in the National Co-morbidity Survey Sample. Forty percent of men and 33% of women reported a 12-month alcohol-abuse or dependence disorder, much higher than the reported rate of 3.5% in the community sample. This DUI group also reported higher rates of drug use disorders (30% men and 26% women) and psychiatric disorders compared with national estimates, with 33% of men and 50% of women also meeting criteria for a non-substance psychiatric disorder, mainly PTSD or major depression (Lapham et al, 2001). Women offenders were more likely to have a lifetime Major Depressive Disorder (28%) than male offenders (13%), and rates for PTSD were 27% and 12% respectively (Lapham et al, 2001). More women

than men met criteria for generalised anxiety disorder and a higher proportion of men than women met the criteria for antisocial disorder (Lapham et al. 2001).

Lapham et al (2011) carried out a follow-up of this sample (15 years after their first conviction for DUI) and found that high rates of addictive disorders persisted, particularly among women. Rates of alcohol abuse and dependence were more than 5 times higher than in a comparable general population sample and rates of drug use disorders were more than 6 times higher compared with a general population sample. Rates of Major Depressive Disorder and PTSD were comparable to rates in the community sample. These differences between men and women DUIA offenders have been confirmed elsewhere (La Plante et al, 2008).

Other studies have confirmed higher rates of depression amongst drink-driving offenders (Wells-Parker et al, 2006) and higher rates of co-morbidity compared with the general population (Shaffer et al, 2007; Faller et al, 2012). Multiple offenders report higher rates of psychiatric disorders (Lapham et al, 2001).

These findings suggest that treatment providers for DUIA populations should be prepared to evaluate mental health which is often co-occurring in populations with AUD.

ALCOHOL USE AND CONVICTIONS

Although there are currently no firm data in the UK on the proportion of drink-drivers who also have alcohol problems. The DVLA runs a High Risk Offender Scheme which requires that High Risk Offenders (22,000 in 2012, representing almost half of the 50,000 drivers who were banned for drink driving offences) undergo a medical examination and blood test (% Carbohydrate Deficient Transferrin: %CDT) prior to having their licence returned.

In Poland those with drink-driving or DUIA offences are required to report to the Centre for Occupational Medicine in Kielce for re-licensing assessments. Latata-los et al, (2014) found that of the 5701 cases referred between 2004 and 2011, 3.8% were diagnosed with alcohol dependence and 5% with mental health issues.

In the United States, DUIA offenders in Kentucky are required by state law to receive a substance abuse assessment that includes the AUDIT questionnaire and may have to comply with mandatory treatment. Of those who were assessed in 2005 (N = 21, 135), 80.9% were men, with a mean age of 34 years, who reported an average AUDIT score of 7.4 (≥ 8 is indicative of problem drinking). Thirty-two percent of offenders met lifetime alcohol abuse criteria (15% for dependence) and 23% had multiple convictions for DUIA (Webster et al, 2010).

The relationship between severity of alcohol use and increased risk of driving offences was identified in early research. Dawson (1999) studied 18,532 current drinkers aged over 18 years. The high volume drinkers (ethanol intake ≥ 1 ounce, 19.7%) accounted for 66.5% of all reported ethanol consumption and 62.8% of all impaired driving incidents. Frequent heavy drinkers (≥ 5 drinks/ week, 12.3%) accounted for 57.0% of all impaired driving incidents. However, drinkers with DSM-IV alcohol dependence (9.9% of current drinkers) accounted for 28.9% of all reported ethanol consumption and 56.9% of all impaired driving incidents. Each group had a probability of at least one impaired driving incident per year. As for the criteria for high risk drinking (i.e. high volume, frequent heavy drinking or dependence), more than half met one criterion and one in seven met all three criteria. The group that met all three criteria were reported to have a high rate of impaired driving incidents (average 5.4/year) which accounted for 36.4% of all such incidents, although they only made up 3.8% of current drinkers (Dawson 1999).

In a sample of drivers attending a Medical Driving Test Centre in Spain, 60.3% of drivers drank alcohol on a regular basis, 7.3% of drivers scored ≥8 points in the AUDIT, and 2% met the criteria for DSM-IV alcohol dependence (APA, 1994). Of those with alcohol-related problems, 23.2% admitted to a RTC in the 3 years preceding the survey and 18.7% to being fined for a driving offence in the year preceding the survey: significantly higher figures compared to those driving without alcohol-related problem (Rio et al. 2001).

The research evidence base indicates that those who meet criteria for alcohol dependence are over-represented in all alcohol-related RTCs (C'de Baca et al, 2004; Hingson and Winter, 2003; Hedlund and McCartt, 2002; Del Rio & Alvarez, 2001;

Caetano and Raspberry, 2000; Mancino et al, 1996; Kramer, 1986; McCord, 1984); and in those who continue to drink and drive (Begg et al, 2003), and may predict driving-related problems and collisions (Kim et al. 2010; Hingson et al. 2008; Hingson et al. 2002; Klein et al. 1994).

In a 15-year follow-up of driving while impaired offenders, Lapham et al (2012) found that younger age of starting to drink and co-occurrence of psychiatric and substance-use were associated with a poorer trajectory of subsequent risky drinking behaviour.

BINGE DRINKING AND CONVICTIONS

There also appear to be trends in the peer-reviewed literature with regard to drinking patterns associated with driving offences. Binge drinking has been associated with drink-driving in adolescence and of an increased risk of allowing oneself to be transported by a drink-driver (Bukstein and Kaminer, 1994). In a longitudinal Canadian study binge drinking and not overall consumption was associated with RTCs (Mann et al, 2010). Binge drinking has been shown to contribute to higher rates of personal injuries in motor vehicle collisions (MVCs) (Vingilis, 2007).

In the US, the National Roadside Survey (NRS) (2007) reported that for drivers using the roads on weekend evenings, binge drinking was the most prevalent alcohol-related diagnosis, with more than half (54.3%) reporting binge drinking in the past year, and 20.5% reporting monthly binge drinking. The mean age of the drivers was inversely related to the severity of the AUD. Compared with non-drinkers frequency of RTCs increased progressively with greater frequency and quantity of alcohol consumption (p for trend = 0.028) and was statistically significant (OR: 2.01; 95% CI 1.00 – 4.09) when heavy consumption and binge drinking occurred together (Valencia-Martin et al, 2008).

Self-reported average volume of alcohol consumption and binge drinking are both associated with self-reported hazardous driving behaviour and traffic crashes. The strength of the association is greater when average heavy consumption and binge drinking occur jointly (Quinlan et al, 2005).

REPEAT OFFENDERS

It has often been reported, but less frequently acted upon, that apprehended drivers are often repeat offenders and that the prevalence of heavy drinkers is high amongst this group (Gjerde, 1987). Early studies carried out in the US estimated that 50% of first-time offenders, 70% of second-time offenders and all third-time offenders were "alcoholics" (Small, 1982). Many repeat offenders have no driving licence owing to a previous DUIA conviction and have never bothered to re-apply for one (Christophersen *et al*, 1996). Recidivists were found to drink and drive significantly more frequently and dangerously (take risks, speeding, weaving between lanes) than others (MacDonald et al, 1990).

Women are less likely than men to be repeat DUI offenders (C'de Baca et al, 2001; Lapham et al, 2000; Lapham et al, 1997; Wells-Parker et al, 1991). Studies using treatment or high risk samples show that once a severity threshold for alcohol use disorder is reached, gender differences disappear. Female recidivists have been shown to have higher rates of alcohol dependence than male recidivists (Lapham et al, 2006; LaPlante et al, 2008; Lapham et al, 2011).

In multiple DUIA offenders, rates of alcohol use disorders (AUD) have been shown to range from 60 to 84%, significantly higher than for first time offenders (33% to 50%) (Furr-Holden et al. 2011). Although the rates of lifetime psychiatric disorder are higher across all DUIA categories compared with national prevalence surveys, men with ≥3 DUIAs were significantly more likely to meet criteria for any disorder than men with one or two DUIAs, but the difference was not statistically significant among women (McCutcheon et al. 2009). Men with ≥3 DUIAs had higher rates of conduct and antisocial personality disorders than men with one or two DUIAs. About 43% endorsed a PTSD qualifying event. In women the rate of lifetime Major Depressive Disorder was higher among women with two or three DUIAs than women with a single DUIA (McCutcheon et al. 2009).

Repeat offenders have other additional traits in common (Beerman et al, 1998; Freeman et al, 2005). When compared to women without driving offences or with men in similar categories, women with 2 or ≥3 DUIAs, were more likely to report getting drunk contrary to promises, wanting to quit, attempting unsuccessfully to stop

drinking, spending lots of time drinking or recovering from drinking, and drinking when on medication, having marital and family problems due to drinking, and drinking despite psychological problems (Lapham et al, 2012). When compared to women with no DUIA convictions or men in same category, women with one DUIA reported more work or school problem and continuing to drink despite illness or health problems (McCutcheon et al. 2009).

ALCOHOL, DRUG USE AND CONVICTIONS

A relationship between onset of drinking behaviour and driving offences was identified nearly 20 years ago (Grant et al, 1997). Those who start drinking earlier have higher odds of using drugs at an earlier age than those who start drinking at or after 21 years of age. Those who began drinking before the age of 14 years were 5.4 (OR: range 4.2-6.9) times more likely to initiate drug use at an earlier age, compared to those who started at or after age 21 (Hingson et al. 2008). Ever having ever experienced alcohol dependence has been independently associated with drug use (OR=2.5; 95%CI: 2.3-2.7) and repeat offenders with 2 or ≥3 DUIAs reported higher sedative, opiate and 'other' drug use and had tried a greater number of drugs than those with one DUIA (McCutcheon et al, 2009).

THE WORKPLACE AND DRIVING OFFENCES

Alcohol problems have been associated with job loss and unemployment (MacDonald and Shield, 2004; Terza, 2002) but the literature on workplace driving and driving offences is poorly developed particularly in the UK, although some studies have included the workplace as a variable when considering the adverse effects of problematic drinking. For instance, when comparing those who admitted drinking and driving with those who did not admit to this, the former group had experienced significant hangovers, blackouts, absences at work due to alcohol, had had previous alcohol-related RTCs and more commonly reported binge drinking (McCutcheon et al, 2009).

In Hong Kong, a telephone survey involving 9860 Chinese adults (18-70 years) reported that 5.2% males and 0.8% females drove within 2 hours of drinking. Among drink drivers, 'having a job that required drinking' was the only predictor of having a RTC (Bernhoft et al, 2008; Kim et al. 2010).

A UK report on personnel from the armed forces showed that higher scores on the Alcohol Use Disorder Identification Test (AUDIT) were more associated with more risky driving practices including speeding and failure to use a seatbelt (Kruzich et al. 1986).

EFFICIACY AND COST EFFECTIVENESS OF HEALTH ASSESSMENTS FOR ALCOHOL RELATED OFFENCES

Several studies have shown that brief interventions or counselling for alcohol problems are effective in reducing drink drive offences and alcohol-related injuries (Gentilello et al, 1999; Longabaugh et al, 2001; Roman and Blum, 2002; Wells-parker et al, 2006). Similarly, treatment for alcohol dependence has also been shown to be effective for reducing drink-driving offences (Dinh-Zarr, 1999). However, a more recent randomised controlled trial of online screening and brief alcohol intervention delivered in a workplace setting revealed that there was no evidence to suggest the use of personalised feedback within an online health check for reducing alcohol consumption among employees ((Khadjesari et al, 2014). Similarly, in a randomised clinical trial it was observed that although brief interventions in the workplace were effective in increasing alcohol-free days they did not appear to decrease alcohol consumption (Ito et al, 2014).

A meta-analysis of the efficacy of remediation with drinking/driving offenders, which included 215 studies, found that the average effect of remediation on drinking/driving recidivism was an 8-9% reduction over no remediation (Wells-Parker et al, 1995 [++]). A combination of modalities, in particular those including education, psychotherapy/counselling and follow-up contact/probation, were more effective than other evaluated modes for reducing drinking/driving recidivism. It was concluded that treatment effects are probably underestimated in the literature due to overemphasis on education as a treatment for all offenders.

Workplace programmes to prevent and reduce AUDs among employees have proved popular in North America. Many employers offer employee assistance programmes (EAPs) as well as educational programmes to reduce employees'

alcohol problems. The advantages include raising awareness and opportunity to notice a developing alcohol problem (Roman and Blum, 2002).

Workplace programmes employing brief interventions, interventions contained within health and lifestyle checks, psychosocial skills training and peer referral have the potential to produce results (Roman and Blum, 2002 [+]; Webb et al 2009 [++]). Further research is needed to develop this approach in the UK.

The US National Highway Traffic Safety Administration (NHTSA) suggests that there are four legal approaches for addressing DUI offences: a) licensing sanctions; b) vehicle sanctions; c) mandatory alcohol use treatment: and d) custodial sentencing. However, there is evidence that those who enjoy the experience of alcohol intoxication do not respond to the standard penalties. Many continue to drink and drive but are never caught, and are a significant problem for the authorities (Schell et al, 2006).

In addition, under identification of alcohol–use disorders appears to be significant among convicted alcohol-impaired drivers. This is attributed to underreporting of an alcohol use by the offenders and inaccurate screening results (Lapham et al, 2004). Korzec et al, 2001 found in a study undertaken in Europe to explore the diagnosis of alcohol dependence in high-risk drinking drivers (comparing different diagnostic procedures with estimated prevalence of hazardous alcohol use) that specific tools are required for accurately diagnose AUDs such as the SCID or CAGE.

Many DUI offenders lack insight into their DUI behaviour and consider their conviction an exceptional mishap (Okamura et al, 2014). They are likely to overestimate their capability to drive after drinking (Freeman et al, 2005) and need to be helped to reflect on their past behaviour.

Timko et al (2010) carried out a naturalistic study of individuals initially untreated for alcohol problems, which were followed up after 1, 3 and 16 years. At baseline 60% of the sample of 628 had driven while intoxicated during the previous six months. At one year follow-up more extended participation in out-patient treatment and affiliation to AA was associated with a lower likelihood of driving while intoxicated (DWI).

Extended participation in AA over the first three years was associated with lower likelihood of reoffending (14%) at 16-year follow up (Timko et al, 2010). This may be because AA also offers individuals opportunities to address other psychological factors such as impulsivity, coping choices and depression. The study recommended that treatment providers consider actively referring individuals to AA to ensure ongoing affiliation.

SUMMARY AND CONCLUSIONS

This review aimed to explore and draw conclusions from the evidence-based literature in order to determine:

- the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency;
- the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work;
- any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

The review examined:

- relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency;
- the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work;
- the relevant literature about any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

Quality of the evidence

The evidence obtained was mainly from the United States and Canada, but studies from Europe, Australia and New Zealand were also reviewed. It is difficult to determine how applicable the findings are to the UK.

There is very little available evidence on the relationship between cautions and convictions for alcohol-related offences and alcohol dependency so evidence from the drink-driving literature was used as a proxy measure. Even then the research literature relating to any association between drink-driving a alcohol dependence was patchy and incomplete.

There is a limited research literature exploring any relationship between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work. The same applies for relevant literature relating to any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

The quality of the studies is also variable. The best evidence is provided by cohort studies that have attempted to control for confounding factors.

FINDINGS OF THE REVIEW

The main findings of the review are presented below.

EVIDENCE STATEMENT 1

- To explore and draw conclusions from the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency;

Risk factors for driving under the influence of alcohol (date from self-report surveys of driving after drinking in national samples)

- Self-reported 12-month prevalence rates of driving after drinking have declined in men but not in women.
- Drinking drivers compared with non-drinking drivers are more likely to be male; to be unmarried; to have a full-time job and a higher income.

- Individuals who are widowed/separated/divorced or never married are at greater risk of driving after drinking.
- Young men between 18-29 years report the highest rates of driving after drinking.
- Binge drinking is strongly associated with alcohol impaired driving

One study from the United States found a 22% decline in 12-month prevalence rates for drink driving between 1991-2 (3.7%) and 2001-2 (2.9%) (Chou et al, 2005, [++]). The decline was observed in men (5.8% vs 4.4%) but there was no change in rates for women. Young men between 18-29 years had the highest rates (11.6% vs 7.8%).

Results from a United States national epidemiologic survey on alcohol and related conditions (Chou et al, 2006,[+]) indicated that 11.3% of American adults reported engaging in at least one of four driver- or passenger-based drinking and driving behaviours (the passenger-based drinking and driving behaviours were greater than the driver-based measures). Age was inversely associated with risk and males were at greater risk with the male-to-female ratio being 3:1. Native Americans, and individuals who were widowed/separated/divorced or never married and those with a greater than high school education were all at greater risk of drinking and driving behaviours.

A Canadian study (Beirness and Davis, 2007 [+]) found that 11.6 % of licensed drivers reported driving after drinking. Less than 5% of licensed drivers accounted for more than 86% of the past-year drinking and driving occurrences. Drinking drivers compared with non-drinking drivers: more likely to be male, unmarried, to have a full-time job, higher income. They were more likely to have extensive problematic use of alcohol and more likely to report drug use.

In addition, a retrospective analysis of longitudinal data, collected from annual telephone surveys, using a brief health risk and health services questionnaire conducted in all states across America (Quinlan et al, 2005, [+]) found that alcohol impaired driving increased from 123 million in 1993 to 159 million in 2002. Over 80% of episodes were reported by those who also reported binge drinking.

Estimation of prevalence of Alcohol Use Disorders in national roadside samples

- About half of the drivers with high Blood Alcohol Concentration (BAC) values (over 0.08g/dl) meet criteria for an Alcohol Use Disorder (AUD). However most high BAC drivers do not show any clinical signs of an AUD but could be categorised as heavy drinkers

One study from the USA (Furr-Holden et al, 2011, [++]) estimated the prevalence of AUDs among a sample of drivers at the roadside and found that 14% of all current drinkers among weekend night-time drivers could be classified as either dependent or abusive. An additional 10% of the current drinkers reported heavy drinking. Nearly half of the drivers with high-BAC levels (over 0.08g/dl) fell into one of the three AUD categories. However most of the high BAC driver did not show any clinical signs of an alcohol use disorder but were categorised as heavy drinkers.

Comparison of prevalence of Alcohol Use Disorders (AUDs) in samples of drink-driving offenders with the prevalence of AUDs in national epidemiological samples

- Drink driving offenders have higher rates of AUDs and psychiatric disorders compared with community samples and should undergo assessment and treatment services for alcohol, drug and psychiatric disorders
- Early intervention has the potential to reduce recidivism and crash rates
- Follow-up of first offender DWI samples indicates a degree of persistence of addiction (alcohol dependence) and further risk of crash involvement
- Younger age of initiation of drinking and co-occurrence of psychiatric and substance use appear are associated with a poorer trajectory of subsequent risky drinking behaviour
- Women who are convicted of driving while impaired appear to start drinking later in life and are more likely to become abstainers than men

An American study (Lapham et al, 2001,[++]) compared DSM-III-R diagnoses of lifetime and 12-month alcohol, drug use and psychiatric disorders in a sample of drink-driving offenders from New Mexico with prevalence rates for similar disorders from the National Comorbidity Survey (NCS) for the western region of the United States. They found that 85% of female and 91% of male offenders reported a lifetime alcohol use disorder compare with 22% and 44% respectively in the NCS. Of those with an AUD, 50% of women and 33% of men had at least one additional psychiatric disorder, mainly PTSD or major depressive disorder. They concluded that drink driving offenders needed assessment and treatment services for alcohol, drug and psychiatric disorders and that early intervention had the potential to reduce recidivism and crash rates.

Further work by this American research group investigated psychiatric disorders in repeat impaired-driving offenders (Lapham et al, 2006, [++]). Sixty-five present of men and 79.7% women had at least one lifetime disorder comorbid with alcohol abuse or dependence. They recommended that treatment services should be comprehensive and include care for both drug-use disorders and other psychiatric disorders.

The same group carried out a longitudinal study of a first-offender driving while impaired (DWI) sample, and reported elevated rates of alcohol abuse or dependence at 15 year follow-up, compared with respective rates in community samples, particularly among women (Lapham et al, 2011, [++]). These findings indicate a degree of persistence of addiction. Those with a lifetime diagnosis of alcohol dependence reported twice the rate of driving over the limit when compared with subjects reporting no diagnosis of an AUD. This first-offender population was also at high risk of crash involvement: rates of major depressive disorder and of post-traumatic disorders at follow-up were similar to rates in community samples).

Another report on this follow-up sample from the same authors (Lapham et al, 2012 [++]) found that younger age of initiation of drinking and co-occurrence of psychiatric and substance use appear to be associated with a poorer trajectory of subsequent risky drinking behaviour. Women who are convicted of driving while impaired appear to start drinking later in life and are more likely to become abstainers than men.

Relationship between severity of alcohol dependence and number of drink driving convictions

- Individuals with two or more drink driving convictions show a greater severity of alcohol dependence than those with none or one conviction
- Individuals with two or more drink-driving convictions also have a higher prevalence of co-occurring lifetime psychiatric disorders
- Women with two or more drink-driving convictions and who have a sibling with alcohol dependence show evidence of greater physiological and behavioural dependence on alcohol than men with a drink driving conviction

A study using siblings of probands from the Collaborative Study on the Genetics of Alcoholism (McCutcheon et al, 2009, [++]) showed that those with two or more DUIs showed greater severity of alcohol dependence than those with none or one DUI. Those with two or more DUIs also had a higher prevalence of co-occurring lifetime psychiatric disorders compared with other studies of DUI offenders. Gender differences were uncovered: women with DUIs in this high risk sample showed evidence of greater physiological and behavioural dependence on alcohol than men with DUIs. They were more likely to drink despite negative consequences such as marital, health and emotional problems. Women had less success with quitting drinking than men. There was evidence that women who had committed even one DUI offence deviated more from women than do their male counterparts, suggesting greater behavioural under-control in women with DUIs.

Attitudes to drink driving offences and likelihood of future convictions

- Men with a drink-driving conviction may view this as a one-off mishap, and many continued to drink. Those who show a tendency to rationalise their conviction may have a higher likelihood of future DUI convictions

A Japanese study (Okamura et al 2014, [+]) explored DUI-specific attitudes in a sample of male DUI offenders. Between one quarter and one third of this sample (26-36%) was potentially alcohol dependent, based on information from

questionnaires and biomarkers. Most viewed their DUI as a one-off mishap, but many continued to drink and a subgroup showed a tendency to rationalise their DUI and were thought to have a higher likelihood of future DUI convictions.

Many DUI offenders lack insight into their DUI behaviour. Recidivists are likely to overestimate their capability to drive after drinking (Freeman et al, 2005 [-]) and need help to reflect on their past behaviour.

Relationship between drink driving and ethnicity

- There is limited support for the presence of ethnic disparities in rates of driving under the influence of alcohol (DUIA) as disparities disappeared after adjusting for the role of alcohol consumption

A Canadian study (Ashbridge et al, 2010, [+]) provided limited support for the presence of ethnic disparities in rates of driving under the influence of alcohol (DUIA): disparities disappeared after adjusting for the role of alcohol consumption using AUDIT data (consumption patterns, binge drinking, adverse consequences). The authors concluded that the way in which ethnicity or race has been applied to many research studies in this field may be flawed.

EVIDENCE STATEMENT 2

- To explore and draw conclusions from the relevant literature about the relationship (if any) between convictions and cautions for alcohol-related offences and alcohol dependency and fitness to practise/work;

Alcohol related deaths by occupation

- Examining alcohol-related deaths by occupation in England and Wales reveals that the highest alcohol-related mortality rates were found in people working in the drinks industry

The Office of National Statistics (Health Statistics Quarterly, 2007, [++]) identified those occupations with the highest and lowest indicators of alcohol-related mortality between 2001 and 2005. Of 16, 666 alcohol-related deaths of those in employment aged between 20 and 64 years, there were twice as many deaths among men (13, 001) as women (3, 655). It was noted that employment appears to have a generally protective effect against alcohol-related mortality for women.

High Risk Offender Schemes

- A system for identifying high-risk drink-drivers and a requirement for medical assessment to demonstrate fitness to drive for relicensing purposes is common practice

Many countries in Europe and in North America have schemes in place to ensure that repeat drink-drivers are kept off the roads. These individuals require medical assessment and confirmation that their drinking is within safe limits prior to return of their licences. The DVLA runs a High Risk Offender Scheme which required, that for relicensing purposes, half of the 50,000 drivers who were banned for drinking-driving offences in 2012 undergo a medical examination and blood tests (%CDT) to assess drinking behaviour prior to having their licence returned (DVLA Panel Minutes, 2013).

A study by Latata-los et al, 2014 [+]) of convicted drink-drivers referred to the Centre of Occupational Medicine in Poland for assessment in relation to relicensing (N: 5701 cases) found that 3.8% were diagnosed as alcohol dependent and 5% as having mental health issues.

In another study, of 21,135 offenders in Kentucky who underwent assessment, 15% met criteria for alcohol dependence (32% met criteria for lifetime alcohol abuse criteria) and 23% had multiple convictions (Webster et al, 2010).

EVIDENCE STATEMENT 3

- To explore and draw conclusions from the relevant literature about any other matter relevant to the topic of the study and the HCPC's regulatory role, for example, any relevant literature on the efficacy and cost effectiveness of health assessments in this area.

Effectiveness of health assessments (diagnosis of Alcohol Use Disorders in drink-drive offenders)

- There is some evidence that under-reporting of alcohol use disorders in health assessments of those assessed following drink-driving offences
- There is some evidence that under-reporting of mental health disorders in health assessments of those assessed following drink-driving offences
- There is no evidence to suggest that personalised feedback reduces alcohol consumption in employees following an online health check

In an American study, Lapham et al (2004,[+]) evaluated the accuracy of offender alcohol diagnoses at screening by comparing the diagnosis in convicted 'driving under the influence offenders' with self-reported information from the same individuals 5-years later (in a voluntary interview). It was noted that missed diagnosis by the authority screening systems is a missed treatment opportunity.

In another study by the same group (Lapham et al, 2006, [++]) alcohol- and drug-use disorders and other psychiatric disorders were assessed using the DSM-IV in a sample of repeat driving under the influence (DUI) offenders. The offenders interviewed (385 men, 74 women) were also assessed using the Composite International Diagnostic Interview. Sixty-five percent of men and 79.7% of women had at least one lifetime disorder comorbid with alcohol abuse or dependence. The most prevalent lifetime non-substance-use disorder was major depressive or dysthymic disorder (30.9%) followed by PTSD (15.3%). It was recommended that assessment and treatment services for repeat alcohol-impaired driving offenders should be sufficiently comprehensive to provide care for drug-use disorders and other psychiatric problems.

In another study (Korzec et al, 2001[+]) undertaken in Europe the diagnosis of alcohol dependence was investigated in high-risk drinking drivers comparing different diagnostic procedures with estimated prevalence of hazardous alcohol use. It was found that specific tools are required for accurately diagnose AUDs such as the SCID or CAGE.

Furthermore in a randomised controlled trial employees (N: 3,375) were recruited to take part in an online screening health check (including the AUDIT questionnaire) and brief alcohol intervention delivered in a workplace setting. Participants were mostly male (N: 75%) from the UK-based private sector organisation. The study found no evidence to suggest the use of personalised feedback within an online health check was helpful in reducing alcohol consumption among employees ((Khadjesari et al, 2014, [++]).

Remedial interventions with drink-drive offenders

- Treatment effects are probably underestimated in the literature due to overemphasis on education as a treatment for all offenders

A meta-analysis of the efficacy of remediation with drinking/driving offenders, which included 215 studies, found that the average effect of remediation on drinking/driving recidivism was an 8-9% reduction over no remediation (Wells-Parker et al, 1995 [++]). A combination of modalities, in particular those including education, psychotherapy/counselling and follow-up contact/probation, were more effective than other evaluated modes for reducing drinking/driving recidivism. It was concluded that treatment effects are probably underestimated in the literature due to overemphasis on education as a treatment for all offenders.

Brief interventions as part of health assessments

- Brief interventions are effective in reducing drink-driving offences and should be considered as part of a general health assessment
- Brief interventions are effective in the workplace for increasing alcohol–free days

In a naturalistic follow-up study of individuals initially untreated for alcohol problems, more extended participation in out-patient treatment and affiliation to AA was associated with a lower likelihood of driving while intoxicated (DWI) at one-years follow-up (Timko et al, 2010, [++]). Extended participation in AA over the first three years was associated with a lower likelihood of reoffending (14%) at 16-year follow up (Timko et al, 2010, [++]). The study recommended that treatment providers consider actively referring individuals to AA to ensure ongoing affiliation.

In a randomised clinical trial to investigate the effectiveness of brief intervention (BI) conducted in the workplace for heavy drinkers. 304 participants were recruited from six companies in Japan and randomized into three groups: the brief interventions group (BI) group, BI with diary group and a control group: 277 participated in all follow-up evaluations. Alcohol-free days in the BI group were significantly increased by 93.0% at 12 months and total drinks at 12 months were reduced by 41 g per week in the BI group compared with the control group. It was concluded that BI in the workplace is effective for increasing the number of alcohol-free days. However, the effectiveness on decreasing alcohol consumption was unclear (Ito et al, 2015, [++]).

Workplace programmes

- Workplace programmes have the potential to prevent and reduce alcohol-related problems among employees

A review by (Roman and Blum, 2002 [+]) considered the literature between 1973 and 2000 concerning opportunities for workplace prevention and employer assistance

programmes (EAPs) for employees with AUD and concluded that EAPS have considerable potential but further research is needed.

In a systematic review of workplace programmes employing brief interventions contained within health and lifestyle checks, psychosocial skills training and peer referral have the potential to produce results. However, it was noted that there were few methodologically adequate studies of work-place alcohol interventions (Webb et al, [++]). Further research is needed to develop this approach in the UK.

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APPENDIX 1

WHY A LITERATURE REVIEW IS NEEDED

There is a paucity of evidence-based literature concerning the relationship between cautions and convictions for alcohol-related offences and alcohol dependency; also the relationship between convictions and cautions for alcohol related offences, alcohol dependency and fitness to practise/work.

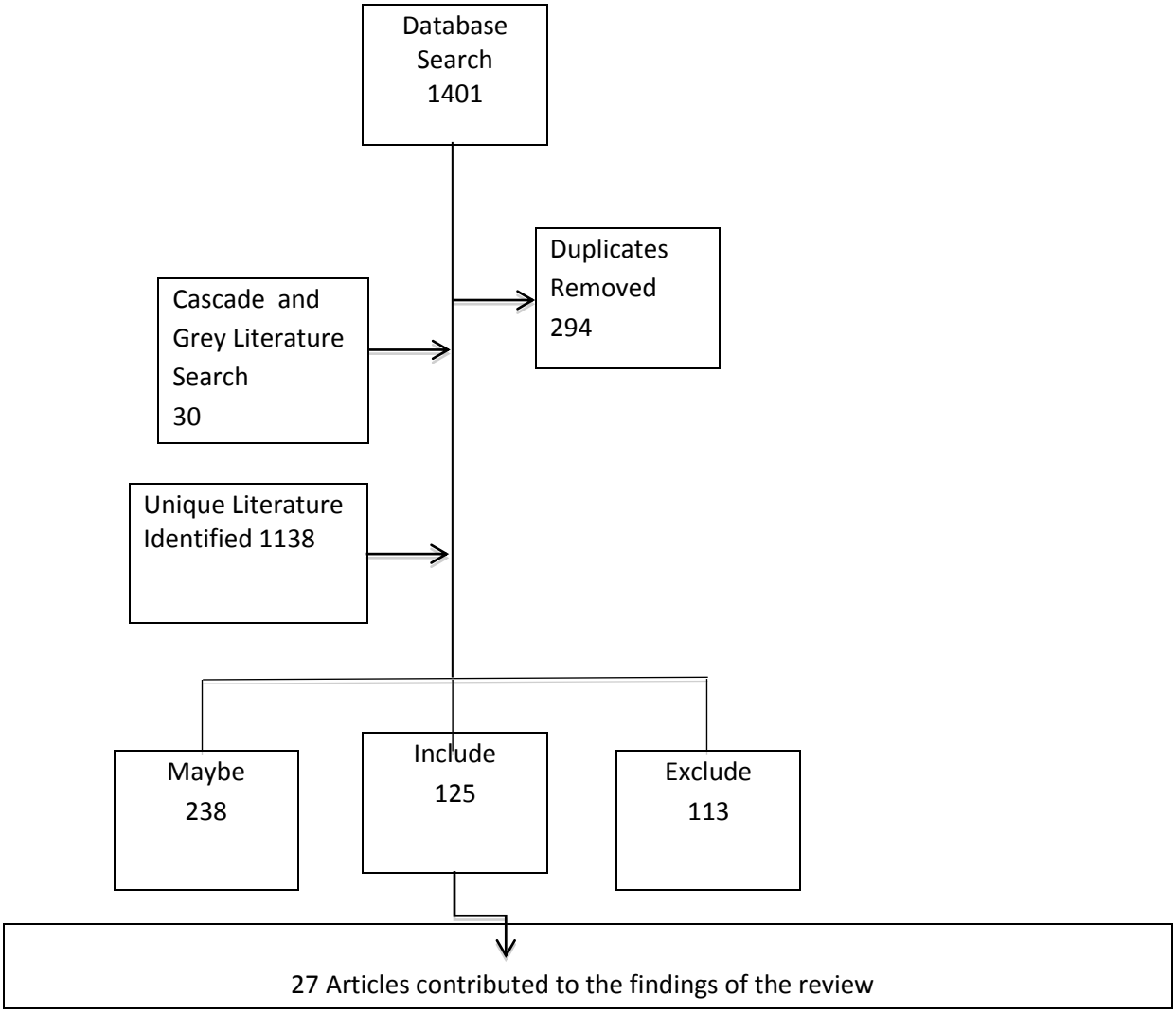
METHODOLOGY

The literature search was undertaken as an evidence review of knowledge with most relevance to the research questions. The search terms convictions and cautions for alcohol-related offences and alcohol dependency did not identify relevant literature so a narrower search was carried out in order to identify whether or not being convicted of driving under the influence was indicative of having a diagnosable substance use disorder, specifically alcohol dependence. We also attempted to identify any association between convictions for driving under the influence of alcohol (DUIA) and a particular occupational group and fitness to practise/work.

LITERATURE SEARCH AND ABSTRACT APPRAISAL

A systematic search strategy was undertaken to identify relevant evidence from 1970 to March 2015. Searches were conducted using the databases PubMed (which indexes Medline, PMC and NCBI Bookshelf); PsychINFO; Web of Science (a Thomson Reuters product which indexes multiple databases such as Medline, Science Citation Index Expanded, Social Sciences Citation Index and related conference proceedings) and Scopus a similar database to Web of Science based on ISSN numbers. Together these products have robust journal coverage for the addictions field.

The search was conducted in November 2014, with a supplement run in March 2015, yielding the following results:



Selection of papers for critical appraisal: The abstracts of 1138 articles from the primary search (n = 1401) were reviewed to identify papers which appeared to include evidence on the link between DUIA and alcohol use disorder. Papers which showed an indication of an assessment of occupational background were also included. A total of 198 articles was retained for review in full by the co-authors. Following a more thorough review it was decided to retain 125 articles (see references). At this stage it was decided that research and other reports that had been published before 2000 would be excluded as the earlier literature used different diagnostic criteria for AUD making comparisons between studies difficult.

A cascade search was also undertaken from the articles reviewed to identify any other key papers and policy documents which may not have been identified. From

this, 12 papers not picked up in the standard search were retained. Grey literature was sought directly from government, membership and regulatory body websites: 30 reports were identified from the 'grey literature', including green and white papers, reports from regulatory bodies and international protocols on fitness to practise were also included in this review.

The review is therefore an exhaustive one of the peer-reviewed literature. Existing review work provided a platform for the review. This included narrative reviews that provided valuable reference sources but were not fully appraised as they did not meet inclusion criteria.

Ultimately of the final 125 articles retained as relevant to the HCPC report 27 were current and have been used as evidence for our recommendations (see inclusion and exclusion criteria below). The review group selected papers firstly on the evidence presented in the research relevant to the link between DUIA and alcohol use disorder, and also retained those with related key issues such as characteristics of those convicted of DUIA, and changes in prevalence rates over the years.

Inclusion and exclusion criteria for evidence reviews

Studies were eligible for inclusion if they were concerned with:

- Epidemiological consequences of drink driving
- Drink driving policy intervention
- Outcomes
- Study design:
    - Epidemiological studies of drinking and driving
        - the prevalence of Alcohol Use Disorders (AUDs) in national roadside surveys;
        - a comparison of prevalence rates of AUDs in samples of drink-driving offenders with prevalence rates of national samples;
        - the relationship between the severity of alcohol dependence and number of drink-driving convictions;
        - attitude to drink-driving offences;
        - drink-driving and ethnicity.

Studies were excluded as follows:

- studies not published in English (abreacts were included)
- studies carried out in developing countries
- literature review studies published before 1990.

Screening and data extraction strategy

The screening of potential studies and documents was based on the above criteria. The initial screening of the search results involved assessment of the titles and abstracts by two reviewers independently, and then full texts. Differences about inclusion were based on discussion, with a third reviewer being involved where necessary. The studies and papers were categorised according to type of study: policy, review level, primary evaluation, epidemiological and risk studies.

Some relevant material did not meet criteria for inclusion. This material was used as background documentation to assist interpretation of evidence as appropriate, as well as to identify primary studies and other relevant work. International documentation was used to analyse experience relevant to the UK.

Quality appraisal strategy

The quality of the systematic review and primary evaluations was assessed according to schemes involving criteria used by the Cochrane Collaboration for public health interventions (Cochrane Collaboration, 2007), and informed by NICE methods, and a recent NICE review on the effectiveness of laws limiting blood alcohol concentration levels to reduce alcohol-related road injuries and deaths (Killoran et al, 2010). Each study was rated according to the extent to which the quality criteria were met as outlined below.

Synthesis

Overall interpretation and synthesis of the evidence took account of the following:

- Overall quality of the evidence
- Degree of consistency of findings

- Applicability of the findings to the UK context.

This synthesis was presented in narrative form, including evidence statements which summarise the overall strength of the evidence. The table below defines the different levels of evidence for the purposes of this review

Quality rating	Definition
++High	All or most of the checklist criteria have been fulfilled. Where the criteria have not been fulfilled the conclusions are very unlikely to alter.
+Good	Some of the checklist criteria have been fulfilled, where they have not been fulfilled, or not adequately described, the conclusions are unlikely to alter.
–Weak	Few or no checklist criteria have been fulfilled and the conclusions are likely or very likely to alter.

Evidence Grid: Relationship between convictions and cautions for alcohol-related offences and alcohol dependency

Study name Study design (quality): N	Age (years)	Gender (%male)	Ethnicity	Geographic location	Sample	Method of assessment	BAC	Diagnosis of alcohol dependency
1) Ashridge et al, 2010 Centre of Addiction and Mental Health (CAMH) Monitor, a repeated cross-sectional telephone survey of Ontario adults: Jan 2002-December 2006 Representative sample N:8276 ++	>18 years Mean age 47.1	Male 46.5% Female 53.5%	19 distinct ethnic groups: British, Canadian, Irish, Scandinavian, Italian, Portuguese, Other Southern European (Spanish), French, German, Dutch, Ukrainian, Polish, Yugoslavian, Other Eastern European, African, West Indian, Chinese, South Asian, Aboriginal and Other Ethnic identity	Ontario, Canada	8276 Ontario adults aged 18 and over	Telephone assessment 12-item General Health Questionnaire (GHQ) 10-item AUDIT	N/A	Prevalence of DUIA (driving under the influence of alcohol). Limited support for presence of ethnic disparities: disparities disappeared when after adjusting for the role of alcohol consumption using AUDIT data (consumption patterns, binge drinking, adverse consequences) The way that ethnicity or race has been applied to many research studies in this field may be flawed
2) Beirness & Davies, 2004, Canadian Addiction Survey Telephone Cross-sectional random sample Self-report driving after drinking and characteristic of those who do so N=13,909 +	Mean age 39.8	Male 78.1%		Canada	Telephone sample	AUDIT 40% of drinking drivers scored 8 or higher on the AUDIT compared with 10% of non-drinking drivers	N/A	AUDIT Drink driving questions 11.6 % licensed drivers reported driving after drinking 86% of all drink-driving trips. Less than 5% of licensed drivers accounted for more than 86% of the past-year drinking and driving occurrences. Drinking drivers compared with non-drinking drivers: more likely to be male, unmarried, to have a full-time job, higher income; to have extensive problematic use of alcohol and more likely to report drug use

Study name Study design (quality): N	Age (years)	Gender (%male)	Ethnicity	Geographic location	Sample	Method of assessment	BAC	Diagnosis of alcohol dependency
3) Chou et al, 2005 Comparison of prevalence rates of drinking and driving between 1991-2 and 2001-2 Surveys of national representative sample of the general population N (2001-2): 5973 +	Age groups 18-29 30-34 45-64				Representative samples of US naiotnal population over 181991-2 NLAES National 2001-2 NESARC	Questions		12 month prevalence rates of driving after drinking 1991-2: 3.7% 2001-2: 2.9% Decline observed in men (5.8% vs 4.4%) No change in rates for women 18-29 men had highest rates (11.6% vs 7.8%)
4) Chou et al 2006 Self-report Cross-sectional National household prevalence survey (2001-2002 NESARC) N: 43, 093 +	See sample	Odds 3 :1 that an adult man would drive while drinking compared to an adult woman	Rate of driving while drinking was greatest in Native American group.	USA National	National house hold survey : 2001-2002 NESARC Sampling frame Young adult group (18-29) at greatest risk of driving while drinking; followed by 30-44 age group	4 questions on drinking and driving 12 month prevalence of: At least once drinking and driving: 11.3% More than once: 4.53%	NR	NR
5) Furr-Holden et al, 2011 Interview study with 15-item AUD questionnaire with stratified random	<21: 615 21-34: 2175 35-44: 863 >45: 989	Men: 2936 Women: 1706	White: 2285 Black/African American: 785 Hispanic: 1030 Other: 531	USA National 60 sampling locations 48	Drivers of non-commercial vehicles Fridays and Saturdays: 10pm-	2007 National Roadside Survey AUD screener and questionnaire 75.5% had	Yes	AUD questionnaire 3 categories - AUD/abuse/ dependence Any AUD: 1037 (22.5%) Dependent : 7.2% Abusive: 6.8% Heavy: 10%

sample BAC estimates N:4614 drivers ++				contiguous states Off road locations	3am - July-Nov 2007	consumed alcohol in past 12 months Intoxicaliser estimate of BAC		Nearly half of drivers with BACs at or over 0.08g/dl had an AUD 1/3 of illegal BACs were in heavy drinkers
Study name Study design (quality): N	**Age (years)**	**Gender (%male)**	**Ethnicity**	**Geographic location**	**Sample**	**Method of assessment**	**BAC**	**Diagnosis of alcohol dependency**
6) Freeman et al, 2005 N:87 -		79 males 8 females		Australia	132 recidivist drink drivers 87 re-interviewed after attending an intervention programme	AUDIT Readiness to Change questionnaire		Supported enrolment of recidivist drink drivers in an intervention programme: positive though modest result
7) Harrison, 1998 -				AustraliaQueensland Victoria	Police data collected at time of alleged drink-driving offence	Breath alcohol levels in allege drink-drivers Occupational status	Evidential breath tests	Two occupational categories accounted for 58% of male drink drivers - 42% : included occupations such as carpenter, electrician, chef, mechanic, gardener, labourer 16%: included occupations such as business manager, company director, public servant, sales representative
8) Ito et al 2015 Randomised clinical trial N: 304 ++	Cohort 19-60 yrs Mean 46 yrs	≥ 90 % male	Japanese	Japan	Heavy drinkers from 6 large companies (>1000 employees) in Japan	Randomised sample into 3 groups: Brief intervention (BI); BI plus diary; control	NR	Compared alcohol free days, total drinks, binge drinking episodes at 12 months Found brief intervention increases number of alcohol free days but not alcohol consumption

Study name Study design (quality): N	Age (years)	Gender (%male)	Ethnicity	Geographic location	Sample	Method of assessment	BAC	Diagnosis of alcohol dependency
9) Khadjesari et al, 2014 Randomised controlled trial Employee from private sector organisation N: 3, 375 ++	Men: Mean age 48 yrs	Male 75%	NR	UK	Employees recruited to take part in online health check including AUDIT-C and alcohol intake questions	Online health questionnaire in workplace Follow-up questionaries after 3 months	NR	Two online groups Those with AUDIT-C score above 5 Randomised: personal feedback + feedback on other health issues OR feedback on everything except alcohol use Personalised feedback did not impact on alcohol consumption at follow-up
10) Korzec et al, 2001 Diagnosis alcoholism in high-risk drink drivers N: 241 +	Men: Mean age 42.1%	Only male 212 DUI	Netherlands Amsterdam	Drug Traffic Test Organisation, Disqualification Division	Male DUIA referred for medical examination	SCID-CV CAGE CDP and RDP Blood tests: MCV; GGT; CDT; ALT, AST Prevalence estimate	BAC at arrest BAC ≥ 50 mg/dl BAC ≥ 210 mg/dl	SCID-CV CAGE CDP and RDP DSM-IV
11) Lapham et al, 2001 Study of convicted drunk drivers N: 1105 ++	Men <30: 177 <30-34: 111 35-39: 93 40-44: 54 45-54:58 Women <30: 201 30-34: 151 35-39: 109 40-44:75 45-54: 76	Men: 493 Women: 612	Non-Hispanic white men: 212 Hispanic men: 281 Non-Hispanic white women: 256 Hispanic women: 356	USA New Mexico	First offender driving while impaired population referred to a screening programme	Diagnostic Interview Schedule DSM-III-R Alcohol Use Disorders	Mean BAC at arrest: 0.16g.dl	Comparison with National Co-morbidity Survey (NCS). Diagnostic Interview Schedule Lifetime and 12-month prevalence DSM3-R -85% or female and 91% of male offenders reported a lifetime alcohol use disorder cf 22% and 44% respectively in the NCS. -Of those with AUD, 50% women, 33% men had additional psychiatric disorder (PTSD or major depressive disorder). -Drink drivers need assessment and

								services for alcohol, drug and psychiatric disorders
Study name Study design (quality): N	**Age (years)**	**Gender (%male)**	**Ethnicity**	**Geographic location**	**Sample**	**Method of assessment**	**BAC**	**Diagnosis of alcohol dependency**
12) Lapham et al, 2004 Retrospective study (study sample pub 2000) N: 1078 +	Age at screening 17-20: 162 21-34: 649 35 + : 267	Men: 495 Women: 583	White Non-Hispanic Hispanic American Indian Other	New Mexico, USA	Convicted DWI offenders referred for screening	Self-report assessments Interviews	NR	DSM-III-R criteria Diagnostic Interview Schedule (DIS) QDIS3R
13) Lapham et al, 2006 Retrospective study N: 459 ++	Age at screening < 31: 122 31 +: 122 39+: 112 ≥ 46: 116	Men: 385 Women: 74	White Non-Hispanic Hispanic	USA Portland, OR	Repeat impaired driving offenders enrolled in supervision programme	Interview Baseline assessment	NR	CIDI Lifetime Psychiatric Disorders PTSD Drug/Alcohol Disorder Assessment and treatment should provide psychiatric as well as drug use care.
14) Lapham et al, 2011 Point-in-time cohort study N:582 ++	NR (but see below)	Men: 220 Women: 362	Hispanic White Non-Hispanic	USA New Mexico	First offender driving while impaired population interviewed 15 years later	Interview	NR	CIDI
15) Lapham et al, 2012 Retrospective study Community sample interviewed 15 years after a first conviction for drink driving (Same sample as above) ++	Age at screening <31:457 31+: 259	Men: 283 Women: 413 Women 59% Sampled from larger cohort	Non-Hispanic white :267 Hispanic: 305 Native American: 96 Mexican: 10 Other: 38	USA New Mexico	First offender driving while impaired population interviewed 15 years later	Interview	Arrest BAC <0.15: 250 > 0.15 : 365 Unknown: 101	CIDI Psychiatric Disorders Cognitive Lifetime Drinking History Younger age at initiation to drinking and co-occurrence of psych and substance use disorders associated with poorer trajectory of subsequent drinking behaviour

Study name Study design (quality): N	Age (years)	Gender (%male)	Ethnicity	Geographic location	Sample	Method of assessment	BAC	Diagnosis of alcohol dependency
16) Latala et al, 2011 Retrospective, longitudinal Study High Risk drink drivers seeking relicensing DUIs N = 5701	≥18 years	NR	Polish drivers	Reginal Centre for Occupation Medicine, Krelce, Poland	DUIs who had been re-examined for re-licencing 3yr intervals 2004 - 2010	Retrospective data analysis of medical interview, Health Assessment, blood tests (GGT, AST and ALT Psychiatric assessment	Na	Yes Found 3.8% were alcohol dependent 5% had mental health disorders Recommended that need to monitor DUIs for AUDs and mental health
17) McCutcheon et al, 2009 High risk sample Collaborative Study on the Genetics of Alcoholism (COGA) DUIs N: 2714 ++	Mean age probands at t1: 36 Mean age at t2: 41.3 Mean ages of siblings No DUI: 39 1 DUI: 40.5 2 DUIs: 39.7 3+ DUIs: 40.4	Men: 1289 Women: 1435	White African American Other - Reported as per DUI status	6 centres across the US	Siblings of probands who participated in the COGA protocol	Interview		Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA): assessments for alcohol and drug use and dependence; major depression; panic disorder; PTSD; conduct disorder; and ASPD DUI question: none one (1), two (2) and three or more (3+) DUIs. Individual with two or more DUIs showed evidence of greater severity of alcohol dependence than those with none or one DUI. The same was found for co-occurring lifetime psychiatric disorders

Study name Study design (quality): N	Age (years)	Gender (%male)	Ethnicity	Geographic location	Sample	Method of assessment	BAC	Diagnosis of alcohol dependency
18) Office of National Statistics 2007 Health Statistics Quarterly Retrospective N: 23,000 ++	Census 16-74 Mortality data Age 20-64	Men: 15, 436 Women: 7, 477	NR	England & Wales	2001 Census data Extraction of annual files of deaths 2001-05 by different occupational group Standard Occupational Classification 2000 (SOC2000)	Those in paid employment. Compare proportion of that are alcohol related deaths in particular occupation	Na	Death selected according to ICD-10
19) Okamura et al, 2014 DUI offenders Cross-sectional survey of attitudes N: 219 +	43.50	All men	Japanese	Tokyo, Japan	Convicted male DUI offenders	Interview and questionnaires Blood test in subsample. Locus of control (LOC) AUDIT TLFB KAST-M Readiness to Change Questionnaire Behaviours and Attitudes Drinking and Driving Scales Drinking Refusal Self-efficacy Questionnaire – revised	Samples from 112 subjects: Gamma GT. AST, ALT, MCV	Alcohol use pattern and personality traits typical of DUI offenders, also DUI-specific attitudes/ behaviour varied across the sample 26-36% potential alcohol dependent 5 subgroups identified (cluster analysis): A once-off mistake (1 and 2) Alcohol dependence (3) Tendency to rationalise/higher likelihood of future DUI (4) Abstained from alcohol after conviction (5)

Study name Study design (quality): N	Age (years)	Gender (%male)	Ethnicity	Geographic location	Sample	Method of assessment	BAC	Diagnosis of alcohol dependency
20) Quinlan et al, 2005 Retrospective Analysis of BRFSS survey data 1993 – 2002 Telephone survey +	Age alcohol-impaired driving episode 18-20 yrs 21-34 yrs 35-54 yrs ≥ 55 yrs	Ratio men: women varied in each year of study	White Black Hispanic Other	United States District of Columbia	Estimates of the proportion, total number of episodes, and rate (per 1000 population) of self-reported alcohol-impaired driving	Analysis Centre for Disease Control (CDC), Behavioural Risk Factor Surveillance System (BRFSS) for episodes of alcohol-impaired driving. Compare national telephone survey.	≥0.08 g/dL	Alcohol impaired driving (AID) strongly associated with binge drinking Need interventions to prevent AID and binge drinking. Monitoring helps to gauge effectiveness of prevention efforts. Combination approaches needed.
21) Roman and Blum 2002 Review of workplace programs to prevent and reduce alcohol-related problems among employees +	Workplace (adult)	Both	USA	USA	Reviewed 57 references between 1975 - 2000	Literature review of opportunities for workplace to provide prevention and EAP		Workplace programmes have considerable potential but more research is needed
22) Snow and Wells-Parker 2001) Cross-sectional screening questionnaire DUI offenders N 5512 +	Mean age: 35.4	Men: 85.8% Women: 14.2%	White: 64.4% Black : 33.9% Other: 1.7%	USA Mississippi	Convicted DUI offenders who attended Mississippi Alcohol Safety Education Program (MASEP): Jan 1996-Feb 1999	MFQ AUDIT Mean score (10)	N/A	Frequency of drinking in a moving car was strongest predictor of AUDIT score Implies that the car may be an important drinking location for the heavy drinker
23) Timko et al 2010 Follow up study at 1,	Baseline Mean 34.7	Men: 52.9% Women: 47.1%	White 81.4%	USA	Individuals with alcohol problems who, at baseline, had not received	Follow-up 1, 3, 16 yrs. Telephone survey completion of inventory	N/A	More extended participation in out-patient treatment and Alcoholics Anonymous (AA) during Year 1 was associated with a lower likelihood of

3 and 16 years N: 628 ++					treatment for their disorder	At baseline + 1- and 16-year follow-ups Q on DWI Health and Daily Living Form; Alcohol Depend Scale; Situational Confidence Questionnaire; Help obtained (AA).		DWI at the 16-year follow-up. Improvement on personal functioning and life context indices was associated with reduces risk of subsequent occurrences of DWI.
Study name **Study design (quality): N**	**Age (years)**	**Gender (%male)**	**Ethnicity**	**Geographic location**	**Sample**	**Method of assessment**	**BAC**	**Diagnosis of alcohol dependency**
24) Webb et al, 2009 Systematic review of the literature on work-place interventions for alcohol-related problems 10 papers located for period from Jan 1995-Sept 2007 4 papers were randomised controlled trials but all had methodological problems ++	Adults in the workplace	Both	No restriction	Na	10 references were included in the evidence base	Systematic review		Brief interventions contained within health and lifestyle checks, psychosocial skills training and peer referral have the potential to produce results

Study name Study design (quality): N	Age (years)	Gender (%male)	Ethnicity	Geographic location	Sample	Method of assessment	BAC	Diagnosis of alcohol dependency
25) Webster et al 2010 Retrospective study of substance abuse records N: 21, 135 records -					Individuals convicted of DUI in Kentucky and who completed treatment in 2005	Drug Abuse Screening test DSM-IV-R substance abuse and dependence disorders AUDIT	NA	Scores on the DAST, DSM-IV-R diagnoses and rates of education/treatment non compliance were associated with rurality. Problem severity among DUI offenders may be greater in rural areas where treatment services are lacking.
26) Wells-Parker et al, 1995 Meta-analysis of 215 studies ++				Mainly from United States				The average effect of remediation on drinking/driving recidivism was an 8-9% reduction over no remediation.. A combination of modalities - psychotherapy/counselling, education and follow-up contact/probation) were more effective than other evaluated modes for reducing drinking/driving recidivism. Conclusion: Treatment effects are probably underestimated in the literature due to overemphasis on education as a treatment for all offenders.
27) Williams 2006 Literature Review Alcohol Impaired Driving over 25 years +	NA	Various	Various	United States	Various	Various	Various	Various

APPENDIX 3
The AUDIT Questionnaire

The Alcohol Use Disorders Identification Test: Self-Report Version

PATIENT: Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential so please be honest.

Place an X in one box that best describes your answer to each question.

Questions	**0**	**1**	**2**	**3**	**4**
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
3. How often do you have six or more drinks on one occasion ?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session ?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
7. Howoftenduringthelastyear have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
8. How often during the last year have you been unable to remem- ber what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year
					Total

Appendix 3 – Response to recommendations

Recommendation	Executive response
1. It is recommended that HCPC registrants should be required to report all drink driving incidences to their employer.	**Accept – already in place** Where registrants are employed, they will be contractually obliged to inform their employers of matters material to their employment, including drink driving convictions. The Standards of conduct, performance and ethics require all registrants to inform us if they accept a caution from the Police or if they are charged with, or are found guilty of, a criminal offence. We also require registrants to inform us if they have had their practice restricted or been suspended or dismissed by an employer because of concerns about their conduct or competence. We have considered fitness to practise cases where the failure of a registrant to inform their employer and/or the HCPC of a caution or conviction has featured in the allegations.
2. Those who report a conviction for drink-driving in the last three years should undergo a formal assessment to investigate for alcohol and drug use disorders and also for co-morbid psychiatric disorders.	**Do not accept** The Executive considers that there is an insufficient evidence base to indicate that routine health assessments should be introduced. This recommendation is not justified in the report. The literature did reveal some evidence of a link between drink driving offences and alcohol user disorders but there was a lack of evidence linking this to impaired fitness to practise or work performance or evidence to indicate the value of health assessments in identifying underlying health issues which would pose a risk to public protection.

Appendix 3 – Response to recommendations

3. The HCPC should consider providing a generic leaflet for individual registrants with a drink driving conviction, signposting them to their GP and possibly a local drug and alcohol service and/or to mutual aid groups.	**Do not accept** The suggestion that HCPC should produce public health advice is beyond our remit as a statutory regulator with a protection of the public remit. We will always signpost registrants involved in fitness to practise proceedings to other sources of support and help where possible if relevant and if known to us. We have previously met with representatives of national services that provide support to health professionals with health problems (although these can sometimes be limited only to doctors in training).
4. Workplaces employing HCPC registered staff should have workplace drug and alcohol policies and these should be audited.	**Not for the HCPC** This recommendation is not for the HCPC. Most employers will have drug and alcohol policies in place as part of routine employment practice. The literature review does not appear to provide any evidence to suggest that this is not the case.
5. The HCPC should consider providing a health and well-being leaflet for all individual registrants that should include general advice/ guidance on safe drinking levels and signposting to helpful websites such as NHS Choice, GP and mutual aid groups.	**Do not accept** The suggestion that HCPC should produce public health advice is beyond our remit as a statutory regulator with a public protection remit.
6. Early detection is important for women. More intense interventions/treatment at an earlier stage may reduce recidivism. This is important for women who are more likely to have psychiatric co-morbidity and are less likely to seek early help for drinking problems.	**N/a – this is not a recommendation as such**

Appendix 3 – Response to recommendations