NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

PUBLIC HEALTH DRAFT GUIDANCE

Alcohol-use disorders: preventing the development of hazardous and harmful drinking

NICE public health guidance x

Introduction

The Department of Health (DH) asked the National Institute for Health and Clinical Excellence (NICE) to produce public health guidance on the prevention and early identification of alcohol-use disorders in adults and adolescents.

The guidance is for government, industry, the NHS and all those whose action affects the population's attitude to – and use of – alcohol. This includes professionals, commissioners and managers working in local authorities, education and the wider public, private, voluntary and community sectors. In addition, it may be of interest to community groups and members of the public.

This is one of three pieces of NICE guidance addressing alcohol-related problems among people aged 10 years and older. The others are:

- Alcohol-use disorders: diagnosis and clinical management of alcohol-related physical complications (publication expected May 2010). A clinical guideline covering acute alcohol withdrawal including delirium tremens, liver damage including hepatitis and cirrhosis, acute and chronic pancreatitis, and management of Wernicke's encephalopathy.

- Alcohol-use disorders: diagnosis and clinical management of harmful drinking and alcohol dependence (publication expected January 2011). A clinical guideline covering identification, assessment, pharmacological and

psychological/psychosocial interventions, and the prevention and management of neuropsychiatric complications.

The guidance complements but does not replace NICE guidance on: school-based interventions on alcohol, personal, social and health education, prevention of cardiovascular disease and alcohol-use disorders (management and dependence) (for further details, see section 8).

The Programme Development Group (PDG) has considered both the reviews of the evidence and the economic analysis.

This document sets out the Group's preliminary recommendations. It does not include all sections that will appear in the final guidance. NICE is now inviting comments from stakeholders (listed on our website at: www.nice.org.uk).

Note that this document does not constitute NICE's formal guidance on the prevention of alcohol-use disorders. The recommendations made in section 4 are provisional and may change after consultation with stakeholders and fieldwork.

The stages NICE will follow after consultation (including fieldwork) is summarised below.

- The Group will meet again to consider the comments, reports and any additional evidence that has been submitted.
- After that meeting, the Group will produce a second draft of the guidance.
- The draft guidance will be signed off by the NICE Guidance Executive.

For further details, see 'The NICE public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public (second edition, 2009)' (this document is available at www.nice.org.uk/phprocess).

The key dates are:
Closing date for comments: 10 November 2009.
Next Group meeting: 12 November 2009.

Members of the PDG are listed in appendix A and supporting documents used to prepare this document are listed in appendix E.

This guidance was developed using the NICE public health programme process.

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1 Key priorities

This section will be completed in the final document.

2 Public health need and practice

Data from the 2006 ‘General household survey’ (which covered more than 17,000 people) indicated that 73% of men and 57% of women in England had an alcoholic drink on at least 1 day during the previous week (The NHS Information Centre 2009).

As the strength of alcoholic drinks has increased over recent years and as larger measures are now routinely available, the method for calculating average weekly consumption has been updated. When figures from the 2006 survey were recalculated, it found that men and women are actually drinking more than was previously estimated. In 2006, for example, the average amount drunk by men was 18.9 units a week (151 grams of alcohol), not 14.9 (199g); and for women it was 9.2 units a week (74g), not 6.3 (50g).

It should also be noted that HM Revenue and Customs data on the amount of alcohol sold showed that it was almost double the amount consumed, based on self-reported data analysis, before this recent adjustment was made (DH 2007). In Britain alcohol consumption rose from 9.53 litres of pure alcohol per adult in 1986/87 to 11.53 litres in 2007/8 (HM Revenue and Customs 2008). This approximates to 22 units (176g) per person aged over 15 years per week. Thus, although the amount most people drink poses a relatively low risk to their health, an estimated 24% of adults drink a hazardous or harmful amount (The NHS Information Centre 2009). For definitions of harmful and hazardous drinking see glossary.

Levels of self-reported hazardous and harmful drinking are lowest in the central and eastern regions of England (21–24% of men and 10–14% of women). They are highest in the north (26–28% of men, 16–18% of women) (North West Public Health Observatory 2007).

Although the proportion of schoolchildren who have never had an alcoholic drink has risen, those who do drink are consuming more three times as much as in 1990 (Clemens et al. 2008). In 2006, those aged 11–15 who had drunk alcohol in the past 7 days had drunk an average of 12.7 units (102g) (Clemens et al. 2008). In addition, young people under the age of 18 years accounted for 9% of hospital admissions where the primary diagnosis was related to alcohol.

Health and social problems

Alcohol consumption is associated with many chronic health problems, as well as with accidents, injuries and poisoning. For example, it is linked to psychiatric, liver, neurological, gastrointestinal and cardiovascular conditions and several types of cancer (Rehm et al. 2003).

It is also linked to a number of social problems. In 2006/07, it was associated with over 500,000 recorded crimes in England (North West Public Health Observatory 2007). It may also be linked to more than 1.2 million incidences of violence a year. Up to 17 million working days are lost annually through absences caused by drinking – and up to 20 million are lost through loss of employment or reduced employment opportunities (Prime Minister's Strategy Unit 2003).

In addition, alcohol-use disorders (see glossary) are associated with relationship breakdown, domestic violence and aggression, poor parenting, unsafe and regretted sex, truancy, delinquency, antisocial behaviour and homelessness (Prime Minister's Strategy Unit 2003).

Cost of alcohol-use disorders

The cost of alcohol-use disorders, in terms of healthcare, crime and disorder and loss of productivity, is estimated at around £27 billion per year in England and Wales (DH 2008a).

It costs the NHS in England up to £2.7 billion a year to treat the chronic and acute effects of drinking (DH 2008b). It is also estimated that up to 35% of all accident and emergency (A&E) attendances and ambulance costs are

alcohol-related (Prime Minister's Strategy Unit 2003). In 2007/08 there were 863,300 admissions due to alcohol-specific causes, a 69% increase since 2002/03 (The NHS Information Centre 2009).

In addition, in 2005 it has been estimated that 14,982 deaths were attributable to alcohol consumption (Jones et al. 2008).

Socioeconomic factors

The interaction between social class and alcohol is complex. Compared with those living in more affluent areas, people in the most deprived fifth of the country are:

- two to three times more likely to die of causes influenced in part by alcohol (alcohol-attributable)
- three to five times more likely to die of causes entirely related to alcohol (alcohol-specific)
- two to five times more likely to be admitted to hospital because of an alcohol-use disorder (North West Public Health Observatory 2007).

However, managers and other professionals self-report that they consume the most alcohol (an average of 19.9 units (160g) a week compared with 16.7 units (134g) a week for people in routine and manual groups). The difference is even more marked when the figures are broken down by gender: female managers and professionals drink an average of 10.7 units (86g) a week, compared with 7.1 units (57g) a week for women in routine and manual groups (Goddard 2008).

Government policy

In the past 20 years, the price of alcohol has been rising at around the same rate as for other consumer products. However, incomes have risen much faster. As a result, between 1980 and 2008 alcohol became 75% more affordable (The NHS Information Centre 2009). Since 1987, beer and wine have become 139% and 124% more affordable respectively when bought from an off license (Booth et al. 2008).

Since 2004, the detrimental effects of alcohol-use disorders has resulted in several policy documents. In addition, the prevention and reduction of alcohol-use disorders have been incorporated into several public service agreements (PSAs):

- ‘Alcohol harm reduction strategy for England’ (Prime Minister's Strategy Unit 2004).
- ‘Choosing health: making healthy choices easier’ (DH 2004).
- ‘PSA 14: increase the number of children and young people on the path to success’ (HM Treasury 2007a).
- ‘PSA 23: make communities safer’ (HM Treasury 2007b).
- ‘PSA 25: reduce the harm caused by alcohol and drugs’ (HM Treasury 2007c).
- ‘Safe. Sensible. Social. The next steps in the national alcohol strategy’ (DH 2007).
- ‘Youth alcohol action plan’ (Department for Children, Schools and Families 2008).

3 Considerations

The Programme Development Group (PDG) took account of a number of factors and issues when developing the recommendations.

General

3.1 Evidence suggests that drinking alcohol is never without risk. An increase in per capita alcohol consumption is associated with an increase in related deaths. Therefore, while the PDG believes some of the recommendations will have a greater impact on heavy drinkers, taken together, they are very likely to improve the health of the population as a whole.

3.2 In his 2008 annual report, the Chief Medical Officer highlighted that alcohol affects not only the person drinking but those around them, including the wider population. Each year, drinking adversely affects approximately 1.3 million children, leads to over 7000 road accident injuries, results in 125,000 instances of domestic violence and 17 million lost working days. It may also be a contributory factor in up to one million assaults (DH 2009). The PDG believes that interventions to address alcohol-related harm should take these wider consequences into account.

3.3 The PDG noted that the state has a duty to look after the welfare of the population as a whole and that health is one of the nation's primary assets. It believes interventions to address alcohol-related harm are likely to improve the overall wellbeing and productivity of the population. The PDG also notes that such interventions are likely to help reduce health inequalities.

3.4 The DH recently revised the way in which it describes drinking behaviour: the term 'hazardous' has been replaced with 'increasing risk'; and the term 'harmful' has been replaced with 'higher risk' drinking. Due to the following methodological reasons, the PDG has decided to retain the definitions 'hazardous' and 'harmful' drinking.

These terms have been extensively used in the scientific literature, the World Health Organization's (WHO) 'International classification of diseases' (10th revision) and within many of the recommended tools. In addition, the unit-based approach which accompanies the new DH terms does not accurately reflect what is meant by 'harmful' drinking.

National approach

3.5 The PDG believes both national and individual interventions are needed as part of a combined approach to reducing alcohol-related harm that will benefit society as a whole. Population-level approaches are very important because they can help reduce the aggregate level of alcohol consumed and therefore lower the whole population's risk of alcohol-related harm. They can help those not in regular contact with the relevant services. They can also help reduce the number of people who start drinking harmful or hazardous amounts in the first place. In addition, they may help those who have been specifically advised to reduce their alcohol intake, by creating an environment that supports lower risk drinking.

3.6 There is extensive and consistent evidence in favour of a population-level approach to preventing alcohol-related harm. The PDG felt that such an approach could be as effective as that taken to address drink-driving; legislation on drink-driving was based on a more limited evidence base than that available for the recommendations set out in this guidance.

3.7 Making alcohol less affordable appears to be the most effective way of reducing alcohol-related harm. There is sufficient evidence (within the published literature and from the economic analysis) to justify the introduction of a minimum price per unit. The evidence suggests that young people who drink and people who drink harmful amounts of alcohol tend to choose cheaper drinks. Establishing a minimum price per unit would limit the ability of these groups to 'trade down' to cheaper products. A minimum price per unit (unlike a tax increase)

would prevent retailers from passing on any increase to producers, or absorbing it themselves, so it would prevent them from selling alcohol below cost price.

3.8 It has been argued that the introduction of a minimum price per unit for alcohol would adversely affect those from low-income groups as they have less disposable income. The argument is that they would have to drastically alter their spending habits if they wanted to drink even a small amount of alcohol. However, data from the family expenditure and food surveys (Office for National Statistics 2008) shows that these groups spend less on alcohol per week than high-income groups. It is unlikely, therefore, that those from lower-income groups would be disproportionately affected.

3.9 Making it less easy to buy alcohol, by reducing the number of outlets selling it in a given area and the days and hours when it can be sold, is another effective way of reducing alcohol-related harm. In Scotland, the protection and improvement of the public's health has been included within the licensing objectives.

3.10 Increasing the price of alcohol, or reducing its accessibility, may lead to an increase in the amount of alcohol imported (both legally and illegally). However, the PDG judges that this would have a small impact on the alcohol consumption of the population as a whole.

3.11 There is only limited evidence on how alcohol advertising affects consumption among the population as a whole. However, the evidence is much stronger in relation to children and young people. It shows that exposure to alcohol advertising is associated with the onset of drinking among young people and increased consumption among those who already drink. The PDG recognised that it is difficult to protect children and young people from advertising without introducing a complete ban. It also recognised that evidence on whether or not an alcohol advertising ban would be effective is inconclusive. However, it noted that a tobacco advertising ban has

helped to reduce the prevalence of smoking.

3.12 The PDG is aware that it has not been able to consider all of the actions needed at a national level to reduce alcohol-related harm. This includes the provision of information on labels and at the point of sale detailing the alcoholic content of drinks and the risks related to different levels of consumption. It also includes the provision of health information and the introduction of mandatory conditions for the responsible sale of alcohol. However, the recommendations in this guidance complement current or proposed government action in these areas to reduce alcohol-related harm.

Young people aged under 16 years

3.13 Young people under the age of 16 years are particularly vulnerable to alcohol and the harm it causes because they are still developing both physically and emotionally. They may also be drinking in unsupervised situations and in ‘unsafe’ environments (parks and street corners) where problems are more likely to occur. The PDG noted that there may be underlying problems driving a young person to drink alcohol and that these need to be addressed.

3.14 The problems young people aged under 16 may face and their susceptibility to alcohol will vary greatly. For example, a young person aged 10 is different, both physically and emotionally, to someone aged 15.

3.15 Not all those at risk will be in regular contact with services that can help. The PDG noted that it is important for professionals to encourage vulnerable young people to include their parents or guardians in these interventions. It is also important that professionals are aware of child protection, consent and confidentiality issues.

3.16 A number of pieces of NICE guidance address alcohol issues in relation to young people under the age of 16. In particular, the PDG

noted the importance of guidance on attention deficit hyperactivity disorder, interventions to reduce substance misuse among vulnerable young people and school-based interventions on alcohol (see related NICE guidance, section 8). The current guidance is intended to complement existing work.

3.17 There is very limited evidence on the effectiveness of delivering brief interventions to young people under the age of 16. Most of the research on brief interventions (and screening) has been carried out among adults in healthcare settings. However, a significant body of evidence from educational settings (such as colleges and universities) is broadly positive. The PDG judges that it is reasonable and appropriate to extrapolate this evidence to those aged 16 and 17 years in health and social care settings.

Working with adults

3.18 Many people attending health and other public and voluntary sector services will benefit from the recommendations – and not just those who are actively seeking treatment for alcohol-related problems. Others who could benefit include people who are unaware that alcohol is compromising their mental or physical wellbeing. It also includes those who may sometimes be aware that their drinking is harming either themselves or others, but are ambivalent about cutting down. NICE is producing two complementary pieces of guidance which, in conjunction with this publication, will provide advice on how to support these groups (see related NICE guidance, section 8).

3.19 Healthcare professionals are well placed to identify and help people with alcohol-related problems. There is strong evidence to show that many people benefit from brief advice provided by healthcare professionals who are not alcohol specialists.

3.20 Research on screening and brief interventions in primary healthcare and accident and emergency (A&E) departments has not been widely replicated in other health or social care settings. Nevertheless, the

PDG believes evidence from other areas (such as educational settings) clearly shows that it is worthwhile for healthcare professionals outside primary care – and non-healthcare professionals – to carry out these interventions. Many working in public services (such as social care, criminal justice, higher education, occupational health and children's services) have contact with people who are drinking a hazardous or harmful amount. The PDG believes these professionals are well-placed to help people who have a drinking problem – and that many of their clients would benefit from such help and advice.

3.21 The PDG is aware of the importance of ensuring services are coordinated services (for screening, brief interventions and referrals) so that people can receive the appropriate level of care.

3.22 Most brief interventions fall into one of two types: structured brief advice or motivational counselling. Evidence shows that brief advice is effective where time is tight – even when there is only 5 minutes available. Although the evidence is mixed on the additional benefit of providing motivational counselling in healthcare settings, it has been found to be effective in educational settings. The PDG believes the evidence in general, in relation to hazardous and harmful drinking, is sufficiently strong to make a recommendation on motivational counselling (see recommendations 8 and 11).

3.23 A number of intervention packages offer a coordinated collection of evidence-based materials for use when screening and carrying out a brief intervention. They usually consist of:

- a short guide on delivery
- screening questionnaires
- visual material (clarifying the risks or harm caused by alcohol consumption and showing people how their drinking compares with the rest of the population)
- practical suggestions on how to reduce alcohol consumption

- self-help leaflets
- an optional poster for display in waiting rooms.

An example is the ‘Drink-less pack’, which was used and evaluated in the WHO series of studies on brief interventions (Centre for Drug and Alcohol Studies 1993). Another is the ‘How much is too much?’ pack (Institute of Health and Society 2006), which is based on the ‘Drink-less pack’ and has been used by the DH for training.

3.24 Different factors may make some people more vulnerable to alcohol than others and this can affect the precision of some screening tools. For example, women are more vulnerable to alcohol than men and younger and older people tend to be more vulnerable than those who are middle-aged. In addition, lower screening thresholds may need to be applied to some groups (such as those mentioned above and including black and minority ethnic groups). Professional judgement is needed on the support that should be offered to such groups, including:

- women
- younger people
- people aged 65 and over
- black and minority ethnic groups.

3.25 The PDG recognises that a language-based screening questionnaire may not be the most appropriate tool for certain groups. This includes those with English as a second language and people with learning disabilities or cognitive impairment. How best to establish whether people in these groups are at risk from alcohol or are experiencing alcohol-related harm will be a matter of professional judgement.

3.26 The PDG acknowledges that some people drink alcohol as a result of underlying problems. Clearly, these need to be addressed along with any alcohol-related issues.

Referral

3.27 A brief intervention will address many people's alcohol-related problems. However, those who are moderately or severely alcohol-dependent are likely to need specialist help. This is also true of people who experience physical harm, such as liver damage or mental health problems, as a result of alcohol. In such cases, the recommendations in this guidance should be read in conjunction with two complementary pieces of NICE guidance: the diagnosis and clinical management of alcohol-related physical complications and the diagnosis and clinical management of harmful drinking and alcohol dependence.

This section will be completed in the final document.

4 Recommendations

When writing the recommendations, the Programme Development Group (PDG) (see appendix A) considered the evidence of effectiveness and cost effectiveness. Note: this document does not constitute NICE's formal guidance on this programme. The recommendations are preliminary and may change after consultation.

The evidence statements underpinning the recommendations are listed in appendix C.

The evidence reviews, supporting evidence statements and economic analysis are available at www.nice.org.uk/guidance/PHG/Wave15/1

Population versus individual approach

Both national and individual interventions are needed as part of a combined approach to reducing alcohol-related harm that will benefit society as a whole. Population-level approaches are very important because they can help reduce the aggregate level of alcohol consumed and therefore lower the whole population's risk of alcohol-related harm. They can help those who are not in regular contact with the relevant services. They can also help reduce the

number of people who start drinking harmful or hazardous amounts in the first place. In addition, they may help those who have been specifically advised to reduce their alcohol intake, by creating an environment that supports lower risk drinking. (For more on interventions aimed at the whole population see considerations 3.5 to 3.12).

The government continues to address the harm caused by alcohol at both the population and individual level (for example, in its strategy 'Safe. Sensible. Social.[1]'). This NICE guidance provides authoritative recommendations, based on a robust analysis of the evidence, which support these activities.

As highlighted by the House of Commons Public Accounts Committee[2], national-level action to reduce the population's alcohol consumption requires coordinated government policy. It also needs government, industry and key non-governmental organisations to work together.

[1] Department of Health (2007) Safe. Sensible. Social. The next steps in the national alcohol strategy. London: Department of Health.
[2] House of Commons Public Accounts Committee (2009) Reducing alcohol harm: health services in England for alcohol misuse. London: The Stationery Office.

Policy and practice

The policy recommendations (recommendations 1 to 3) are based on extensive and consistent evidence which suggests that the issues identified deserve close consideration. Evidence also suggests that policy change is likely to be a more effective – and cost effective – way of reducing alcohol-related harm among the population than any actions that undertaken by local health professionals.

The recommendations for practice (recommendations 4 to 12) support, complement – and are reinforced by – these policy options. They include the use of brief interventions: structured brief advice or motivational counselling.

Recommendations for policy

Who should take action?

The Chief Medical Officer should have lead responsibility for coordinating the broad approach across government, supported by the Department of Health.

The following departments and national agencies should be involved:

- Advertising Standards Authority
- Department for Business, Innovation and Skills
- Department for Children, Schools and Families
- Department for Culture, Media and Sport
- Department for Environment, Food and Rural Affairs
- Department of Communities and Local Government
- Department of Health
- Home Office
- Ministry of Justice
- National Treatment Agency
- Ofcom
- Office of Fair Trading
- Treasury.

Organisations that should be consulted include:

- alcohol producers
- off- and on-sale retailers
- national non-governmental organisations, for example Alcohol Concern and the Royal Medical Colleges.

Recommendation 1: price

Making alcohol less affordable appears to be the most effective way of reducing alcohol-related harm. There is sufficient evidence (within the published literature and from the economic analysis) to justify reviewing policies on alcohol pricing.

What action could be taken?

Consider the following measures:

- Introducing a minimum price per unit.
- Linking alcohol duty to inflation and earnings.

Recommendation 2: availability

Making it less easy to buy alcohol, by reducing the number of outlets selling it in a given area and the days and hours when it can be sold, is another effective way of reducing alcohol-related harm. As a way of achieving this in Scotland, protection of the public's health has been introduced as a criteria into licensing regulations.

What action could be taken?

- Licensing legislation could be revised to ensure:
  - it takes account of evidence of the links between the availability of alcohol (number of alcohol outlets in a given area and the times when it is on sale) and alcohol-related harm (for example, crime and disorder and in relation to health)
  - licensing departments take the above links into account when considering a license application

  - it includes protection of the public's health as part of licensing objectives
  - it gives licensing departments an enforcement role
  - immediate sanctions can be imposed on any premises in breach of their license, following review proceedings.

- Legislation on personal import allowances could be reviewed and consideration given to reducing them.

Recommendation 3: marketing

There is only limited evidence on how alcohol advertising affects consumption among adults. However, evidence shows that exposure to alcohol advertising is associated with the onset of drinking among children and young people – and increased consumption among those who already drink. It is difficult to protect children and young people from such advertising without introducing a complete ban. Evidence on whether or not it would be effective is inconclusive. However, a tobacco advertising ban has helped reduce the prevalence of smoking.

What action could be taken?

To reduce the effect of alcohol advertising on children and young people consider:

- ensuring all alcohol marketing, particularly marketing that makes use of newer media (for example, web-based channels), is covered by a regulatory system which includes the monitoring of practice
- banning alcohol advertising from all media outlets where more than 5% of the audience is under the age of 18 years
- restricting alcohol marketing and advertising to the facts about the product
- in the longer term, banning all forms of alcohol advertising and marketing through television, radio, cinema and via sports sponsorship (as is the case with tobacco advertising).

Recommendations for practice

Recommendation 4: licensing

Who is the target population?

Alcohol license-holders and designated supervisers of licensed premises.

Who should take action?

Local authorities, trading standards officers, the police and magistrates.

What action should they take?

- Use local health and crime data to map the extent of local alcohol-related problems before developing or reviewing a licensing policy. If supported by the evidence, adopt a ‘cumulative impact’ policy to meet the objectives of the Licensing Act. If necessary, limit the number of licensed premises in a given area.

- Ensure sufficient resources are available to prevent under-age sales, sales to people who are intoxicated, non-compliance with any other alcohol license condition and illegal imports of alcohol.

- Work in partnership with the appropriate authorities to identify premises that regularly sell alcohol to people who are under age or intoxicated.

- Undertake test purchases (using ‘mystery’ shoppers) to ensure compliance with the law on under-age sales and to identify premises where sales are made to people who are intoxicated.

- Ensure sanctions are fully applied to businesses that break the law on under-age sales and sales to those who are intoxicated. This includes fixed penalty and closure notices (the latter should be applied to establishments that persistently sell alcohol to children and young people).

Recommendation 5: resources for screening and brief interventions

Who is the target population?

Professionals who have contact with those aged 16 and over.

Who should take action?

- Commissioners of NHS healthcare services and from multi-agency joint commissioning groups.

- Managers of NHS-commissioned services.

What action should they take?

- Commissioners should ensure a local joint alcohol needs assessment is carried out in accordance with 'World class commissioning[3]' and 'Signs for improvement[4]'.

- Commissioners should ensure commissioning plans include the provision of brief interventions for people at risk of an alcohol-related problem (hazardous drinkers) and those whose health is being damaged by alcohol (harmful drinkers).

- Commissioners should make provision for the likely increase in the number of people requiring referral to tier three and four alcohol services as a result of screening. These services should be properly resourced to support the stepped care approach recommended in 'Models of care for alcohol misusers[5]'.

- Service managers must ensure staff are trained to provide alcohol screening and structured brief advice. If there is a local demand, staff should also be trained to deliver motivational counselling.

- Service managers must ensure staff can easily access validated screening questionnaires suitable for local use.

- Service managers must ensure staff have enough time and resources to carry out screening and preventive work effectively. Staff should have

[3] DH World class commissioning [online]. Available from www.dh.gov.uk/en/Managingyourorganisation/Commissioning/Worldclasscommissioning/
[4] DH (2009) Signs for improvement: commissioning interventions to reduce alcohol-related harm [online]. Available from www.dh.gov.uk/en/Publicationsandstatistics/Publications/DH_102813
[5] DH (2006) Models of care for alcohol misusers (MOCAM). London: DH.

access to recognised, evidence-based packs, such as the 'Drink-less pack[6]' or the 'How much is too much?[7]' pack. These should include:

- a short guide on how to use the intervention, questionnaires, visual presentations (comparing the person's drinking levels with the average), self-help leaflets and possibly a poster for display in waiting rooms.

Recommendation 6: supporting children and young people aged 10 to 15 years

Who is the target population?

Children aged 10 to 15 years who are thought to be drinking a hazardous or harmful amount of alcohol.

Who should take action?

NHS and health and social care professionals who regularly come into contact with this group.

What action should they take?

- Routinely assess the ability of these children and young people to consent to alcohol-related interventions and treatment.

- Use the Common Assessment Framework (CAF) to establish if they are at risk of harm from their drinking and if other psychological or social factors need to be considered.

- Consider referral to child and adolescent mental health services, social care or to young people's drug and alcohol services for treatment, as appropriate.

[6] Centre for Drug and Alcohol Studies (1993) The drink-less programme. Sydney: Sydney University.
[7] Institute of Health and Society (2006) How much is too much? Newcastle: Newcastle University. Available from www.ncl.ac.uk/ihs/enterprise

Recommendation 7: screening young people aged 16 and 17 years

Who is the target population?

Young people aged 16 and 17 years who are thought to be drinking a hazardous or harmful amount of alcohol.

Who should take action?

NHS and health and social care professionals who regularly come into contact with this group.

What action should they take?

- Complete a validated alcohol screening questionnaire with this group. Alternatively, if they are judged to be competent enough, ask them to fill one in themselves. In most cases, AUDIT[8] (alcohol-use disorders identification test) should be used. If time is limited, use an abbreviated version (such as AUDIT-C, AUDIT-PC, SASQ or FAST). Screening tools should be appropriate to the setting. For instance, in an accident and emergency (A&E) department, FAST or PAT would be most appropriate.

- Where routine screening is not feasible, focus on groups that may be at an increased risk of alcohol-related harm. This includes those:
    - who have had an accident or a minor injury
    - who request contraceptive advice
    - involved in crime or other anti-social behaviour
    - who truant on a regular basis
    - at risk of self-harm
    - who are looked after
    - involved with child protection agencies.

- When broaching the subject of alcohol and screening, ensure discussions are sensitive to the young person's age and their ability to understand what is involved, their emotional maturity, culture and faith. The discussions should also take into account their particular needs (health and social) and

[8] Babor TF, Higgins-Biddle JC, Saunders JB (2001)The alcohol use disorders identification test – guidelines for use in primary care. Geneva: World Health Organization.

be appropriate to the setting. (As an example, a different approach may be needed in a GP surgery compared to an A&E department.)

- Routinely assess the ability of young people to consent to alcohol-related interventions and treatment.

Recommendation 8: motivational counselling with young people aged 16 and 17 years

Who is the target population?

Young people aged 16 and 17 years who have been identified via screening as drinking a hazardous or harmful amount of alcohol.

Who should take action?

NHS and health and social care professionals who regularly come into contact with this group.

What action should they take?

- Ask the young person's permission to arrange for them to have motivational counselling.

- Appropriately trained staff should offer motivational counselling.

- Provide information on local specialist addiction services that can deal with young people to those who have scored 20+ in the AUDIT screening questionnaire, those who do not respond well to discussion and those who want further help. Refer them to these services if this is what they want.

- Give those who are actively seeking treatment for an alcohol problem a physical and mental assessment and offer, or refer them for, appropriate treatment and care.

Recommendation 9: screening adults

Who is the target population?

Adults.

Who should take action?

NHS and health and social care professionals who regularly come into contact with people who may be at risk of harm from the amount of alcohol they drink.

What action should they take?

- NHS professionals should routinely carry out alcohol screening as an integral part of practice. For instance, discussions should take place during new patient registrations, when screening for other conditions, when managing chronic disease, promoting sexual health or treating minor injuries caused at work.

- Where routine screening is not feasible or acceptable, NHS professionals should focus on groups that may be at an increased risk of harm from alcohol and those with an alcohol-related condition. These groups include people:
    - with physical conditions (such as hypertension, liver disease or other gastrointestinal disorders)
    - with mental health problems (such as anxiety, depression or other mood disorders)
    - at risk of self-harm
    - who regularly experience accidents or minor traumas.

- Non-NHS professionals should focus on groups that may be at an increased risk of harm from alcohol and people that have alcohol-related problems. This will include those:
    - at risk of self-harm
    - involved in crime or other anti-social behaviour
    - who practice unsafe sex
    - whose children are involved with child protection agencies.

- When broaching the subject of alcohol and screening, ensure discussions are sensitive to people's culture and faith and tailored to their needs.

- Complete a validated alcohol questionnaire with the adults being screened. Alternatively, if they are competent enough, ask them to fill one in themselves. Use AUDIT to decide whether to offer them a brief intervention (and, if so, what type), or whether to make a referral. If time is limited, use an abbreviated version (such as AUDIT-C, AUDIT-PC, SASQ or FAST). Screening tools should be appropriate to the setting. For instance, in an A&E department, FAST or PAT would be most appropriate.

- Professionals should use their judgement as to whether to revise the AUDIT scores downwards when screening:
  - women (women scoring above 7 in the AUDIT questionnaire should be offered brief advice)
  - younger people (under the age of 18)
  - people aged 65 and over
  - black and minority ethnic groups.

  If in doubt, consult relevant specialists. Work on the basis that offering an intervention is less likely to cause harm than failing to act where there are concerns.

- When it is not appropriate to use an English language-based screening questionnaire, consult relevant specialists (for example, when dealing with people whose first language is not English or when people have a learning disability).

- Do not use biochemical measures as a matter of routine to see if someone is drinking a hazardous or harmful amount of alcohol. These measures may be used to assess the severity of an established alcohol-related problem or to complement screening questionnaires within A&E.

Recommendation 10: brief advice for adults

Who is the target population?

Adults who have been identified via screening as drinking a hazardous amount of alcohol (that is, those who scored 8–15 on the AUDIT questionnaire) and who are attending:

- primary healthcare services
- A&E departments
- other healthcare services (general hospital wards, outpatient departments, occupational health services, sexual health clinics, needle and syringe exchange programmes, pharmacies and dental surgeries)
- offender management and other criminal justice system services, social services, higher education and other non-NHS public services.

Who should take action?

Professionals who have received the necessary training and work in the services as outlined above.

What action should they take?

- Primary healthcare professionals should offer a brief session of structured advice about alcohol.

- Non-primary healthcare professionals should try to find time to offer structured brief advice. If they miss an opportunity to do this they should offer an appointment as soon as possible. This appointment may be for a structured brief session or, where appropriate, motivational counselling (see recommendation 11).

- Structured advice should be based on FRAMES principles (feedback, responsibility, advice, menu, empathy, self-efficacy) and should:
    - cover the potential harm caused by this level of drinking and reasons for changing the behavior, including the benefits for health and wellbeing
    - cover the barriers to change

  - lead to a set of goals
  - last from 5–15 minutes.

- Use a recognised, evidence-based resource, such as the 'Drink-less pack[9]' or the 'How much is too much?[10]' pack which provides self-help materials.

- Follow up on people's progress in reducing their alcohol consumption to a low-risk level (whereby they score less than 8 on the AUDIT scale). Where required, offer an additional session of structured brief advice.

Recommendation 11: motivational counselling for adults

Who is the target population?

Adults who have:

- scored 16 to19 on the AUDIT questionnaire
- not responded to brief structured advice
- chosen to undergo motivational counselling
- need motivational counselling for other reasons.

Who should take action?

Professionals who are in contact with adults and have received training in motivational counselling.

What action should they take?

- Offer motivational counselling to people who:
  - are ambivalent about the need to reduce the amount of alcohol they drink
  - have failed to benefit from structured brief advice
  - in the professional's judgement, need more than structured brief advice

[9] Centre for Drug and Alcohol Studies (1993) The drink-less programme. Sydney: Sydney University.
[10] Institute of Health and Society (2006) How much is too much? Newcastle: Newcastle University. Available from www.ncl.ac.uk/ihs/enterprise

  - for any reason, wish to discuss their drinking further with a trained professional.

- Sessions should last from 20 to 30 minutes and should aim to help people reduce the amount they drink (ideally, so that they score less than 8 on the AUDIT and consume less than the recommended level of alcohol).

- Follow up and assess people who have received motivational counselling. Where necessary, offer up to three additional sessions or referral to a specialist alcohol or addiction treatment service (see recommendation 12).

Recommendation 12: referral

Who is the target population?

Those aged 10 years and over who attend NHS or non-NHS services and may be alcohol-dependent.

Who should take action?

NHS and non-NHS professionals who have contact with anyone aged 10 and over.

What action should they take?

Consider making a referral for specialist treatment if they:

- have scored 20 or more on the AUDIT screening questionnaire
- show signs of moderate or severe alcohol dependence
- failed to benefit from structured brief advice and motivational counselling and wish to receive further help for an alcohol problem
- show signs of alcohol-related damage (for example, liver damage or mental health problems).

5 Implementation

NICE guidance can help:

- NHS organisations, social care and children's services meet the requirements of the DH's 'Operating framework for 2008/09' and 'Operational plans 2008/09–2010/11'.
- NHS organisations, social care and children's services meet the requirements of the Department of Communities and Local Government's 'The new performance framework for local authorities and local authority partnerships'.
- National and local organisations within the public sector meet government indicators and targets to improve health and reduce health inequalities.
- Local authorities fulfil their remit to promote the economic, social and environmental wellbeing of communities.
- Local NHS organisations, local authorities and other local public sector partners benefit from any identified cost savings, disinvestment opportunities or opportunities for re-directing resources.
- Provide a focus for multi-sector partnerships for health, such as local strategic partnerships.

NICE will develop tools to help organisations put this guidance into practice. Details will be available on our website after the guidance has been issued.

6 Recommendations for research

This section will be completed in the final document.

More detail on the gaps in the evidence identified during development of this guidance is provided in appendix D.

7 Updating the recommendations

This section will be completed in the final document.

8 Related NICE guidance

Published

Attention deficit hyperactivity disorder: diagnosis and management of ADHD in children, young people and adults. NICE clinical guideline 72 (2008). Available from www.nice.org.ul/CG72

Antenatal care: routine care for the healthy pregnant woman. NICE clinical guideline 62 (2008). Available from: www.nice.org.uk/CG62

School-based interventions on alcohol. NICE public health guidance 7 (2007). Available from: www.nice.org.uk/PH7

Behaviour change. NICE public health guidance 6 (2007). Available from: www.nice.org.uk/PH6

Interventions to reduce substance misuse among vulnerable young people. NICE public health guidance 4 (2007). Available from:www.nice.org.uk/PH4

Schizophrenia: core interventions in the treatment and management of schizophrenia in primary and secondary care. NICE clinical guideline 1 (2002). Available from: www.nice.org.uk/CG1

Under development

Cardiovascular disease. NICE public health guidance (publication expected March 2010).

Alcohol-use disorders: preventing harmful drinking consultation draft

Alcohol-use disorders: diagnosis and clinical management of alcohol-related physical complications. NICE clinical guideline (publication expected May 2010).

Care of pregnant women with complex social factors. NICE clinical guideline (publication expected June 2010).

Personal, social and health education focusing on sex and relationships and alcohol education. NICE public health guidance (publication expected January 2011).

Alcohol-use disorders: diagnosis and clinical management of harmful drinking and alcohol dependence. NICE clinical guideline (publication date to be confirmed).

9 Glossary

Alcohol dependence

A cluster of behavioural, cognitive and physiological factors that typically include a strong desire to drink alcohol and difficulties in controlling its use. Someone who is alcohol-dependent will keep drinking, despite harmful consequences. They will also give alcohol a higher priority than other activities and obligations. Please refer to ‘Diagnostic and statistical manual of mental disorders’ (DSM-IV) (American Psychiatric Association 2000) and ‘International statistical classification of diseases and related health problems – 10th revision’ (ICD-10) (World Health Organization 2007) for further information.

Alcohol use disorders

Alcohol use disorders cover a wide range of mental health problems as recognised within the international disease classification systems (ICD-10, DSM-IV). These include hazardous and harmful drinking and alcohol dependence. See ‘Harmful’ and ‘Hazardous’ drinking and ‘Alcohol dependence’.

Alcohol use disorders identification test (AUDIT)

AUDIT is an alcohol screening test designed to see if people are drinking harmful or hazardous amounts of alcohol. It can also be used to identify people who warrant further diagnostic tests for alcohol dependence.

Alcohol-related harm

Physical or mental harm caused either entirely or partly by alcohol. If it is entirely as a result of alcohol, it is known as ‘alcohol-specific’. If it is only partly caused by alcohol it is described as ‘alcohol-attributable’.

Brief intervention

Brief advice or counselling to help someone reduce their alcohol consumption. It can be carried out by members of staff who are not alcohol specialists.

Clinical management of people with alcohol-related disorders

Any pharmacological or psychosocial intervention carried out by a clinician to manage the clinical problems caused by alcohol or any related medical or psychiatric complications. For example, support to help with withdrawal, managing liver damage and treating conditions such as Wernicke’s encephalopathy.

Commissioning

Primary care trusts (PCTs) and drug and alcohol action teams (DAATs) may commission alcohol support services to meet patients’ needs from a range of ‘providers’. This includes GPs, hospitals, mental health trusts and voluntary and private organisations.

Dependence

See ’Alcohol dependence’.

Early intervention

A combination of early detection and treatment initiated by someone trained in these techniques. It is particularly aimed at people who are not physically dependent on alcohol and have no major psychosocial complications as a result of drinking.

Harmful drinking

A pattern of drinking alcohol that causes harm to a person's health or wellbeing. The harm may be physical, psychological or social. In the absence of evidence of harm, this term is used to describe males who regularly consume more than 50 units per week and females who regularly consume more than 35 units per week.

Hazardous drinking

A pattern of drinking alcohol that increases the risk of harmful consequences for the person. This term is used for males who regularly consume more than 21 units per week and females who regularly consume more than 14 units per week.

Motivational counselling

A therapy that aims to motivate people to change their behaviour by exploring with them why they behave the way they do and giving them positive reasons for making the change.

UK government drinking guidelines

Guidelines set by the UK government on how much alcohol may be consumed without a serious impact on health. The guidelines recommend that men should not regularly drink more than 3–4 units of alcohol per day, and women should not regularly drink more than 2–3 units of alcohol per day. Both are recommended to have some alcohol-free days. In terms of weekly limits, men are advised to drink no more than 21 units and women no more than 14 units per week. Anyone who has drunk heavily in one session is advised to go without alcohol for 48 hours, to give their liver and other body tissues time to recover. See 'Unit'.

Treatment

A programme designed to reduce alcohol consumption or any related problems. It could involve a combination of counselling and medicinal solutions.

Unit

In the UK, alcoholic drinks are measured in units. Each unit corresponds to approximately 8g or 10ml of ethanol. The same volume of similar types of alcohol (for example, two pints of lager) can comprise a different number of units depending on the drink's strength (that is, its percentage concentration of alcohol).

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Appendix A Membership of the Programme Development Group (PDG), the NICE project team and external contractors

The Programme Development Group

PDG membership is multidisciplinary, comprising public health practitioners, clinicians (both specialists and generalists), local authority officers, teachers, social care professionals, representatives of the public, patients, carers, academics and technical experts as follows.

Jane Benanti Lead Psychologist, Sandwell Mental Health NHS and Social Care Trust, West Bromwich

John Dervan Retired Chief Executive, Alcohol Treatment Agency

Paul Edmondson-Jones Director of Public Health and Wellbeing, Portsmouth City

Vivienne Evans Chief Executive, Adfam

Jayne Gosnall Treasurer, Salford Drug and Alcohol Forum

Nick Heather Emeritus Professor of Alcohol and Other Drug Studies, Northumbria University

Sauid Ishaq Gastroenterologist, Dudley PCT

Eileen Kaner (Chair) Professor of Public Health Research, Newcastle University

Anne Ludbrook Professor of Health Economics, University of Aberdeen

Paul McArdle Consultant Child and Adolescent Psychiatrist, University of Newcastle

Jim McCambridge Senior Lecturer, London School of Hygiene and Tropical Medicine

Trevor McCarthy Independent Addictions Consultant and Trainer

Harshad Mistri Retired GP

Lynn Owens Nurse Consultant, Liverpool PCT

Chris Record Consultant Physician in Gastroenterology and Hepatology, Newcastle upon Tyne Hospitals NHS Trust

Don Shenker Chief Executive, Alcohol Concern

Patrick Smythe Licensing Inspector, West Midlands Police

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Linda Sheppard
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External contractors

Effectiveness reviews

Review 1: ‘Macro-level interventions for alcohol use disorders: effectiveness review’ was carried out by the University of Sheffield, School of Health and Related Research (ScHARR). The principal authors were: Alan Brennan, Fiona Campbell, Jim Chilcott, Liddy Goyder, Louise Guillaume, Rachel Jackson, Maxine Johnson, Nick Latimer, Petra Meier, Josie Messina, Nick Payne, Robin Purshouse and Rachid Rafia.

Review 2: ‘Screening and brief interventions: effectiveness review’ was carried out by the University of Sheffield (ScHARR). The principal authors were: Alan Brennan, Fiona Campbell, Jim Chilcott, Liddy Goyder, Louise Guillaume, Rachel Jackson, Maxine Johnson, Nick Latimer, Petra Meier, Josie Messina, Nick Payne, Robin Purshouse and Rachid Rafia.

Economic analysis

Review 3: ‘Macro-level interventions for alcohol use disorders: cost effectiveness review’ was carried out by the University of Sheffield (ScHARR). The principal author was Nick Latimer.

Review 4: ‘Screening and brief interventions: cost effectiveness review’ was carried out by the University of Sheffield (ScHARR). The principal authors were: Louise Guillaume and Nick Latimer.

‘Modelling to assess the effectiveness and cost-effectiveness of public health-related strategies and interventions to reduce alcohol attributable harm in England using the Sheffield alcohol policy model version 2.0’ was carried out by the University of Sheffield (ScHARR). The principal authors were: Alan Brennan, Rachel Jackson, Petra Meier, Yang Meng, Robin Purshouse, Rachid Rafia and Karl Taylor.

Appendix B Summary of the methods used to develop this guidance

Introduction

The reviews and economic analysis include full details of the methods used to select the evidence (including search strategies), assess its quality and summarise it.

The minutes of the PDG meetings provide further detail about the Group's interpretation of the evidence and development of the recommendations.

All supporting documents are listed in appendix E and are available at www.nice.org.uk/guidance/PHG/Wave15/1

Guidance development

The stages involved in developing public health programme guidance are outlined in the box below.

1. Draft scope released for consultation

2. Stakeholder meeting about the draft scope

3. Stakeholder comments used to revise the scope

4. Final scope and responses to comments published on website

5. Evidence reviews and economic analysis undertaken

6. Evidence and economic analysis released for consultation

7. Comments and additional material submitted by stakeholders

8. Review of additional material submitted by stakeholders (screened against inclusion criteria used in reviews)

9. Evidence and economic analysis submitted to PDG

10. PDG produces draft recommendations

11. Draft guidance released for consultation and for field testing

12. PDG amends recommendations

13. Final guidance published on website

14. Responses to comments published on website

Key questions

The key questions were established as part of the scope. They formed the starting point for the reviews of evidence and were used by the PDG to help develop the recommendations. The primary questions were:

Question 1: What type of price controls are effective and cost effective in reducing alcohol consumption, alcohol misuse, alcohol-related harm or alcohol-related social problems among adults and young people?

Question 2: Which interventions are effective and cost effective at managing alcohol availability to reduce levels of consumption, alcohol misuse, alcohol-related harm or alcohol-related social problems among adults and young people?

Question 3: Is the control of alcohol promotion (for example, advertising) effective and cost effective in reducing levels of consumption, alcohol misuse, alcohol-related harm or alcohol-related social problems among adults and young people?

Question 4: What are the key factors that increase the risk of an individual misusing alcohol? When are individuals most vulnerable to alcohol misuse?

Question 5: Are alcohol screening questionnaires, biochemical markers or clinical indicators (for example, hypertension, dilated facial capillaries) an effective and cost effective way of identifying adults and young people who currently misuse – or are at risk of misusing – alcohol?

Question 6: Are brief interventions effective and cost effective in managing hazardous and harmful drinking among adults and young people?

Question 7: What are the key barriers to helping adults and young people manage their drinking behaviour (for example, is access to services a problem)? What are the key facilitators?

These questions were made more specific for each review (see reviews for further details).

Reviewing the evidence of effectiveness

Two reviews of effectiveness were conducted.

Identifying the evidence

Relevant literature was identified using an iterative search process. Study types and years were not predefined. The following databases were searched.

- Addiction Abstracts
- Alcohol Studies Database
- AMED
- ASSIA (Applied Social Science Index and Abstracts)
- British Education Index
- British Nursing Index
- CINAHL
- Cochrane Drug and Alcohol Group specialised register
- Cochrane Library (Cochrane database of systematic reviews, Database of abstracts of reviews of effects, Health technology assessment and Cochrane-controlled trials register)
- Criminal Justice Abstracts
- Current Contents
- Drugdata
- EconLit
- ELDD (European Legal Database on Drugs)
- EMBASE
- Emerald Management Reviews
- EPPI-Centre database (health promotion research)
- ERIC
- ETOH (Alcohol and Alcohol Problems Science Database)
- GISAH (Global Information System on Alcohol and Health)
- HMIC (Health Management Information Consortium)
- IDA (Information about Drugs and Alcohol)
- Legal Journals Index (Westlaw)
- MEDLINE (including MEDLINE in process)

- National Guidelines Clearing House
- National Research Register
- NHS Economic Evaluation Database (NHS EED)
- Project Cork Database
- PsycINFO
- SAMSHA's National Clearinghouse for Alcohol and Drug Information
- Science Citation Index
- SIGLE (System for Information on Grey Literature in Europe)
- Social Policy and Practice
- Social Science Citation Index
- Sociological Abstracts
- SPECTR (Campbell Collaboration Trials Registry)
- UK Clinical Research Portfolio Database

Additional searches (non-systematic) were carried out on the following websites:

- Alcohol and Education Research Council (www.aerc.org.uk)
- Alcohol Concern (www.alcoholconcern.org.uk)
- Association of Public Health Observatories (www.apho.org.uk)
- Department for Culture, Media and Sport (www.culture.gov.uk)
- Department of Health (www.dh.gov.uk)
- Home Office (www.homeoffice.gov.uk)
- National Institute of Health and Clinical Excellence (www.nice.org.uk)
- National Treatment Agency (www.nta.nhs.uk)
- Portman Group (www.portman-group.org.uk)

Selection criteria

Studies were included in the effectiveness reviews if:

- people of a range of ages were involved
- interventions were relevant to the key questions set out in the reviews
- outcomes such as alcohol consumption, alcohol misuse, alcohol-related harm, social problems, costs and economic impact were reported.

Studies were excluded if:

- they were not published in English
- the study population was below the age of 10 years
- the evidence did not originate in economically developed countries (that is, if it did not come from countries that are members of the Organisation for Economic Cooperation and Development [OECD]).

Quality appraisal

Included papers were assessed for methodological rigour and quality using the NICE methodology checklist, as set out in the NICE technical manual 'Methods for the development of NICE public health guidance' (see appendix E). Each study was graded (++, +, –) to reflect the risk of potential bias arising from its design and execution.

Study quality

++ All or most of the methodology checklist criteria have been fulfilled. Where they have not been fulfilled, the conclusions are thought very unlikely to alter.

\+ Some of the methodology checklist criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought unlikely to alter the conclusions.

– Few or no methodology checklist criteria have been fulfilled. The conclusions of the study are thought likely or very likely to alter.

Summarising the evidence and making evidence statements

The review data was summarised in evidence tables (see full reviews).

The findings from the reviews were synthesised and used as the basis for a number of evidence statements relating to each key question. The evidence statements were prepared by the public health collaborating centre (see appendix A). The statements reflect the collaborating centre's judgement of the strength (quantity, type and quality) of evidence and its applicability to the populations and settings in the scope.

Economic analysis

The economic analysis consisted of two cost effectiveness reviews and an economic modelling report .

Review of economic evaluations

The following databases were searched for economic literature, in addition to the searches carried out for the effectiveness reviews:

- EconLIT
- NHS Economic Evaluation Database (NHS EED).

Studies were included if:

- they addressed key questions 1, 2, 3, 5 and 6
- they were from peer-reviewed journals published in English
- the study population involved a range of ages (10+ years)
- they were carried out in OECD countries.

Economic modelling report

A number of assumptions were made which could underestimate or overestimate the cost effectiveness of the interventions (see review modelling report for further details).

An economic model was constructed to incorporate data from the reviews of effectiveness and cost effectiveness. The results are reported in: ‘Modelling to assess the effectiveness and cost-effectiveness of public health-related strategies and interventions to reduce alcohol attributable harm in England using the Sheffield alcohol policy model version 2.0’. They are available on NICE's website at: www.nice.org.uk/guidance/PHG/Wave15/1l

Fieldwork

This section will be completed in the final document.

How the PDG formulated the recommendations

At its meeting in July 2009, the PDG considered the evidence of effectiveness and cost effectiveness to determine:

- whether there was sufficient evidence (in terms of quantity, quality and applicability) to form a judgement
- whether, on balance, the evidence demonstrates that the intervention is effective, ineffective or equivocal
- where there is an effect, the typical size of effect.

The PDG developed draft recommendations through informal consensus, based on the following criteria:

- Strength (quality and quantity) of evidence of effectiveness and its applicability to the populations/settings referred to in the scope.
- Effect size and potential impact on the target population's health.
- Impact on inequalities in health between different groups of the population.
- Cost effectiveness (for the NHS and other public sector organisations).
- Balance of risks and benefits.
- Ease of implementation and any anticipated changes in practice.

The PDG noted that effectiveness can vary according to the context. For example, it depends on the enforcement of different regulatory regimes.

Where possible, recommendations were linked to an evidence statement(s) (see appendix C for details). Where a recommendation was inferred from the evidence, this was indicated by the reference 'IDE' (inference derived from the evidence).

Appendix C The evidence

This appendix lists the evidence statements from four reviews (two effectiveness reviews and two cost-effectiveness reviews) and the economic modelling report provided by the public health collaborating centre (see appendix A). It links them to the relevant recommendations in section 4. (See appendix B for the key to quality assessments.)

The evidence statements are presented here without references – these can be found in the full review (see appendix E for details). It also sets out a brief summary of findings from the economic analysis.

The two effectiveness reviews, two cost-effectiveness reviews and economic modelling report are:

- Effectiveness reviews:
    - Review 1: ‘Macro-level interventions for alcohol-use disorders: effectiveness review’
    - Review 2: ‘Screening and brief interventions: effectiveness review’.

- Cost-effectiveness reviews:
    - Review 3: ‘Macro-level interventions for alcohol-use disorders: cost effectiveness review’
    - Review 4: ‘Screening and brief interventions: cost effectiveness review’.

- Economic modelling report:
    - ‘Modelling to assess the effectiveness and cost-effectiveness of public health related strategies and interventions to reduce alcohol attributable harm in England using the Sheffield alcohol policy model version 2.0’.

Evidence statements numbered 1.1 to 3.8 are from review 1. **Evidence statements numbered 5.1 to 7.7** are from review 2. **Evidence statements numbered e1.1 to e2.3** are from review 3. **Evidence statements numbered e5.1 to e6.2** are from review 4. **Modelling statements numbered M1 to M50** are from the economic modelling report.

Where a recommendation is not directly taken from the evidence statements, but is inferred from the evidence, this is indicated by **IDE** (inference derived from the evidence).

Recommendation 1: evidence statements 1.1, 1.2, 1.3, 1.4, 2.27, 2.30, e1.1; modelling statements M11, M20, M21, M22, M23, M25, M26, M28, M33, M34, M35, M36

Recommendation 2: evidence statements 2.19, 2.20, 2.21, 2.22, 2.24, 2.25, e.2.3; modelling statements M50, M54

Recommendation 3: evidence statements 3.1, 3.2, 3.3, 3.4, 3.6, 3.7, 3.8

Recommendation 4: evidence statements 2.4, 2.5, 2.8, 2.9, 2.19, 2.20, 2.21, 2.22, 2.24, 2.25

Recommendation 5: evidence statements 7.1, 7.2, 7.6

Recommendation 6: IDE

Recommendation 7: evidence statements 5.7, 5.9; IDE

Recommendation 8: evidence statements 5.1, 5.2, 5.5, 5.6, 5.7, 5.9, 5.10, 5.11, 7.3, 7.4, 7.5, 7.7, e5.1; modelling statements M2, M3

Recommendation 9: evidence statements 6.1, 6.2, 6.3, 6.4, 6.10, 7.3, e6.1, e6.2; modelling statement M6; IDE

Recommendation 10: evidence statement 6.11; modelling statement M6

Recommendation 11: IDE

Evidence statements

Evidence statement 1.1

A comprehensive systematic review was identified that demonstrated a clear association between price/tax increases and reductions in consumer demand for alcohol (++).These conclusions were based on two rigorous meta-analyses of price elasticities. Further evidence was supportive of a negative relationship between the price of alcohol and alcohol consumption among young people (one UK and one USA). A positive relationship between alcohol affordability and alcohol consumption operating across the European Union was identified (one EU).

Evidence statement 1.2

A systematic review reported that there is some evidence that young people, binge drinkers and harmful drinkers tend to show a preference for cheaper drinks (++).

Evidence statement 1.3

A limited evidence base was identified that indicated that minimum pricing may be effective in reducing alcohol consumption (one [++] and one UK). Consulted members of the community were supportive of such measures (++).

Evidence statement 1.4

An evidence base comprising a large number of primary studies was identified that demonstrated a relationship between price/tax increases and reductions in harms (++). Additional evidence indicates that decreases in the price of alcohol contribute towards increases in alcohol-related deaths, particularly in deaths attributable to chronic causes such as alcoholic liver disease (one [++] Finland). Population groups specifically affected included the older population, the unemployed and individuals with lower levels of education, social class and income (one [++] Finland). However, the same authors observed no increase in interpersonal violence rates following the decrease in alcohol prices (one [++] Finland). A time series analysis demonstrated that increases

in tax were associated with decreases in alcohol-related disease mortality (one [++] USA).

Evidence statement 2.4

Evidence was identified demonstrating that serving staff in alcohol outlets were disapproving of under-age sales (one [+] USA) and generally positive of implementing under-age checks, including electronic age-verification devices (one [++] USA).

Evidence statement 2.5

The commitment of managers and licensees towards their legal responsibilities relating to under-age sales was variable (one [+] UK and one [+] USA).

Evidence statement 2.8

The effectiveness of enforcement checks in reducing alcohol sales to under-age young people was variable (+).Compliance checks conducted by local police were not effective in reducing arrests in those aged under 18 years or reducing under-age sales (+) in the UK. Other studies showed favourable outcomes of compliance checks by local authorities in reducing under-age alcohol sales (two [+] USA, one [++] USA and one USA). Checks enforced with a 30-day licence suspension or a fine were effective in reducing sales (one [+] USA). However, the deterrent effect of enforcement was found to decay over time (one [+] USA and one USA). Additional UK-specific evidence demonstrated that enforcement of laws relating to under-age sales supported by a local multi-agency community alcohol partnership had success in reducing possession of alcohol and antisocial behaviour and improved the relationship between enforcers and retailers.

Evidence statement 2.9

A study based in Fife, Scotland indicated that on- and off-licensees perceived the most effective approach to preventing under-age sales to be test purchasing carried out in conjunction with a new nationally-accepted proof-of-age card.

Evidence statement 2.19

Other UK-specific studies of the effects of changes in licensing hours presented mixed findings, with some studies reporting no apparent effects on alcohol-related outcomes (three [++] UK). However, following extensions of licensing hours, one (+) UK study reported an increase in admissions for self-poisoning by overdose in which alcohol was also involved, whilst another UK study found increases in the occurrence of slight accidents in the workplace.

Evidence statement 2.20

Additional international evidence of the effects of changes in licensing of the sale of alcohol was also described. Extensions in trading hours in Australia were typically associated with increased violence (++), motor vehicle crash rates, (++) and increased apprehensions of impaired male drivers aged 18 to 25 years (++). Local community restrictions in Australia on alcohol availability were found to have modestly favourable outcomes, including reductions on alcohol consumption and violence. However, in one evaluation of the restriction of take-away trading hours and volumes for alcohol sales in Australia, many customers shifted their purchases to cheap cask port, providing an illustration of the ways in which consumers may respond to limitations in alcohol availability.

An increase in alcohol-related road traffic accidents followed the removal of the ban on Sunday sales of packaged alcohol in New Mexico, USA.

The introduction of unrestricted serving hours in Reykjavik, Iceland resulted in increased police work episodes, more emergency ward admissions for weekend nights, increased suspected drunk driving incidents, and more people circulating in the city centre at 6am (+).

The Saturday opening of alcohol retail outlets in Sweden also led to an increase in sales (two ++) but no apparent change in alcohol-related harms (++).

A range of evidence from Scandinavia based on largely small-scale, local natural experiments showed the variable impact of changes in alcohol

licensing, with decreased alcohol consumption typically observed as a result of restrictions.

However, a USA-based study suggested that restrictions on Sunday alcohol sales had no apparent impact on consumption, whilst earlier closing hours in bars appeared to result in increased alcohol sales.

Evidence statement 2.21

A clear positive relationship between increased outlet density and alcohol consumption among adults was demonstrated in a range of association studies (three USA, one [++] USA, two [++] Canada and one Canada). However, one USA study found no significant association between alcohol outlet density and heavy drinking.

Evidence statement 2.22

A similar positive relationship between alcohol outlet density and alcohol consumption was also observed in studies focusing on young people (one USA, one Australia, two Switzerland and two New Zealand).

Evidence statement 2.24

A number of natural experiments were described that demonstrated the effects of changes in alcohol outlet density on alcohol consumption and alcohol-related outcomes. Increases in alcohol outlet density tended to be associated with increases in alcohol consumption and alcohol-related morbidity and mortality in Scandinavia. A literature review found that the privatisation of alcohol retail monopolies in the USA, Canada and Scandinavia was linked with higher outlet densities, longer hours or more days of sale and changes in price and promotion, typically resulting in increased alcohol consumption (international). A positive association between alcohol outlet density and gonorrhoea (USA) was also observed following the civil unrest in Los Angeles.

Evidence statement 2.25

An evidence base, within one literature review, was described demonstrating positive relationships between outlet density and a range of outcomes

including rates of violence, drink-driving, pedestrian injury, and child maltreatment.

Evidence statement 2.27

Evidence was identified that pre-drinking is a prevalent activity, both in the UK ([++] UK and one UK) and within one international literature review.

Evidence statement 2.30

Evidence was identified that demonstrated that pre-drinking is associated with heavy alcohol consumption ([++] UK and one international) and increased risk of alcohol-related harm ([++] UK).

Evidence statement 3.1

One systematic review (++) demonstrated a small but consistent relationship between advertising and alcohol consumption at a population level.

Evidence statement 3.2

A systematic review of longitudinal studies found that exposure to alcohol advertising and promotion was associated with the onset of adolescent alcohol consumption and with increased consumption among adolescents who were already drinking at baseline assessment (++). A systematic review presented evidence of a small but consistent relationship between advertising and alcohol consumption among young people at an individual level (++). Another review concluded that the evidence base suggested the existence of an association between exposure to alcohol advertising and promotion and alcohol consumption among young people (++). Further literature reviews were also indicative of alcohol advertising having an impact among young people, with evidence of awareness, familiarity and appreciation of alcohol advertisements among this age group.

Evidence statement 3.3

One systematic review presented evidence of a moderate but consistent association between point of purchase promotions and effects on alcohol consumption among under-age drinkers, binge drinkers and regular drinkers (++).

Evidence statement 3.4

A systematic review reported that outdoor and print advertising media may increase the probability of onset of adolescent alcohol consumption and also influence quantity and frequency of alcohol consumption among young people (++). Another review which included one USA-based study that reported that outdoor advertising media did not have any effect on alcohol behaviour, but was a predictor of intention to use alcohol among adolescents (++).

Evidence statement 3.6

One systematic review reported that evidence from longitudinal studies consistently demonstrated that exposure to television and other broadcast media was linked with onset of and levels of alcohol consumption (++). Further evidence was included in a review that indicated that exposure to alcohol portrayals via television (including advertisements aired during sports programmes) and other broadcast media may be linked with alcohol use among adolescents (++).

Evidence statement 3.7

The content of alcohol advertising was reported to be attractive to young people, conveying desirable lifestyles and images of alcohol consumption. Younger age groups and girls aged15 to 17 years were reported to be potentially experiencing the greatest impact of alcohol advertising (++). A further UK-specific report showed that, despite changes to the Advertising Code, while advertising recall fell (potentially due to reduced television advertising expenditure over the study period), there was an increased perception among young people that television alcohol advertisements were appealing and would encourage people to drink. However, there was a decrease in the proportion of young people who considered alcohol commercials to be aimed at them. A literature review stated that there was no scientific evidence available to describe the effectiveness of self-regulation in alcohol advertising.

Evidence statement 3.8

Inconclusive evidence was identified, within one systematic review and one literature review, of the impact of advertising bans on alcohol consumption (++).

Evidence statement 5.1

The Alcohol use disorders identification test (AUDIT) is effective in the identification of hazardous and harmful drinking in adults in primary care (three [++], one [+] Finland and one [+] UK). The use of lower thresholds in conjunction with alcohol screening questionnaires was recommended for women (one [+] Finland, one [++] Belgium and one [++]). Optimal screening thresholds for the detection of hazardous or harmful drinking using AUDIT appeared to be greater than or equal to7 or 8 among men (two [++]) and greater than or equal to 6 to 8 among women (one [+] and one [+] Finland). Optimal screening thresholds for identifying binge drinking using AUDIT were greater than of equal to 7 or 8 for adult males (no data available for females) ([++] Finland). Primary studies included in a systematic review (++) recommended higher AUDIT thresholds for males (5 to 8) than females (2 to 6) (++).

Evidence statement 5.2

The evidence for the effectiveness of shorter versions of AUDIT in adults in primary care was variable, with some authors of cross-sectional diagnostic evaluations observing comparable performance between the full AUDIT and shorter versions (one [+] Finland, one [++] Belgium, one [+] USA and one [++] Finland) whilst other findings drawn from primary care were more cautious of the utility of the shorter forms of this questionnaire (++). The optimal screening threshold for the detection of hazardous drinking using AUDIT-C was greater than or equal to 3 among men (++) and women (++), (USA [++]). However, thresholds of greater than or equal to 5 for the detection of heavy drinking among females and greater than or equal to 6 for identifying bingeing moderate and heavy drinking men were also recommended ([++] Finland). Primary studies included in a systematic review recommended higher AUDIT-C thresholds for males (3 to 6) than females (2 to 5) (++). FAST was

described, within a literature review, as being effective in the detection of alcohol problems at a cut-off point of greater than or equal to 1 in males and females in a primary care setting in the UK.

Evidence statement 5.5

Only a limited amount of evidence could be identified relating to the performance of alcohol screening questionnaires in hospital settings. The 'Five-shot questionnaire' was shown to detect alcohol misuse in adult male inpatients at a cut-off of greater than or equal to 2.5 ([++] Belgium). AUDIT was effective in screening UK male and female adult general medical admissions for hazardous and harmful alcohol consumption ([+] UK). AUDIT was also described as performing well among general hospital inpatients (++). AUDIT was also reported to perform effectively among general hospital inpatients (++).

Evidence statement 5.6

Evidence was identified for the use of alcohol screening questionnaires among adults in emergency care settings. One study found that CAGE questionnaire was effective in screening for a lifetime diagnosis of alcohol dependence in trauma centre patients ([++] USA). AUDIT-C was shown to effectively identify hazardous drinking among male and female adult traffic casualties in an emergency department ([+] Spain). One literature review indicated that FAST displayed good screening properties in the identification of alcohol problems among males and females presenting to an A&E setting in the UK. The 'Paddington alcohol test' has been shown to be rapid, feasible to use, be UK-specific and to have reasonably good screening properties for the detection of alcohol misuse when implemented in response to clinical 'trigger' conditions in A&E care (listed as follows: fall; collapse; head injury; assault; accident; unwell; non-specific gastrointestinal conditions; psychiatric; cardiac; repeat attender) (three [++] UK)

Evidence statement 5.7

AUDIT was shown to perform more effectively in the identification of alcohol abuse or dependence (when used at a cut-off of greater than or equal to 10) than CAGE, CRAFFT or RAPS-QF questionnaires in male and female young

people (median age of 19 years) ([++] USA). AUDIT was also demonstrated to have higher sensitivity (when used at an optimal cut-off of greater than or equal to 3) than CAGE, CRAFFT or POSIT in the detection of problem use (that is, hazardous or harmful consumption not reaching the diagnostic threshold for an alcohol-related disorder, abuse and dependence) in a sample aged between 14 and 18 years ([++] USA). The identified evidence for the effectiveness of SASSI in screening for alcohol misuse was limited and inconclusive (two [++] USA and one [+] USA). AUDIT was found to perform reasonably well in elderly populations (++), while AUDIT-5 was described as showing potential as an appropriate tool for use among older people (+).

Evidence statement 5.9

The screening properties of questionnaires were influenced by the ethnicity of recipients and authors suggested that the use of appropriate cut-off scores should be considered (one [++] and one [++] USA).

Evidence statement 5.10

Laboratory markers are of limited value in the detection of alcohol misuse when compared with alcohol screening questionnaires (two [++] UK, one [++] Belgium and one [+] Germany). However, the use of blood-alcohol concentration testing may complement the use of later questionnaire screening in the identification of alcohol misuse among patients treated in the emergency department resuscitation room ([++] UK).

Evidence statement 5.11

A number of clinical indicators were described, within a cross sectional study, a literature review and a case study, as being associated with excessive alcohol consumption ([++] Spain). Awareness of such indicators may serve useful in alerting health professionals to alcohol-related physical problems.

Evidence statement 6.1

The 27 included systematic reviews provided a considerable body of evidence supportive of the effectiveness of brief interventions for alcohol misuse in reducing alcohol consumption, mortality, morbidity, alcohol-related injuries,

alcohol-related social consequences, healthcare resource use and laboratory indicators of alcohol misuse.

Evidence statement 6.2

Six systematic reviews (all [++]) demonstrated that interventions delivered in primary care are effective in reducing alcohol-related negative outcomes. Three systematic reviews specifically focusing on the use of brief interventions in emergency care (one [+] and two [++]) found limited evidence for the effectiveness of brief interventions for alcohol misuse in emergency care settings. A further review (++) presented inconclusive evidence of the effectiveness of brief interventions in inpatient and outpatient settings. A systematic review of brief interventions for alcohol misuse in the workplace presented limited and inconclusive findings for the effectiveness of interventions in this setting (++).

Evidence statement 6.3

Brief interventions are effective in reducing alcohol consumption in both men and women (six [++]).

Evidence statement 6.4

The majority of included primary evidence was drawn from adult populations with an age range of 12 to 70 years. Therefore, brief interventions for adults have been shown to be effective among adult populations.

Evidence statement 6.10

Extensive heterogeneity was evident in the characteristics of evaluated brief interventions. However, limited evidence would suggest that even very brief interventions may be effective in reducing alcohol-related negative outcomes, (++) with inconclusive evidence for an additional positive impact resulting from increased dose (three [++]). Evidence from an additional review (++) suggests that brief interventions are effective, with impact of the inclusion of motivational interviewing principles unclear.

Evidence statement 6.11

Extended brief interventions were demonstrated to be effective in the reduction of alcohol consumption (whereby evaluated interventions consisted of two to seven sessions with a duration of initial and booster sessions of 15 to 50 minutes (++) or 10 to 15 minutes in one session with a number of specific booster sessions of 10 to 15 minutes duration (++).

Evidence statement 7.1

Evidence was identified that organisational factors such as adequate support and resources can influence the acceptability and implementation of screening and brief intervention for alcohol misuse.

Implementation of screening and brief intervention is influenced by factors other than effectiveness. Positive support from the government, management and involvement of non-clinical members of staff are more likely to result in successful implementation.

There is also evidence from a range of studies in primary care settings that adequate practitioner training and support in alcohol misuse screening and use of brief intervention materials facilitates or would facilitate effective implementation as well as rates and appropriate detection of ‘at risk’ drinkers. Evidence suggests that the extent of training and support available to practitioners is variable.

One RCT ([++] USA) showed more successful implementation of screening and brief intervention where there was prior experience of this type of work, management stability and positive support in terms of coordination of programmes. Financial incentives and successful management of staff changes as well as assistance from receptionists were also important. However, barriers to success included competing priorities and lack of time. The importance of financial and other incentives for GPs, readily available materials and availability of training was also found in one survey ([+] New Zealand).

Evidence from RCTs (one [++] USA, one [+] USA and one [+] UK) suggests that the extent to which brief intervention is implemented, though not necessarily the appropriateness of implementation, is increased with use of a training and support intervention for GPs and nurses. One cross-sectional study ([++] Germany) provides evidence that GPs holding a qualification in addiction medicine are more likely to detect problem drinkers, although a cross-national survey (++) found that training did not improve baseline role insecurity for GPs.

One cross-sectional study ([+] Finland) and one qualitative study ([++] Finland) found that practitioner training rates and ratings of their own familiarity with screening tools and knowledge of brief intervention content was low. The importance of training to practitioners in this survey was evident, as were practitioner views that they lacked training to carry out counselling ([++] UK). The latter point was also evidenced in one cross-sectional study ([++] UK). A Delphi survey ([++] UK) provides evidence in the form of expert opinion that practitioner training should help raise awareness of risk factors and typical presentations of individuals with potential drinking problems. Evidence from qualitative studies show that some nurses in the UK (++) see training as an incentive to carrying out alcohol-related work. A sample of GPs in Finland perceived that they lacked training in identifying early stages of alcohol misuse; and GPs in a Danish focus group study (+) felt they lacked training in counselling skills.

In a probationary setting, forensic medical examiners in a UK qualitative study set in custody suites (-), felt they lacked the required training to carry out assessments of drinking behaviour.

Evidence statement 7.2

Evidence has been found that extending current practitioner workload is a potential barrier to implementing screening and brief intervention on a large scale, particularly if all young people and adults are screened as routine practice.

The extra time that 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.

Evidence from one systematic review ([++] Denmark) challenges the model of universal screening. The study concluded that implementation of universal screening does not benefit sufficient numbers of individuals to warrant the extra workload required. Nurses in one qualitative study ([++] UK) felt 'overloaded' with preventative work generally, with resources such as space, staff and sufficient time in short supply. In another qualitative study ([+] Denmark), the additional workload of screening and brief intervention was found to be creating stress among practitioners in primary care. In terms of time available, a Canadian qualitative study (++) found that time was constrained in terms of assessing each patient.

A qualitative study of Finnish GPs (++) showed they felt they lacked time to carry out drinking assessment in the context of other consultation demands, and weak evidence (one [-] Sweden) found that nurses in Sweden regarded time constraints as a barrier to their willingness to engage in alcohol prevention. There is mixed evidence from one RCT ([++] USA) for the utilisation of non-clinical staff in implementation in order to delegate work and thus decrease the workload of clinicians. Another RCT found that receptionists did not have a particularly positive attitude to being involved in this type of work without adequate re-imbursement ([++] UK), or to changing their perceived role ([++] USA).

In an emergency care setting, one cross-sectional study ([-] USA) provides weak evidence in terms of reporting from a survey of physicians that, despite support for brief interventions in theory, lack of time is a barrier to implementation. A further UK-based study set in an emergency department also reported that lack of time was viewed as a limiting factor in delivering screening (++).

In a briefly reported UK qualitative study set in custody suites (-), forensic medical examiners felt they lacked the required time to carry out assessments of drinking behaviour.

Evidence statement 7.3

There is evidence that implementation of screening and brief intervention would be facilitated by use of environments where alcohol can be discussed in a non-threatening way. Integrating screening and advice into general lifestyle discussions might increase the acceptability of screening and brief intervention for users.

In a range of studies, providers and experts emphasise the importance of appropriate contexts for discussion of alcohol use with users in order to increase acceptability.

There is evidence that clinical consultations for non-alcohol-related medical problems can be inappropriate for discussing alcohol use, given that users are focused on the condition for which they are seeking advice. Instead, sessions such as new patient registrations and well-person clinics, where health promotion is often discussed, are seen to be less threatening arenas in which to discuss drinking, embedded in general discussion around lifestyle issues such as diet, exercise and smoking.

Evidence was found from a cross-sectional study ([+] Sweden) that primary care users attending for scheduled appointments are more likely to be asked about their drinking behaviour, which suggests that practitioners deem certain contexts as more appropriate or more convenient in some way for carrying out screening and intervention. A Delphi survey ([++] UK) also provides expert view evidence that clinics and new registration sessions are an appropriate context for assessing drinking behaviour in terms of sensitivity to user acceptability. This study also suggests that interventions might be more acceptable to users if they are tailor-made to the individual rather than global in design. There is further evidence from five UK qualitative studies (four [++] and one [+]) that practitioners and users regard clinics, registration sessions and routine consultations as opportunities for discussions in a less-threatening

environment and context. This provides an opportunity to discuss drinking in a context that is related to the purpose of the visit (such as lifestyle assessment or chronic condition monitoring).

Emergency care and probation settings are regarded as a potential opportunity to carry out alcohol screening and advice; however there is scarce evidence available. One survey of Scottish emergency care units (++) and one qualitative study ([-] UK) set in custody suites found that staff thought the location unsuitable for alcohol screening and intervention. However, two surveys from the US (both [+]) reported that both patients and surgeons found the emergency care setting acceptable and appropriate. One US evaluation (+) provided evidence that emergency care staff may not feel adequately supported either by management or financially, with training and workload particular concerns. One UK survey (+) provided mixed views with some nurses preferring a holistic approach, and others prioritising care of injuries over health promotion. A further UK-based study found that the majority of consulted professionals judged the emergency department to be an appropriate place to perform alcohol screening but that implementation rates were low, potentially due to clinical inertia (++). The importance of having resources in place to facilitate rapid referral of positively screening patients from the emergency department to brief intervention was emphasised, because the rate of attendance for brief intervention dropped off markedly 2 days following referral ([++] UK). Implementation of alcohol screening and brief intervention in emergency care settings is not as consistent as in primary care. The setting differs from primary care in terms of patient population and types of presenting cases, and as such, account needs to be taken of barriers and facilitators to implementation specific to emergency care organisation, where attendance is brief and often traumatic, patients are more likely to be injured, traumatised, or intoxicated, and staff who may feel less prepared to give advice.

Evidence statement 7.4

There is evidence that service users have preferences regarding the status of the person dealing with their alcohol issues.

Although experts consider alcohol and counselling specialists to be better qualified to carry out interventions, service users might feel stigmatised or rejected should their needs be referred on to such practitioners.

Evidence from one RCT ([+] USA) carried out in a general medicine setting showed that service users are no more likely to attend for counselling with an alcohol specialist than with a physician or nurse. In addition, qualitative evidence from the UK (++) focusing on user views shows that counselling with alcohol specialists can sometimes be perceived as stigmatising. These views contrast with expert views ([++] UK) that alcohol workers and counsellors might be best placed to deliver brief intervention. There is evidence of some mixed views from three UK studies (all [++]) in that professionals and some users perceive the nurse as having more time for discussing drinking with users, whereas other users report that they are more likely to discuss alcohol-related issues with their GP.

Evidence statement 7.5

There is some evidence that service users are generally positive about screening and intervention. There is also evidence for general under-activity in discussing drinking with service users.

However, practitioners' experiences of negative service user behaviour, such as aggression at being asked about their drinking, while rare, may serve as deterrents to approaching the topic of drinking with users. Actual drunkenness at consultations limits the likelihood that users will appreciate or remember the advice given. Practitioners may benefit from training in dealing with such situations, and in approaching the topic with individuals that they perceive as 'low risk' in appropriate contexts.

Two studies (one [+] USA and one [+] UK) provide evidence that the majority of service users are positive toward screening, and another ([+] Finland) toward discussing drinking. However, two qualitative studies (one [++] UK and one [+] Denmark) found that some professionals had encountered negative reactions from users in terms of embarrassment and unease, and changing their GP practice.

Evidence from two UK cross-sectional studies (++) shows under-activity in terms of practitioner management of hazardous drinking, with a majority of GPs in the first study only intervening in between one and six cases per year. Even in cases of heavy drinking, service users are not being asked about their consumption ([+] Finland). Another cross-sectional study ([+] Sweden) found that advice on drinking behaviour is provided less often than for other lifestyle behaviours, such as exercise, diet, and smoking, and less often than service users expect. One cross-sectional study ([+] Finland) found that the time being spent on asking users about their drinking was typically less than 4 minutes, and another recent cross-sectional study ([+] Germany) found that detection rates of problem drinkers are low, at one in three. Possible reasons are found in a Finnish qualitative study (++) of GPs, who reported their reluctance to ask users about their drinking unless they saw clear signs of risky drinking behaviour.

Evidence statement 7.6

Evidence was found that provider attitudes, knowledge, skills and behaviour can influence the implementation of screening and brief intervention for alcohol misuse.

There is evidence from primary care practitioner views of a shortfall in perceived knowledge in terms of detecting ‘at-risk’ individuals. There is also evidence of confusion regarding current guidelines around drinking behaviour, and the known benefits of drinking in moderation. This can affect practitioner confidence in and motivation towards implementing screening and brief intervention programmes effectively. In addition, practitioner’s own drinking behaviour and the user-practitioner relationship may affect the way that alcohol-related interventions are implemented.

One UK qualitative study (++) provides evidence that GPs found difficulty in identifying early stage heavy drinkers. The study also reports difficulty working with multiple definitions of problematic drinking. One qualitative study ([+] Finland) found that GPs and nurses saw lack of clear guidance as a barrier to carrying out brief intervention. Utilising the skills of receptionists can be useful but there is evidence from one RCT ([++] UK) that receptionist attitudes

toward the work may be less positive than that of clinicians, and that this might have an impact upon implementation.

There is weak evidence ([-] UK) that forensic medical examiners perceive that they lack the knowledge to carry out assessment in custody suites in the UK.

Two UK qualitative studies (one [++] and one [+]) found that nurses saw alcohol as a difficult and emotive topic to broach with users. In addition, nurses reported confusion for themselves and service users around the issue of standard drink units, and the potential benefits of alcohol that create ambiguity in discussing drinking from a health promotion perspective. Other studies (one [+] UK and one [+] Finland) found that GPs relationship with alcohol could affect their behaviour in terms of addressing service user drinking, with feelings of guilt and hypocrisy potential barriers to open discussion, or facilitators to empathy. There is qualitative evidence from three studies focusing on user views (two [++] UK and one [+] USA) that discussing drinking is facilitated by a good relationship with the health professional. In addition, there is evidence ([+] Denmark) that practitioners are concerned not to offend users in relation to discussing alcohol for fear of disturbing the therapeutic relationship.

Evidence statement 7.7

There is evidence that the consistency of provider implementation of screening and brief intervention for alcohol misuse can be influenced by particular aspects of the service user population.

Evidence was identified that shows disparities in implementing screening and brief intervention for alcohol misuse in terms of certain groups within the population. While certain groups such as males and high earners are more ‘at-risk’ than others from alcohol misuse, individuals from groups that are ‘low-risk’ such as females, younger and older people may be missed. Conversely over-targeting can also occur due to misconceptions of the populations most at-risk of alcohol misuse.

One systematic review (+) provides inconclusive evidence that socioeconomic status affects the uptake of brief interventions. However, one cross-sectional study ([++] UK) found that unemployed individuals were more likely to receive brief intervention than those in employment. In terms of ethnicity, there is evidence from one cross-sectional study ([+] USA) that individuals of ethnic background, in this instance Black and Hispanic, and particularly Hispanic people, were more likely to be approached by practitioners regarding their alcohol consumption.

Four cross-sectional studies (one [++] UK, one [+] Sweden, one [++] Germany and one [+] Finland) provide evidence that primary care users most likely to be given advice on drinking are males. Another cross-sectional study ([+] Finland) suggests that males, as well as heavy drinkers, are also more likely to adhere to the advice provided in brief intervention. One qualitative study ([+] Denmark) found that GPs were reluctant to address drinking with young people as they felt that they would be likely to grow out of the habit of hazardous drinking.

Evidence statement e1.1

There is limited evidence of the cost effectiveness of price controls in a UK setting. One systematic review (+) suggests that the available evidence is limited to two studies, one which takes an international perspective, and one set in Estonia. The review reports that the evidence is suggestive that in areas with a high prevalence (greater than 5%) of hazardous drinkers, as is the case in the UK, taxation will be more cost effective than other alcohol misuse macro interventions, but that the evidence base for this is not strong.

Evidence statement e2.3

There is limited evidence of the cost effectiveness of opening hours interventions in a UK setting. One study of moderate quality that takes an international perspective (+) provides evidence that reducing licensed hours of sale provides relatively small quality of life benefits compared to other alcohol misuse interventions.

Evidence statement e5.1

One study shows that the AUDIT test is a more cost effective screening tool than measures of y-glutamyltransferase, aspartate aminotransferase, per cent carbohydrate deficient transferrin, and ethrocyte mean cell volume. This is because AUDIT is both cheaper and more effective than these other tests ([+] UK). The evidence does not allow a ranking of the cost effectiveness of these other screening methods.

Evidence statement e6.1

Cost effectiveness evidence for screening and brief interventions in the emergency care setting is scarce. The available evidence does not allow firm conclusions regarding the long-term cost effectiveness of these interventions in a UK setting to be made. However, the evidence does suggest that brief interventions in the emergency care setting may be cost effective in the UK. One study suggests that screening plus brief intervention may produce long-term cost savings ([+] USA), but the applicability of this evidence to the UK is uncertain. One UK study suggests that a brief intervention administered by alcohol health workers in a hospital setting will reduce consumption in the short term without significantly increasing costs, but long-term evidence is lacking (++).

Evidence statement e6.2

Cost effectiveness evidence for screening and brief interventions in the hospital setting is scarce. The available evidence does not allow conclusions regarding the cost effectiveness of these interventions in a UK setting to be made. A UK study presents evidence for screening by doctors and nurses in a general hospital setting (+), but this does not allow a conclusion to be reached regarding the most cost-effective screening method. One study suggests that screening plus brief intervention may produce long-term cost savings ([-] Australia), but the reliability of this evidence is low due to the uncertainty in resource use estimates.

Modelling statement M2

A policy of screening and brief intervention at next GP registration is a more phased approach over time than screening at next GP consultation. The former approach would screen an estimated 39% of the population, with 36% of hazardous and harmful drinkers receiving a brief intervention over the modelled 10 year screening programme. A policy of screening and brief intervention at next GP consultation is a very large-scale implementation, with an estimated 96% of the population screened after 10 years (of whom the majority would be screened in the first year of implementation), and 79% of hazardous and harmful drinkers receiving a brief intervention.

Modelling statement M3

Screening and brief intervention in an A&E setting is estimated to screen 78% of the population within 10 years, but because the estimated uptake of brief interventions is just 30%, only 18% of hazardous and harmful drinkers are estimated to receive the brief intervention.

Modelling statement M6

Sensitivity analysis shows that even fairly long brief interventions (for example, 25 minutes) would appear cost effective versus a ‘do nothing’ policy. There is currently no conclusive evidence of differential effectiveness of delivery of the intervention by different types of staff. On this basis, decision makers might consider the less costly staffing options that were modelled for screening and intervention to be attractive. Evidence around the differential effectiveness of interventions of different duration is also inconclusive. Sensitivity analyses show that shorter duration interventions remain cost effective when using the best available evidence on the relationship between duration and effectiveness.

Modelling statement M11

Increasing levels of minimum pricing show very steep increases in effectiveness. Overall changes in consumption for 20p, 25p, 30p, 35p, 40p, 45p, 50p, 60p, 70p are: --0.0%, -0.1%, -0.4%, -1.1%, -2.4%, -4.3%, -6.7%, -11.9% and -17.7%. Higher minimum prices reduce switching effects. Note

that estimates for lower minimum prices are subject to less modelling uncertainty than those for higher minimum prices. This is because the consideration of supply-side responses, and in particular a possible restructuring of the market following large mandated price increases in sections of the market, was outside the scope of the model. As an example, a minimum price of 40p per unit has the following estimated effects:

% change in consumption	Deaths p.a. (full effect)	Hospital admissions p.a.	Crimes pa	Work absences (days p.a.)	Un-employment (persons p.a.)
-2.4%	-1,149	-39,000	-9,000	-91,000	-11,000

Modelling statement 20

As prices increase, alcohol-attributable hospital admissions and deaths are estimated to reduce. Prevented deaths occur disproportionately in harmful drinkers. On balance, the health-harm reductions mostly relate to chronic diseases rather than acute conditions such as injuries. This is because much of the alcohol-attributable health harm occurs in middle or older age groups at significant risk of developing and potentially dying from chronic disease.

Modelling statement M21

For chronic diseases, the time for a change in consumption to achieve the full effect in changing the prevalence of disease is important in the modelling. The reductions in health-harms, for chronic disease, observed 1-year following implementation are estimated to be around one tenth of the level that will accrue when the full effect of consumption changes occurs.

Modelling statement M22

Crime harms are estimated to reduce as prices are increased. The crime reductions observed for policies take place across the spectrum of violent crime, criminal damage and theft, robbery and other crimes. A minimum price of 40p is estimated to reduce total crimes by 9000 per annum.

Modelling statement M23

The evidence base for under-age purchasing is limited (because the youngest ages for which purchasing data exists in the ‘Expenditure and food survey’ are 16 and 17, and there are concerns on reliability even for this). Given this caveat, crime harms are estimated to reduce particularly for young people aged 11 to 18 years because they are disproportionately involved in alcohol-related crime and are affected significantly by targeting price rises at low-priced products.

Modelling statement M25

Unemployment harm estimates [that is, estimated unemployment due to alcohol consumption], reduce proportionately more than health or crime harms. Generally, all policy options that target harmful and hazardous drinkers are effective in reducing alcohol-related harm in the workplace. The size of the effect is dependent on the extent of price increases.

Modelling statement M26

Unemployment due to alcohol problems among harmful drinkers is estimated to reduce as prices increase: for example, a 30p minimum price is estimated to result in 2900 avoided unemployment cases while a 40p minimum price is estimated to result in 11,000 avoided unemployment cases. Absence reductions are particularly focused on hazardous and harmful drinkers: for example, for 40p, the 91,000 estimated reduction in days absence is made up of 26,000 days for hazardous and 44,000 days for harmful drinkers.

Modelling statement M28

The societal value of harm reduction for many of the potential policies can be substantial. When accumulated over the 10 year time horizon of the model, many policies have estimated reductions in harm valued over £500m. For example, a 40p minimum price is valued at £3.8bn over the 10-year period. The financial value of harm reductions becomes larger as prices are increased.

Modelling statement M33

Moderate drinkers are affected in only very small ways by the policy options examined both in terms of their consumption of alcohol and their spending.

Modelling statement M34

In terms of the differential effectiveness for priority groups harmful drinkers are expected to reduce their absolute consumption the most, but in the more effective policy options also spend significantly more on their purchases.

Modelling finding M35

Policies which target low-priced alcohol affect harmful drinkers disproportionately. This is because moderate drinkers tend to drink a smaller proportion of the very low priced products available.

Modelling statement M36

There are significant effects on harmful drinkers, but important health gains also occur in hazardous and moderate drinkers. Even though moderate drinkers are at a lower risk of health-related harms, small changes in the consumption of the large number of moderate drinkers feed through in the model to small changes in risk and appreciable changes in population health.

Modelling statement M50

Though smaller than price effects, outlet density reductions have been proven to reduce both consumption and harm. As an example, the 10% reduction in outlet density has the following estimated effects:

% change in consumption	Deaths per annum (full effect)	Hospital admissions per annum	Crimes per annum	Work absences (days per annum)	Un-employment (persons per annum)
- 2.3%	-692	-26,000	-41,000	-190,000	-7,700

Modelling finding M54

Modelling a 10% change in licensing hours produces changes in alcohol consumption based on these three studies of -1.2% (Canadian), +0.2% (US),

and -3.5% (Swedish). As an example, the 10% reduction in licensing hours has the following estimated effects:

% change in consumption	Deaths per annum (full effect)	Hospital admissions per annum	Crimes per annum	Work absences (daysper annum)	Un-employment (persons per annum)
- 1.2%	-406	-15,600	-20,000	-99,000	-3,200

Economic analysis

The cost effectiveness reviews and economic modelling showed that increasing the price of alcohol is likely to be a cost effective way of reducing consumption and alcohol-related harm. This could involve a general price increase, imposing a minimum price per unit or placing restrictions on discounting.

There was limited evidence on the effectiveness of reducing the availability of alcohol and restricting or banning advertising. Exploratory analyses suggested that policies to address these issues would probably have a smaller positive effect than that expected by a price increase.

The cost effectiveness reviews and economic modelling suggested that screening plus a brief intervention at the next GP consultation, the next registration with a new GP, or the next A&E visit would be cost effective when compared against ‘doing nothing’.

Appendix D Gaps in the evidence

The PDG identified a number of gaps in the evidence related to the programmes under examination, based on an assessment of the evidence. These gaps are set out below.

1. There is only limited evidence on the effectiveness of brief alcohol-related interventions aimed at those under the age of 18 and those from black and minority ethnic groups within the UK.

2. Little is known about how brief interventions work and which elements are particularly effective. For example, there is only limited evidence on the settings and populations where brief advice or motivational counselling will be more effective or cost effective.

3. There is variable evidence on the effectiveness of using brief interventions outside primary care and accident and emergency departments.

4. There is little UK-based evidence on the cost effectiveness of different types of brief intervention.

5. There is only limited evidence on how alcohol advertising affects consumption among the population as a whole.

6. There is a lack of good quality evaluations of UK community-based programmes to prevent alcohol problems.

Source: ‘Macro-level interventions for alcohol-use disorders: effectiveness review’ (review 1), ‘Screening and brief interventions: effectiveness review’ (review 2), and ‘Screening and brief interventions: cost effectiveness review’ (review 4).

Appendix E: supporting documents

Supporting documents are available at www.nice.org.uk/guidance/PHG/Wave15/1 These include the following.

- Effectiveness reviews:
  - Review 1: 'Macro-level interventions for alcohol-use disorders: effectiveness review'
  - Review 2: 'Screening and brief interventions: effectiveness review'.

- Economic analysis:
  - Review 3: 'Macro-level interventions for alcohol-use disorders: cost effectiveness review'
  - Review 4: 'Screening and brief interventions: cost effectiveness review'
  - 'Modelling to assess the effectiveness and cost-effectiveness of public health related strategies and interventions to reduce alcohol attributable harm in England using the Sheffield alcohol policy model version 2.0'.

For information on how NICE public health guidance is developed see:

- 'Methods for development of NICE public health guidance (second edition, 2009)' available from www.nice.org.uk/phmethods

- 'The NICE public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public (second edition, 2009)' available from www.nice.org.uk/phprocess