Old Gold

How brief can you get?

Three pioneering studies which have stood the test of time. All British, they showed that alcohol problems could be reduced without intensive (and expensive) treatments. The implications were immense, the controversy fierce.

by **Colin Drummond** *and* **Mike Ashton**

The first author is co-author of the analysis which identified the three studies highlighted in this article. He is a psychiatrist specialising in alcohol treatment at St George's Hospital in London. The second author is the editor of FINDINGS.

Golden bullets

- More treatment input does not always equate to better treatment outcomes.
- Many excessive drinkers seeking treatment will respond adequately to expert assessment and advice which falls short of intensive treatment, enabling limited funds to benefit more people.
- But there is no justification for denying intensive support to drinkers with severe alcohol and/or other problems.
- Primary care and general hospitals can make a worthwhile contribution to public health by screening patients for excessive drinking and providing brief interventions.
- Realising this potential will require investment in training and (especially in hospitals) in specialist staff. It will not be easy and will not be cheap.
- Convincing evidence of cost effectiveness in everyday practice will be needed before purchasers will fund and medical staff embrace wholesale implementation of such interventions.

Moncrieff J., Drummond D. C. "The quality of alcohol treatment research: an examination of influential controlled trials and development of a quality rating system." *Addiction*: 1998, 93(6), p. 811–823.

Found that the three most cited alcohol treatment trials up to the end of 1995 were all British studies of brief(er) interventions.

British studies made a clean sweep of the top three places in a competitive international league – the world's most cited alcohol treatment trials. Up to the end of 1995 three UK studies[1, 2, 3] had logged the greatest number of references recorded by the Science Citation Index, indicative of their influence on other researchers, their scientific standing, and their social/political relevance.[4] Even more remarkable, among studies of psychosocial interventions, they also logged the highest *annual* citation rate.[5]

All over a decade old, any one of the studies would have warranted its own Old Gold stamp. What persuaded us to treat them as a unit was the fact that all three tackled how to do as much as possible with as little as was needed. Along with some other notable and mainly European studies, they seeded the 'brief interventions'[6] debate which is still a priority for researchers and practitioners.

Not only did they seed this debate, they remain central to it. The citations continue and the findings have been supplemented but not superseded.[7] A policy drive (yet to be matched by practice) which has made "opportunistic screening and minimal interventions in primary health care settings ... all the rage at present",[8] owes its research foundations in large measure to these studies.

Together they supported the case that alcohol interventions could and should expand beyond the limited and expensive regimes prominent in the '60s and '70s to embrace more drinkers and more settings. From treating the few, this new approach they helped legitimise has the potential to make a worthwhile contribution to the overall reduction of alcohol-related problems in the community.[9]

We'll describe the studies in order of their publication. It's a logical order in another way, moving from the specialist hospital alcohol clinic through the general hospital and then out into the GP's surgery, a trajectory reflecting the shift of focus since the '70s towards community-based interventions targeting hazardous or harmful drinking. Finally we'll take the opportunity to assess where the work these researchers pioneered has brought us to today, in terms of both scientific knowledge and practice.[10]

‘But I came here for treatment’

Edwards G., Orford J., Egbert S., *et al.* “Alcoholism: a controlled trial of ‘treatment’ and‘advice’.” *Journal of Studies on Alcohol*: 1977, 38, p. 1004–1031.

The study which started the search for quicker, simpler and cheaper alternatives to intensive treatment for alcohol dependent patients.

Headed by Griffith Edwards, researchers at the Maudsley Hospital in south London did most to challenge the ’60s orthodoxy that intensive inpatient treatment was required to heal the alcoholic. To caricature, first they showed that the inpatient element could be dispensed with,[11] then ten years later that the treatment could be dispensed with.[12] What was left after these excisions was little more (but the little was probably vital) than a single session of expert advice, not a ‘treatment’ regime at all – but it *could* (not everywhere with everyone) work just as well. In both cases prevailing assumptions had failed the powerful challenge of a randomised controlled trial.

Published in 1977 and headlined as a test of “advice” versus “treatment”, subjects of the second study were 100 male problem drinkers referred to the Maudsley’s outpatient Alcoholism Family Clinic. All were in stable relationships, married or otherwise. The couples received a three-hour intake assessment and an initial counselling session during which a psychiatrist flanked by a psychologist and a social worker confirmed the man was alcoholic, advised abstinence as the treatment goal, and counselled work and efforts to sustain the couple’s relationship. Then they were randomised into one of two conditions and re-assessed twelve months later.

The control condition was ‘treatment as usual’, an eclectic mix of psychiatrist-led drug and psychosocial therapies for the men and social work support for their partners. Two-thirds of the men attended at least seven sessions and on average the partners received 18 hours of social work contact. Twelve men spent at least four weeks and some much longer in the specialist inpatient unit available to those not thriving as outpatients.

The other half of the draw – the ‘advice’ group – could have been forgiven for feeling abandoned. After the initial session they were told – in “sympathetic” terms – that “responsibility for attainment of the stated goals lay in their own hands” backed by a strong hint not to expect further support from the clinic. There would be no more appointments and if the man suffered withdrawal he should contact his GP, not the clinic. A social worker would contact the woman every month, but just to check on progress; on average these contacts totalled under five hours over 12 months.

After 12 months, though some measures favoured the treatment group, on none was ‘treatment’ statistically superior to ‘advice’. The sceptical tone of Edwards and team’s introductory paragraph (referring to an untested “tide” of investment in specialised treatments for the “disease” of alcoholism) seemed justified. They sought to “appraise the value” of this investment and found it statistically indistinguishable from zero compared to a much more modest response.

Those uncomfortable with the findings had straws to clutch at. Strongest were the limited range of clients (all men in stable relationships and most in employment) and of treatments tested. Ten years later Jonanathan Chick and colleagues repeated

the essentials of Edwards' experiment. Although their subjects were more socially stable and included fewer women than the host clinic's normal intake, at least there were some women and single men. After two years the study recorded an advantage for treatment over advice in terms of improved family harmony but not in terms of drinking, employment or marital break up.[13]

As in several others, in Edwards' study many of the advice group sought and received help from elsewhere, while a minority of the treatment group actually received little treatment, the effect being to narrow the gap between the quantity of services delivered to the two. However, this gap remained substantial and there was even greater disparity in the *types* of services received. For certain the study undermines assumptions about the intensity of specialist input required to prompt recovery from alcohol dependence, even if that recovery involves self-generated help from other sources.

In particular, it's been argued, the advice group made greater use of their GPs,[14] edging Edwards' study into the territory later probed by a team of which he formed a part. Again with patients from the Maudsley, they found that after assessment and initial advice at a specialist clinic, patients returned to the care of their GPs did as well as those cared for by the clinic.[15]

While the potential impact of a single treatment session may have been a surprise in the '70s, it should not be now. Today we not only have further demonstrations of the value of brief interventions as such, but also evidence that extended treatments often impact so early that the patients have effectively only received a brief intervention. Seen most recently in Project MATCH,[16] this was also evident in earlier studies,[17] sometimes before formal treatment had started.[18]

Hindsight

Mundane matters at the core of the change process

by **Griffith Edwards**

Consultant psychiatrist and Professor at the National Addiction Centre in London; editor of *Addiction*.

Looking back at a paper which one published more than 20 years ago is likely in any reasonably insightful researcher to bring on feelings of discomfort. This study can in retrospect be seen as beset by numerous technical shortcomings: for instance, the outcome measures were primitive, raters were not blind, and no power calculations were made.

The second response is likely to be fond memories for the team with which one was privileged to work and of the patients. The investigative group was part of the first major alcohol research team to have been assembled in this country and I suspect that Jim Orford was the first psychologist in Britain to have held a full-time research post in this field. So under this second reflective heading I would conclude that team building does matter.

Thirdly, I'm inclined to argue that although our methodology was imperfect, the essential question we asked remains of large present importance. We must continue to study the general factors which can contribute to patient improvement, the words said, the goals suggested, the hope given, the non-specifics, the mundane, rather than focusing only on comparisons of the latest specific treatments. Good luck to specific therapies, psychological or pharmacological, and let's not put them down, but at the centre is still the work-a-day but little understood core of the change process.

Small but powerful?

Mike Ashton *tries on the shoes of the men facing the Maudsley triumvirate and finds they pinch. Comfort is eased by compliance.*

Focusing on the time/intensity dimension of the treatments Edwards compared conceals what actually happened in the briefer regime. How could these truncated interactions have exerted a therapeutic impact indistinguishable from hours of expert therapy? Unfortunately, there was no debriefing probing the session's impact on its recipients; to appreciate this requires a large step beyond the scientific method to adopt the stance more of a novelist speculatively reconstructing how history *may* have felt to the players at the time.

We know that typically the men had been aware of their drinking problem for about ten years and that they and their partners were experiencing fairly sharply the down side of drinking. Losses there had undoubtedly been, but the men had much more to lose in terms of health, employment and status, and a relationship averaging 12 years which – despite the problems – was still supportive enough for their partner to accompany them.

For three hours they were led to confront their behaviour. Then, from among a trio of prestigious experts on mind and behaviour, the one with greatest claim to medical credibility gave an identity to their troubles in the form of "alcoholism", simultaneously, we can imagine, seeming to explain them and to offer a graspable way out – a cure. (A similar interpretation has previously been offered, emphasising how significant the lavishing of expert attention must have been to the patients.[19]) But instead the couples are told the solution lay in their own hands. No props, pharmaceutical, psychological or medical are offered, but the clinic would keep a watching brief. For many this must have been a shock; over a fifth of the men had previously experienced inpatient alcohol treatment, and it violated the norms of the doctor-patient interaction to leave without even a prescription.

Emerging from the Maudsley the couples might well have looked at each other, thinking, "It's up to us, that was it." A high priest of the mind[20] had absolved them of the *blame* for where they were but not of the *responsibility* for moving on. They'd been left with no one to blame but themselves if this chance for a better life went begging. For the men burdened with this responsibility, there was no hiding place if they failed. Every month the social worker would talk to the wife, mainly in private, and get the latest news. Forced to sink or swim in front of their female observers, well over half swam.

Twelve months later over half the men attributed any improvements to external changes,[21] but such changes (in work, housing, etc) must have been largely of the couple's own making. Four in ten felt the intake session had helped (twice as many as in the treatment group), slightly less that internal mood changes were important, and a third spotlighted improved marital relations. Compared to these factors, and even for the treatment group, continued therapy was seen as helpful by relatively few.

‘But I came here to have my leg mended’

Chick J., Lloyd G., Crombie E. “Counselling problem drinkers in medical wards: a controlled study.” *British Medical Journal*: 1985, 290, p. 965–967.

Seminal study demonstrating that screening general hospital inpatients for problem alcohol use and delivering a brief intervention led to significant reductions in alcohol-related problems

While Edwards’s study concerned people who were seeking treatment for their alcohol problem, the next two studies concerned people who were not – a fundamental divide. In the latter clients attending a service not specialising in alcohol problems are identified through a screening process as drinking in ways actually or potentially harmful and offered an intervention intended to forestall (further) harm. At issue here is whether such interventions result in worthwhile benefits compared – not to more expensive regimes – but to doing nothing.[22]

The general hospital seemed an attractive site at which to access a partially captive audience, many recently and painfully reminded of alcohol’s dangers. A high proportion of hospitalised men have alcohol problems[23] and alcohol is an important factor in accident and emergency department attendances.[24, 25] As well as directly related illnesses, alcohol is thought to contribute to at least a fifth of all accidents.[26] But how would they react to an uninvited inquiry into their drinking? First to put it to the test were Jonathan Chick and colleagues at in Edinburgh, in a study published in 1985;[27] outcomes were mixed, but they did enough to show that such interventions were feasible and potentially valuable.

Out of 731 consecutive admissions to male medical wards admitted for at least 48 hours, 161 met the criteria for inclusion in the study, an indication of the extent of risky drinking among the patients. All but five agreed to be studied. The study embraced people whose problems may have dated back two years, but an average consumption of 10 units a day in the past week suggests current heavy drinking was common. There was no upper limit to drinking levels, but other criteria would have tended to exclude the least socially stable, isolated patients, and those so obviously in need of psychiatric help that a referral had already been made.

Test wards were rotated every few months, feeding the control group in one period and the intervention group in another. The result was two fairly evenly matched groups of whom 133 of the original 156 were re-interviewed a year later. As Dr Chick points out (see *The ‘Crombie’ factor; good relationships are the key*), one of the study’s strengths is the low attrition rate, raising confidence that any benefits would generalise to the hospital’s male patients as a whole and possibly to other hospitals. Low drop out was achieved partly by the seamless provision of screening, assessment and intervention by the same experienced nurse, virtually ensuring that all those eligible and agreeable would complete the intervention, though it did mean that the initial assessment was conducted by someone who knew what would follow.[28]

What did follow was either nothing at all, or one hour of counselling aimed mainly at achieving problem-free drinking by leading the patient to reflect on the drawbacks of his drinking. Twelve months later *both* groups had halved their past-week alcohol consumption, in both cases a statistically highly significant change. Counselling did

lead to further benefits (dealt with below), but the first question to be addressed is, why such a dramatic fall after just a brief assessment?

Perhaps before entering hospital these men were at an atypical peak in their alcohol consumption and later simply resumed more normal drinking. Maybe too the focus on drinking in the assessment[29] and in their agreeing to enter a study of "health and drinking habits"[30] provoked some salutary reflections. An further explanation is the very human tendency to behave differently under observation:[31] Chick's patients knew there would be a follow-up interview and roughly when.[32] If so, the (perhaps considerable) costs of arranging such monitoring would need to be weighed in the cost-benefits balance.

What of the added value of Evelyn Crombie's counselling? Though not apparent in quantities consumed, this was seen in greater reductions in alcohol-related problems and in levels of a chemical in the blood indicative of excessive drinking, as well as in a composite characterisation of the proportion "definitely improved". However, such blood tests are only loosely related to drinking[33] and, given that self-reported drinking levels were so similar in the two groups, the greater remission of problems after counselling has been queried.[34]

Elvy's similar study also found that a year later reductions in consumption were no greater in hospital patients referred for help with their alcohol problems as opposed to those simply assessed, though there did seem to be benefits in at least short-term abstinence and in alcohol-related problems.[35]

Not until 1996 did an Australian study along the lines of Chick's original report a statistically significant difference in alcohol consumption after counselling compared to merely assessing the patient;[36] about six months later a typical subject drank 13 units[37] less a week. By design, these patients were not severely dependent (their average weekly consumption was slightly below Chick's levels), the attrition rate was much greater than in Edinburgh, and whether the added value of counselling would have persisted to Chick's 12-month mark is unknown. But at last the full promise of the intervention – reduced problems *and* reduced consumption – had been realised, with a further twist. Those assessed as not yet ready to change their drinking (the majority) did better after motivational than skills-based counselling; those ready to change did as well in either – a clue that the motivational style is best suited to this environment.

Hindsight

The 'Crombie' factor; relationships are the key

by **Jonathan Chick**

Consultant psychiatrist at the Alcohol Problems Clinic in Edinburgh.

Our study grew partly out of my first foray into alcohol research, an attempt to shed light on the social mediators between drinking and problems. It involved interviewing 500 healthy working men sampled from places where we knew we would find heavy drinkers. Many told of developing difficulties and evidenced abnormal blood tests.

What could be done to intercept the development of such problems? Michael Russell had already shown that some smokers would respond to brief advice from their GPs.[38] My colleague Geoff Lloyd, a liaison psychiatrist in a general hospital, decided to see if heavy but non-dependent drinkers, without serious psychiatric problems, identified in the hospital would reduce their drinking after discussing it with a specially trained nurse. The interview instruments were ready from my previous study.

Mrs Evelyn Crombie did most of the interviewing and intervention. Having worked in our alcohol service, she was used to talking to drinkers and made good links with the ward nurses. Then in her 30s, she had (and has) a relaxed yet firm manner, and is good at getting on the other person's wavelength – empathic. The personal characteristics of the 'change agent'[39] were then a subject of much discussion; some centres with strong treatment effects employed other 'Mrs Crombies'.

Low drop out between screening and intervention made it possible to extrapolate to actual clinical settings, unlike many of the primary care studies which ended with a highly self-selected sample (see *'But I only came to see the doctor'*). Then and now the evidence supports a very clear role for nurses specialised in alcohol problems in the general hospital. Ability to form good relations with ward staff is critical, otherwise the only referrals are seriously dependent, revolving door patients (though for these patients, advice on identifying and managing alcohol withdrawal is also something these nurses can very usefully provide[40, 41]).

However, brief interventions have their cons as well as their pros[42, 43, 44, 45] and can be misapplied. Though the studies had mostly excluded dependent drinkers, the Effective Health Care Team[46] made it too easy for purchasers to mistakenly conclude that brief intervention was appropriate for alcohol dependence. Commentators quickly sought to set the research record straight right.[47, 48, 49]

‘But I only came to see the doctor’

Wallace P., Cutler S. and Haines A. “Randomised controlled trial of general practitioner intervention in patients with excessive alcohol consumption.” *British Medical Journal*: 1988, 297, p. 663–668.

The first convincing demonstration that a brief intervention by non-specialist GPs can lead to persisting reductions in alcohol consumption among patients screened for excessive drinking.

When in 1993 the Effective Health Care team advised commissioners to consider brief interventions in the GP’s surgery,[50] their primary evidence came from a study published in 1988.[51] Paul Wallace’s study also received an accolade in Babor’s 1994 review for its “carefully executed design”[52] and remains the most convincing demonstration of the potential role of GPs. Interestingly, the team at Northwick Park Hospital drew their inspiration from the same studies of GP interventions for smoking which inspired Jonathan Chick[53] – substance and setting crossovers which too narrow a vision would have missed.

Wallace effectively tested whether GP interventions *could* work given relatively ideal conditions with pre-selected patients.[54] A clear ‘Yes’ was delivered to this question, but there remained the issue of whether the benefits would survive more routine implementation. Conducted in 47 group practices across Britain, its results could not be attributed to a few skilled or enthusiastic doctors[55] or (except for under-representation of urban practices) an atypical local population. The ‘gold standard’ methodology of a randomised, controlled trial lent confidence to the findings, but also incorporated departures from the everyday conditions in which primary care interventions would normally be carried out.

These departures were most evident in the pre-intervention recruitment and screening. This was done by the research team and was a two-stage process: first distributing questionnaires to patients, then seeking to interview the 4203 whose responses indicated their drinking had been excessive or had caused them concern. The interview picked out patients who in the past week met the study’s criteria for excessive drinking – at least 35 units a week for men and 21 for women; 909 subsequently entered the trial. Despite questionnaire evidence of risky drinking, the remaining 3294 patients did not participate. Disproportionately lost during this funnelling were heavier and younger drinkers and men, leaving, it’s been suggested, a set of subjects who might have been particularly susceptible to intervention.[56]

The GPs had been video-trained in an alcohol intervention which consisted of a re-assessment of the patient’s alcohol use and problems, comparison with drinking norms, information about the potential harmful effects of alcohol, and advice to restrain drinking to safe levels or (if dependent) to abstain. Then patients were asked to monitor their intake via a drink diary and to attend for at least one further consultation a month hence to discuss the diary and the results of blood tests.

Half the sample were asked in for this session (which over 8 in 10 attended); the other half (the controls) received advice only if they asked for it or if blood tests indicated liver damage. Over 80% of both groups were re-assessed by research staff six months and a year later. Whether the measure was past-week consumption or the proportion drinking excessively, and in both men and women, the doctor’s

advice had led to less drinking. The impact was relatively modest – five pints a week less than the controls for men and half this for women – but it was enough to create a worthwhile shift towards safer drinking. By definition all the patients had been drinking excessively at intake; a year later, 45% of the advice group were no longer doing so compared to 27% of controls.[57] In the men, a blood test indicative of excessive drinking recorded a modest but statistically significant drop in the advice group, promising real health gains.

Later studies have generally also produced some positive if not totally convincing results,[58] including one in Sydney which trialed an intervention similar to that used by Paul Wallace.[59] Though screening was shared between a research assistant and the practice receptionist, in other respects screening and intervention approximated everyday practice. Patients screened in the waiting room as potentially drinking excessively were allocated to one of two interventions or to two non-intervention groups. GPs were alerted to the results and either immediately delivered a five-minute intervention, or asked the patient to return for multi-session counselling. Relative to the other groups, alcohol-related problems six months later were significantly reduced by the longer intervention,[60] but consumption was not, perhaps because just half the patients returned even for a single intervention session. The ones who *did* return fared significantly better. Factoring this level of non-compliance into the cost-benefit balance would reduce the potentially impressive health gains extrapolated from the British study.

Hindsight

Findings consistent, impact uncertain

by **Paul Wallace**

Professor at the Department of Primary Care and Population Sciences of the Royal Free Hospital School of Medicine in London.

In 1985 when we began the pilot work for our study there was a great deal of excitement about the potential contribution of general practice to modification of lifestyle. Some promising studies had demonstrated that GP advice about smoking led to a small but (in public health as well as statistical terms) significant proportion of patients deciding to quit.[61] We were stimulated to explore whether a similar approach might be adopted for alcohol consumption. First we had to develop a screening technique to identify at-risk drinkers and a suitable intervention package, based partly on our exploration of patients' beliefs about lifestyle and about the appropriateness of GP intervention.

For the effectiveness study we were fortunate in enlisting the support of the Medical Research Council's General Practice Research Framework, giving us access to practices willing to act as research sites. We hoped the trial would indicate whether intervention could be effective, with what proportion of patients, and how to distinguish those from patients whom the intervention failed to benefit. In the latter objective we were not very successful, but the trial did show that GP advice in this population was effective. Of this we felt fairly certain because questionnaire responses were backed by biochemical markers related to drinking. With the Health Education Authority and Alcohol Concern we went on to develop packages to support intervention in general practice, hoping this approach would be adopted widely.

How big an impact has the trial had on practice in the UK and elsewhere? In research terms certainly it is frequently cited and has been replicated in a number of countries where, independent of the setting, findings have been remarkably consistent. In practice terms too there have been some successes, notably when health promotion of this kind was recognised and financially rewarded in the 1990 GP contract. However, the degree of impact on everyday practice is difficult to ascertain.

On a personal note, it certainly changed the way I approach my patients. I have retained an active interest in the early detection of patients at risk because of their alcohol consumption and use many of the trial's intervention components in my own practice.

High on the agenda

Of up to 22 years vintage, how does this pioneering work look to today's researchers, and have the findings been translated into policy or practice? The short answer is that they have been fundamental in placing brief interventions high on research and practice agendas, but that their impact on practice has so far been less convincing. Each study's implications relate mainly to a particular treatment setting: the specialist alcohol problems clinic, the general hospital or the GP's surgery. We'll address each in turn before assessing the studies' overall impact on treatment policy and practice.

Specialist treatment: haul back the pendulum?

Edwards's finding that intensive treatment could be no better than advice (still "probably the most influential" research of its kind[62]) sent shock waves through the treatment system which continue to reverberate. Those with a vested interest in specialist treatment immediately responded with charges of 'therapeutic nihilism' and methodological weakness. Others, critical of allowing limited treatment resources to be absorbed by the minority of severe cases, were quick to mock the emperor's state of undress. Over 20 years later this debate has only recently begun to settle as moderating voices have sought to bring the pendulum back into balance – it's not a case of intensive *or* brief, but of which is best for whom and in what kind of setting.

Edwards's work challenged the assumption that specialist treatment would always be better than a briefer and simpler intervention. On its back and on the back of the studies which followed grew a more far-reaching assumption: that specialist treatments could and should be replaced by brief interventions across the spectrum of alcohol problems. In the early '90s two influential reviews were interpreted as supporting this radical step.[63, 64] The Effective Health Care Team funded by the Department of Health was most explicit: "Evidence ... suggests that brief interventions are as effective as more expensive specialist treatments."

Almost immediately such a conclusion was attacked on the basis that the evidence had been stretched beyond what it could safely support.[65, 66] Brief interventions had only been tested with less problematic or dependent drinkers. The Maudsley study for one had excluded the more difficult cases (for example with significant dual diagnosis or poor social support) who would nowadays be typical candidates for more intensive treatment.[67] The tested populations were probably not even representative of less problematic drinkers; patients in clinical trials are generally highly selected in terms of their level of problems and their willingness to participate in research and be randomised. Studies (like Wallace's and Chick's) of heavy drinkers identified by screening had been conflated with studies of patients actually seeking treatment for their alcohol problems; amongst other factors, the motivational states of these groups are likely to differ so much that evidence for brief interventions in one cannot be taken as evidence for the other. Finally, some studies *had* found that elusive added value of intensive treatment, the score being roughly even.[68]

Alarmed that conventional services were under threat,[69] UK and Australian rejoinders cautioned against abandoning intensive regimes, especially for the more severely dependent [70, 71, 72] The theme was taken up a few years later when it seemed

clearer that UK purchasers were indeed diverting resources from specialist treatment centres;[73] yes, it was argued, broaden the base of services for problem drinkers in the wider population, but not at the expense of narrowing the apex. Some of this counter-reaction could be seen as special pleading on the part of treatment specialists, but it is worth remembering that the two leading UK figures who were counselling caution[74] are also advocates for brief interventions.

But if Edwards' study contributed to a perhaps unjustified climate of anxiety and lack of confidence in specialist treatment, it also encouraged a new rigour in treatment evaluation to replace conjecture and received wisdom. As Griffith Edwards points out in his commentary, it also encouraged the study of the general factors – the commonalities between different treatments – which might enhance the change process and lead to positive outcomes. The latest British assessment of the evidence has described the Maudsley's '70s advice regime as "still highly relevant to modern practice".[75] Recommended practice today is more theoretically based, but some of the major elements were already there in 1977, including the fundamental assertion that "the patient, and not the physician, is responsible for changing behaviour".[76]

The last word should go to Professor Edwards. His recent guidance, while maintaining that "once there has been full assessment and careful and agreed goal setting, much may then often be left to the patient and family", argues for a flexible commitment of time and therapies responsive to the patient's needs and progress.[77]

Hospitals: resistance and progress

Jonathan Chick's study was a landmark in a different continent – the general hospital, a setting previously the fiefdom of men in white coats, often critical of the drinking habits of their patients. Probably many physicians were (and still are) surprised that the pragmatic and unassuming figure of Mrs Crombie, lacking titles or prestigious medical qualifications, could have had such a significant and lasting impact. Then, as now, the order of the day with excessive drinkers on medical wards tended towards therapeutic nihilism and rather negative attitudes, but here was someone who showed she could initiate change in the patients.

In contrast, change in hospitals has been achingly slow. The study did stimulate the development of addiction liaison services in general hospitals, but these are far from widespread and concentrated in teaching hospitals. Protracted negotiations can be needed to overcome the typical objections: there's no time; patients will feel embarrassed (as will nurses) and insulted; and they will lie about their drinking.[78] If normal ward staff are relied on for screening, detection rates can be low; employing specialist staff improves throughput.[79]

However, even in the daunting atmosphere and with the transient population of an accident and emergency department, intervention is possible with suitable resources and dedicated specialists to deliver the intervention.[80] But the obstacles remain considerable. Few departments – perhaps 1 in 10 – undertake screening of any kind[81] and (unless patently a current problem) staff tend to see enquiring into the patient's drinking as irrelevant to the main business of dealing with the presenting condition.[82]

Time pressure is not the only obstacle. As with GPs, but even more so, the reinforcers which might sustain staff enthusiasm for brief interventions in hospitals

are weakened by the high failure rate.[83] Nurses delivering these interventions will rarely even receive the reward of witnessing improvements in the minority who do respond.

This brings us to an important feature of the approach trialed by Jonathan Chick, one often forgotten in calls to extend screening and alcohol intervention in hospitals and primary care. The 'Crombie model' places a specialist nurse within the general medical setting rather than asking physicians or trained ward/practice nurses to do the work themselves. This clearly has major resource implications if the model is to be applied across the board. It also takes a special kind of specialist nurse to work in what can sometimes feel like a hostile and alien setting; recruitment could be a problem.

Studies like Dr Chick's show what *can* be done under relatively ideal conditions, opening up possibilities which then need to be tested in the complex world of clinical practice. It will take more convincing evidence of effectiveness, particularly cost effectiveness, to persuade the average busy nurse or hospital doctor that it is worth spending a few extra minutes to enquire about a patient's drinking or to provide a brief intervention.

GPs: implementation is the issue

Paul Wallace's study did for the GP's surgery what Jonathan Chick's did for the general hospital: it demonstrated the *potential* for brief interventions, posing the challenge of how to realise these benefits in practice. Many similar studies followed; few achieved the same methodological rigour. Together they confirmed what many had been saying for some time – that there was a role for GPs in a public health strategy to tackle alcohol misuse. Unfortunately, whilst their policy impact was substantial, on the ground the impact has been disappointing.

Despite calls from government and the Royal Colleges, a recent national survey in Britain revealed that few GPs have embraced screening and brief intervention.[84] When identification did take place, the interventions were often less than optimal.[85] The good news was that nearly 90% of respondents saw primary care as an appropriate setting in which to detect and manage alcohol problems, and most thought that advice in this setting could reduce drinking. The bad news was that most did not feel sufficiently trained, supported or confident to carry out such interventions.

Paul Wallace himself has judged the primary care response to alcohol as "frequently disappointing", recommending more support in terms of materials and staff.[86] One way the latter is happening is by addiction prevention counsellors from specialist drug and alcohol services visiting GP practices[87] – the kind of shared care arrangements which has encouraged some GPs to take on problem drug users.

British commentators have tried to understand the GPs' reluctance from a primary care perspective.[88] Faced with little evidence of concrete health gains, and no way to target those who *will* benefit, GPs are understandably wary about wholesale implementation of an approach which might alienate patients by intruding on what many see as a personal issue. Like US authors,[89] they argued that GPs equipped with motivational interviewing skills would find it easier to explore drinking, using methods which focus on the patient and their perception of their lifestyle, rather than on alcohol.

One, perhaps *the*, fundamental barrier is the disjunction between the public health perspective, which values the cumulative impact of interventions even if many individuals fail to respond, compared to that of the GP, who addresses each patient as an individual. Such considerations undermine extrapolations of health gain based on blanket implementation of GP brief interventions; the blanket may always be patchy.

Vision and fortitude

Like all *Old Gold* originals, these three studies have robustly withstood the test of time. This test cannot be reduced to modern day inventions such as citation indices or meta-analysis. Rather, they remain very much in the consciousness of the alcohol treatment field, as well as having had a considerable impact on policy in the UK and internationally. Though diverse, the factor they all shared, one which sealed their landmark status, is that each was the first to ask a fundamental and difficult question about alcohol treatment. Each in turn has contributed to a paradigm shift in the field.

By highlighting the potential value of well directed assessment, guided reflection, and simple advice as a means of bringing about change in drinking behaviour, Griffith Edwards' work paved the way for the study of briefer interventions, including those from Jonathan Chick and Paul Wallace. Their work and the work that followed raised the possibility of worthwhile gains in public health by addressing excessive drinking in the wider community, rather than only in the small group of treatment-seeking alcoholics.

It can be argued that such work influenced the development of official safe drinking guidelines[90, 91] and the introduction of alcohol as a target for primary care intervention into the 1990 GP contract. More recently, proposals for a national alcohol strategy argued that brief interventions in hospitals and surgeries should feature among England's "core" alcohol services, a call which could not have been made so confidently without the work of Jonathan Chick, Paul Wallace and their colleagues.[92] Further afield this research has influenced strategies in the USA,[93] the European Union and Australasia.[94]

Implementation patchy

Despite their policy impact, and despite clear practice implications, the practical realisation of these implications has been patchy. This is partly because the research as a whole has not demonstrated real-world benefits convincing and substantial enough to overcome inertia and practical obstacles – and partly too because such evidence as there is has been subject to confusing and sometimes contradictory interpretations (see *Evident confusion*). The major gap is evidence of cost effectiveness in the typical medical setting. Purchasers will want to be convinced that brief interventions provide value for money before funding their roll out across the entirety of primary care or general hospitals.

Perhaps it is too much to expect a few studies, no matter how highly cited, to have had a major impact on practice. After all we are dealing with a subject that arouses strong feelings. Alcohol treatment specialists are bound to find it difficult to accept that their favourite therapeutic belief system or treatment has little or no substance, and it would take a great deal to change the negative attitudes towards problem

drinkers and towards interventions aimed at reducing drinking held by many general physicians and GPs.

Fortunately, the survey which found a lack of therapeutic confidence among GPs[95] also found this was age-related: more recently qualified GPs were more confident and positive about screening and intervention. So a key implementation objective must be to train health professionals at an early stage, giving them the tools to achieve change in their patients before nihilism has a chance to set in. Those tools will owe much to the vision of the authors of the three studies reviewed here and to their fortitude in the face of scepticism. Without them we might still be stuck in the dark ages of viewing the only problem with alcohol as 'alcoholism the disease' and the only response as costly intensive treatment.

Evident confusion

Taking later research together with these pioneering studies, how convincing is the evidence that real-world benefits can be built on the potential they demonstrated? All three studies were more efficacy than effectiveness trials, testing whether brief interventions *could* work in relatively ideal conditions. The corpus of work they initiated has accumulated good evidence of efficacy in a range of settings, but there remains practically no evidence of effectiveness – and in particular cost effectiveness – in the everyday setting.

Nick Heather – a leading provider of evidence on brief interventions and a cogent critic of how that evidence has been interpreted – described a trial organised by WHO in eight nations and across a variety of settings[96] as "perhaps the most powerful evidence yet"[97] for brief interventions in primary care. If this really is the best evidence we have, it suggests that primary care interventions will be wasted on all female excessive drinkers, lead just 1 in 10 men to cut their alcohol consumption (compared to screening), and produce an across the board reduction in male drinking of about a unit a day,[98] not enough in this study to significantly curtail alcohol-related problems. Public health analysts might prefer to look at the 'half full' end of the findings, and pessimism must be tempered by limitations in the study and in its interventions,[99] but evidence like this may never be enough to convince Britain's 35,000 GPs and several hundred hospital trusts[100] to intervene uninvited in their patients' drinking habits.

The main text documents the hotly contested debate over whether brief(er) interventions can replace intensive treatments for problem drinkers seeking treatment. The most explicit recommendation to this effect appears to have been partly based on evidence from *non*-treatment seeking populations[101] and the evidence from treatment-seeking populations is too weak and contradictory to justify withdrawal of intensive treatments, at least for the most severely affected.[102] But until planners know just *how* severe, the implications for practice are unclear.[103]

Some commentators hoped Project MATCH would clear up these issues.[104] As explored in the last issue of FINDINGS (see FINDINGS issue 1, p. 10–21), this found that a four-session motivational intervention was as effective as (and more *cost*-effective[105] than) 12 sessions of cognitive-behavioural or twelve-step therapy. But familiar caveats render this finding inconclusive: the restricted range of patients and treatments, and the exhaustive assessment and follow-up procedures, may have prevented the more intensive treatments revealing their worth.

Most of all, planners would like a clear-cut answer to where they can gain the greatest health gain for the least possible expenditure – the cost-effectiveness issue. They will find the three most recent assessments more confusing than convincing. All three were meta analyses, combining results from eligible studies to give a composite rating of effectiveness. In a "first approximation",[106] low-cost brief motivational counselling came a creditable third in the league table of cost-effectiveness, behind two higher cost options,[107] but firmly beating most commonly practised high-cost treatments. A later analysis gave greater weight to more rigorous studies, returning an even more convincing win for brief interventions.[108] Lastly, a reworking of the first study into a "second approximation"[109] recorded a *negative* score

for brief motivational counselling, indicative of poor outcomes relative to other treatments, and placed it *tenth* instead of third in the table.

How had this happened? Part of the answer is that all three analyses had confounded studies of non-treatment seeking populations with those of treatment seekers,[110] but had done so in different ways. In the first the criterion of effectiveness was neutrally based on the preponderance of positive as opposed to negative research findings. The second gave greater weight to studies comparing an intervention to no treatment (most appropriate for non-treatment seeking populations) while the third did the opposite, giving most weight to studies comparing an intervention to a strong alternative treatment – most appropriate for treatment seeking populations. This differential biasing is one of the reasons[111] why brief motivational counselling either appears the most cost-effective approach we have, or not effective at all.

Such secondary analyses are far less convincing than research which sets out deliberately to compare the cost effectiveness of different interventions in the one study. To guide rational health care purchasing, this needs also to take account of the wider costs and savings to the individual and to society of brief interventions.[112, 113]

Major reviews of the evidence

The current article is not a comprehensive review of the evidence but such reviews have been done and done expertly. We recommend the following to those who wish to weigh up the pros and cons. For copies of these and other cited papers apply Alcohol Concern, 020 7264 0510.

Bien T.H, Miller W.R, Tonigan J.S. "Brief interventions for alcohol problems: a review." *Addiction*: 1993, 88, p. 315–336.
Seminal review supporting the application of brief interventions to broad range of clients seen in a range of settings.

Effective Health Care Team. "Brief interventions and alcohol use." *Effective Health Care*: 1993, no. 7.
UK expert consensus and meta-analysis emphasising the cost-effectiveness of brief interventions and suggesting routine implementation in primary care settings and hospitals.

Babor T.F. "Avoiding the horrid and beastly sin on drunkenness: does dissuasion make a difference?" *Journal of Consulting and Clinical Psychology*: 1994, 62(6), p. 1127–1140.
The answer to its title question is said to be 'Yes' for those not severely dependent but we have little idea why.

Mattick R.P., Jarvis T. "Brief or minimal interventions for 'alcoholics'? The evidence suggests otherwise." *Drug and Alcohol Review*: 1994, 13, p. 137–144.
Based on the review and meta-analysis done for the national Australian Quality Assurance Project. Focuses on with whether briefer interventions really are as good as intensive options for treatment-seeking alcoholic dependents.

Heather N. "Interpreting the evidence on brief interventions for excessive drinkers: the need for caution." *Alcohol and Alcoholism*: 1995, 3, p. 287–296.
Emphasises the distinction between interventions for treatment and non-treatment seeking groups and argues that the evidence is strongest (though far from conclusive) for the latter. Criticises aspects of Bien's review and the Effective Health Care Team's bulletin.

Miller W.R, Brown J.M., Simpson T.L., *et al*. "What works? A methodological analysis of the alcohol treatment outcome literature." In: Hester R.K., Miller W.R., *eds. Handbook of alcoholism treatment approaches*. 2nd edition. Allyn and Bacon, 1995, p. 12–44.
Known as the *Mesa Grande* study, this incorporated methodological quality ratings in to its assessments of the relative effectiveness of different treatments.

1 Chick J., Lloyd G., Crombie E. “Counselling problem drinkers in medical wards: a controlled study.” *British Medical Journal*: 1985, 290, p. 965–967.

2 Wallace P., Cutler S., Haines A. “Randomised controlled trial of general practitioner intervention in patients with excessive alcohol consumption.” *British Medical Journal*: 1988, 297, p. 663–668.

3Edwards G., Orford J., Egert S., *et al.* “Alcoholism: a controlled trial of ‘treatment’ and‘advice’.” *Journal of Studies on Alcohol*: 1977, 38, p. 1004–1031.

4 Moncrieff J., Drummond D. C. “The quality of alcohol treatment research: an examination of influential controlled trials and development of a quality rating system.” *Addiction*: 1998, 93(6), p. 811–823.

5 Exceeded only by two naltrexone treatment trials.

6 Alcohol Concern. Brief interventions guidelines. 1997. As opposed to ‘minimal interventions’ (such as five minutes of advice or just handing out a self-help manual), brief interventions are typically one or two sessions each lasting 30 minutes to an hour.

7 Babor T.F. “Avoiding the horrid and beastly sin on drunkenness: does dissuasion make a difference*?” Journal of Consulting and Clinical Psychology*: 1994, 62(6), p. 1127–1140.

8 Cameron D. “Keeping the customer satisfied: harm minimisation and clinical practice.” In: Plant M., Single E., Stockwell T. *Alcohol: minimising the harm. What works?* Free Association Books, 1997, p. 233–247.

9 Thom B. *Dealing with drink*. Free Association Books, 1999.

10 This is not intended as a full review of the evidence but rather draws largely on the existing excellent reviews, especially those highlighted in the Major reviews of the evidence.

11 Edwards G., Guthrie S. “A controlled trial of in-patient and out-patient treatment of alcohol dependency.” *Lancet*: 1967, 1, p. 555–559.

12 Edwards G., Orford J., Egert S., *et al*, 1977, op cit.

13 Chick J., Ritson B., Connaughton J., *et al*. “Advice versus extended treatment for alcoholism treatment: a controlled study.” British Journal of Addiction: 1988, 83, p. 159–170.

14 Mattick R.P., Jarvis T. “Brief or minimal interventions for ‘alcoholics’? The evidence suggests otherwise.” *Drug and Alcohol Review*: 1994, 13, p. 137–144.

15 Drummond D.C., Thom B., Brown C., *et al*. “Specialist versus general practitioner treatment of problem drinkers.” *Lancet*: 1990, 336, p. 915–918.

16 Project MATCH Research Group. “Matching alcoholism treatments to client heterogeneity: treatment main effects and matching effects on drinking during treatment.” *Journal of Studies on Alcohol*: 1998, 59, p. 631–639.

17 Babor T.F., 1994, op cit.

18 Berg G., Skutle A. “Early intervention with problem drinkers.” In Miller W.R., Heather N., *eds. Treating addictive behaviors: processes of change*. Plenum Press, 1986, p. 205–220.

19 Ritson B. “Merits of simple intervention.” In Miller W.R., Heather N., *eds. Treating addictive behaviors: processes of change*. Plenum Press, 1986, p. 375–387.

20 This formulation echoes the comments of Thomas Babor at the Meet the MATCH makers conference organised in Leeds by the Leeds Addiction Unit and the Society for the Study of Addiction on the 14–15 May 1998. Babor speculated that offering any culturally accepted route to recovery might work the same magic as ‘treatment’ or ‘therapy’ in Western societies. In some cultures, faith healers and witch doctors also give ‘clients’ the belief that they can get better and the confidence to go ahead and do it – effectively, do it themselves.

21 Edwards G., Orford J., Egert S., *et al*, 1977, op cit, table 4.

22 Heather N. “Interpreting the evidence on brief interventions for excessive drinkers: the need for caution.” *Alcohol and Alcoholism*: 1995, 3, p. 287–296. 6.1NS 2695.

23 Chick J. "Alcohol problems in the general hospital.” In: Edwards G., Peters T., *eds. Alcohol and alcohol problems*. British Medical Bulletin 50(1). Churchill Livingstone, 1994, p. 200-210.

24 Waller S., Thom B., Harris S., *et al*. "Perceptions of alcohol-related attendances in accident and emergency departments in England: a national survey." *Alcohol and Alcoholism*: 1998, 33(4), p. 354–361.

25 Paton A. "The detection of alcohol misuse in accident and emergency departments – grasping the opportunity." *Journal of Accident and Emergency Medicine*: 1996, 13, p. 308–3310.

26 Alcohol Concern. *Alcohol and Accidents*. Factsheet 20. Undated; based on an article published in 1994.

27 Chick J., Lloyd G., Crombie E., 1985, op cit.

28 The follow-up interviewer did not know whether the subject had been counselled or not.

29 Elvy G.A., Wells J.E., Baird K.A. "Attempted referral as intervention for problem drinking in the general hospital." *British Journal of Addiction*: 1988, 83, p. 83–89.

The authors of this study suspected that a one-year follow-up assessment led six months later to improvements in the no-intervention group rivalling those seen in hospital patients who had been referred for (and mostly received) help with their alcohol problem.

30 Babor T, op cit.

31 At the time of writing (July 1999) London's Metropolitan Police service announced the fitting of 'black box' recorders to its emergency response vehicles. On the basis of trials abroad, the spokesman anticipated substantial reductions in collisions and resultant fatalities due entirely to the knowledge that the driver's behaviour was being recorded and could be subjected to independent scrutiny. This improvement was expected although the drivers were presumably expert and already had the strongest of all motivations to drive safely – to avoid killing or themselves being killed.

32 Whether Elvy's subject knew they would be followed up at 12 months is not stated. But after this follow-up none can have failed to know that they were being observed.

33 Edwards G., Marshall E.J., Cook C.C.H. *The treatment of drinking problems. A guide for helping professions.* 3rd edition. Cambridge University Press, 1997. See p. 195.

34 Heather N., 1995, op cit, p. 292.

35 Elvy G.A., Wells J.E., Baird K.A., 1988, op cit. It is unclear whether the short-term abstinence rates at 12 months were compared with those of the same patients at intake or simply across groups. The former was certainly the case for problems. These New Zealand patients (even taking into account that a minority were women) were drinking at far lower levels than the men in Chick's study, so a statistically significant reduction in consumption may have been hard to detect.

36 Heather N., Rollnick S., Bell A., *et al*. "Effects of brief counselling among male heavy drinkers identified on general hospital wards." *Drug and Alcohol Review*: 1996, 15, p. 29–38.

37 UK units. Australian units are 10gm alcohol compared to 8gm in the UK. Source gives a value of 10.5 standard units per week as the median reduction due to counselling.

38 Russell M.A.H., *et al*, 1979, op cit.

39 WHO Brief Intervention Study Group, 1996, op cit.

40 Chick J., 1994, op cit.

41 Chick J. "Policies in general hospitals for alcohol use disorders." In*: Hospital Management International*. Sterling Publications, 1997, p. 172–173.

42 Chick J. "Emergent treatment concepts." *Annual Review of Addiction Research and Treatment*: 1992, 2, p. 297–312.

43 Bien T.H., *et al*, 1993, op cit.

44 Heather N., 1995, op cit.

45 Heather N. "The public health and brief interventions for excessive alcohol consumption: the British experience." *Addictive Behaviors*: 1996, 21, p. 857–868.

46 Effective Health Care Team, 1993, op cit.

47 Chick J., 1993, op cit.

48 Heather N., 1995, op cit.

49 Heather N., 1996, op cit.

50 Effective Health Care Team. “Brief interventions and alcohol use.” *Effective Health Care*: 1993, no. 7.

51 Wallace P., Cutler S., Haines A., 1988, op cit.

52 Babor T.F., 1994, op cit, p. 1134.

53 Russell M.A.H., Wilson C., Taylor C., *et al*. “Effect of general practitioners’ advice against smoking.” *British Medical Journal*: 1979, p. 231–235.

54 Heather N, 1995, op cit, p 292–293.

55 However, all the practices had agreed to participate in the MRC’s research network, raising a query over how representative they were of all GP practice.

56 Edwards A.G.K., Rollnick S. “Outcome studies of brief alcohol interventions: the problem of lost subjects.” *Addiction*: 1997, 92(12), p. 1699–1704.

57An appreciable degree of ‘regression to the mean’ can be expected even with no assessment or intervention as these patients were selected specifically because they were drinking above the study’s drinking levels in the week before the intake interview.

58 Babor T.F., 1994, op cit, p. 1134.

59 Richmond R., Heather N., Wodak A., *et al*. "Controlled evaluation of a general practice-based brief intervention for excessive drinking.” *Addiction*: 1995, 90, p. 119-132. 1573 6.1.

60 But only at six months. The trend at 12 months was in the same direction but not significant.

61 Russell M.A.H., *et al*, 1979, op cit.

62 Mattick R.P., Jarvis T. “Brief or minimal...”, 1994, op cit, p. 138.

63 Bien T.H., Miller W.R, Tonigan J.S. “Brief interventions for alcohol problems: a review.” *Addiction*: 1993, 88, p. 315–336. This review strongly recommended brief interventions for non-treatment seeking populations but was more circumspect about replacing intensive with briefer interventions for treatment populations. Here its most confident recommendation was that brief interventions should be provided to those on the waiting list for treatment as an alternative to merely waiting.

64 Effective Health Care Team, op cit, p. 1

65 Heather N, 1995, op cit. This was based on a conference paper presented in September 1993.

66 Mattick R.P., Jarvis T. “Brief or minimal...”, 1994, op cit.

67 However, at the time of the Maudsley study there was greater emphasis on intensive treatment even for those with relatively uncomplicated alcohol problems; the population under study would have been more typical than is now the case of candidates for intensive treatment.

68 Babor T.F., 1994, op cit.

69 Heather N, 1995, op cit, p. 289.

70 Heather N., 1995, op cit.

71 Mattick R.P., Jarvis T. “A summary of recommendations for the management of alcohol problems: the quality assurance in the treatment of drug dependence project.” *Drug and Alcohol Review*: 1994, 13, p. 145–155.

72 Chick J. “Brief interventions for alcohol misuse.” *British Medical Journal*: 1993, 307, p. 1374

73 Drummond D.C. “Alcohol interventions: do the best things come in small packages?” Addiction: 1997, 92(4), p. 375–379.

74 Nick Heather and Colin Drummond.

75 Raistrick D., Heather N. personal communication..

76 Barnes H.N, Samet J.H. “Brief interventions with substance-abusing patients.” *Medical Clinics of North America*: 1997, 81(4), p. 867–879.

77 Edwards G., Marshall E.J., Cook C.C.H, 1997, op cit, chapter 15.

78 Perry M. “Alcohol screening and early interventions in the medical setting.” *Alcoholism*: 1999, 18(2), p. 3–4.

79 Chick J., 1994, op cit, p. 204.

80 Smith S.G.T., Touquet R., Wright S., *et al*. “Detection of alcohol misusing patients in accident and emergency departments: the Paddington alcohol test (PAT).” *Journal of Accident and Emergency Medicine*: 1996, 13.

81 Waller S., *et al*, 1998, p. 355.

82 Herring R., Thom B. “Resisting the gaze?: nurses’ perceptions of the role of accident and emergency departments in responding to alcohol-related attendances.” *Critical Public Health*: 1999, 9(2), p. 135–148.

83 Chick J., 1993, op cit.

84 Deehan A., Templeton L., Taylor C., *et al*. "Low detection rates, negative attitudes and the failure to meet the ‘Health of the Nation’ alcohol targets: findings from a national survey of GPs in England and Wales.” *Drug and Alcohol Review*: 1998, 17, 249–258.

85 Deehan A., Templeton L., Taylor C., *et al*. "How do general practitioners manage alcohol-misusing patients? Results from a national survey of GPs in England and Wales.” *Drug and Alcohol Review*: 1998, 17, p. 259–266.

86 Wallace P, Jarman B. "Alcohol: strengthening the primary care response.” In: Edwards G., Peters T., *eds*. *Alcohol and alcohol problems*. British Medical Bulletin 50(1). Churchill Livingstone, 1994, p. 211-220.

87 Henricson C. *Proposals for a national alcohol strategy for England*. Alcohol Concern, 1999. See p. 87.

88 Rollnick S., Butler C., Hodgson R. “Brief alcohol interventions in medical settings. Concerns from the consulting room.” *Addiction Research*: 1997, 5(4), p. 331–342.

89 eg, Barnes H.N, Samet J.H., 1997, op cit.

90 Royal College of Psychiatrists. Alcohol: our favourite drug. Tavistock, 1986.

91 Department of Health. *The health of the nation: a strategy for health in England*. HMSO, 1992.

92 Henricson C., 1999, op cit,

93 Barnes H.N, Samet J.H., op cit.

94 Mattick R.P., Jarvis T. “Brief or minimal...”, 1994, op cit.

95 Deehan A., Templeton L., Taylor C., *et al*. "Low detection rates ...”, 1998, op cit.

96 WHO Brief Intervention Study Group. “A cross-national trial of brief interventions with heavy drinkers.” *American Journal of Public Health*: 1996, 86(7), p. 948–955.

97 Heather N., 1995, op cit, p. 293.

98 WHO Brief Intervention Study Group, op cit, 1996, p. 953. This report uses the US standard drink measure of 14gm of alcohol as opposed to the UK’s 8gm unit, but the reduction of one centilitre daily approximates to the UK unit.

99 Heather N., 1995, op cit, p. 293. It was a problem -solving and coping skills model rather than a motivational intervention yet patients may not have been ready to concede that there was a problem which needed to be dealt with.

100 Personal communication, Department of Health, August 1999.

101 Effective Health Care Team, 1993, op cit.

102 Mattick R.P., Jarvis T. “A summary ....”, 1994, op cit, p. 146.

103 Heather N., 1995, op cit, p. 295.

104 Mattick R.P., Jarvis T. “Brief or minimal...” 1994, op cit, p. 143.

105 Cisler R., Holder H., Longabaugh R., *et al*. “Actual and estimated replication costs for alcohol treatment modalities: case study from Project MATCH.” *Journal of Studies on Alcohol*: 1998, 59, p. 503–512.

106 Holder H. Longabaugh R., Miller W.R., *et al*. The cost effectiveness of treatment for alcoholism: a first approximation.” *Journal of Studies in Alcohol*: 1991, 52, p. 517–540.

107 Social skills training and self control training.

108 Miller W.R, Brown J.M., Simpson T.L., *et al*. "What works? *A methodological analysis of the alcohol treatment outcome literature." In: Hester R.K., Miller W.R., eds. Handbook of alcoholism treatment approaches*. 2nd edition. Allyn and Bacon, 1995, p. 12–44.

109 Finney J.W., Monahan S. "The cost effectiveness of treatment for alcoholism: a second approximation." *Journal of Studies in Alcohol*: 1996, 57, p. 229–243.

110 Heather N., 1995, op cit, p. 287–289. This refers only to the Holder study but the later two are no different in this respect.

111 There were others, notably the inclusion of other studies in Finney and Monahan's analysis and the reclassification of some others since Holder's first approximation.

112 Drummond D.C., 1997, op cit.

113 Heather N. "Using brief opportunities for change in medical settings." In Miller W.R., Heather N., *eds. Treating addictive behaviors*. 2nd edition. Plenum Press, 1998, p. 133–147.