BISTAIRS Project

Brief interventions in the treatment of alcohol use disorders in relevant settings

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Managing risky drinking in primary care settings

Good practice guidance to identify, assess and manage risky drinking in primary health care, emergency care, workplace and social service settings

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CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Harm done by alcohol

1. Since alcohol is a casual factor in over 200 different medical disease and conditions, including cancers, cardiovascular diseases, gastrointestinal diseases, mental and behavioural disorders, and communicable diseases, it inevitably impacts the work of primary health care providers.
2. Since alcohol is a casual factor in injuries, it inevitable impacts the work of accident and emergency departments
3. Since alcohol is a contributory factor in absenteeism and presenteeism, it inevitably impacts employers.
4. Since alcohol is a contributory factor in crime, road traffic offences and domestic violence, it inevitably impacts the work of social workers and probation officers.
5. Since alcohol incurs social costs to health systems, criminal justice systems and contributes to lost productivity, alcohol is inevitably of concern for government departments of health, criminal justice and labour and for joined up action by governments as a whole.

Primary health care

6. Only about 1 in 20 of patients in primary health care settings who are risky drinkers are screened for alcohol consumption or offered brief advice.
7. There is robust evidence for the effectiveness and cost effectiveness of screening and brief advice programmes to reduce risky drinking by adults delivered in primary health care. Such interventions can reduce alcohol consumption and alcohol-related morbidity and mortality, and can be cost saving with reduced health care costs exceeding implementation costs.
8. The main barriers to delivering screening and brief advice programmes in primary health care, as expressed by providers themselves, is lack of time, lack of training, lack of available simple to use materials, and lack of specialist services to which to refer patients with more serious alcohol use disorders.
9. There is evidence to suggest training and support programmes, availability of screening and brief advice programmes, and incentives are effective in increasing primary health care based screening and brief advice programmes.
10. In countries with roughly comparable longitudinal data, the evidence suggests that primary health care provider attitudes and delivery of screening and brief advice programmes for risky drinking has not improved over the last ten to twenty years.
11. There is an insufficient evidence base to determine whether or not programmes should be adapted for younger and older risky drinkers.
12. There is an insufficient evidence base to determine whether or not brief advice programmes are effective for risky drinking by pregnant women.

Pharmacy settings

13. Research is being conducted to determine whether or not screening and brief advice programmes are effective when delivered in pharmacy settings.

Accident and emergency departments

14. There is mixed evidence, but, on balance, screening and brief advice programmes are probably effective and cost-effective when delivered in accident and emergency departments. One study has suggested that giving a patient information leaflet is as effective as brief and extended advice.

General hospitals

15. There is evidence that screening and brief advice programmes are effective when delivered in general hospital wards.

Treatment for alcohol use disorders

16. There is evidence that cognitive behavioural therapy and pharmacotherapy are effective in treating alcohol use disorders.

Workplaces

17. There is an insufficient evidence base to determine whether or not brief advice programmes are effective for risky drinking when delivered by occupational health services.
18. Workplace alcohol policies embedded in wellbeing at work policies that also deal with workplace structural determinants of risky drinking are probably effective and cost effective in reducing alcohol related harm and costs and in increasing productivity.

Social service and criminal justice settings

19. There is an insufficient evidence base to determine whether or not brief advice programmes are effective for risky drinking in social service and criminal justice settings. One study has suggested that giving a client information leaflet is as effective as brief and extended advice.

E- and M- health

20. There is an increasing evidence base to suggest that screening and brief advice programmes delivered through E-health and M-health platforms are effective in reducing risky drinking.

Alcohol policy

21. There is a robust and consistent evidence base that environmental policies, including alcohol price increases, restrictions on alcohol availability and restrictions and bans on commercial communications for alcohol are highly effective and cost effective in reducing alcohol-related morbidity and mortality, alcohol related crime and violence, and in increasing productivity.

Recommendations

Primary health care providers

22. Based on consistent and robust evidence, all primary health care providers should offer screening and brief advice for risky drinking to their adult patients (age 18+ years), using the AUDIT-C screening instrument and intervention material based on national guidelines, for example the UK SIPS material; target groups include new practice adult registrations, adults with raised blood pressure, and males aged 45-64 years.
23. All such patients should be informed of available evidence-based e-health and m-health applications for reducing risky drinking.

Accident and emergency department health care providers

24. Although the specific evidence base is not consistent or conclusive, all adults (age 18+ years) attending an accident and emergency department with an injury should be given a patient information leaflet on risky drinking based on national guidelines, for example the UK SIPS material.
25. All such patients should be informed of available evidence-based e-health and m-health applications for reducing risky drinking.

Occupational health care providers

26. Although the specific evidence base is not consistent or conclusive, all occupational health care providers should offer all their adult employees, as part of confidential voluntary health checks, screening and brief advice for risky drinking, using the AUDIT-C screening instrument and intervention material based on national guidelines, for example the UK SIPS material; target groups include adults with raised blood pressure, and males aged 45-64 years.
27. All such patients should be informed of available evidence-based e-health and m-health applications for reducing risky drinking.

Social workers and probation officers

28. Although there is not an available specific evidence base, all adults (age 18+ years) being seen by social workers and probation officers with a case file related to a criminal offence, a drink-driving offence or family violence or neglect should be given a client information leaflet on risky drinking based on national guidelines, for example the UK SIPS material.
29. All such clients should be informed of available evidence-based e-health and m-health applications for reducing risky drinking.

Health systems

30. All health departments, institutions or organizations involved with health system management and/or funding and all health insurance companies should:
    a. Demand that relevant bodies prepare clinical guidelines for delivering screening and brief advice programmes for risky use in primary health care, accident and emergency departments and general hospitals;
    b. Facilitate the widespread availability and uptake of appropriate training for screening and giving brief advice for risky drinking
    c. Facilitate the widespread availability of relevant office support materials (screening and brief advice instruments) required for screening and giving brief advice for risky drinking
    d. Develop and implement appropriate incentives, financial or otherwise, for primary health care providers and their patients to participate in screening and brief advice activities.
    e. Report every two years on progress in screening and brief advice giving rates in primary health care.
    f. Facilitate the development and availability of evidence-based e-health and m-health applications for risky drinking
    g. Support research to investigate the impact and implementation of pharmacy-based screening and brief advice initiatives.
    h. Ensure that specialist treatment facilities for the treatment of alcohol dependence are available for all those who need them, with seamless provision built between primary and secondary care.

Employers

31. All employers should implement evidence based workplace health and well-being initiatives that include policies and actions on alcohol.
32. All employers should introduce alcohol free work places and work times.
33. All employers should review and adjust management styles, practices and structures that are themselves precursors to risky drinking.

Social services and criminal justice systems

34. All social service and criminal justice systems should support the development, feasibility and implementation of screening and brief advice initiatives for risky drinking in appropriate social service and criminal justice settings

Governments

35. All governments should develop joined up actions and policies across different departments and sectors to implement the three best buys of alcohol price increases, alcohol availability decreases and bans on all forms of commercial communications on alcohol.

BISTAIRS field testing

Primary health care

Since the main problem in primary health care is one of implementation, it is recommended that BISTAIRS focuses on discussions with Departments of Health responsible for primary health care services at national, regional and municipal levels, as appropriate, with financers of health services, with insurance companies and with professional bodies representing primary health care providers to discuss and develop plans for the implementation of screening and brief advice programmes in primary health care.

Accident and emergency departments

Since the main problem in accident and emergency departments is one of implementation, it is recommended that BISTAIRS focuses on discussions with professional bodies representing health care providers working in accident and emergency departments to discuss and develop plans for the implementation of screening and brief advice programmes in primary health care.

Occupational health services

Since the main problem in occupational health services is one of implementation, it is recommended that BISTAIRS focuses on discussions with professional bodies representing occupational health care providers to discuss and develop plans for the implementation of screening and brief advice programmes in primary health care. BISTAIRS should not engage in work place alcohol policies, as this is being undertaken by the European Commission co-financed European Workplace Alcohol project.

Social service and criminal justice systems

Since the main problem in social service and criminal justice systems is lack of evidence, it is recommended that BISTAIRS focuses discussion with research funding bodies at European and national levels to propose calls for research in this area.

1. INTRODUCTION

Risky drinking: Risky drinking is not easy to define. For most alcohol-related health conditions, risk simply increases with the amount of alcohol drunk both regularly and on any one occasion. Regular drinking of 20g alcohol a day is associated with about a 1 in 100 chance of dying from an alcohol-related condition. Many studies that have investigated the impact of brief advice in helping heavier drinkers to reduce their drinking would often include adults drinking just over 20g alcohol or more as in need of advice to cut down. For pragmatic purposes, risky drinking could thus be defined as over 20g alcohol. As such, risky drinking is highly prevalent in the European Union. In 2009, average adult consumption amongst drinkers was 30 grams alcohol a day (Rehm et al 2012). One in eight adults drank at least 60g on any occasion several times a week, with nearly five per cent of men, but only 1 in 1,000 women doing this every day (Shield et al 2012).

Consequences of risky drinking: Alcohol and risky drinking impact on a wide variety of outcomes that affect people's health and well-being, including ill-health and premature death, accidents and violence, diminished educational achievement, impaired performance and productivity at work, and crime and impaired family functioning. Thus, professionals working in primary health care, accident and emergency settings, workplace and social service and criminal justice settings will inevitably come across clients whose drinking is affecting their own health and well-being and that of those around them, including family and friends, and for whom brief advice could be effective in helping such clients reduce the levels of risky drinking. Brief advice is not complicated, builds on the skills many such professionals already have, and can be delivered in five to ten minutes.

Advice and treatment gap: It has been estimated that about only 1 in 20 of those with risky drinking are actually identified and offered brief advice by a primary health care provider (WHO 2009; Wolstenholme et al 2012). Similarly, across different European countries, the European Commission co-financed AMPHORA project (www.) found that between 1 in 4 and 1 in 28 adults with a diagnosis of alcohol dependence have actually seen a specialist for treatment (Wolstenholme et al 2012).

About this guidance: By identifying, systematising and extending good practice across the European Union (EU), the BISTAIRS project (Brief Interventions in the Treatment of Alcohol Use Disorders in Relevant Settings) aims to intensify the implementation of brief advice for risky drinking in primary health care, emergency care, workplace and social services settings. The BISTAIRS project is co-financed by the European Commission and involves seven partners from six EU member states (University of Hamburg; University of Newcastle; Fundacio Clinic per al la Recera Biomedica, Barcelona; Istituto Superiore Di Sanità, Rome; Generalität de Catalunya, Barcelona; National Institute of Public Health, Prague; and the Addictive Behaviour and Drug Addiction Intervention Service, Lisbon).

Purpose and target readership: This good practice guidance aims to support the work of a range of professionals working in primary care settings to diagnose, assess and manage risky alcohol consumption. In doing so, it will guide the BISTAIRS research project by listing a series of best practice steps that can be field tested in order to assess the feasibility, practicability and cost effectiveness of implementing brief advice for alcohol use disorders in primary health care, emergency care, workplace and social service settings.

How was the guidance produced: This guide was developed by the BISTAIRS research partnership and draws on systematic reviews undertaken specifically for the BISTAIRS project (Schmidt et al 2013). The guidance was authored by Professor Peter Anderson, Institute of Health and Society, Newcastle University, Ms Amy O'Donnell, Institute of Health and Society, Newcastle University,

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2. BACKGROUND AND KEY CONCEPTS

Impact on health and well-being

Alcohol is an intoxicating drug affecting a wide range of structures and processes in the central nervous system, which, interacting with personality characteristics, associated behaviours and socio-cultural expectations, is a casual factor for intentional and unintentional injuries and harm to people other than the drinker, including impaired educational achievement, reduced job performance and absenteeism, family deprivation, interpersonal and sexual violence, suicide, homicide, crime, and drink driving fatalities, and a contributory factor for risky sexual behaviour, sexually transmitted diseases and HIV infection (See Anderson et al 2009).

Alcohol is a potent teratogen with a range of negative outcomes to the foetus, including low birth weight, cognitive deficiencies and foetal alcohol disorders. Alcohol is neurotoxic to brain development, leading, in adolescence, to structural hippocampal changes, and, in middle age, to reduced brain volume. Alcohol is a dependence producing drug, similar to other substances under international control, through its reinforcing properties, and neuro-adaptation in the brain. Alcohol is an immunosuppressant, increasing the risk of communicable diseases, including tuberculosis, HIV/AIDS and pneumonia (See Anderson et al 2009).

Alcoholic beverages are classified as carcinogenic by the International Agency for Research on Cancer (2010), increasing the risk of cancers of the oral cavity and pharynx, oesophagus, stomach, colon, rectum and breast in a linear dose-response relationship, with acetaldehyde as a potential pathway. The toxic threshold for alcohol for a human of weight 74 kg has been estimated as 32 grams of alcohol a day, similar to the amount the average European adults drinks a day (See Anderson et al 2013). According to the European Food safety Authority guidelines for limits for genotoxic carcinogens, consumption limits would be one thousandth this toxic dose, just over one drink a year.

Alcohol use is detrimental to many cardiovascular outcomes, including hypertension, haemorrhagic stroke and atrial fibrillation (see Anderson 2012). The alcohol-attributable fraction for hypertensive diseases increases linearly with alcohol consumption. At 60 grams of alcohol per day, nearly three fifths of all hypertensive disease is due to alcohol. Alcohol has a bi-form relation with coronary heart disease. In low, and apparently regular doses (as little as 10g every other day), alcohol is cardio-protective, although doubt remains about the impact of confounders. The protective effect disappears when drinkers report at least just one heavy drinking occasion (six drinks) per month and is attenuated in overweight drinkers (See Anderson et al 2013).

At the individual level, the risk of a lifetime attributable death from a chronic alcohol-related condition increases linearly from zero consumption in a dose-response manner with the volume of alcohol consumed, and from an acute alcohol-related condition increases from zero consumption in a dose response manner with frequency of drinking and exponentially with the amount drunk on an occasion (National Health and Medical Research Council 2009). In Australia, it has been estimated that at a daily consumption of 20g alcohol, the lifetime risk of dying from an alcohol related condition for both men and women is 1 in 100. The risk increases to 14 in 100 at a consumption level of 80g (a bottle of wine) a day. These risks will be similar, but not identical in European populations. When including protection from ischaemic heart disease, a UK study estimated that for men and

women under 75 years of age, the level of consumption with the lowest risk of death was 3g a day, some ten times lower than most recommended levels of consumption limits (Nichols et al 2012).

Over two-fifths of alcohol-caused deaths come from intentional and unintentional injuries, over one fifth from cancers, and one in 7 from cardiovascular diseases and diabetes mellitus. The contribution of heavier drinking defied as 40+ g of pure alcohol per day for women and 60+ g for men to alcohol-related mortality has been studied in the European Union (Rehm et al 2012). About 80% of all alcohol-related deaths (net of any protective effect) arise in such drinkers. The heavier drinking category also includes people who are dependent on alcohol. Just over 70% of all alcohol-related deaths (net of any protective effect) arise in people who are dependent on alcohol .

In 2010, it has been estimated that worldwide alcohol was the world's fifth most important risk for disability adjusted life years (DALYs), a summary measure of ill-health and premature death, after high blood pressure, tobacco smoking (including second hand smoke), household air pollution from solid fuels, and a diet low in fruits, having been ranked eighth in 1990. In 2010, alcohol was estimated as the sixth most important risk factor for DALYs in western Europe, the fourth in central, and the first most important in eastern Europe.

It is mostly the middle-aged (and men in particular) who die from alcohol (Jones et al., 2009; Rehm et al., 2011). In the European Union, over four fifths of all premature alcohol-related deaths occur in men and over two thirds occur in those aged 45-64 years. People who are socially disadvantaged or people who live in socially disadvantaged areas experience more harm per gram of alcohol consumed than the better-off (Rehm et al,. 2009). In Finland, areas with higher levels of manual workers or of unemployment and areas with lower social cohesion had higher levels of alcohol-related mortality among men aged 25–64 years. In the same way, social networks matter. Changes in alcohol consumption among a person's social network have a significant effect on that person's subsequent behaviour, in terms of not drinking (when more of the network abstain) or of drinking heavily (when more of the network drink heavily) (Rosenquist et al., 2010).

Key concepts

Risk of alcohol Given that the risk of an alcohol-related death increases linearly with the volume of average daily consumption from zero, there is no level of alcohol consumption without risk. Australian guidelines advise that no man or woman should drink more than 20g alcohol (two drinks) per day to keep the lifetime risk of dying from an alcohol-related condition to less than 1 in 100 (National Health and Medical Research Council 2009).

Cut off levels for giving advice to adults Most professional bodies recommend using the AUDIT instrument to guide when advice to cut down on drinking should be given (Babor et al 2001), Annexe 1. The AUDIT (Alcohol Use Disorders Identification Test) is a 10-question instrument designed to see if people are drinking riskily and warrant advice to cut down. A score of 8 or more is considered a level that warrants brief advice. Many professional bodies also recommend just the use of the first three alcohol consumption questions of the AUDIT as a short version of the instrument, Annexe 2. Here, cut off scores of 5 or more for men and 4 or more for women are used. Such a cut-off score could include someone drinking just over 20g alcohol (two drinks) or more a day. An AUDIT score of 16 or more would suggest that alcohol is causing the drinker substantial harm, and a score of 20 or more that they are dependent on alcohol, a maladaptive pattern of alcohol use, leading to clinically significant impairment or distress.

Brief advice for alcohol: Brief advice for alcohol refers to the use of structured, talk-based advice or counselling which is aimed at reducing alcohol consumption. There are two main types of brief advice: either a short session of structured brief advice or a longer, more motivationally-based session (that is, an extended brief advice – see below). Both aim to help someone reduce their alcohol consumption (sometimes even to abstain) and can be carried out by non-alcohol specialists. Brief advice can also be accompanied by additional components such as information leaflets, drinking diaries, web-based resources, and booster sessions to reinforce the initial brief advice.

The five As: brief advice programmes can be based around the behavioural counselling framework known as "the five As":

1. *assess* alcohol consumption with a brief screening tool, followed by clinical assessment as needed;
2. *advise* patients to reduce alcohol consumption to lower levels;
3. *agree* on individual goals for reducing alcohol use or abstinence (if indicated);
4. *assist* patients in acquiring the motivations, self-help skills or support needed for behaviour change; and
5. *arrange* follow-up support and repeated counselling, including the referral of dependent drinkers to specialty treatment.

Extended brief advice: This is motivationally-based and can take the form of motivational enhancement therapy or motivational interviewing. The aim is to motivate people to change their behaviour by exploring with them why they behave the way they do and identifying positive reasons for making change. Motivationally-based advice is also referred to as 'extended brief advice'.

FRAMES: is an acronym summarising the key components of brief advice: **F**eedback (on the client's risk of having alcohol problems); **R**esponsibility (change is the client's responsibility); **A**dvice (provision of clear advice when requested); **M**enu (what are the options for change?); **E**mpathy (an approach that is warm, reflective and understanding); and **S**elf-efficacy (optimism about the behaviour change).

Training and communication: Training for all staff involved in the delivery of brief advice is vital to ensure that individuals receive the best quality service. Training should cover the practicalities of brief advice delivery, including: role plays; the barriers and challenges; pathways to additional support; and the principles and theories behind brief advice, such as motivational interviewing. The European Commission co-financed PHEPA project (www.) prepared a training programme that can be adapted for local use (Gual et al 2005).

Person–centred approach: In delivering brief advice for alcohol, professionals should be mindful of the need to build a trusting relationship with clients; and to work in a supportive, empathic and non-judgmental manner. Stigma and discrimination are often associated with risky drinking and as a result, those presenting to services may seek to minimise their alcohol problem. Discussions should be held settings in which confidentiality, privacy and dignity are respected. Any information provided should be appropriate to the person's level of understanding about the nature and treatment of alcohol use disorders to support choice from a range of evidence-based treatments, and should be available in an appropriate language or in an accessible format.

Validated tools: Advice should be based on a relevant evidence-based tool, which should guide the structure and duration of the advice. The brief advice tool prepared for the UK SIPS trial (www.) is one option, Annexe 3.

Population-level approach: Delivering brief advice is just one part of an effective comprehensive approach to reducing the harm done by alcohol. A full combination of policies is needed to reduce alcohol-related harm to the benefit of society as a whole. Population-level approaches that include raising the price of alcohol, limiting the availability of alcohol and banning the advertising of alcohol (WHO's three best buys, World Economic Forum and World Health Organization 2011) are important because they can help reduce the aggregate level of alcohol-related harm. They can help those who are not in regular contact with the relevant services and those who have been specifically advised to reduce their alcohol intake, by creating an environment that supports lower-risk drinking.

3. PRIMARY HEALTH CARE

3.1 Effectiveness of primary health care based interventions

Based on the findings of at least 26 published reviews, there is robust evidence for the effectiveness and cost–effectiveness of primary health care based responses in reducing risky drinking (Kaner 2012; Schmidt et al 2013; Elzerbi et al 2013). Brief advice in primary health care has been shown consistently to reduce the quantity, frequency and intensity of drinking, and alcohol-related morbidity and mortality. Although brief advice has been found to reduce overall health costs, it is not clear that they actually reduce subsequent inpatient or outpatient utilization of health services.

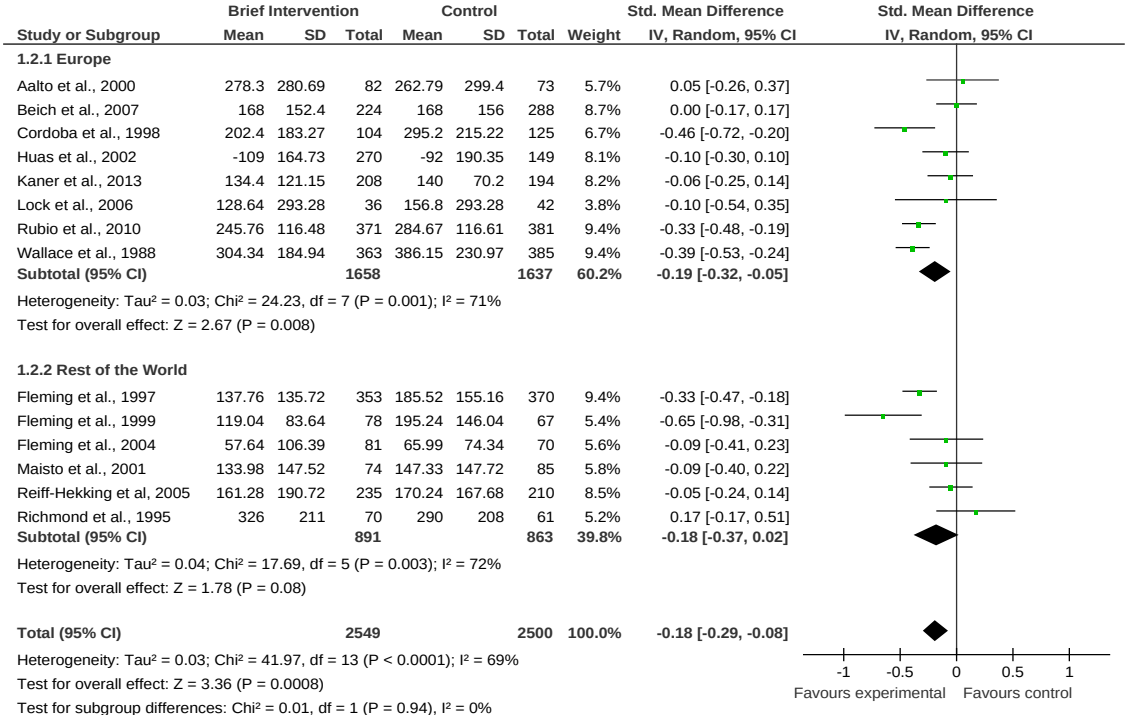
Figure 1 summarizes the results from the AMPHORA project demonstrating that brief interventions work, and they work just as well in European studies as they do in studies from the rest of the world (Elzerbi et al 2013). In European studies, brief interventions lead to about 20 grams less alcohol (two drinks) being drunk per week compared to groups that did not received the brief intervention 12 months after the intervention. This is a large difference.

Intensity of advice An enduring finding is that there is little evidence to suggest that longer or more intensive input provides additional benefit over shorter, simpler input. So while personal contact may be important, the length, complexity and intensity of the advice are likely to be less so. Screening or assessment itself may be important elements of positive brief advice effects. In the UK SIPS trial in primary health care, there was no difference in outcome at 6 and 12 months follow-up between patients who received an information leaflet, those given brief advice or those given brief lifestyle counselling for risky alcohol use, all of which led to a reduction in risky drinking (Kaner et al 2013).

Non-treatment seeking clients Another enduring theme is that brief advice relating to alcohol has a greater impact on non-treatment-seeking patients who are not aware of their risky drinking or alcohol problem compared to treatment-seekers in specialist settings who are aware of their alcohol problem. Delivery by a range of practitioners has beneficial effects, although the size of these effects is greater when doctors are the deliverers.

Younger and older clients Most of the evidence for brief advice has focused on adults rather than young or elderly people. Thus, it is not possible to conclude that brief advice works just as well for the young and elderly as it does for adults.

Figure 1 Forest plot taken from primary care meta-analysis. Estimated standardised mean difference (with standard deviation) of final quantity value for alcohol consumption in grams per week at 12 months follow-up between brief intervention and control groups in included trials for the Europe region and the rest of the world.



Antenatal care The impact of brief advice programmes in antenatal care has hardly been studied and there is no conclusive evidence that suggests an impact of brief advice programmes delivered in antenatal care (Kaner 2012).

Pharmacy settings There is a building evidence base for the feasibility and effectiveness of delivering screening and brief advice for risky drinking in pharmacy settings, although there is insufficient evidence to date to propose widespread roll out (refs).

Hospitalized patients One review has reported results of brief interventions in hospitalized patients (McQueen et al., 2011). While 14 randomized controlled trials were identified, primarily from the United Kingdom and United States, a varying number contributed to the meta-analyses of the various outcome measures (range 1–7 trials). The primary meta-analysis included four trials and found that patients receiving brief interventions showed greater reductions in alcohol consumption compared to controls at six months (mean difference -69 g; 95% CI: -128 – -10) but not at one year. There were also significantly fewer deaths following brief interventions at six months (relative risk: 0.42; 95% CI: 0.19–0.94) and one year (relative risk: 0.60; 95% CI: 0.40–0.91). Thus, although a previous review had reported null effects from brief interventions in hospitalized patients, this updated review revised its conclusion to beneficial but time-limited effects. Nevertheless, it is not clear how many participants in the trial were alcohol treatment-seekers (aware of their alcohol problems before hospitalization) or non-treatment-seekers who became aware of their alcohol problem following hospitalization.

People with alcohol dependence Systematic reviews have demonstrated clear benefit of cognitive-behavioural therapies and pharmacological treatments for alcohol dependence, which, if implemented widely, can also bring substantive health gain (Kaner 2012; Rehm et al 2012).

E-health and M-health There is increasing evidence for the impact of web-based, computer-based, and mobile applications (Portnoy et al 2008; Murray et al 2009; Buhi et al 2012) also in the alcohol field (Cunningham et al 2011) in supporting behaviour change. A key feature of these e-interventions is that they may help to target younger people who tend not to present to health settings, and they may be used in contexts where health services are not fully developed. Nine systematic reviews have considered e-interventions (see Kaner 2012) and reported that they generally produce beneficial outcomes compared to controls who receive no interventions but rarely compared to other active interventions. Thus directly delivered, individually focused brief interventions are likely to yield more positive effects compared to indirectly delivered e-interventions. The latter do, however, have a promising reach into groups that are hard to access and have a relatively low cost once the initial intervention development work is completed.

3.2 Cost-effectiveness of primary health care based interventions

Several studies show that even when considering a very brief intervention, the cost-effectiveness results appear encouraging (Anderson 2009). As would be expected, the studies which consider more extended interventions generally show greater effects from consumption and resource use. The results of several studies are driven by the long-term cost savings made in the use of resources, particularly as regards motor vehicle accidents. These costs are uncertain – limited data means that they can only be estimated with wide confidence intervals. However, the two studies where it was possible to split out the costs of motor vehicle accidents from other costs both presented favourable economic results, even if such accidents were not included.

Four studies provide evidence on the likely quality-adjusted life-year (QALY) gain associated with screening plus brief intervention for hazardous and harmful alcohol use (see Anderson 2009). These studies estimate that the lifetime QALY gain due to screening plus brief intervention is likely to be in the region of 4–19 per 1000 compared to no intervention, depending on the exact intervention and whether it is repeated over time. Further evidence suggests that this could be higher if within-family external quality of life effects are included in the analysis. The primary care studies overall appear to show that screening plus brief intervention result in modest effects. However, the economic analyses suggest that the size of these effects, in tandem with resource use and other cost effects, are sufficient for the interventions to be classed as cost-effective.

The cost effectiveness of brief interventions has been modelled in England (Purshouse et al 2009), covering a variety of settings, staffing options, screening and brief advice configurations and brief advice effectiveness assumptions. All scenarios assumed a 10 year screening programme. Costs were shown net of savings to healthcare services from reduced prevalence of alcohol-related conditions due to reduced consumption. Quality adjusted life year (QALY) gains relate to health conditions only. The incremental cost-effectiveness ratio (ICER) compares the intervention to a 'do nothing' scenario of no intervention in any setting. The net benefit calculation assumed a threshold of UK£20,000 per QALY. The cost and QALY figures are based on a 30 year time horizon (sufficient to measure the outcomes of a 10 year programme) with a discount rate of 3.5% for both.

For patients screened the next time they register with a new general practitioner, the baseline scenarios assumed that a practice nurse undertakes both the screening and, where appropriate, brief intervention. Screening on next registration is estimated to be applied to 39% of the population of England over a 10 year period, with one third of England's hazardous and harmful drinkers being

screened, detected and given a brief intervention with an estimated 12% reduction in alcohol consumption. When using the full AUDIT questionnaire and a 25 minute intervention, there is an estimated net saving of UK£60 million over the 30 year period, increasing to UK£120 million when using the AUDIT-C and a five minute intervention. For both scenarios, there is a 33,000 gain in QALYs.

For patients screened at the next consultation with a GP, the baseline scenarios assumed that a general practitioner undertakes both the screening and, where indicated, brief intervention. When using the AUDIT-C and a five minute intervention, there is an estimated net saving of UK£52 million over the 30 year period. However, If using the full AUDIT, and a 25 minute intervention time then the estimated costs of implementation outweigh the healthcare costs avoided and there is a net cost overall of UK£686 million, producing an incremental cost of £5,900 per QALY of the 117,000 QALYs gained, which would still be considered cost-effective.

The outcome at the next consultation with a GP is different to the next GP registration setting for three main reasons. First, the GP staff costs are higher than those of a practice nurse. Second, males, who incur the majority of alcohol-related health harm, tend to consult less frequently than females (eg. approximately 10% of 25-44 year old males would not have consulted within the ten year screening programme compared to 1% of females). Third, and most important of all, patients consult their GP much more frequently than they change their GP, and thus the percentage of the population screened is estimated at 96% over the 10 years (compared with 39% for next GP registration) with between 70% and 79% of hazardous and harmful drinkers receiving a brief intervention within the ten years (compared with 33% to 36% for next GP registration). The result is an estimated gain of 117,000 QALYs over a ten year screening programme (compared with 33,000 QALYs for a programme based on next GP registration).

The WHO's CHOICE (CHOosing Interventions that are Cost-Effective) model provides estimates of the impact and cost of implementing policies in reducing DALYs due to harmful alcohol use (Anderson 2009) for the EU. The CHOICE model determines the effectiveness of an intervention via a state transition population model, taking into account births, deaths and the impact of alcohol. Two scenarios are modelled over a lifetime (100 years): (i) no interventions available to reduce hazardous and harmful alcohol use (defined in the CHOICE model as more than 20g alcohol a day for women and more than 40g alcohol a day for men); and (ii) the population-level impact of each specified intervention, implemented for a period of 10 years. The difference represents the population-level health gain resulting from the implementation of the intervention, discounted at 3% and age-weighted.

A summary of the estimated cost and impact of different interventions, compared to a Europe with none of these policies is shown in Table 1, with an estimate of the cost per DALY saved. The cost-effectiveness of brief interventions is not as favourable as the population-level policy instruments summarized below (price, availability and advertising) because they require direct contact with health care professionals and services.).

Table 1. Costs, impact and cost-effectiveness of different policy options in Europe

Target area Specific intervention(s)	**Coverage** (%)	**WHO sub-region (exemplar countries)**								
		Eur-A *(e.g. Spain, Sweden)*			**Eur-B** *(e.g. Bulgaria, Poland)*			**Eur-C** *(e.g. Hungary, Latvia)*		
		Annual cost per million persons[a]	Annual effect per million persons (DALYs saved)	I$ per DALY saved[b]	Annual cost per million persons[a]	Annual effect per million persons (DALYs saved)	I$ per DALY saved[b]	Annual cost per million persons[a]	Annual effect per million persons (DALYs saved)	I$ per DALY saved[b]
School-based education	80	0.84	–	N/A[c]	0.70	–	N/A[c]	0.34	–	N/A[c]
Brief interventions for heavy drinkers	30	4.20	672	6256	0.77	365	2100	1.78	667	2671
Mass media campaign	80	0.83	–	N/A[c]	0.95	–	N/A[c]	0.79	–	N/A[c]
Drink-driving legislation and enforcement (via random breath-testing campaigns)	80	0.77	204	3762	0.74	160	4625	0.72	917	781
Reduced access to retail outlets	80	0.78	316	2475	0.56	414	1360	0.47	828	567
Comprehensive advertising ban	95	0.78	351	2226	0.56	224	2509	0.47	488	961
Increased excise taxation (by 20%)	95	1.09	2301	472	0.92	726	1272	0.67	1759	380
Increased excise taxation (by 50%)	95	1.09	2692	404	0.92	852	1083	0.67	1995	335
Tax enforcement (20% less unrecorded)	95	1.94	2069	939	1.26	706	1780	0.87	1741	498
Tax enforcement (50% less unrecorded)	95	2.21	2137	1034	1.34	790	1692	0.93	1934	480

[a] Implementation cost in 2005 international dollars (millions).
[b] Cost–effectiveness ratio, expressed in terms of international dollars per DALY saved.
[c] Not applicable because the effect size is not significantly different from zero (the cost–effectiveness ratio would therefore approach infinity).

3.3 Barriers and facilitators to implementation

Despite considerable efforts over the years to persuade practitioners to deliver brief advice in practice, most have yet to do so. The provision of screening and brief interventions for risky drinking and treatment for alcohol use disorders (AUD) was studied in six European countries as part of the AMPHORA project (Austria, England, Germany, Italy, Spain and Switzerland) over the years 2009-2012 (www.amphoraproject.net). There are considerable variations in the organisation and provision of alcohol interventions between the six countries, Table 2.

Table 2 Health systems and treatment for AUD

	Provision of screening and brief interventions, for hazardous/ harmful drinking	**Provision of specialist treatment for alcohol dependence**	**Health system funding sources**	**Treatment monitoring systems in place**	**Availability of a national alcohol strategy (including aspects of service provision)**	**Existence of decentralisa-tion in the health system**
Austria	No	Yes: mainly residential setting (units/ hospitals), though moving towards outpatient	Social insurance, Government / tax (local, regional, national), private insurance and co-payments	Not specifically mentioned, but hospital discharge data available	No: moves afoot to develop but still some way off	Yes: 9 Länder and very decentralised. Plus multi-layered health systems.
England	Yes: primary Health Care, A&E and out of hours	Yes: community based or residential - psychosocial, detoxification and stepped care - some also treat physical and mental comorbidity	Government / tax: and out-of-pocket/ copayments	Yes NATMS	Yes: little if any service provision	Yes: strategic Health Authorities, and potentially more so with new structures due in the present reorganisation of National Health Service
Germany	SBI programmes do exist but are rarely implemented	Yes: outpatient, inpatient and rehabilitation. Past decade has changed to shorter and more intensive package of care	Social insurance	Yes	No	Yes: 16 Bundesländer
Italy	Yes: primary health care – GPs only, but rarely implemented	Yes: mainly outpatient: Specialist addictions clinics, departments or hospital - medically assisted and psychosocial. Inpatient by not for profit orgs recognised by NHS	National and regional taxes, and co-payments. Private insurance does not play a significant role due to the universal coverage of the NHS	Yes	Yes: including aspects of service provision	Yes: 21 Regions and 145 Local Health Authorities (ASLs)
Spain	Yes: primary Health Care and	Yes: outpatient and inpatient. Therapeutic	Tax	Yes	Yes: but contains nothing on	Yes: 17 autonomous communities

	increasingly in other medical settings, and outpatient and inpatient units in mental health units	communities. Mutual aid and self help connect with health care institutions			service provision	
Switzer-land	Yes: widespread, undertaken by most disciplines, but not officially driven	Yes: range of inpatient, outpatient, medical and psychosocial. Demand for large scale treatment has reduced and system of care has updated over past 10yrs	Tax, health insurance, and a mixture of other funding sources (depends on the particular service and setting) Access at almost no cost to patient	In some single Cantons only	Yes (in the form of a national program, which is the forerunner to a strategy. But not much by way of service provision e	Yes: 26 Cantons This is a big factor in the variation and fragmentation of the treatment on offer

Table 3 shows that across the six countries, out of the 154 patients seen per week, only five patients were screened positive for an alcohol use disorder (AUD) when it was not their presenting problem over a four-week period, representing only 0.8% of the patients seen. This is considerably lower than the actual prevalence of AUD in primary care.

Table 3 Sample demographics and patients seen and screened positive for AUD per week

Country	Gender of respondents(% males)	Mean age of respondents	Patients per week	Patients screen +ve/4 weeks (%)
Austria	46.5%	55.2	285	6.54 (0.5%)
Germany	53.4%	53.8	203	7.76 (0.9%)
Italy	74.2%	56.2	117	5.18 (1.1%)
Catalonia	23.3%	47.3	149	4.14 (0.7%)
Switzerland	61.8%	52.5	98	4.40 (1.1%)
England	52.4%	46.5	110	3.87 (0.8%)
Mean across countries	56.3%	52.7	154	5.34 (0.8%)

Figure 2 shows that GPs had a fairly high level of knowledge and understanding of screening tools, but the actual use of screening tools was lower across the six countries. GPs reported time constraints and the risk of upsetting the patient as the two main barriers to alcohol screening, Table 4.

Figure 2 Are GPs familiar with and use standardized alcohol screening tools?

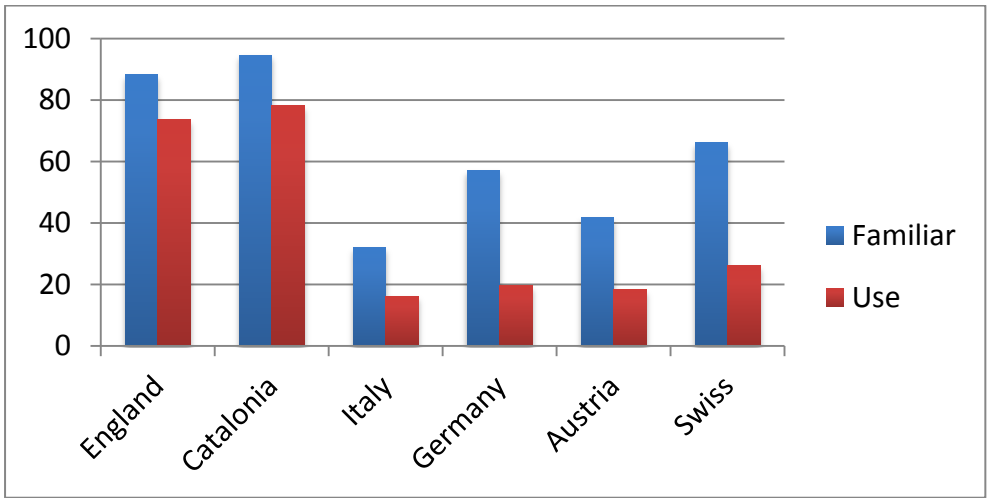


Table 4 Main barriers to alcohol screening in primary care

Reason	N of responses	Percent of cases
Time constraints	209	70.6
Lack of financial incentives	87	29.4
Risk of upsetting the patient	147	49.7
Lack of training	60	20.3
Lack of services to refer patient to	67	22.6
Other reasons	81	27.4

Figure 3 shows that GPs had a fairly high level of knowledge and practice of brief interventions across the six countries. GPs reported time constraints and lack of training as the two main barriers to delivering brief alcohol interventions, Table 5.

In the European Commission co-financed ODHIN project (www.odhinproject.eu), in the nine study jurisdictions (Catalonia, Czech Republic, England, Italy, Netherlands, Poland, Portugal, Slovenia and Sweden), only just over half of the general practitioners (54%) reported having received 4 or more hours of education and training on managing alcohol problems, and under half (43%) reported managing seven or more patients for alcohol problems in the previous year (Wojnar et al 2013). One half of the general practitioners felt that they were working in a supportive environment, two out of five felt secure in their role in managing alcohol problems and under half (44%) felt committed to providing help for alcohol problems. In the three countries (England, Italy and Portugal) with comparable data 16 years previously, except for England, there was no evidence of improvement in the proportion of general practitioners reporting having received 4 or more hours of education and training on managing alcohol problems or in managing seven or more patients for alcohol problems during the previous year. Across all of these three countries, working in a supportive environment and being therapeutically committed had increased over time, but role security had decreased.

Figure 3 Are GPs familiar with and use brief interventions?

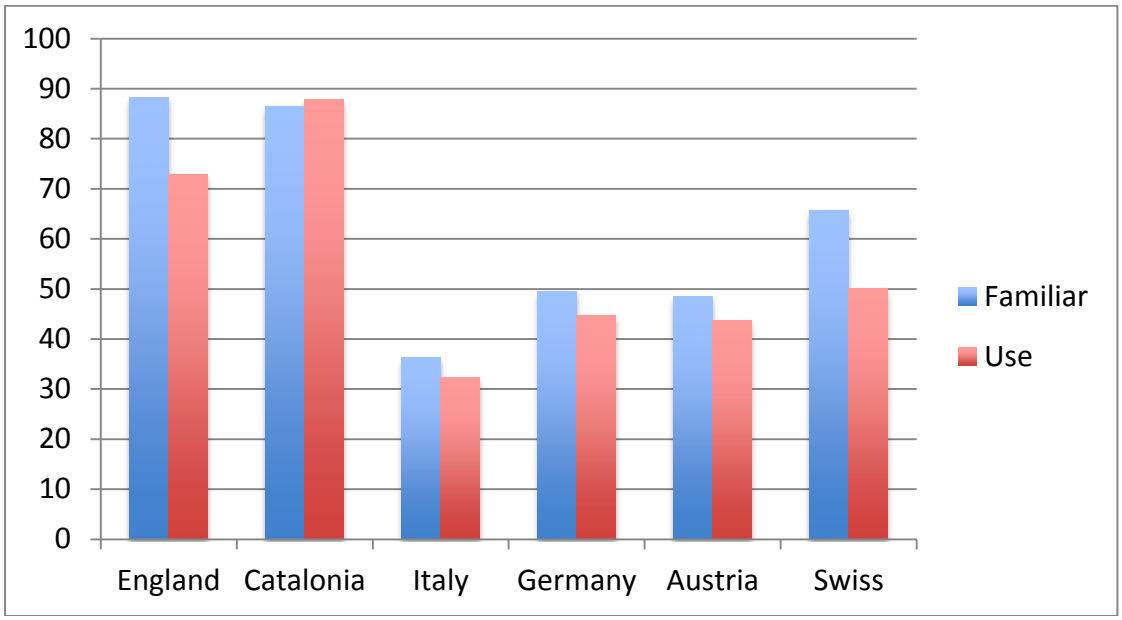


Table 5 Main barriers to alcohol brief interventions in primary care

Reason	N of responses	Percent of cases
Time constraints	224	72.0
Lack of financial incentives	97	31.2
Risk of upsetting the patient	87	28.0
Lack of training	125	40.2
Lack of services to refer patient to	68	21.9
Other reasons	33	10.6
Total	634	

Both education on alcohol and a supportive working environment were independently associated with an increased number of patients managed for alcohol-related harm. Role security, which was increased by both education on alcohol and a supportive working environment, was independently related to an increased number of patients managed. Therapeutic commitment was not influenced by education on alcohol and did not impact on the number of patients managed.

The six top barriers to early intervention expressed by the general practitioners were: Doctors are just too busy dealing with the problems people present with; Doctors are not trained in counselling for reducing alcohol consumption; Doctors believe that alcohol counselling involves family and wider social effects, and is therefore too difficult; General practices are not organised to do preventive counselling; Doctors do not believe that patients would take their advice and change their behaviour; Doctors do not have suitable counselling materials available; and Government health policies in general do not support doctors who want to practise preventive medicine. The six top facilitators for undertaking early intervention mentioned by the general practitioners were: Support services (self-help/counselling) were readily available to refer patients to; Patients requested health advice about alcohol consumption; Quick and easy counselling materials were available; Training

programs for early intervention for alcohol were available; Early intervention for alcohol was proven to be successful; and Quick and easy screening questionnaires were available.

There is evidence from a range of studies in primary care settings for the potential influence of training and support for general practitioners in alcohol screening and the use of brief intervention materials on implementation rates and the detection of at-risk drinkers (Anderson 2009). A systematic review of 12 studies found that a combination of educational and office support programmes increased screening and advice-giving rates of primary health care providers from 32% to 45%. Evidence from qualitative studies show that some nurses in the United Kingdom see training as an incentive in carrying out alcohol-related work; a sample of general practitioners in Finland perceived that they lacked training in identifying the early stages of alcohol misuse; and general practitioners in a Danish focus group study felt that they lacked training in counselling skills.

Evidence has been found for the actual and perceived effect that implementation of screening and brief interventions has on a practitioner's workload, particularly if all young people and adults are screened as routine practice. The extra time that such implementation demands can be a barrier to acceptability and therefore willingness to deliver such a programme. Implementation of routine screening and brief intervention programmes requires team-working between physicians, nurses and non-clinical personnel, with consideration required regarding the extent of involvement and specific roles of team members.

Visits to primary care for specific clinics and registrations of new patients are seen to be less threatening occasions on which to discuss drinking, embedded in a general discussion around lifestyle issues such as diet, exercise and smoking. There is further evidence from three United Kingdom qualitative studies that practitioners and users regard clinics, registration sessions and routine consultations as opportunities for discussions in a less threatening environment and context.

There is evidence for general under-activity in discussing drinking with service users. Evidence suggests that even when drinking is heavy, service users are not being asked about their drinking, and advice on drinking behaviour is provided less often than for other lifestyle behaviour, such as exercise, diet and smoking, and less often than service users expect. Some possible reasons are found in a Finnish qualitative study of general practitioners, who reported that they were reluctant to ask users about their drinking unless they saw clear signs of risky drinking behaviour.

There is evidence from primary care practitioners' views of a shortfall in perceived knowledge in terms of detecting individuals at risk. There is also evidence of confusion regarding current guidelines relating to drinking behaviour and the known benefits of drinking in moderation. This can affect practitioners' confidence in and motivation towards implementing screening and brief intervention programmes effectively. There is qualitative evidence from three studies focusing on users' views that a discussion of drinking is facilitated by a good relationship with the health professional. In addition, there is evidence that practitioners are concerned not to offend users in relation to discussing alcohol for fear of disturbing the therapeutic relationship.

Conclusions of the evidence base

The evidence base is consistent and robust, and justifies widespread roll-out and implementation at all jurisdictional levels of screening and brief advice programmes for adult drinkers. Screening and brief advice programmes are effective in reducing levels of alcohol consumption and alcohol-related harm. Brief advice programmes are highly cost-effective and in certain circumstances can be cost saving. There is insufficient evidence to know whether or not brief advice programmes are as effective for younger and older populations. It is not known if brief advice programmes are effective

amongst pregnant women. Despite the evidence for effectiveness, implementation of screening and brief advice programmes in primary health care is very poor. Time constraints, lack of training, and inadequate support are the reasons offered by providers for poor delivery. Thus, despite progress in disseminating the supporting evidence base and in developing national guidance on brief advice, a lack of time and reimbursement remain enduring obstacles for this work. Thus there is a need to encourage national and local policy-makers to find ways of incentivising and embedding this work in busy primary health care settings.

3.4 Advice for clinical practice

Target population: Adults who have been identified via a validated screening tool as positive cases for whom advice is indicated. The evidence does not support young or older people as being specific target groups. There is insufficient evidence to recommend implementing specific systematic programmes during antenatal care.

Identification: Practitioners may use any contact with clients to carry out identification, on both a universal basis (for example, during new patient registrations), and targeted basis (for instance, by focusing on groups that may be at an increased risk of harm from alcohol and/or those with an alcohol-related condition, such as the middle-aged, or those with hypertension). The recommended identification instrument is either the full 10 item AUDIT, or the 3 item AUDIT-C. The recommended cut-off level for the full 10 item AUDIT for adults is 8 (a positive is a score of 8 or more) and for the 3 item AUDIT-C is 5 or 4 (5 or more for men and 4 or more for women).

Brief advice: Where clients screen positive with an identification instrument, all practitioners should provide a session of structured brief advice on alcohol using a recognised, evidence-based resource based on the FRAMES principles and the Five As described above. If this cannot be offered immediately, an appointment should be offered as soon as possible thereafter. Structured brief advice should take 5–10 minutes and should: cover the potential harm caused by their level of drinking and reasons for changing the behaviour, including the health and wellbeing benefits; cover the barriers to change; outline practical strategies to help reduce alcohol; consumption (to address the 'menu' component of FRAMES); and lead to a set of goals. Where there is an on-going relationship with the patient or client, practitioners should routinely monitor their progress in reducing their alcohol consumption to a low-risk level. Where required, offer an additional session of structured brief advice or, if there has been no response, offer an extended brief intervention. Patients can be referred and encouraged to use available web-based, computer-based and mobile applications to support them in their behaviour change.

Extended advice: Adults who have not responded to brief structured advice on alcohol may require extended advice from specifically trained practitioners. This could take the form of motivational interviewing or motivational enhancement therapy. Sessions should last from 20 to 30 minutes and should aim to help people to reduce the amount they drink to low risk levels, reduce risk-taking behaviour as a result of drinking alcohol or to consider abstinence. People who have received an extended brief advice should be followed up and assessed. It may be necessary to offer up to four additional sessions of extended advice, or to refer patients to a specialist alcohol treatment service.

Specialist referral: Consider referring patients for specialist treatment if one or more of the following has occurred: patients show signs of moderate or severe alcohol-dependence; have failed to benefit from structured brief advice and extended brief advice and wish to receive further help for an alcohol problem; show signs of severe alcohol-related impairment or have a related comorbid condition (for example, liver disease or alcohol-related mental health problems).

3.5 Advice for governments and funders of health care systems

Governments can support identification and brief advice programmes in primary health care settings by ensuring that clinical guidelines for these interventions are widely available; that providers receive the training, the materials and the advice they need to set up such programmes; and that they are adequately reimbursed for the interventions, either as part of quality improvement initiatives or with fee-for-service payments.

Primary health care providers find it easier to undertake these interventions when they are supported by specialist services to which they can refer difficult-to-manage drinkers. In the management of alcohol use disorders, the transition from primary to specialist care should ideally be seamless.

Questions governments and funders of health care systems can consider

Are there guidelines for early identification and brief advice programmes? The guidelines should lay the foundation of the scientific evidence for early identification and brief advice programmes, outlining what can be done, when and by whom. They should be issued by appropriate bodies, such as guideline development bodies or institutes of clinical excellence that are responsible in some countries for preparing and disseminating such guidelines. Development should involve appropriate professional organizations to ensure that the guidelines reflect the needs of primary care providers and to ensure their support. The Primary Health Care European Project on Alcohol (PHEPA) has prepared clinical guidelines on identification and brief advice interventions for the European Union, and these guidelines can be adapted for local use (Anderson, Gual & Colom, 2005). National guidelines can also be supplemented with models of the effectiveness and cost–effectiveness of different scenarios for implementing identification and brief advice programmes.

Are there training programmes for primary health care providers on early identification and brief advice interventions? Few primary health care providers are trained to deliver these interventions during their clinical training or postgraduate education. Training programmes for them can be developed based on the clinical guidelines. They should be systematically offered to all primary health care providers. Accredited versions of these courses can be included as part of mandatory continuing education. PHEPA has also prepared a training programme that can be adapted for local use (Gual et al., 2005).

Are there systems for monitoring the quantity and quality of early identification and brief advice programmes, so that their effectiveness can be analysed and improved? It is important to measure the extent and quality of these programmes. Such monitoring can be carried out through a regular audit of case records and implementation of a quality assurance programme. PHEPA has prepared an assessment tool for monitoring the delivery of these interventions (2009).

Is there any financial support for delivering early identification and brief advice programmes? Such support can be provided by either quality improvement programmes or fee-for-service payments. Financial incentives can play an important motivating role for primary care providers, especially given their relatively poor uptake of these programmes, and the reluctance that some of them exhibit about incorporating preventive interventions into their practices.

Options for action by governments and funders of health care systems

Preserve the status quo on the assumption that risky drinkers already receive advice from primary health care providers as a matter of course, and that people with alcohol use disorders are currently

receiving appropriate treatment, primarily from specialist services. However, all the evidence suggests that this assumption is highly unlikely to be true. And in the absence of surveys or reliable estimates of the provision-to-need ratio, it is impossible to know what the present situation is with any accuracy. Preserving the status quo might be viewed as costing nothing, but that is a false assumption. Investments in early identification and brief advice programmes not only improve health and save lives, but also save health systems money. Moreover, it can be argued that people who suffer from alcohol use disorders, including harmful use and dependence, have a moral if not a legal right to appropriate treatment.

Set a target of offering early identification and brief advice programmes to 30% of the population at risk for risky drinking. This target could be achieved by putting into place appropriate systems, including provider training, so that every patient who registers with a new primary health care provider, receives a health check, consults a provider about particular disease categories (such as hypertension or tuberculosis) or goes to particular types of clinics is offered these interventions.

Set a target of offering early identification and brief advice programmes to 60% of the population at risk. This more ambitious target would require that every patient who receives primary health care services would be offered these interventions, irrespective of the reason for the consultation. It would also necessitate a greater investment in training and supporting primary health care providers.

Stakeholders for action

One key stakeholder is the clinical body or institute for clinical excellence that is responsible for developing clinical guidelines, and which can therefore be asked to prepare guidelines for early identification and brief advice. Another major stakeholding group consists of the professional bodies that represent primary health care providers. Their involvement will help ensure that the guidelines reflect their professional perspective, as well as secure their endorsement and support for early identification and brief advice programmes. A third stakeholder category covers the public bodies and private organizations that fund and provide primary health care services. This category includes the national health service, local trusts and commissioning services, insurance companies and local communities and municipalities. These stakeholders need to be persuaded of the case for funding and managing early identification and brief advice programmes. To make this case effectively, it may be helpful to model the impact and cost–effectiveness of different scenarios for implementing these programmes.

4. EMERGENCY CARE

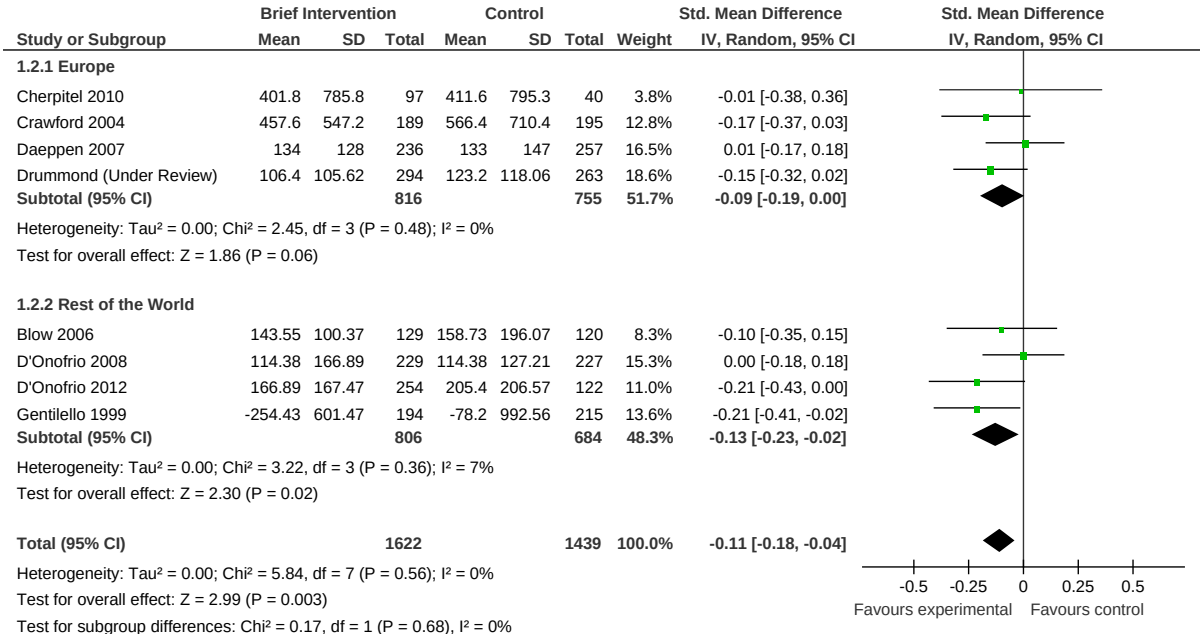
4.1 Effectiveness of interventions delivered in accident and emergency departments

Compared with primary health care, there is a much smaller evidence base for the impact of brief advice undertaken in emergency care settings (Kaner 2012). Out of 34 individual randomized controlled trials identified in the review undertaken for the BISTAIRS project, only nine studies could determine some consistent effect of brief advice on drinking levels, and only 3 of them persisting at 12 months follow up (Schmidt et al 2013). The majority of studies reported comparable improvements in the control groups, or superiority of brief intervention in some single (secondary) outcome measures or brief intervention effects on specific subgroups. A systematic review undertaken for the AMPHORA project compared the results from studies undertaken in Europe with those undertaken in the rest of the world. Figure 4 summarizes the results, and finds that brief interventions work, and they work just as well in European studies as they do in studies from the rest of the world. In European studies, brief interventions lead to 9 grams less alcohol (one drink)

being drunk per week compared to groups that did not received the brief intervention 12 months after the intervention.

In the unpublished UK SIPS trial in emergency care settings, there was no difference in outcome at 6 and 12 months follow-up between subjects who received a patient information leaflet, those given brief advice or those given brief lifestyle counselling for risky alcohol use, all of which led to reductions in risky drinking (SIPS emergency care 2011).

Figure 4 Forest plot taken from emergency department meta-analysis. Estimated standardised mean difference (with standard deviation) of final quantity value for alcohol consumption in grams per week at 12 months follow-up between brief intervention and control groups in included trials for the Europe region and the rest of the world.



4.2 Cost-effectiveness of interventions delivered in accident and emergency departments

The cost effectiveness of brief interventions has been modelled in England for screening and brief advice programmes delivered in accident and emergency departments (Purshouse et al 2009). Scenarios assumed a 10 year screening programme. Costs were shown net of savings to healthcare services from reduced prevalence of alcohol-related conditions due to reduced consumption. Quality adjusted life year (QALY) gains relate to health conditions only. The incremental cost-effectiveness ratio (ICER) compares the intervention to a 'do nothing' scenario of no intervention in any setting. The net benefit calculation assumed a threshold of UK£20,000 per QALY. The cost and QALY figures are based on a 30 year time horizon (sufficient to measure the outcomes of a 10 year programme) with a discount rate of 3.5% for both. Despite a ten year programme in A&E departments involving the screening of over three quarters of the adult population, only 18% of hazardous and harmful drinkers are estimated to receive the brief advice. This is principally due to the assumed low take-up rate of 30% in individuals screened positive. The cost to the health service for a 50 minute intervention (including staff administrative time) with (a generous) 19% effectiveness rate is

estimated at UK£131 million, and the incremental cost is approximately UK£9,700 per QALY,for the 13,500 QALYs gained.

4.3 Barriers and facilitators to implementation

Table 6 shows that across the six countries studied in the AMPHORA project, out of the 68 patients seen per week seen by accident and emergency department doctors, only ten patients were screened positive for an alcohol use disorder (AUD) when it was not their presenting problem over a four-week period, representing only 4% of the patients seen. This is considerably lower than the actual prevalence of AUD in accident and emergency departments.

Table 6 – Sample demographics and patients seen and screened positive for AUD per week.

Country	Gender of respondents(% males)	Mean age of respondents	Patients per week	Patients screen +ive/4weeks (%)
Austria	39.6%	38.3	117	13.1 (2.8%)
Germany	80.0%	39.6	58	8.4 (3.6%)
Italy	69.3%	49.1	78	4.7 (1.5%)
Spain (Catalonia)	38.9%	34.7	40	6.9 (4.3%)
Switzerland	43.7%	36.2	36	9.5 (6.6%)
UK (England)	49.1%	42.7	64	14.2 (5.5%)
Mean across countries	48.7%	40.3	68	9.89 (3.6%)

Figure 5 shows that A&E doctors in general had a fairly low level of knowledge and understanding of screening tools, with the actual use of screening tools even lower across the six countries. They reported time constraints and lack of training as the two main barriers to alcohol screening, Table 7.

In the UK SIPS study, training implementation was more successful in some sites compared to others. Those sites which has a strong local 'clinical champion' and managerial support were easier to train than in those sites lacking this input. Also training a smaller number of staff within dedicated in-service training time was more successful both in conducting the training and in subsequent implementation. Sites in which large numbers of staff were to be trained made training much more difficult to implement and it was difficult to provide sufficient support to large numbers of staff. The team felt that sites in which small number of ED staff were responsible were more successful mainly because there was clear accountability in delivery of the screening and brief intervention. In sites where all staff were expected to deliver the interventions, effectively no-one felt responsible and consequently activity was minimal or non-existent. Barriers to implementation were identified, mainly the busy nature of the ED clinical environment.

Figure 5 – Are A&E staff familiar with and/or use standardized alcohol screening tools?

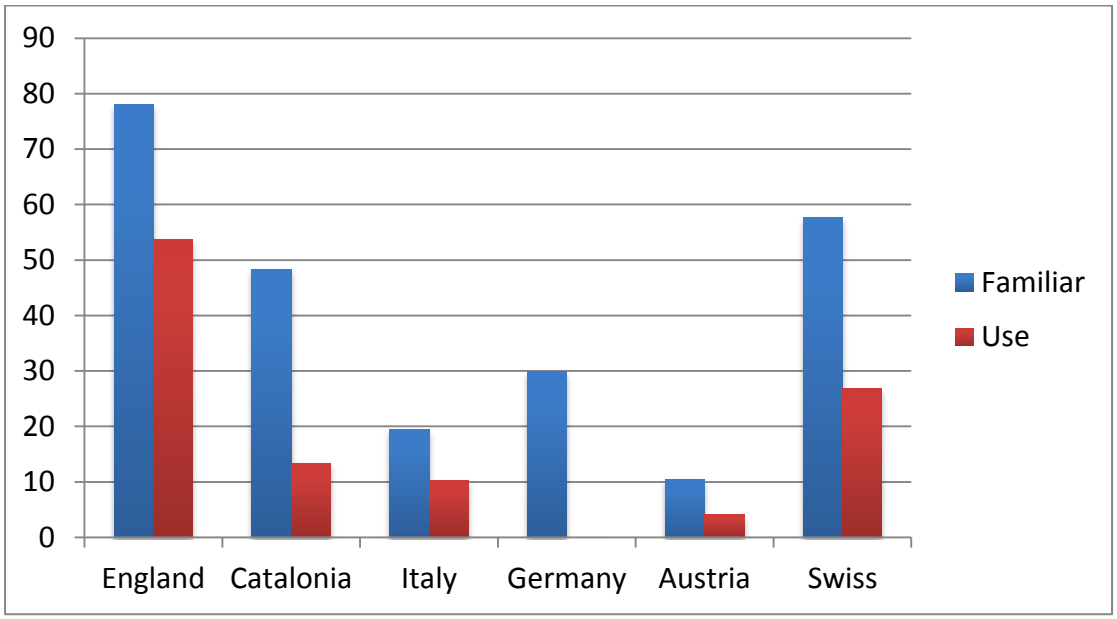


Table 7 – Main barriers to alcohol screening in Accident and Emergency

Reason	N of responses	Percent of cases
Time constraints	275	77.7
Lack of financial incentives	33	9.3
Risk of upsetting the patient	75	21.2
Lack of training	123	34.7
Lack of services to refer patient to	119	33.6
Lack of familiarity	98	27.7
Other reasons	47	13.3
Total	770	

Figure 6 shows that A&E doctors GPs had a generally low level of knowledge and practice of brief interventions across the six countries. They reported time constraints and lack of training as the two main barriers to delivering brief alcohol interventions, Table 8.

Figure 6 – Are A&E staff familiar with and/or provide brief interventions?

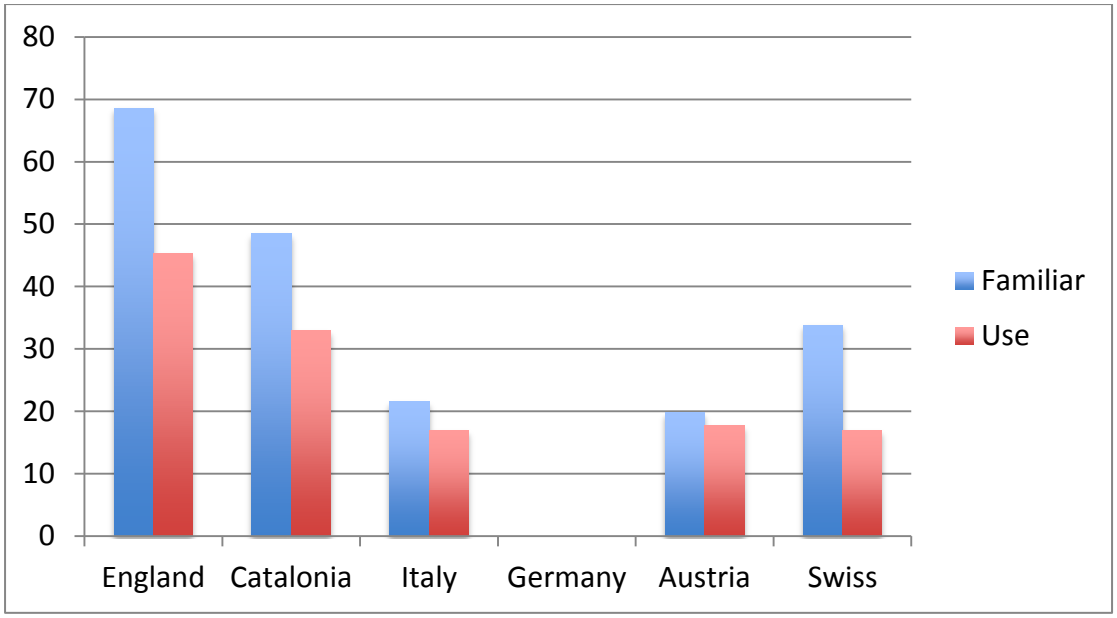


Table 8 – Main barriers to alcohol brief interventions in Accident & Emergency

Reason	N of responses	Percent of cases
Time constraints	269	76.9
Lack of financial incentives	38	10.9
Risk of upsetting the patient	57	16.3
Lack of training	175	50.0
Lack of resources	140	40.0
Other reasons	44	12.6
Total	723	

Conclusions of the evidence base

For emergency care, the evidence base is mixed, although on balance it suggests a possible impact in reducing risky drinking, with just giving a patient information leaflet as effective as brief advice or extended counselling. Interventions are cost effective, but not as cost effective as interventions delivered in primary health care. Implementation of screening and brief advice programmes in accident and emergency departments is very poor. Time constraints and lack of training are the reasons offered by providers for poor delivery.

4.4 Advice for clinicians

Taking into account relevant financial and opportunity costs in delivering brief advice programmes emergency health care services should consider delivering brief advice programmes.

Target population: Adults who have been identified via a validated screening tool as a positive case for whom advice is indicated.

Identification: Emergency health care staff may use any contact with patients to carry out identification. It is possible that up to two fifths of all patients screened will be a positive case. The recommended identification instrument is either the full 10 item AUDIT, or the 3 item AUDIT-C. The recommended cut-off level for the full 10 item AUDIT for adults is 8 (a positive is a score of 8 or more) and for the 3 item AUDIT-C is 5 or 4 (5 or more for men and 4 or more for women). Given the high demands on emergency health care staff time, a one item questionnaire may be used (the M-SASQ). This question simply asks "How often do you have X or more drinks on one occasion?" where X = 5 for women and 6 for men, with monthly or more frequently considered a positive screen. Professionals should work on the basis that offering an intervention is less likely to cause harm than failing to act when there are concerns.

Brief advice: Where clients screen positive with an identification instrument, practitioners should provide a session of structured brief advice on alcohol using a recognised, evidence-based resource based on the FRAMES principles described above. Structured brief advice should take 5–15 minutes and should: cover the potential harm caused by their level of drinking and reasons for changing the behaviour, including the health and wellbeing benefits; cover the barriers to change; outline practical strategies to help reduce alcohol; consumption (to address the 'menu' component of FRAMES); and lead to a set of goals. If there are insufficient resources or time to deliver such structured advice, then an alternative is simply to give a patient information leaflet, which advises the patient to reduce their consumption. Patients can be referred and encouraged to use available web-based, computer-based and mobile applications to support them in their behaviour change.

Specialist referral: Consider referring patients for specialist treatment if one or more of the following has occurred. They: show signs of moderate or severe alcohol-dependence; have failed to benefit from structured brief advice and extended brief advice and wish to receive further help for an alcohol problem; show signs of severe alcohol-related impairment or have a related comorbid condition (for example, liver disease or alcohol-related mental health problems).

Barriers to implementation: Emergency services are busy places with a focus on dealing with acute medical and traumatic situations. Specific barriers to implementation of screening and brief intervention for alcohol use disorders flow from this observation and include workload pressures, high staff turnover and feeling forced to take on extra work (SIPS Emergency Care 2010).

Programme sustainability: Sustainability is likely to improve when screening and brief intervention for alcohol use disorders are tailored to fit with local circumstances (e.g. it could be argued that if someone is drunk in an emergency service there is little need for a screening test); breaking the process down into acceptable steps and negotiating where there is flexibility. Program sustainability is more effective when the site has a keen clinical champion who can prioritise the screening and brief intervention activity; the site has managerial support; and the site has an alcohol health worker available and has ongoing external alcohol specialist support (these two supports significantly increase programme success).

4.5 Advice to professional bodies and health systems

Professional bodies and health systems representing and responsible for health care providers working in accident and emergency departments should develop and disseminate clinical and

operational guidelines for the delivery of screening and brief advice programmes for risky drinking in accident and emergency departments.

5. WORKPLACE SETTINGS

5.1 Effectiveness of interventions

Eight randomized controlled trials conducted in the workplace were identified in the review undertaken for the BISTAIRS project (Schmidt et al 2013). The results were equivocal, and there was heterogeneity in included populations, outcome measures and intervention intensities. It was not possible to conclude whether or not brief advice is effective in workplace settings.

A review undertaken for the European Workplace and Alcohol (EWA) project co-financed by the European Commission (Anderson 2012) identified a systematic review of work-place interventions for alcohol-related problems (Webb et al 2009) that only included ten intervention studies, of which five were counselling based interventions, and four mail out/feedback/brief intervention studies. The tenth study was a peer support programme Counselling and related interventions comprised two broad types of strategies: psychosocial skills training; brief intervention, including feedback of results of self-reported drinking, life-style factors and general health checks; and alcohol education delivered via an internet website. The psychosocial interventions included peer referral, team building and stress management and skills derived from the social learning model. For health checks, topics covered in addition to alcohol were smoking, exercise, diet, weight, stress, depression, blood pressure, cholesterol, diabetes, cancer, safety and preventive health-care risks. The counselling-based interventions either reported no effect, or the effect was small, self-reported only, or measured desire to change rather than actual behaviour. The four mail-out/feedback/brief intervention studies were practical and possibly sustainable interventions that achieved outcomes somewhat comparable to the more intensive counselling interventions. However, the outcomes were self report.

An additional study published since the systematic review of Webb et al (2009) of screening and brief intervention for risky alcohol consumption at the workplace in the transport sector failed to find evidence of effect (Hermansson et al 2010). An Employee assistance office based programme compared the impact of a brief intervention for at risk drinking, compared with usual care. At three month follow-up, employees who received the brief intervention had significantly reduced presenteeism, but not absenteeism, with costs saved from improved productivity over the four week period prior to the three month assessment of US$1200 per employee over the usual care group (Osilla et al 2010). Consistent with other experience, the increase in productivity came primarily from increases in presenteeism and not decreases in absenteeism.

Peer support programmes One of the ten studies identified by Webb et al (2009) used objective outcome measures describing the impact of a workplace peer-focused substance abuse programme in the transportation industry implemented in phases from 1988 to 1990 (Spicer & Miller 2005; Miller et al 2007). The program focused on changing workplace attitudes toward on-the-job substance use in addition to training workers to recognize and intervene with co-workers who have a problem. The program was strengthened by federally mandated random drug and alcohol testing (implemented, respectively, in 1990 and 1994). With time-series analysis, the association of monthly injury rates and costs with phased program implementation were analyzed, controlling for same industry injury trend. The combination of the peer-based program and testing was associated with an approximate one-third reduction in injury rate, avoiding an estimated $48 million in employer costs in 1999. That year, the peer-based program cost the company $35 and testing cost another

$35 per employee. The program avoided an estimated $1850 in employer injury costs per employee in 1999, corresponding to a benefit-cost ratio of 26:1. In another study of urban transit workers, perceived co-worker support was found to attenuate the link between frequency of heavy episodic drinking and absenteeism (Bacharach et al 2010).

Computer delivered programmes A meta-analysis of 75 randomized clinical trials that have included more than 35,000 participants and evaluated 82 separate computer-delivered, health promotion interventions concluded that computer-delivered interventions can help individuals to make improvements in a variety of health behaviours including substance and alcohol use (eleven studies) (Portnoy et al 2008). Greater intervention dose strengthened the impact on substance use reduction. One study has evaluated the efficacy of an alcohol web-based personalized feedback program delivered in the workplace to young adults (Doumas & Hannah 2008). Results indicated that participants in the intervention group reported significantly lower levels of drinking than those in the control group at a 30-day follow-up. This was particularly true for participants classified as high-risk drinkers at the baseline assessment. Adding a 15-minute motivational interviewing session did not increase the efficacy of the web-based feedback program.

Mandatory screening A Cochrane systematic review to assess the effect of alcohol and drug mandatory screening of occupational drivers in preventing injury or work-related effects such as sickness absence related to injury (Cashman et al 2009) identified only two interrupted time series studies (Swena 1999 and Spicer 2005). Spicer (2005) reported the evaluation of the workplace peer-focused substance abuse prevention and early intervention program (titled PeerCare) implemented against the background of federally mandated random drug and alcohol testing in an interrupted time-series design from 1983 to 1996 already. Swena (1999) reported the evaluation of federally mandated random drug testing on country-wide fatal truck accidents in an interrupted time-series design from 1983 to 1997. The work place based study in the transportation company found that whilst alcohol testing was associated with a decrease in the level of injuries immediately following the intervention (-1.25 injuries/100 person years, 95% CI -2.29 to -0.21), there was no significant change in the already long-term downward trend (-0.28 injuries/100 person years/year, 95% CI -0.78 to 0.21). For federally mandated random drug testing, both studies found no immediate beneficial effect, but did find significant declines of the yearly injury rate additional to the already downward trend over time, -0.19 injuries/100 person years/year, 95% CI -0.30 to -0.07 for the transportation company (Spicer 2005), and -0.83 fatal accidents/100 million vehicle miles/year, 95% CI -1.08 to -0.58 for country-wide study (Swena 1999).

A systematic review of interventions for preventing injuries in the construction industry only identified five studies (van der Molen et al 2007), one of which evaluated whether or not drug-free workplace programs, which included alcohol, prevented occupational injuries (Wickizer et al 2004). Overall, in the construction, manufacturing and service industries, those companies with drug-free workplace programmes had a net reduction of 3.33 injuries per 100 person years, compared with companies without drug-free workplace programmes, with the reduction being greater for service than construction and manufacturing industries.

Interventions that focus on health promotion and on different lifestyles rather than on the disease have shown higher participation as well as greater improvement in drinking risk than those focusing on punitive sanctions (Sieck & Heirich 2010). An inclusive model of prevention minimizes the likelihood that employees will feel singled out for their alcohol use or their participation in an intervention program in a punitive context. However, the evidence for the impact of health promotion programmes at the workplace is limited. In a systematic review, Kuoppala et al (2008) identified 46 studies which suggested that work place health promotion could improve work ability (risk ratio (RR), 1.4; range, 1.2 to 1.7), although not decrease sickness absence. Overall, there was no

impact on mental well-being and physical well-being. Exercise programmes were effective in increasing overall well-being (RR, 1.25; range, 1.05 to 1.47) and work ability (RR, 1.38; range, 1.15 to 1.66), but education and psychological methods were not. In another systematic review of 27 identified papers, Kuoppala et al (2008) found evidence that leadership at work can improve job well-being (RR, 1.40, range 1.36 to 1.57), and decrease sick leave (RR 0.73, range 0.70 to 0.89), and disability pensions (RR 0.46, range 0.42 to 0.59).

A systematic review of the effects of workplace health promotion programmes on presenteeism identified 14 studies, of which ten were described as presenting preliminary evidence of promising effects on presenteeism in their respective employee populations and work settings (Cancelliere et al 2011). Two studies were described as showing the strongest evidence, one of which involved worksite exercise (Nurminen et al 2002), and the second, the impact of a supervisor education program regarding mental health promotion (Takao et al 2006). However, even in these two studies, the evidence is either not present or very weak. In the study by Nurminen et al (2002), women engaged in physically demanding laundry work were individually randomized into an intervention or control group, with the intervention subjects participating in worksite exercise training guided by a physiotherapist. The women were followed- up at 3, 8, 12 and 15 months. Although at 12 months, workers with perceived good work ability increased more in the intervention group than in the control group (11.0%, 95% CI 0.2–21.9), as did the health-related prognosis of work ability at 8 months (8.1%, 95% CI 0.5–16.3), there were no statistically significant differences between the two groups as regards job satisfaction, work ability index, or sick leaves.

In a programme to reduce work related stress in a sake brewery, Nishiuchi et al (2007) found that an education program for stress reduction could improve supervisors' knowledge on stress reduction in the work place, but did not impact on their attitudes or behaviour. Not surprisingly then, the job stress education programme for supervisors on psychological distress and job performance among their immediate subordinates made no difference to psychological distress or job performance among male and female subordinates (Takao et al 2006, the study referred to above as showing an impact). The only exception to this was amongst the 27 young male subordinates in white collar occupations, for which there was some evidence for improvement in stress reduction and job performance. Nevertheless, independent of the programme, subordinates working under supervisors with good listening attitudes and skills reported slightly (but statistically significant) better job control and less stress than those subordinates working under supervisors with poor listening attitudes and skills (Mineyama et al 2007).

5.2 Cost-effectiveness of interventions

Despite the limited evidence for effective work place health promotion programmes, a number of meta-analyses have reported positive returns on investment for workplace wellness programs (Chapman 2003; 2005; Baicker et al 2010). In their systematic review of US-based studies, Baicker et al (2010) identified 22 studies reporting on employee health care costs and 22 on absenteeism costs. It should be remembered that in the US, more than 60% of Americans get their health care insurance through an employment based plan. By far the most frequently used method of workplace intervention delivery was the health risk assessment, a survey that gathers baseline self-reported health data from the employee, which are in turn used by the employer to tailor the subsequent intervention. The second most common wellness intervention mechanism was the provision of self-help education materials, individual counselling with health care professionals, or on-site group activities led by trained personnel. The use of incentives to motivate participation was seen in 30 percent of programs. The most common foci of the programs were obesity and smoking. Seventy-five percent of programs focused on more than one risk factor, including stress management, back care, nutrition, alcohol consumption, blood pressure, and preventive care, in addition to smoking

and obesity. Medical costs were found to fall $3.27 for every dollar spent on wellness programs, and absentee day costs fall by $2.73 for every dollar spent. Of course, there are a number of caveats to the validity of the findings: first, the firms implementing wellness programs are likely to be those with the highest expected returns; second, it is difficult to gauge the extent of publication bias, with programs seeing high return on investment most likely to be published; and, third, almost all of the studies were implemented by large employers, which are more likely than others to have the resources and economies of scale necessary both to implement and to achieve broad savings through employee wellness programs.

For **workplace settings**, the evidence for the impact of occupational health based brief advice programmes is very limited and does not give any clear conclusions for practice. Nevertheless, occupational health service could consider offering brief advice to employees who are considered as drinking riskily. What is more important for the work place are comprehensive alcohol at work policies, embedded in overall healthy living policies and actions at the workplace that take into account the structural and working environments that increase risky drinking in the first palace (Anderson 2012).

5.3 Advice to employers

Although the evidence for the impact of occupational health based brief advice programmes is very limited and does not give any clear conclusions for practice, occupational health service can consider offering them. Such programmes should be implemented as part of well-being at work initiatives. If brief advice is delivered, the following guidance applies.

Target population: Adults who have been identified via a validated screening tool as a positive case for whom advice is indicated. Targeted groups could include those with noticeable reduced work performance or those who have suffered accidents or injuries. It would be advisable to screen all employees who operate motor vehicles or machinery, since they may place other employees or the public at risk.

Identification: The recommended identification instrument is either the full 10 item AUDIT, or the 3 item AUDIT-C. The recommended cut-off level for the full 10 item AUDIT is 8 (a positive is a score of 8 or more) and for the 3 item AUDIT-C is 5 or 4 (5 or more for men and 4 or more for women). Health care professionals should work on the basis that offering an intervention is less likely to cause harm than failing to act when there are concerns.

Brief advice: Where clients screen positive with an identification instrument, practitioners should provide a session of structured brief advice on alcohol using a recognised, evidence-based resource based on the FRAMES principles described above. Structured brief advice should take 5–15 minutes and should: cover the potential harm caused by their level of drinking and reasons for changing the behaviour, including the health and wellbeing benefits; cover the barriers to change; outline practical strategies to help reduce alcohol; consumption (to address the ‘menu’ component of FRAMES); and lead to a set of goals. Clients can be referred and encouraged to use available web-based, computer-based and mobile applications to support them in their behaviour change.

Specialist referral: Consider referring patients for specialist treatment if one or more of the following has occurred. They: show signs of moderate or severe alcohol-dependence; have failed to benefit from structured brief advice and extended brief advice and wish to receive further help for an alcohol problem; show signs of severe alcohol-related impairment or have a related comorbid condition (for example, liver disease or alcohol-related mental health problems).

The process should fit each individual work place: Evidence suggests that sustainability is likely to improve when screening and brief advice is tailored to fit with local circumstances (e.g. alcohol intervention on its own or as part of a broader lifestyle health policy); breaking the process down into acceptable steps and negotiating where there is flexibility. In addition a workplace intervention that is seen as a risk to employee's privacy may present a challenge to its implementation and be not sustainable. Ensuring privacy for an affected individual and having a key focus of career preservation wherever possible will enhance the chances of program success. Employee assistance program "best practice" suggests the need for endorsement by management and labour, clear procedures for access, confidentiality, education and promotion to employees and their families, monitoring and periodic review and evaluation of effectiveness of policy and procedures and eligibility for coverage through health insurance and compensation.

Employee information: Each workplace should have clear written policies for addressing alcohol issues in the workplace. Most places of employment are alcohol free, but policies may also extend to employee's behaviour outside of the workplace or may devote particular attention to risk. Workplace policies should be complemented by interventions that provide education and awareness, and access to treatment or counselling. All new employees should know of the company's alcohol policies, the effects of alcohol on the body, impact of alcohol on performance and health and the state laws related to alcohol. Regular refresher courses are desirable for all staff. Education courses can be conducted by various means, e.g. face to face in workshops or using websites.

Individual privacy: Employee assistance program best practice includes voluntary use by employees, options for informal or formal referral by unions, peers, management and health services, and follow up counselling or treatment services. For help to be accepted and to be of value to the individual, the affected person needs to be assured that his/her participation is to enable him/her to continue in employment and that management will not know.

Wider deployment in workplace settings

Brief advice programmes should be implemented under the umbrella of well-being at work initiatives, particularly those that focus on presenteeism, and those that bring a good return on investment, with core components including structural factors and management and leadership styles. Increasing the extent of alcohol free workplaces will result in reductions of alcohol-related work place accidents and injuries, as well as creating a culture for a more healthy relationship with alcohol that impact on families and friends through social networks (European Commission 2011).

6. SOCIAL SERVICE SETTINGS

6.1 Effectiveness

Seven randomized controlled trials conducted in social service settings were identified in the review undertaken for the BISTAIRS project (Schmidt et al 2013). Three studies were conducted in the criminal justice setting, either in the context of driving while intoxicated (DWI) offenses or violent offenses while intoxicated with alcohol. Two studies included homeless people: either homeless war veterans or adolescents. The remaining two studies were conducted in the framework of community-based treatment: one in a drug and alcohol counselling centre, and in one study, a brief alcohol intervention was incorporated in smoking cessation treatment. The results were equivocal, and there was heterogeneity in included populations, outcome measures and intervention

intensities. From these published studies it is not possible to conclude whether or not brief advice is effective in social service settings.

In the unpublished UK SIPS trial in the criminal justice system, there was no difference in outcome at 6 and 12 months follow-up between subjects who received a patient information leaflet, those given brief advice or those given brief lifestyle counselling for risky alcohol use, all of which led to reductions in risky drinking (SIPS criminal justice system 2011). Those sites which had a strong local 'champion' and managerial support were easier to train than in those sites lacking this input. Also training a smaller number of staff within dedicated in---service training time was more successful both in conducting the training and in subsequent implementation. Barriers to implementation were identified, mainly the busy nature of the probation office and the imperative to deal with the criminogenic needs of the offender.

Conclusion of the evidence base for impact

The evidence base is really non-existent, and although some reviews (Moyer et al 2002) and some trials (World Health Organization 1992) have included social service settings, it is difficult to identify a clear positive impact of brief advice programmes. The UK SIPS trail in the criminal justice system which comes closest to the style of brief advice programmes included in the BISTAIRS project found evidence for an impact of receipt of a patient information leaflet, brief advice and brief lifestyle counselling, with no differences between the three interventions. Because of the paucity of evidence, rather than suggesting comprehensive delivery of roll-out of brief advice programmes in social service settings, it might be better to gather useful evidence for the acceptability and feasibility of brief advice, generating useful system readiness data, until more evidence for effectiveness is gathered.

6.2 Advice to practitioners

There is not an evidence base that suggests a comprehensive delivery of roll-out of brief advice programmes in social service settings. Rather, action is better focussed in gathering useful evidence for the acceptability and feasibility of brief advice, generating useful system readiness data, until more evidence for effectiveness is gathered. Implementation of programmes should be adapted to the specific social service setting structures in each country.

If brief advice is delivered, the following guidance, based on that applicable for primary health care and used in the UK SIPS trial in the criminal justice system applies.

Potential target population: Adults who have been identified via a validated identification tool as a positive case for whom advice is indicated.

Identification: Practitioners may use any contact with clients to carry out identification, but may well prefer a targeted basis, for instance by focusing on clients from the criminal justice system or those in the context of family violence or family disharmony). The recommended identification instrument is either the full 10 item AUDIT, or the 3 item AUDIT-C. The recommended cut-off level for the full 10 item AUDIT is 8 (a positive is a score of 8 or more) and for the 3 item AUDIT-C is 5 or 4 (5 or more for men and 4 or more for women). Professionals should work on the basis that offering an intervention is less likely to cause harm than failing to act when there are concerns.

Brief advice: Where clients screen positive with an identification instrument, practitioners should provide a session of structured brief advice on alcohol using a recognised, evidence-based resource based on the FRAMES principles described above. If this cannot be offered immediately, an

appointment should be offered as soon as possible thereafter. Structured brief advice should take 5–15 minutes and should: cover the potential social harms caused by their level of drinking and reasons for changing the behaviour, including life functioning and wellbeing benefits; cover the barriers to change; outline practical strategies to help reduce alcohol; consumption (to address the 'menu' component of FRAMES); and lead to a set of goals. Where there is an on-going relationship with the client, practitioners should routinely monitor their progress in reducing their alcohol consumption to a low-risk level. Where required, offer an additional session of structured brief advice or, if there has been no response, offer an extended brief intervention. Clients can be referred and encouraged to use available web-based, computer-based and mobile applications to support them in their behaviour change.

Extended advice: Adults who have not responded to brief structured advice on alcohol may require extended advice. This could take the form of motivational interviewing or motivational enhancement therapy. Sessions should last from 20 to 30 minutes and should aim to help people to reduce the amount they drink to low risk levels, reduce risk-taking behaviour as a result of drinking alcohol or to consider abstinence. People who have received an extended brief advice should be followed up and assessed. It may be necessary to offer up to four additional sessions of extended advice, or to refer clients to a specialist alcohol treatment service.

Specialist referral: Consider suggesting referring clients for specialist treatment if one or more of the following has occurred. They: show signs of moderate or severe alcohol-dependence; have failed to benefit from structured brief advice and extended brief advice and wish to receive further help for an alcohol problem; show signs of severe alcohol-related impairment or have a related comorbid condition (for example, alcohol-related crime or alcohol-related mental health problem).

Barriers to implementation include workload pressures, perceived lack of importance of alcohol in social service settings, high staff turnover and feeling forced to take on extra work. Owing to the complexity and diversity of the services and teams employed in social care, the identification of mechanisms for embedding brief advice programmes into routine practice requires a long-term approach. There is a tension between seeking to implement a one-size fits all model into all teams, to ensure consistency and enable easier data collection, and seeking to tailor the model to fit the specific ways of working and needs of the team to make implementation easier. Neither approach is easy but the "bottom up" approach lends itself to motivating staff through the development of tailored training materials. But it requires action and engagement separately with each team or service and may still not be successful without senior management pushing the issue from the top. Ongoing external alcohol specialist support can improve sustainability.

6.3 Advice to professional bodies and government departments

Professional bodies and government departments representing and responsible for social services and criminal justice systems should explore options for financing new research on the potential impact of screening and brief advice programmes delivered to clients in social services and criminal justice systems.

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