

Effective

HEALTH CARE

Brief Interventions and Alcohol Use

**Are brief interventions
effective in reducing harm
associated with alcohol
consumption?**

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▶ 28% of men and 11% of women drink more than the levels contained in the Health of the Nation.

▶ Simple screening instruments are available for the routine detection of people above these levels, which can easily be applied opportunistically in both primary and secondary health care settings.

▶ Brief interventions consisting of assessment of intake, and provision of information and advice, are effective in reducing alcohol consumption by over 20% in the large group of people with raised alcohol consumption. However it is not clear how this translates into changes in health status.

▶ The direct cost per brief intervention delivered to a person who consumes above the limits is less than £20.

▶ Evidence from clinical trials suggests that brief interventions are as effective as more expensive specialist treatments.

▶ Health commissioners should consider the routine opportunistic detection and brief treatment of patients in primary care and hospital settings. This will require planning, coordination and adequate support. Combined screening and treatment programmes should be thoroughly evaluated.

▶ Taxation, advertising control and other national and local measures such as drink-driving campaigns are also cost effective strategies which should be considered alongside treatment strategies.

A BULLETIN ON THE EFFECTIVENESS OF HEALTH SERVICE INTERVENTIONS FOR DECISION-MAKERS

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authors and not necessarily those of the DoH.

A. Alcohol and Health

Alcohol use is associated with raised morbidity and mortality. The overall risk of alcohol related problems increases continuously with rising consumption. 28% of men and 11% of women drink more than the levels contained in the Health of the Nation.

A.1 Drinking alcohol brings considerable pleasure to many people, however there are many problems associated with alcohol. Alcohol use is associated with raised mortality and morbidity including liver disease as a result of long term heavy drinking, accidents related to acute intoxication, violent or antisocial behaviour, and short term sickness absence.

A.2 It has been estimated that alcohol consumption leads to around 28 000 deaths each year in England and Wales.¹ The cost of sickness absence associated with alcohol consumption was calculated to be £779m in Britain in 1989 and the costs to the NHS estimated to be in excess of £120m.²

A.3 There are over 3 000 deaths each year from chronic liver disease, cirrhosis and other direct causes of alcohol poisoning in England and Wales, which if the current trend continues will increase to over 4000 deaths by 1995.³

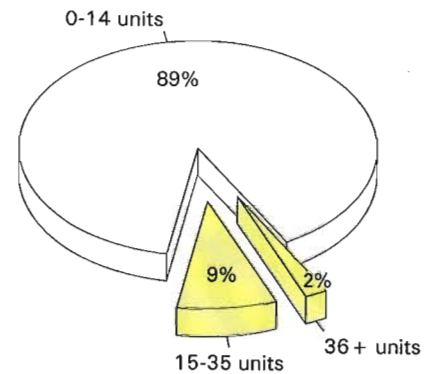
A.4 A number of other medical conditions are associated with alcohol consumption. For example, the risk of cardiovascular, gastrointestinal disease and psychological problems rises with increasing alcohol consumption.⁴ There is evidence to indicate that two units of alcohol a day in men may in fact confer some protection against coronary heart disease, although this is the subject of debate,⁴⁻⁶⁻¹² and any specific protective effect for coronary heart disease is likely to be rapidly overwhelmed even at relatively low consumption levels by the increasing morbidity and mortality from all causes. The incidence of alcohol related problems including cardiovascular disease increases with higher levels of consumption.

A.5 Alcohol consumption is associated with a significant number of accidents.¹³ Around one third of motorists killed on the roads are over the legal blood alcohol limit, rising to 60% of drivers between the hours of 11.00 pm and 4.00 am.¹⁴ Alcohol consumption is also related to accidental deaths from other causes,¹⁵ and chronic alcohol use dramatically increases the risk of complications following trauma.¹⁶

A.6 Levels of alcohol consumption for men and women over the age of 16 in England and Wales are shown in Figures 1 & 2.¹⁷ There is considerable variation in the pattern of drinking between individuals. Alcohol consumption is highest among

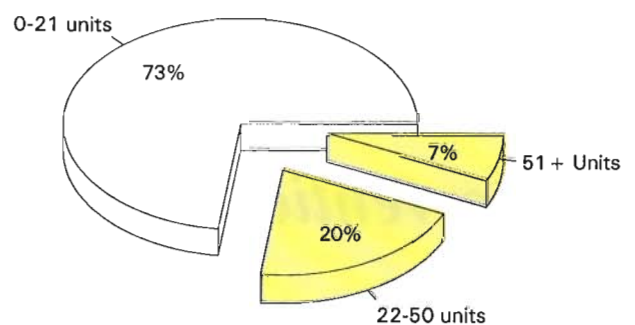
The *Effective Health Care* bulletins are based on a systematic review and synthesis of literature on the clinical effectiveness, cost-effectiveness and acceptability of health service interventions. Relevant and timely topics for review are selected by a Steering Group comprising managers, directors of public health and academics. Selection of topics takes into account the following criteria: resource implications, uncertainty about effectiveness, and the potential impact on health. The review and synthesis of the literature is carried out by a research team using established methodological checklists, with advice from expert consultants for each topic. The bulletins represent the views of the *Effective Health Care* research team.

Figure 1: Alcohol Consumption levels in women aged 16 or over



Source: 1990 General Household Survey, England & Wales.¹⁷

Figure 2: Alcohol Consumption levels in men aged 16 or over



Source: 1990 General Household Survey, England & Wales.¹⁷

young adults and increases with income. There is also considerable cultural variation in drinking behaviour.¹⁸ The regional variation in the reported death rate from chronic liver disease and cirrhosis in England and Wales⁵ is shown in Figure 3.

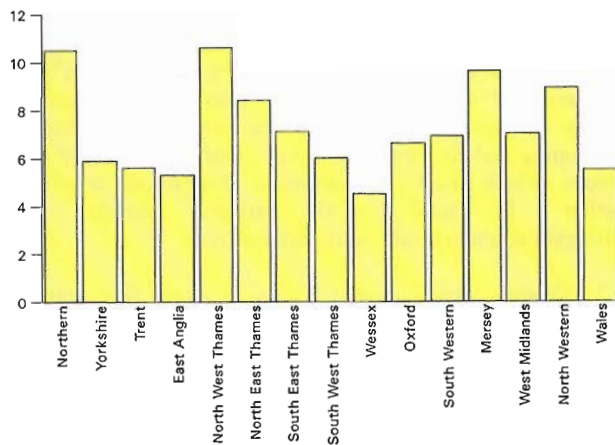
One Unit of Alcohol is approximately:

- ◆ 8 grams of pure alcohol
- ◆ ½ pint of ordinary strength beer or lager
- ◆ glass of wine
- ◆ pub measure of spirits

A.7 In Britain, health policy has been directed towards encouraging 'sensible drinking', although there is no clearly distinct 'high risk group' because risk rises continuously with consumption. However, it has been useful to define arbitrary recommended limits. Currently these are weekly limits of 21 units in men and 14 units in women.¹⁹ People drinking more than the recommended limits have been referred to as hazardous drinkers where they are experiencing no problems as a result of alcohol consumption, and harmful drinkers where problems are present.

A.8 The Health of the Nation sets a target of reducing the proportion of men consuming more than 21 units of alcohol per week from 28% to 18%, and the proportion of women consuming more than 14 units of alcohol per week from 11% to 7%, by the year 2005.¹⁹

Figure 3: Deaths rates due to chronic liver disease and cirrhosis (England & Wales, 1990) by region, per 100,000 adults over 15.



Source: Edwards & Unnithan 1992.⁵

B. Identifying Harmful or Hazardous Alcohol Drinkers

Simple screening instruments are available for the routine detection of harmful or hazardous drinkers which can easily be applied in both primary and secondary health care settings.

B.1 Instruments for identification: A number of methods may be used to identify harmful and hazardous drinkers. These include questions relating to consumption, 'drinking diaries', questionnaires, physical examination, and biological markers, which may be used alone or in combination. Nearly all instruments were developed to detect alcohol dependency syndrome within the hospital setting, and not to screen for lower levels of consumption, or to detect harmful or hazardous alcohol use in other settings such as primary care.

B.2 A number of questionnaires have been used as screening instruments but there is considerable difficulty in comparing the validity and reliability of these measures because they have been used for different purposes and in different settings and populations.²⁰⁻³¹

B.3 The recently developed AUDIT questionnaire³¹ is of particular interest because it was designed to detect harmful/hazardous drinking, and validated cross-nationally in primary/ambulatory care. It contains 10 items covering alcohol consumption, symptoms and consequences of alcohol use. Initial estimates indicate that it detects 92% of harmful or hazardous drinkers (sensitivity) and 94% of people who consume below the levels are correctly identified (specificity).³¹ Confirmatory validation in the UK is needed.

B.4 Settings for detection

Primary Care: Because some of the questionnaires described above are quick and easy to use, and since over 2/3 of the population consult their general practitioner (GP) each year,³² it is possible to identify harmful or hazardous drinkers in primary care opportunistically on a routine basis.

B.5 The use of a screening instrument can lead to substantial improvements in the identification of people with alcohol problems, with an 80% increase in the number of patients identified reported in one practice.³⁰ Similarly, because of the

availability of relatively cheap and brief interventions there is considerable scope for activities aimed at alcohol reduction in primary care.³³ However, GPs vary in the levels of alcohol consumption considered safe³⁴ and many GPs are reluctant to deliver alcohol reducing interventions. A study in 1985 found that only 40% felt motivated to work with harmful or hazardous alcohol users.³⁵ In a recent survey of 5000 adults, only 2% reported any discussion relating to alcohol use with their GP or any member of the practice staff in the last 12 months (Health Education Authority, Personal Communication).

B.6 Hospitals: Because harmful and hazardous drinkers are over-represented among adult patients of all ages admitted to hospital³⁶ opportunistic screening for drinking in this setting is likely to detect a considerable number of them. Around 20% of adult patients (10% of males over 65 years) admitted to general hospital settings may be classified as harmful or hazardous drinkers, and are unlikely to be detected unless specifically screened.³⁶⁻⁴²

C. Evaluating the Effectiveness of Interventions

C.1 Brief Interventions: A variety of brief intervention techniques are described in the literature, however because they are of similar short duration and have other common core features they will be considered together.⁴³ All brief interventions contain an assessment of alcohol intake, information on harmful and hazardous drinking, and clear advice for the individual. Brief intervention sessions are often accompanied by information booklets and details of further resources available locally.

C.2 Specialist Interventions: These encompass more intensive strategies which include assessment and advice, but with the addition of counselling/therapy sessions, skills training and other interventions, occasionally on a group basis, or as an inpatient.

C.3 Nature of the evidence: Well designed randomised controlled trials (RCTs) provide the best available evidence on the efficacy of therapeutic interventions.⁴⁴ Twenty nine RCTs were identified (by Medline search, consultation with clinical experts and manually cross-checking reference lists) in which brief interventions are compared with an assessment only control group, more specialist strategies, or a combination of these approaches.⁴⁵⁻⁷³ For a summary of these trials see Appendix 1.

C.4 Outcome measures: There are a number of difficulties in defining and measuring relevant outcomes in trials of interventions to reduce alcohol consumption. Trials use a variety of outcome measures, few directly measure health related outcomes and most use patient reported changes in alcohol consumption as the primary outcome measure. However, there is doubt about the reliability of self reported behaviour changes.⁷⁴⁻⁷⁵ Whilst reliable measures of alcohol consumption may provide a convenient proxy measure for alcohol related risk, the relationship between alcohol consumption and morbidity for individuals and populations is complex and uncertain.¹⁸⁻⁷⁶ In addition because follow-up is short, it is difficult to use the trial data to estimate longer term impact on health status. Also, trials include patients whose consumption is considerably above the Health of the Nation targets, and it is unclear to what extent the findings from this higher consumption group may be translated to the broader population drinking above target levels.

C.5 Quality of studies: The quality of trials is variable. Areas of concern include: lack of blinding of assessors to patients' treatment group; high drop out rates from treatment programmes and loss to follow up; outcome measures used. Because assessment is an important element in brief interventions and may in itself improve outcome, assessment of patients in the control group may result in trials underestimating the overall effectiveness of intervention packages.

C.6 Comparability of studies: Comparison and synthesis of the trials is hindered by the heterogeneity of the populations studied, differing or poorly defined interventions, and use of different outcome measures. This is particularly true of trials comparing brief with specialist treatments.

D. Brief Intervention Trials:

Brief interventions consisting of assessment of intake, and provision of information and advice, are effective in reducing alcohol consumption by over 20% in the large group of people with raised alcohol consumption. However it is not clear how this translates into changes in health status.

D.1 Seven RCTs were identified which compared brief intervention with an assessment only control group (See Appendix 2). Two of the trials are large and of particular interest so will be examined individually:

D.2 **Wallace et al (1988):**⁷⁰ 909 patients from 47 group general practices in Scotland and England were randomly allocated to either brief intervention or assessment only. Patients with potentially harmful or hazardous alcohol consumption were detected on the basis of the CAGE questionnaire and questions on frequency and consumption. Men included in the trial consumed more than 35 units of alcohol per week and women more than 20 unit per weeks. 30% of subjects in the trial were women.

D.3 Patients randomised to the control group received no specific advice concerning their alcohol consumption unless there was evidence of existing substantial liver damage. Patients in the treatment group were contacted by their GP and asked to attend for a brief interview. Only 61% of those invited for interview on the basis of the screen attended. At interview, the brief intervention included assessment of alcohol consumption, alcohol related problems and dependence, and compared the patients' reported drinking with a histogram of the population's drinking habits. Patients were advised of the potentially harmful effects of their current level of consumption and given an information booklet. Men were advised to drink no more than 18 units per week, and women no more than 9 units per week, unless there was evidence of alcohol dependency in which case GPs had been advised to suggest abstinence.

D.4 Follow up appointments at one month were given routinely, and occasionally at 4, 7 and 10 months. Attendance for men was better amongst lighter drinkers and older patients. Over 80% of men and women attended for an assessment interview at 1 year, where they were assessed independently by a practice nurse who was not aware of their treatment group.

D.5 There was a 21% reduction in alcohol consumption amongst men receiving brief intervention compared with the

control group. A slightly larger response was found among women. These results were supported by parallel reductions in biological markers of alcohol consumption.

D.6 World Health Organisation sponsored multi centre trial of brief intervention in primary health care:⁷² This trial assessed the effectiveness of brief interventions in a variety of populations in 10 centres around the world from developing and developed countries. Only results from the 8 centres which used a randomized design are considered further. In total 1490 patients, mostly from primary/ambulatory care were randomized.

D.7 Patients were included if they averaged 44+ units per week in men, or 28 units per week in women, or if they drank excessively (more than 12.5 units on one occasion two or more times per month in men or 8 units in women). Patients with slightly lower reported consumption were also included if they expressed concern about their drinking. Patients were excluded from the study if they showed signs of dependence on alcohol, had received previous treatment for alcohol problems, or had unstable social circumstances.

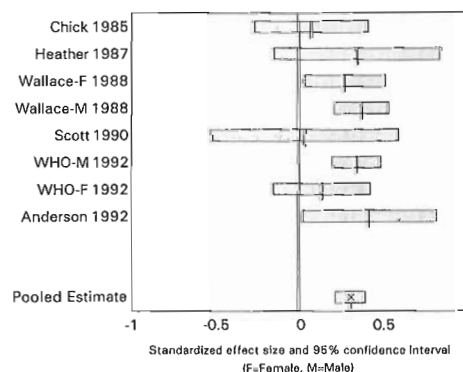
D.8 Control group patients received assessment only. Patients allocated to a treatment group received either 20 minutes simple advice in which they were advised of the potential harm from their drinking behaviour and given an information booklet, or 20 minutes simple advice plus up to 4 additional 15 minutes brief counselling sessions which included the use of a 30 page problem solving manual.

D.9 The analysis showed no additional advantage for the brief counselling sessions. Significant reductions in alcohol consumption or frequency of drinking were found at five centres (Australia, UK, USA, USSR, Zimbabwe) for male drinkers in the intervention groups compared with the control group. Overall male patients receiving simple advice, with or without brief counselling, reduced their alcohol consumption by nearly 25% compared with the assessment only group.

D.10 For women the response to intervention was lower, with only around a 10% reduction in the intervention groups when compared with assessment only. However, there were considerable reductions in both the control and intervention groups.

D.11 Overview of brief intervention trials: Four additional but much smaller trials^{45 49 56 68} were assessed to be comparable with Wallace et al (1988)⁷⁰ and WHO (1992).⁷² The difference in standardised effect size (difference in mean / standard deviation)⁷⁷ of each of these trials is shown in Figure 4, with the results for males and females presented separately. As can be seen, the results from these trials are broadly consistent. In order to get the most precise estimate of the effect of brief intervention, the results of these 6 trials were pooled using formal meta analysis.^{77 78} Overall the effect of brief intervention is estimated to be a 24% reduction in alcohol consumption (95% Confidence Interval: 18-31%).

Figure 4: Brief intervention vs control: difference in alcohol consumption



E. Brief Versus Specialist Intervention Trials

Evidence from clinical trials suggests that brief interventions are as effective as more expensive specialist treatments.

E.1 Fifteen centres comparing brief intervention with specialist treatments (ie inpatient or outpatient care, extended counselling etc.) were identified, see Appendix 3. Because these trials use many different interventions implemented in a variety of settings and differing populations, they are not sufficiently comparable to be sensibly pooled in a formal meta analysis.

E.2 A less formal overview of these studies shows no evidence of any extra benefit of the more specialist compared with brief interventions. However, this is a general conclusion, and it is argued by some that matching treatments to the individual needs of particular subgroups of patients may improve effectiveness,⁷⁹ although this has yet to be clearly demonstrated. Where brief interventions are unsuccessful, more specialist interventions may prove effective or cost effective, however more research is needed.⁸⁰

F. The Costs and Cost-Effectiveness of Brief Interventions

The direct cost per detection and brief intervention delivered to a person who consumes above the limits is less than £20.

F.1 The exact relationship between percentage reductions in alcohol consumption and levels of alcohol related morbidity and mortality is not known either at an individual or population level. It is therefore, not possible to assess the cost-effectiveness of brief interventions in direct comparison with other health care procedures. In this section some costs of reducing alcohol consumption in line with Health of the Nation¹⁹ targets are presented.

F.2 The direct and associated costs of brief interventions in GP and hospital settings are shown in the Box.

COSTS AND POTENTIAL SAVINGS FROM BRIEF INTERVENTIONS

Direct Costs

- ◆ Time of professionals administering the screen and intervention
- ◆ Materials used in the intervention

Associated Costs

- ◆ Training staff
- ◆ Mechanisms to encourage staff to intervene routinely (eg dissemination of materials or incentives)
- ◆ Support services
- ◆ Increased referral to specialist services (appropriate and inappropriate)

Savings

- ◆ Reduction in the future use of health care and other services due to reduced morbidity resulting from decline in alcohol consumption

F.3 Data from American studies suggest that the cost of specialist alcohol treatment may be offset against reductions in future health care spending due to the reduced problematic and hazardous alcohol consumption.^{83 84} However there is no evidence on the extent to which these translate to the UK.

F.4 **Estimating the direct costs of brief interventions:** The direct costs of brief interventions for alcohol will depend upon: the screening instrument; the method of delivery, i.e. opportunistic or through special appointments; who delivers the intervention, i.e. GP or practice nurse; hospital doctor or ward staff; and the content of the intervention.

F.5 **Costs of screening:** For both screening and the intervention the main component of cost is professional time. Estimates of these costs depend on whether the figure includes overheads and administrative costs or are based on the cost of the face to face time alone. The cost of GPs time (1993 prices) would be in the range of £0.40 (based on salary) to £1.20 per minute (including overheads).⁸⁵ Tolley and Rowland (1991)⁸⁶ calculated that the costs of nurses time to administer a simple screen, taking on average 1.5 minutes in a general hospital setting, was 10p in 1988 prices. However, 40p is taken as a lower bound in the following calculations and the screen is assumed to take 2 minutes giving a cost estimate of between 80p and £2.40 per person screened.

F.6 **Cost of Interventions:** The duration of brief interventions vary but for costing purposes an average of 15 minutes⁷⁰ has been used. Using the same estimates of the cost of professional time will yield costs between £6 and £18 for the time component. Cost of booklets or educational leaflets which may be distributed to the patient are assumed to be no more than £2 per patient giving a total direct cost for each brief intervention of between £8 and £20.

F.7 **Costs and Effectiveness:** The delivery of brief interventions in actual settings can vary considerably. For some GPs it may be decided to deliver both the screening and interventions opportunistically (as and when patients consult a doctor). This is also the mode in which it can be delivered in hospitals. In both these cases it may be possible to "treat" nearly 100 per cent of those identified by the screening instrument.

F.8 Assuming average drinking behaviour, for each 100 men and 100 women screened, 28 men should be identified as drinking above 21 units of alcohol and 11 women as drinking above 14 units. Using the reported specificity and sensitivity for the AUDIT questionnaire³¹ (see B3) suggests that a total of 46 people out of the 200 would be given the intervention (36 true positive and 10 false positive). This will yield a cost between £15 and £40 for each person with raised consumption (36 of the initial 200 screened). On average each of these may reduce consumption by 24 per cent.

F.9 For GPs it may be difficult to both screen and administer the intervention in the same opportunistic session. However, because only a proportion of patients invited back for a special intervention will take up this offer (possibly as low as 60%⁷⁰) the costs per person who reduced drinking increase slightly to between £18 and £47. All these figures are based on direct costs only.

F.10 In hospital, costs may not only be lower but there may be a higher proportion drinking above the designated limits than in the general population, both effects lowering the cost-effectiveness figure. Though less of the population will be screened.

F.11 There are a number of approaches for reducing alcohol related problems in the population. One strategy is aimed at treating those who have very high consumption (high risk approach). An alternative (population approach), is aimed at the whole population which contains a large group of people

with more modest consumption and attempts to shift the whole distribution. The logic of the population approach is that a larger proportion of the total alcohol attributed morbidity and mortality in a population is due to the considerable number of people with more modest consumption even though individually they are at lower risk.^{76 81} These two approaches are not incompatible in that it has been argued that the population mean predicts the prevalence of rates of high alcohol consumption,^{18 82} and thus a fall in mean alcohol consumption may lead to a corresponding decrease in the number of very heavy drinkers. In addition, in the alcohol field there exist low cost and effective methods for identifying and treating the significant group of people who consume above the currently recommended limits but who are not necessarily dependent on alcohol.

F.12 Other cost-effective strategies: Brief interventions are only one policy option available to achieve Health of the Nation⁹ targets. Macro policy measures such as increasing tax on alcohol, advertising controls and reducing the number of outlets have all been found to reduce alcohol consumption.⁸⁷ The price elasticity of the different types of alcohol drink estimated by the Treasury, for example, suggests that a 1 per cent increase in price will reduce per capita alcohol consumption by 1 per cent (Department of Health, personal communication). There are also many other national and local measures which could reduce the mortality and morbidity associated with alcohol, for example, drink-driving campaigns.⁸⁸

G. Advice to Commissioners of Services and Research

Health commissioners should consider the routine opportunistic detection and brief treatment of patients in primary care and hospital settings. This will require planning, coordination and adequate support and should be thoroughly evaluated.

G.1 Because of the high prevalence of alcohol related health problems and the implications this has for NHS resources, commissioners should be aware of the importance of alcohol when planning services.

G.2 The opportunistic use of simple assessments and brief interventions carried out routinely in primary care and hospital settings should be considered.

G.3 Routine opportunistic detection and treatment will not be feasible unless well planned and coordinated, adequately resourced, with adequate more specialist support services.

G.4 An effective health care strategy will need to include a balance of treatment activities with other policies such as those focused on specific risky behaviours such as drinking and driving, occupational health strategies in the work place, regulation, proscription of advertising and taxation.

G.5 There is always a danger that increasing health service interventions to influence peoples' behaviour can result in a stigmatization of people who have non approved lifestyles. It is important that the social character of drinking and its importance to many people be acknowledged, and that interventions to reduce alcohol consumption occur within a non moralistic framework which is tolerant of diversity.

G.6 Research is needed in the following areas:

- ◆ validating the AUDIT questionnaire³¹ in Britain as a simple screening instrument for hazardous and harmful alcohol consumption;
- ◆ evaluating the longer term impact of opportunistic detection and brief intervention programmes on health related outcomes in primary and secondary care. This may be most reliably undertaken using a RCT design;
- ◆ examining the cost effectiveness of using different professionals to undertake screening and treatment in a variety of settings;
- ◆ assessing the effectiveness and cost effectiveness of specialist treatments for different subgroups of harmful and hazardous drinkers who have not responded to brief interventions;
- ◆ developing an accurate epidemiologically based health policy model which estimates the health impact of reductions in alcohol consumption in different population groups.

Appendix 1

Study	Selection Criteria	Intervention	Outcome Measures	Drop Out	Results
Anderson and Scott (1992) ⁴⁵	Male general practice patients aged 17-69, stated regular alcohol consumption $\geq 350g$ alcohol per week. Self administered mailed health survey questionnaire (HSQ) including a quantity frequency measure of alcohol consumption. Assessment interview. Exclusions: Received advice in previous year or consumed $\geq 1050g$ alcohol per week. Study Size: A=80 B=74	Group A: GP advice lasting 10 minutes, supplemented with self-help booklet. Group B: No advice.	Reduction in % with excessive alcohol consumption (as measured by retrospective alcohol consumption in 7 days before interview). Laboratory tests (blood and breath alcohol). Follow-up Time: 12 months.	A=31% B=39%	Significant reductions in reported consumption in the intervention group compared to control (>6%) and reduction of 13% in the proportion of at risk drinkers.
Brown & Miller (in press) ⁴⁶	Inpatient admissions to substance abuse treatment programme of a private non-profit psychiatric hospital. AUI, SCQ, MAST. Study Size: A=14 B=14 (21 ♂, 7 ♀)	Group A: Brief Drinker Profile (BDP) - 45-60 minutes - covering drinking pattern and motivation for treatment; motivational interview 24 hours afterwards providing feedback. Group B: No motivational interview. All subjects: abstinence oriented residential milieu with strong emphasis on AA and group therapy.	Alcohol consumption variables - weekly and peak. Residential treatment participation. Follow-up Time: 3 months.	A=7% B=7%	Weekly but not peak scores significantly affected. Follow-up too short to establish enduring effect on alcohol consumption. Patients who received motivational interview more fully participated in residential treatment.
Carpenter, Lyons and Miller (1985) ⁴⁷	American Indian adolescents attending a residential high school with perceived emerging drinking problem. Self reported consumption, knowledge about alcohol effects, attitudes about alcohol and self-esteem. Study Size: A=12 B=8 C=10	Group A: Full Programme - weekly meetings of alcohol education class on controlled social drinking and harmful/hazardous alcohol use, meetings three times a week with peer counsellor instructing self monitoring and establishing weekly contracts. Group B - Peer Counselling - same as Group A but no alcohol education class. Group C - Self-Monitoring - meeting three times a week with peer counsellors to turn in data on alcohol consumption only. Average length of participation: 11 weeks	Periodic breath tests, quantity and frequency of drinking, peak alcohol levels. Follow-up Time: 4, 9 and 12 months.	A=17% B=0% C=0%	Significant overall decreases, but no group differences. Minimal and full programme interventions had comparable effects.
Chapman and Huygens (1988) ⁴⁸	Patients presenting with harmful/hazardous drinking to inpatient alcoholic unit in a 6 month period - 71% referred by public or private agencies, and 29% self referred. Self reported alcohol consumption, SMAST, range of psychological and neurological tests. Exclusions: lived further than 50 miles away, alcoholism not the primary diagnosis, brief detoxification only specified by referral agencies, subject already undergone >1 inpatient treatments for alcoholism. Study Size: A=36 B=35 C=34	Group A: Inpatient - 6 week inpatient programme including counselling, psychotherapy, social skills group, and AA. Group B: Outpatient - 6 week outpatient programme twice weekly at community-based clinic, attending with friend or spouse. Group C: Interview - 1-2 hours confrontational interview conducted by social worker/psychologist, with spouse or friend present.	Frequency and quantity of alcohol consumed per drinking day, general functioning. Follow-up Time: 6 and 18 months.	A=28% B=37% C=24%	No treatment more effective than another, in terms of drinking, abstinence or measures of social functioning. Assessment contact appeared to be the catalyst for most subjects to dramatically reduce reported alcohol consumption.
Chick, Lloyd and Crombie (1985) ⁴⁹	Men aged 18-65 admitted to medical wards for ≥ 48 hours and included if met two of the following: currently employed or employed for 6 of last 12 months, married, had a close friend, did not live alone. Exclusions: No fixed abode, mental state precluded a reliable history, terminally ill, referred to psychiatric department. Group Comparability: More alcohol related problems in Group A. Study Size: A=18 B=78	Group A: Counselling from nurse, lasting up to 1 hour, plus specially prepared booklet. Group B: Nurse assessment only.	Problem free drinking, mean weekly alcohol consumption (to fall by 50%). Follow-up Time: 12 months.	A=12% B=18%	No difference in consumption though both reduced. Significant difference for problems related to alcohol (in favour of Group A).
Chick, Risson, Connaughton <i>et al</i> ⁵⁰ (1988)	Referred to alcohol problem treatment clinic by GP, hospital specialist or social workers, or self-referral. Exclusions: No alcohol problem, violence to family members, mothers with children <11 years, cirrhosis, clinically evident brain damage, major medical or psychiatric disorder, suicidal, presenting as emergency, seen at clinic in last 6 months, lived >20 miles away. Study Size: A=41 B=55 C=58	Group A: Simple Advice - simple advice (5 minutes). Group B: Amplified Advice - simple advice (5 minutes) and 30-60 minutes with psychiatrist. Group C: Extended Treatment - simple advice (5 minutes), 30-60 minutes with psychiatrist, and offer of 2-4 week milieu and group therapy.	Scale of Alcohol Related Problems. Alcohol consumption in previous 7 days. Dependence on alcohol, plus blood tests. Follow-up: 2 years 3 monthly follow-ups for all groups by social worker (30 minutes). At 2 years psychiatrist interview of all and offer of further treatment where appropriate.	A=15% B=11% C= 9%	No difference in number of alcohol related problems between groups. At 2 years, group receiving extended treatment were functioning better.
Drummond, Thom, Brown <i>et al</i> ⁵¹ (1990)	Problem drinkers: referred by GP to specialist alcohol clinic. SADO, GHQ, alcohol problems questionnaire. Study Size: A=20 B=20	Group A: GP Group - GP advice, self-help booklet, psychiatrist support. Group B: Clinic Group - specialist clinic counselling and advice plus routine outpatient care, and if necessary, inpatient care. All subjects: initial assessment and advice in specialist clinic by nurse or psychiatrist (average 3 hours).	Alcohol consumption and alcohol related problems. Follow-up Time: 6 months.	A=10% B= 5%	Decreases in both groups, but no significant group differences - GP advice at least as successful in the treatment of more severely dependent drinkers. Cross-over between the two groups during follow-up period may have diluted any difference between the two groups.

Study	Selection Criteria	Intervention	Outcome Measures	Drop Out	Results
Edwards, Orford, Egert <i>et al</i> (1977) ⁸⁵	Married or cohabiting male attenders at outpatient Alcoholism Family Clinic - referral from AA, GP, probation service etc. Referral agency considered the patient to have drinking problem, couple initially willing to attend, psychiatrist's confirmation of drinking problem, reasonable travelling distance to clinic, aged 25-60 years, absence of severe progressive or painful disease. Study Size: A=50 B=50	Group A: Advice - one counselling session. Group B: Treatment - several months in- and outpatient treatment. All subjects - 3 hour initial assessment with man and partner.	Highest drinking level in each of 52 weeks. Drinking related problems. Follow-up Time: 12 months from initiation of treatment.	A=8% B=4%	No significant differences between the groups. Single session of advice as effective as a standard specialist alcohol programme.
Elvy, Wells and Baird (1988) ⁸⁶	Problem drinkers aged >70 scoring ≥ 3 on CAST, drawn from admissions to 3 orthopaedic and 2 surgical wards. Exclusions: Currently receiving alcohol treatment, lived outside follow-up area, critically ill. Study Size: A=84 referred, of which 52 accepted counsellor (62%) B=114	Group A: Referral group - advised by psychologist, offered counsellor. Group B: No intervention.	Time since last drinking, desire to drink less, happiness with amount drunk, CAST score. Follow-up Time: 12 & 18 months.	At 12 months: A=27% B=25% At 18 months: A=43% B=37%	At 12 months, significant improvement in Group A. At 18 months, both groups improved, but little difference between the groups, the control group improving after 12 months.
Hayashida, Alterman, McLeellan <i>et al</i> (1985) ⁸⁷	Male veterans with evidence of alcohol withdrawal syndrome recruited from Veterans Administration Alcohol Treatment Unit for detoxification. Physician interview, SSA scores and negative breath analyses for 3 consecutive days, Beck Depression Inventory, MAST, SADQ, SCL-90, ASI. Exclusions: serious alcohol withdrawal (DTs recent seizure of unknown origin), serious medical or psychiatric symptoms requiring hospitalisation, referrals from outside VA, insistence on inpatient detoxification, concurrent heavy drug abuse, difficulty in comprehending instructions, organic brain disease. Initial Comparability: severity of alcoholism as measured by SADQ and ASI greater in inpatient group. Study Size: A=87 B=77	Group A: Outpatient Detoxification - drugs plus daily evaluation (with SSA), brief counselling. Group B: Inpatient Detoxification - closed ward, drugs adjusted each day, daily evaluation (including SSA), group counselling (more intensive and extensive than that provided for Group A).	ASI - entry into rehabilitation programme, re-detoxification. Refraining from intoxication/abstinence. Drug abuse related, work related, legal, medical (hospitalisation), psychiatric (hospitalisation/need for treatment). Follow-up Time: 1 and 6 months	Not completing detoxification: A=28% B=5% At 1 month: A=6% B=9% At 6 months: A=21% B=12%	Substantial improvements in both groups. At 1 month, fewer alcohol related problems in inpatient group. At 6 months, no significant differences between the groups.
Heather, Whitton and Robertson (1986) ⁸⁸	General population responding to newspaper advertisement. Postal sample - LAI Telephone sub-sample - LAI, EDS, SMAST Study Size: n=723, respondents alternatively sent one or other booklet. Response rate of 31%. Usable postal group = 204 Usable telephone sub-sample = 43	Group A: Manual Group - behavioural self-help manual. Group B: Control Group - general information and advice booklet.	Alcohol consumption in the previous week, LAI. Follow-up Time: 6 months.	Postal group = 51% Telephone = 36%	Reduced drinking in the Manual group. Telephoned respondents indicated a greater reduction of alcohol related problems and reduced drinking. Those lost to follow-up were more 'socially stable' than those successfully contacted.
Heather, Campion, Neville and Maccabe (1987) ⁸⁹	GP attenders aged 18-65, with a weekly alcohol consumption of >35 UK units per week (σ^2) or >20 UK units per week (σ^2), or if evidence of alcohol related problem. Brief Alcohol Dependence schedule, MAST, Ph score. Exclusions: Evidence of late dependence, liver disease, severe mental illness, receiving anti-depressants, sub-normal intelligence, pregnant or dependent on opiate drugs. Study Size: A=34 B=32 C=38 (3:1 σ^2 : σ^2)	Group A: DRAMS - introductory leaflet for GPs, medical record card, checklist of ten medical complications and adverse social consequences. Two week self monitoring drinking diary card and self help booklet. Group B: Advice - simple advice, no follow-up consultation arranged. Group C: Control - no intervention.	Alcohol consumption over last month, heaviest month's consumption, control of drinking problem. Physical health and well being scores. Follow-up Time: 6 months.	A=15% B=6% C=16%	All groups showed decreases in alcohol consumption and improvement in physical health and well-being, but no significant differences between groups.
Heather, Kissoon-Singh and Fenton (1990) ⁹⁰	18-70 year old respondents to advertisement. 1 hour telephone interview covering family history of drinking, MAST, Ph score, etc. Exclusions: No telephone, lived outside the study area. Study Size: A=32 B=24 C=26D=25 (65% σ^2).	Group A: Control - advice and information booklet. Group B: Manual - behavioural self-help manual. Group C: Ansafo - behavioral self-help manual plus progress reports to telephone answering service (6 fortnightly reports). Group D: Telephone - behavioral self-help manual plus progress reports to telephone interviewer (every fortnight over 3 months).	Proportion drinking above or below recommended guidelines for non-hazardous alcohol consumption. Follow-up Time: 6 months.	A=6% B=4% C=27% D=28%	Significantly higher proportion in Group A drinking at hazardous levels (78%) vs 55% in Group B - also at clinically significantly higher levels (5 units for σ^2 and 3 for σ^2). Groups C and D poorer (but not statistically significant) outcomes than Group B.
Kristenson, Ohlin, Hulten-Nosslin <i>et al</i> (1983) ⁹¹	Male Malmo residents born 1926-1933 responding to a screening invitation for cardiovascular disease, diabetes and heavy drinking (76% responded), individuals with GGT values in the top decile invited for a second test three weeks later. Exclusions: individuals with systemic hypertension and high GGT. Study Size: A=317 B=268	Group A: Consultation every third month with physician, monthly GGT tests, and reinforcing contacts with nurse. Group B: Informed of impaired liver test, told by letter to restrict alcohol, and would be invited for a further liver test in 2 years time.	Moderate drinking (not abstinence), reduced drinking, mean sick days. Follow-up Time: 2, 4 and 5 years.	Unclear	GGT scores in both groups decreased at 2 and 4 years. Significant reduction in sickness absence, hospital days and mortality in group A compared to group B.

Study	Selection Criteria	Intervention	Outcome Measures	Drop Out	Results
Kuchipudi, Hobein, Flickinger and Iber (1990) ⁴⁸	Patients admitted to an acute medical unit with diagnosis of pancreatitis, ulcer, alcoholic liver disease and currently drinking. Comprehensive Drinking Profile. Exclusions: participation in alcoholism treatment in the past 8 weeks. Study Size: A=59 B=55	Group A: Motivational intervention therapy, plus medical care. Group B: Control - medical care only. All subjects: medical evaluation, followed by social worker evaluation for aftercare and an aftercare plan developed; 3 scheduled evaluation visits including supportive therapy to maintain sobriety.	Entry into in/out-patient alcoholism programme, keeping the three evaluation visits, drinking status. Follow-up Time: 10 and 16 weeks after discharge.	A=12% B=11%	No additional benefit of motivational interview therapy. Statistically significant increase in sobriety rate among patients undertaking alcoholism therapy or keeping clinical appointments.
Maheswaran, Beavers and Beavers (1992) ⁴⁹	Hospital hypertensive clinic patients regularly consuming >20 units alcohol per week. Exclusions: Diastolic BP > 105 mm Hg; diabetics; suspected secondary causes of hypertension; alcoholics; prior referral to alcohol addiction unit; previous advice and reported reduction of alcohol consumption. Study Size: A=22 B=23	Group A: 10-15 minutes session in which told to reduce their consumption as much as possible; if they felt they wanted to give up altogether they were encouraged to do so. Benefits of reducing consumption indicated. Advice reinforced at subsequent visits. Group B: Control - no active intervention.	Reported alcohol consumption (in previous 7 days), alcohol consumption markers, blood pressure. Follow-up Time: 8 weeks.	A= 5% B=13%	Significantly greater reduction in alcohol consumption in advice group and in standing diastolic BP.
Miller and Taylor (1980) ⁵⁰	Respondents to a free training programme for problem drinkers desiring to control their drinking, offered through the local media and advertised as 'not for alcoholics but for those who are experiencing life problems related to their drinking.' Screening interview: MAST, medical history, profile of mood states, locus of control. Initial Comparability: Significantly higher self-reported drinking in Group A. Study Size: n=56, assigned equally to each group. 11 failed to return for additional assessment interview prior to intervention, thus A=10 B=13 C=11 D=11	Group A: Bibliotherapy - self-help materials but no treatment sessions. Group B: Behavioural self-control training (BSCT), consisting of 6 weekly sessions. Group C: BSCT plus 12 weeks of relaxation, communication and assertion training. Group D: BSCT plus 12 weeks of individually tailored broad spectrum modules.	Alcohol consumption, abstinence/controlled drinking, hours per week intoxicated, functioning on non-alcoholic dimensions. Follow-up Time: 6, 8 and 10 months.	Overall = 9% (41 'treated' patients - least 5 completed at least 5 sessions) A= 0% B= 8% C= 18% D= 9%	General improvement for all groups. No significant differences between minimal BSCT training and more specialist interventions for problem drinkers. Significantly greater number of hours intoxicated in Group A.
Miller, Gribbskov and Mortell (1981) ⁴⁵	Self referred respondents to a free programme for problem drinkers with MAST > 5. Exclusions: severe withdrawal symptoms. Study Size: A=16 B=15 (3:1 δ : ψ)	Group A: Minimal - minimal therapist contact, with clients working with self-help manual, including 10 self-monitoring cards and envelopes for returning cards weekly, and brief intermittent telephone contact (average 3 over 10 weeks). Group B: Therapist - therapist directed training, self-help manual plus 10 30-45 minutes weekly individual treatments.	Daily and weekly alcohol consumption, drinking profile, peak blood alcohol levels. Follow-up Time: 6-8 months.	A= 0% B=27%	Both groups showed reduced overall alcohol consumption, but no differences between groups.
Persson and Magnusson (1989) ⁴⁷	Patients aged 15-70 years attending 5 somatic outpatient clinic emergency rooms, orthopaedic, medical, or surgical departments, and a district health centre, identified possible problem drinkers (reported consumption of >200 g alcohol weekly for δ , and 150 for ψ ; a GGT value of >0.6) Exclusions: Previous treatment for drinking, serious alcohol dependence, abuse of other drugs, lived outside Karlskad catchment area, died before start of intervention. Study Size: A=36 B=42 (3:1 δ : ψ)	Group A: Doctor interview: followed up monthly by a nurse and by a doctor every third month, advice given on reducing alcohol consumption. Group B: Control - initial questionnaire completed, in somatic outpatient clinic; no discussion about alcohol consumption. After one year asked to give a blood sample presented as a check-up.	Registered sick days: alcohol consumption; attitudes to the programme. Follow-up Time: 12 months.	0%	Consumption of alcohol, GGT and triglyceride levels and sickness days decreased in the intervention group. Number of sickness days in the control group increased. Note: no data collected on changes in alcohol consumption in the control group.
Poulianos, North, Meade <i>et al</i> (1986) ⁴⁴	Hospital referrals aged 18-60 with alcohol related problem, consuming > 80 g alcohol per heavy drinking episode. Patients recognised their alcohol problem and requesting treatment. Initial assessment by clinical psychologist using a patient questionnaire, SADQ and memory test. Exclusions: Severe medical / psychiatric disorders, registered drug addiction, no fixed abodes, non English speaker. Initial Comparability: Group A had higher stated alcohol consumption adjusted for in analysis. Study size: A=81 B=70 (δ : ψ 2:1)	Group A: ACCEPT - individual and group counselling, psychotherapy, behavioural approaches at community centre. Group B: Conventional Hospital - in/out-patient treatment, and AA.	Alcohol consumption: abstinence. Follow-up Time: 12 months, with assessments at 3, 6 and 12 months.	A: 12 months: A=23% B=24%	Significant difference in favour of community based centre (Group A) for reduced stated alcohol consumption (55% vs 37%). For the whole sample, considerable overall improvement on all variables.

Study	Selection Criteria	Intervention	Outcome Measures	Drop Out	Results
Robertson, Heather, Dziadoski et al (1986) ⁹	<p>Patients referred by GPs, psychiatrists and local counselling service to a Drinking Problems Clinic in a general hospital, with a history of current problem for < 5 years or SADQ < 30/60, no major psychiatric problems, positive preference for moderate drinking over abstinence, and no physical disorders present.</p> <p>Clinical assessment, SADQ, MAST, social and attitudinal measures.</p> <p>Exclusions: Abstinence preference, severe dependence.</p> <p>Study Size: A=16 (31% ♀) B=21 (10% ♀)</p>	<p>Group A: Intensive - intensive cognitive behavioural treatment towards a controlled drinking goal, one or more individually tailored sessions weekly (average of 9.1 sessions).</p> <p>Group B: Minimal - minimal assessment and advice (1 hour), drinking guidelines for individual patient, advice sheet (average of 3-4 sessions).</p>	<p>Alcohol consumption and alcohol related problems, controlled drinking success.</p> <p>Follow-up Time: average 15.5 months.</p>	<p>A=13% B=10%</p>	<p>Group A significantly reduced consumption and days of abstinence compared with Group B. Group A's greater mean reduction appears due to 3 persons in Group B who showed large increases in consumption from pre-treatment levels.</p> <p>No differences between the groups if females are excluded.</p>
Romelsjö, Anderson and Barner et al (1989) ⁹	<p>Participants in the health examination within the Health of the Population study in Stockholm County aged 18-64 years with a consumption of >40g alcohol/day for ♂ and 30g for ♀, drinking in the morning, admitted difficulties in restricting drinking, elevated GGT level, and more than 2 positive answers to CAGE.</p> <p>Health of the Population questionnaire including questions on alcohol use and CAGE.</p> <p>Exclusions: In/out-patient care in last 3 years for alcoholism, other drug abuse, ongoing treatment for alcohol problem, severe mental or somatic illness, other potential causes of elevated GGT.</p> <p>Study Size: A=41 B=42.</p>	<p>Group A: GP led assessment and advice to cut down or abstain from alcohol by next visit. Average 3 visits.</p> <p>Group B: Control - advised to cut down and that follow-up planned for 1 year's time.</p>	<p>Alcohol consumption (previous week), change in GGT level, alcohol related problems.</p> <p>Follow-up Time: 1 year.</p>	<p>A=12% B=14%</p>	<p>Modest improvements in both groups with small differences between groups.</p>
Sannibale (1988) ⁹	<p>Male problem drinkers presenting to a community based treatment facility.</p> <p>2 hour initial assessment interview including MAST, AUI, ADS, GHQ, and neuropsychological tests.</p> <p>Exclusions: unwillingness to comply with neuropsychological testing.</p> <p>Study Size: A=19 B=23 C=20 D=25 E=9.</p>	<p>Group A: 6 confrontational alcohol group meetings.</p> <p>Group B: 6 confrontational individual counselling sessions.</p> <p>Group C: 7 group meetings focused on agreed goal of abstinence or controlled drinking.</p> <p>Group D: 7 individual sessions focused on agreed goal of abstinence or controlled drinking.</p> <p>Group E: Minimal advice.</p> <p>All interventions over 7 weeks.</p>	<p>Alcohol related behaviours, alcohol consumption (preceding month).</p> <p>Follow-up Time: 12-20 months (average 15.5 months).</p> <p>During follow-up period, >2 telephone contacts including detailed questions regarding drinking in the preceding 2 months.</p>	<p>A=26% B=26% C=20% D= 0% E=11%</p>	<p>Improvements within groups, but no significant differences between groups.</p> <p>Suggestion that follow-up is an important part of relapse prevention.</p>
Scott and Anderson (1990) ⁹	<p>Females recruited from an opportunistic screening programme in general practices, drinking > 20 units of alcohol weekly, aged 17-69.</p> <p>Assessment interview using HSQ.</p> <p>Exclusions: advice during previous year to reduce drinking, current alcohol consumption of >70 units weekly.</p> <p>Study size: A=33 B=39.</p>	<p>Group A: Advice - 10 minutes advice from GP and feedback of assessment interview data.</p> <p>Group B: Control - no advice except at patient's request.</p>	<p>Self-reported alcohol consumption in preceding seven days, and consumption assessed by HSQ.</p> <p>Follow-up Time: 12 months.</p>	<p>A=24% B=36%</p>	<p>No evidence of treatment effect. Significant reduction in alcohol consumption for the whole group at one year.</p> <p>Lack of evidence of a treatment effect may be explained by contamination of control group - evidence of alcohol consultation with GP during the follow-up period.</p>
Skute and Berg (1987) ⁹	<p>General population drinkers responding to newspaper advertisement.</p> <p>Comprehensive drinker profile, MAST, SADQ, SCL-90, and medical examination.</p> <p>Exclusions: Pregnancy, previous alcohol treatment, DTs, heavy poly-drug dependency, medical illness, severe withdrawal symptoms, self-reported problem drinking for > 10 years.</p> <p>Study Size: 12 in each group.</p>	<p>Group A: Bibliotherapy - 2 group sessions, overview of behavioral self-control training (BSCT) programme, and assessment session (4 hours in groups).</p> <p>Group B: BSCT - therapist directed - 6 sessions (12 hours in groups).</p> <p>Group C: Training in coping skills - 6 sessions (12 hours in groups).</p> <p>Group D: BSCT and coping skills training - 6 sessions of BSCT and 2 sessions of coping skills training (16 hours in groups).</p>	<p>Weekly alcohol consumption, drinking patterns, effects on life problems.</p> <p>Follow-up Time: 6 and 12 months.</p>	<p>A= 8% B=17% C=25% D= 8%</p>	<p>No significant differences between groups.</p> <p>Number of life problems decreased significantly. Majority reduced alcohol consumption during the assessment period before treatment started.</p>
Wallace, Cutler and Haines (1988) ⁹	<p>Patients aged 17-69 from GP group practices with excessive alcohol consumption (males >35 units and females >20 units of alcohol weekly), recruited from MRC framework.</p> <p>HSQ, CAGE, lifetime and health survey interview with a research nurse, including systematic history of alcohol consumption in the previous week and provision of brief advice on general health and booklet on Beating Heart Disease.</p> <p>Exclusions: Received medical advice regarding drinking in the past year, serious illness.</p> <p>Study Size: A=450 (♂ 131, ♀ 319) B=459 (♂ 322, ♀ 137)</p>	<p>Group A: GP assessment interview, evidence of harmful effects of alcohol, booklet and advice to drink less (males <19 and females <10 units weekly).</p> <p>Group B: No advice unless at patient's request or evidence that alcohol consumption already resulted in substantial liver impairment.</p>	<p>Stated alcohol consumption in the previous week, HSQ, GGT.</p> <p>Follow-up Time: 6 and 12 months.</p>	<p>At 6 months: ♂=13%, ♀=15% At 12 months: ♂=17%, ♀=19%</p>	<p>After 6 and 12 months, there was a significantly greater reduction of drinking in excess of the limits for Group A (males and females) than Group B. There was also a significant difference in stated weekly alcohol consumption for Group A, for males at 6 and 12 months, and for females at 12 months only.</p>

Study	Selection Criteria	Intervention	Outcome Measures	Drop Out	Results
Walsh, Hingson, Merrigan <i>et al</i> (1991) ¹⁷	Alcohol abusing workers new to employee assistance programme, with a alcohol abuse as primary problem, not requiring hospitalisation. Interview including lifetime history of drinking and alcohol breath test. Exclusions: Required medically supervised detoxification, recent definite DTs or grand mal seizures, posing immediate danger to self or others, major psychiatric care required, about to be jailed/fired. Study Size: A=73 B=83 C=71	Group A: Compulsory inpatient treatment, including AA with abstinence as treatment goal, and one year job probation, sobriety on the job and weekly checks. Group B: Compulsory AA attendance for one year, and one year job probation, sobriety on the job and weekly checks Group C: Choice - subject planning own treatment, as long as remained sober on the job.	Measures of job performance, drinking and drug use. Follow-up Time: 2 years	A=14% B=12% C=10%	All groups improved but no differences found between groups for job-related outcome variables. On drinking and drug use, the hospital group (Group A) fared significantly better and those assigned to AA (Group B) worst.
WHO Collaborating Investigators (1992) ²	Non-alcoholic heavy drinkers recruited from a combination of hospital settings, primary care clinics, work sites and educational institutions in 10 countries, patients drinking on average $\geq 350g$ per week (δ) or $\geq 225g$ per week (η) or intoxicated on one occasion two times a month or more ($\geq 100g$; $\geq 65g$), or if patient perceived a problem (slightly lower inclusion criteria eg $\delta \geq 300g$ per week and $\eta \geq 200g$ per week). Exclusions: prior/current treatment for alcoholism, drug abuse, liver disease or mental disorder, professional advice to stop drinking, past or recent history of frequent morning drinking, recent alcohol consumption less or more than the above inclusion criteria, pregnancy, social or residential instability, aged <18 or >70 . Health and lifestyle screening questionnaire including questions on drinking, WHO composite interview schedule, health and daily living questionnaire. Initial comparability of groups: 10 country study; 8 used a RCT design. Study Size: 10 centres - 1,655 (δ 1356, η 299); 8 RCTs - 1490. Follow-up Group Sizes for combined analysis of the 8 RCTs: A=361 B=350 C=409 (δ : 9, approx. 4:1)	Core Design Group A: Control Group - 20 minutes health interview only. Group B: Simple Advice Group - 20 minutes health interview, plus 5 minutes of advice about the importance of sensible drinking or abstinence. Group C: Brief Counselling Group - as above, plus 15 minutes of counselling, and a self-help manual to use in the development of a 'habit-breaking plan'. <i>Optional</i> (used by 6 centres but joined with Group C in the combined analysis of the 8 RCTs) Group D: Extended Counselling - as brief counselling, plus 3 further meetings with the health worker to monitor progress during the next 6 months.	Average daily consumption, drinking intensity, drinking problem score, days drinking, concern score, dependence score, and evaluation of programme measures. Follow-up Time: (minimum) 6 months; (average) 9 months.	25% for the 8 RCTs varying by study centre.	For the combined analysis, Group A (control) reported significantly less change than each of the two intervention groups B and C (simple advice and brief counselling). But there were no significant differences between groups B and C. For females, there were no significant differences between any of the groups. For the 8 studies individually, 5 showed significant reductions in the intervention groups for males. Note: cross-national generalisability was explored for males only as there were too few females for such an analysis. The results appear to be consistent across the 8 RCT participating centres despite pronounced differences among the centres in socio-demographic factors and drinking patterns.
Zweben, Pearlman and Li (1988) ¹⁸	74% recruited from regular stream of clients presenting for treatment in the Clinical Institute and 26% from advertisements in the mass media, alcohol abuse as main presenting problem, couple in a cohabiting relationship, no major medical or psychiatric disabilities requiring hospitalisation, spouse willing to participate, not involved in any other therapy, MAST >5 , ≥ 8 Clarke-WAIS vocabulary test. Comprehensive assessment battery including marital relationship, alcohol use (Time-Line Follow Back procedure), DCS and MAST. Study Size: A=79 B=139	Group A: Conjoint therapy - 8 outpatient sessions, based on a communication-interactive approach and emphasising both partners working together on the drinking problem and their marital relationship. Group B: Advice counselling - 1 session of 1.5 hours emphasising the context in which drinking took place and the need for the couple to work closely to change the drinking and other problems of daily life.	Percentage heavy drinking, moderate and abstinent days, DCS score, marital relationship scales. Follow-up Time: 18 months	A=50% B=42%	Couples in both groups showed improvements in drinking and marital adjustment measures. There were no significant differences between groups. Those completing the study represented a socially stable group, with a moderate degree of alcohol-related difficulties and relatively non-distressed marital relationships.

ADI Addiction Severity Index
ADS Alcohol Dependence Scale
APO Alcohol Problems Questionnaire
AUI Alcohol Use Inventory
CAGE Four questions covering Cut Down ('have you ever thought you should cut down on your drinking?'), Annoyed ('have you ever been annoyed by other people's criticism of your drinking?'), Guilt ('have you ever felt guilty about your drinking?') and Early Morning Drink ('have you ever had an early morning drink to steady your nerves [an eye opener]?')
CAST Canterbury Alcoholism Screening Test
DCS Drinking Consequence Scale
EDS Edinburgh Dependence Schedule
GHQ General Health Questionnaire
HSQ Health Survey Questionnaire
LAI Life Activities Inventory
MAST Michigan Alcoholism Screening Test
Ph Score Severity of Physical Dependence on Alcohol
SADO Severity of Alcohol Dependence Questionnaire
SCQ Situational Confidence Questionnaire
SMAST Short Michigan Alcoholism Screening Test
SSA Selected Severity Assessment

Appendix 2 Brief Intervention vs Control: mean alcohol consumption by the end of the study

Study	Population	Treatment	Follow up	Average Dropout	Nc/Nb	Mc(SD)	Mb(SD)	ES(95%CI)	Mb-Mc (%)	Measures
Anderson 1992 ⁴⁵	Patients in general practice	Advice (10 min)	12 months	35%	45/55	389 (295)	282 (215)	0.418 (0.020, 0.816)	27.5	ACW
Chick 1985 ⁴⁹	Patients in hospital medical wards	Counselling (60 min)	12 months	15%	64/69	35 (36.8)	32 (42.4)	0.075 (-0.265, 0.415)	8.6	ACW
Heather 1987 ⁵⁴	Patients in general practice	Advice	6 months	11%	32/30	195.2 (144.6)	147.5 (123.3)	0.350 (-0.152, 0.851)	24.4	ACM
Maheswaran 1992 ⁵⁰	Hypertensive patients: Hospital out patients department	Advice	8 weeks	9%	20/21	56 (18)	30 (23)	1.236 (0.568, 1.905)	46.4	ACW
Scott 1990 ⁴⁸	Patients in general practice	Advice (10 min)	12 months	31%	25/25	21.2 (17.5)	20.6 (16.0)	0.035 (-0.52, 0.59)	2.8	ACW
Wallace 1988 ⁵³	Patients in general practice	Advice	12 months	M 17% F 19%	M 322/319 F 137/131	55.6 (32.3) 30.4 (30.4)	44.0 (28.6) 23.6(17.2)	0.380 (0.223, 0.536) 0.273 (0.032, 0.514)	20.9 22.4	ACW
WHO 1992 ⁵² (8 centres adhering to core randomized design)	Nonalcoholic heavy drinkers	Simply advice or brief counselling	9 months	25%	M 296/605 F 65/154	5.9 (4.1) 3.2 (2.5)	4.5 (4.1) 2.9 (2.5)	0.348 (0.209, 0.488) 0.136 (-0.155, 0.426)	24.1 10.6	ACD

Note: 1. ES = (Mc-Mb)/SD (see Whitehead 1991⁷³).
 2. Nc, Nb: number of patients in control group and in brief intervention group.
 3. Mc, Mb: mean alcohol consumption in control and brief intervention group
 4. ACW, ACM, ACD: alcohol consumption weekly, or monthly, or daily.

Appendix 3 Brief Intervention vs Specialist treatment: mean alcohol consumption by the end of the study

Study	Population	Brief/Extended	Follow-up	Average Drop out	Nc/Nb	Mc(SD)	Mb(SD)	ES (95%CI)	Measures
Chapman 1988 ⁵⁴	Referred or self-referred	Confrontational interview/in-outpatient care	18 months	30%	48/26	146 (110)	108 (110)	0.340 (-0.141, 0.820)	ACD
Drummond 1990 ⁵¹	Referred	GP Advice/alcohol clinic care	6 months	8%	19/18	303.2 (231)	256.4 (207)	0.208 (-0.438, 0.855)	6 month Score
Edwards 1977 ⁵²	Referred	Advice/outpatient care	12 months	6%	50/50	13.9 (2.5)	15.5 (3.2)	-0.553 (-0.952, 0.153)	>10 pints/day(weeks)
Heather 1987 ⁵⁴	Screening	Advice/ DRAMS	6 months	11%	29/30	136.8 (84.7)	147.5 (123.3)	-0.099 (-0.610, 0.411)	ACM
Miller 1980 ⁴	Self-referred	Self-help material/Extended treatment	6-8 months	27%	31/10	21 (21)	20 (21)	0.061 (-0.652, 0.774)	ACW
Miller 1981 ⁴	Self-referred	Manual+MT/Manual+10 sessions	6-8 months	11%	15/16	24(17.5)	17(17.5)	0.389 (-0.322, 1.100)	ACW
Robertson 1986 ⁴⁵	Referred	Advice(60 min)/9 sessions	15.5 months	11%	14/19	129 (86)	269 (252)	-0.681 (-1.390, 0.029)	ACM
Romelsjo 1989 ⁵⁵	Screening	GP Advice/3 visits	12 months	13%	36/36	28.4 (15.4)	23.0 (15.4)	0.347 (-0.119, 0.812)	ACM
WHO-Australia 1992 ⁵²	Screening	Advice or BC/Extended counselling	6 months	10%	M 46/102 F 18/51	5.68 (5.1) 2.63 (2.63)	6.0 (5.1) 3.23 (2.63)	-0.062 (-0.411, 0.286) -0.226 (-0.764, 0.313)	ACD
WHO-Cost Rica 1992 ⁵²	Screening	Advice or BC/Extended counselling	6 months	0%	24/12	1.9 (2.53)	2.77 (2.53)	-0.336 (-1.033, 0.361)	ACD
WHO-Mexico 1992 ⁵²	Screening	Advice or BC/Extended counselling	7.4 months	26%	19/79	2.89 (5.9)	2.92 (5.9)	-0.005 (-0.506, 0.496)	ACD
WHO-Norway 1992 ⁵²	Screening	Advice or BC/Extended counselling	6 months	17%	5/14	2.13 (3.67)	2.89 (3.67)	0.197 (-1.220, 0.826)	ACD
WHO-USSR 1992 ⁵²	Screening	Advice or BC/Extended counselling	18.9 months	14%	26/62	1.74 (2.29)	1.39 (2.29)	0.151 (-0.307, 0.610)	ACD
WHO-USA 1992 ⁵²	Screening	Advice or BC/Extended counselling	6 months	18%	M 11/71 F 13/51	4.76 (2.71) 3.21 (2.57)	5.03 (2.71) 2.21 (2.57)	-0.099 (-0.734, 0.537) 0.384 (-0.228, 0.997)	ACD
Zweben 1988 ⁵¹	Screening or self-referred	Advice (1.5 hours)/conjoint therapy	18 months	47%	70/46	17 (21)	18 (24)	-0.045 (-0.417, 0.327)	heavy drinking days %

Note: 1. ES = (Mc-Mb)/SD, (see Whitehead 1991⁷³).
 2. Nc, Nb: number of patients in specialist treatment group and in brief intervention group.
 3. Mc, Mb: mean alcohol consumption in specialist and brief intervention group.
 4. ACW, ACM, ACD: alcohol consumption weekly, or monthly, or daily.
 5. BC: Brief counselling.
 6. Positive ES favours brief intervention

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Bulletin 8 will examine treatments for breast cancer.

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