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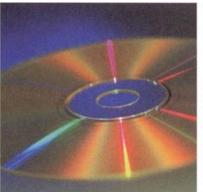**Centre for Health Services Studies**

The Health and Europe Centre

NHS

Tackling Alcohol Misuse in Teenagers: What Works and How Can Practice Develop?

Commissioned by The Health and Europe Centre

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Foreword

The Health and Europe Centre is a Social Enterprise Company working in partnership with the Kent and Medway Primary Care Trusts; The Kent and Medway NHS and Social Care Partnership Trust and NHS South East Coast;

The aim of the Health and Europe Centre is to add value to the work of the stakeholders by creating relationships within Europe and EU institutions. Such relationships provide the health and social care sector in Kent and Medway with opportunities to improve the health and wellbeing of the local population by:

- Becoming involved in a range of European health initiatives, including participation in EU-funded programmes, exchange of good practice and collaboration with colleagues in other European countries;
- Engaging with EU-focused workforce development opportunities.
- Providing practical examples of different ways of working from across the European Union

In February 2009, the Health and Europe Centre commissioned an international literature review to identify effective interventions in relation to the issue of young people and alcohol. This piece of research has been funded through the NHS Eastern and Coastal Kent Social Marketing Committee and its primary purpose has been to inform the content of 'WASTED: An International Conference on Alcohol and Young People' which is taking place on 20th November 2009 in Ashford, Kent. The conference aims to highlight effective interventions which can be used to redesign services and target existing resources more effectively, leading to a longer-term reduction in underage drinking.

Another specific aim of the literature review has been to identify successful or promising interventions which have used social marketing techniques to prevent, reduce or delay the onset of drinking amongst adolescents and to disseminate the results of these findings to local policy makers and practitioners.

Additional copies of this report may be found on the Health and Europe Centre's website: www.healthandeuropecentre.nhs.uk

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1   Introduction and Aims

The incidence and prevalence of alcohol misuse among young people and the associated harm caused is an area of growing social concern for policy makers, health and social care workers, the criminal justice system, youth workers, teachers and parents throughout the Western world. There is increasing evidence of the impact drinking is having on young people's long and short term health and in the UK, there is particular cause for concern. A comparative European study of drinking among 15-18 year olds showed that UK figures for alcohol consumption were some of the highest in Europe; among 11-15 year olds, the average weekly consumption has more than doubled since 1990 from 5.3 units per week to 11.4 units in 2006 (Alcohol Concern Factsheet 2009)

Alcohol is usually the first substance used during adolescence and its use is often associated with progressive experimentation with other illicit or harmful substances (Velleman et al 2005). Research also indicates that young people who start drinking at an early age are more likely to increase their drinking and to experience alcohol-related problems as a young adult (Hawkins et al 1997). It is vital therefore to have a clear understanding of the effectiveness of alternative interventions not only for the primary prevention of alcohol misuse, but also in order to influence the negative course of early onset drinking.

The main focus of this literature review was to identify those studies that looked specifically at effectiveness in tackling teenage alcohol consumption and preventing or reducing alcohol use/abuse amongst young people, with the purpose of identifying elements of good practice that can inform practice interventions in Kent and Medway. This review also included identification of those interventions that had used a social marketing approach as defined by Andreason (1994). Social marketing as an effective method of health promotion is gaining recognition (Stead et al 2007). In addition, there is considerable local investment in the use of social marketing techniques, therefore this addition to the literature would further inform strategy and intervention planning.

1.1   Aims
The aims of the literature review were to:
- undertake a search of the international literature to identify effective interventions to tackle alcohol misuse in young people ;
- identify those interventions that have used social marketing techniques;
- describe elements good practice and identify transferable elements of practice.

2   Method

2.1   Criteria for Selection of the Target Group
Three main inclusion criteria were used:

2.1.1   *Age range of 11-19*
The primary focus was on the teenage years, however studies that looked at older or younger groups were included provided the average age sat within this specified age range, or the findings would have significance for the population under study.

2.1.2   *Literature from the year 2000 to present.*
The purpose here was to capitalise on the existing systematic reviews on the subject that had examined the literature in detail (eg the Cochrane Review 1970-2001; Foxcroft et al 2002), and to include a two year gap to account for any publication time-lag of these reviews.

2.1.3   *All teenagers irrespective of gender, ethnic and socioeconomic background, degree of vulnerability or risk.*
It was seen to be important to include as many social and contextual variables as possible. However, two areas were excluded:
  o There were a small number of studies that focused on teenagers with severe mental and/or physical addictive pathology. These youths fell into the following categories: juvenile offenders, homeless youths and delinquents. In general, interventions with these groups required a high degree of specialism with trained clinicians. They were excluded as their transferability to general health promotion practice may have been limited;
  o As an important feature of this literature review was to identify transferable elements of good practice from the international interventions to Kent and Medway, the review was sensitive to aspects within the literature that would not be acceptable to public health practice in the Kent and Medway area. This included interventions that had a strong religious basis.

2.2   Types of Studies Included
While it is traditionally argued that systematic reviews and controlled trials provide the best evidence of effectiveness (Khan et al 2001), the search undertaken here was purposefully broad in order to incorporate studies using different methods. The following three main study types were selected and reviewed:

2.2.1   *Clinical Trials*
In order to identify the most effective interventions, a search for good quality clinical trials was made in the first instance. This included a search for original papers and systematic reviews. The latter had two advantages; it reduced the search process to one that was manageable in the timeframe, and ensured that all studies included had been judged of sufficient methodological quality to yield reliable evidence.

2.2.2 *Multi-Method Studies*

In addition, a search was conducted for non-trial studies that used mixed methods (triangulation of qualitative and quantitative approaches) to identify effectiveness. This was in recognition of two main issues. Firstly, systematic reviews on the subject have indicated promising areas but in general have failed to provide any conclusive evidence; and secondly, positive outcomes from studies that are not amenable to clinical trial could provide important transferable information for practitioners involved in health promotion. So while clinical trials are largely considered the most reliable, there tends to be less information about process variables which can reveal more about how and why projects work.

2.2.3 *Multi-Intervention Studies*

It was also recognised that many successful interventions, such as those that focus on 'risky behaviours' could have included other components such as tackling smoking, and sexually transmitted infections. These multi-intervention studies using either clinical trials or different evaluative methods were also screened and included if the alcohol intervention was significant.

2.3 Search Strategy

This section provides a list of key search terms and databases used. The numbers alongside the databases indicate the number of initial 'hits' for the search terms. There were a number of cross-checks made between articles (especially reviews)

Key words: Alcohol, drugs, teenager, adolescent, young people, family, community, intervention, programme.

Databases: Reviews on the following databases included studies where biases had been minimised and were largely of a clinical trial design:

- o Cochrane Database of Systematic Reviews (1)
- o Database of the Centre for Reviews and Dissemination (1)
- o EPPI-Centre (Evidence for Policy and Practice Information) (1)
- o NICE (National Institute for Health and Clinical Excellence) (2)

Parallel to this a search was made on PubMed and the University of Kent Academic Search Complete. The latter contains full text for over 5500 academic, social sciences, humanities, general science, education and multi-cultural journals. This includes over 4600 peer-reviewed journals. In addition to the full text, it also contains indexing and abstracts for a further 4000 journals. Academic Search Complete cross references the user with ScienceDirect, Ingenta, Medline, Cinahl. In addition, project searches were made on a range of other discreet organisational websites targeted more specifically at the subject.

- o PubMed (1545)
- o Academic Search Complete (562)
- o European Monitoring Centre for Drugs and Drug Addiction (190)
- o Alcohol Education Research Council (4)

       o Trust for the Study of Adolescents (1)
       o Joseph Rowntree Foundation (0)

Also, journals dedicated to the subject area were searched in more detail:

       o Addictive Behaviour
       o Addiction
       o Drug and Alcohol Review
       o Journal of Adolescent Health

2.4   Analysis Framework

The analysis framework consisted of three elements.

2.4.1 *Thematic Classification*

An initial sweep of the literature identified some clear approaches to alcohol reduction interventions. In the main, this was according to context (ie where the intervention occurred), although a categorisation relating to new information technology and media was developed as these interventions were seen as innovative and in some cases promising. Other cross-cutting themes such as ethnicity and gender were incorporated within the themes. The review was therefore organised under these categories:

- School-based interventions
  - School only
  - School and community
  - School and family
- University-based interventions
- Community-based interventions
- Media/IT based interventions
- Hospital-based interventions

In addition, a number of critical review articles were found that provided some interesting perspectives on the various approaches adopted. This information will be used within a general critical commentary of the finding.

2.4.2 *Analytical Inventory*

Remaining within the themes, the literature was then subjected to analysis using an inventory of categories, a method often used in literature review analysis (eg Stead et al 2007). This inventory helped organise the literature, and also permitted the emergence of patterns across the data, which facilitated the emergence of collective elements of good practice. The following categories were used:

- Country of origin
- Author(s)
- Intervention name
- Origin of literature (ie if synthesised from a systematic review or from original article)

- o Social Marketing component
- o Description of intervention
- o Outcomes
- o Elements for practice
- o Notes (critical commentary)
- o Web source

2.4.3 *Analysis of Social Marketing Components*

As mentioned, this was undertaken using Andreason's criteria. These criteria have been used and validated in work undertaken by the Institute for Social Marketing (http://www.ism.stir.ac.uk/publications_index.htm). The literature was analysed looking at the extent to which the following benchmark criteria were adopted:

Benchmark	Explanation
1. Behaviour change	Intervention seeks to change behaviour and has specific measurable behavioural objectives
2. Consumer research	Intervention is based on an understanding of consumer experiences, values and needs. Formative research is conducted to identify these. Intervention elements are pre-tested with the target
3. Segmentation/targeting	Different segmentation variables are considered when selecting the intervention target group. Intervention strategy is tailored for the selected segment/s
4. Marketing mix	Intervention considers the best strategic application of the "marketing mix". This consists of the four Ps of "product", "price", "place" and "promotion". Other Ps might include "policy change" or "people" (e.g. training is provided to intervention delivery agents). Interventions which only use the promotion P are social advertising, not social marketing.
5. Exchange	Intervention considers what will motivate people to engage voluntarily with the intervention and offers them something beneficial in return. The offered benefit may be intangible (e.g. personal satisfaction) or tangible (e.g. rewards for participating in the programme and making behavioural changes)
6. Competition	Competing forces to the behaviour change are analysed. Intervention considers the appeal of competing behaviours (including current behaviour) and uses strategies that seeks to remove or minimise this competition

3   Findings

A completed inventory of the analysed literature is appended. The data is provided chronologically in the respective themes (2.4.2). This section will provide a numerical breakdown of the literature per theme and country, and continue with a theme by theme overview, referring to the literature by author and cross referenced with the inventory number. The section will continue with a list of the elements of good practice extracted from the literature.

3.1   Numerical Overview

A total of 54 studies were reviewed from 6 countries. Two studies were undertaken by an EU collaborative. Table 1 gives a breakdown by theme.

Table 1: Number of Studies (n=54) per Theme per Country

	School-Based Interventions			University	Community	IT/ Media	Hospital
	School (Only)	School + Community	School + Family				
USA	9	3	11	3	6	4	2
UK	2	1	3				
Australia	3				1		
Sweden			1		1		
Netherlands	1						
Iceland					1		
EU			2				
Total (54)	**15**	**4**	**17**	**3**	**9**	**4**	**2**

As found in previous reviews, the majority of studies emanated from the USA (n=38). Six were from the UK, four from Australia, two from Sweden and one from the Netherlands and Iceland. Most studies were school-based. From the 54 studies reviewed, 28 were retrieved from systematic reviews (Foxcroft et al 2002; Foxcroft 2006) a meta- analysis (Smit et al 2008) and other reviews (Natarajan & Kaner 2004; Stewart et al 2005, Winters et al 2007; Skager 2007; Boekeloo & Griffin 2007), and 26 from original articles. Many of the studies are follow-up of cohorts, testing the longevity of effects. Further description of this is given in the relevant themes.

With respect to study type, there were 44 clinical trials, three quasi-experimental studies and seven non-trial multi-method studies which were process evaluation. Of these, 31 were multi-intervention studies looking in the main at alcohol, cigarettes and drugs. Only the effects on alcohol consumption are reported.

A total of 20 reviews were retrieved. One of these was a systematic review of primary prevention for alcohol misuse in young people from the Cochrane Collaboration (Foxcroft et al 2002), and this was followed up in 2006 with a rapid review as a WHO technical report (Foxcroft 2006). Most of the reviews were American (18), with four from the UK, and one from Australia and the Netherlands respectively (see references for full list). Subjects covered general systematic reviews, as well as topic focused reviews such as brief alcohol interventions (O'Leary Tevyaw & Monti 2004), Life Skills Training Programmes (Gorman 2002),

family-based therapies (Liddle 2004), and school-based interventions (Wagner et al 2004).

3.2   Deviations to Inclusion Criteria
There were two main deviations from the inclusion criteria:

- Time span: Two studies were included that were published before 2000 as they were seen as of particular relevance (see School 1 and Community 1).
- Age range: While the review focused largely on the 11-19 year range, a small proportion of studies were included where the average age of the sample group lay marginally outside of this (slightly younger and older). Again, this was due to the relevance of the findings for the age range under study.

3.3   Studies not included
A total of 16 studies were excluded from the review. This was due to the following reasons:

- The study effects were minimal. While this could be said of many studies included, for those excluded there were no other redeeming features that would warrant inclusion, such as social marketing elements or relevant process indicators for practice.
- In multi-intervention studies, the results for the alcohol arm were not sufficiently clear or too small.
- The focus was on young people with severe existing drug problems and associated pathology.
- The paper was a close replication of another published elsewhere by the same authors and whilst reporting a different slant, shed no further light on outcomes or process variables.
- Studies reported results from more than 15-20 years ago. It was felt that findings were too historic and would no longer provide relevant transferable data.
- There was a very specific cultural focus on small numbers (eg Indian young people from New Dehli).

3.4   School-Based Interventions
This was by far the largest section reviewed (39 studies included). School-based interventions have grown in popularity in recent years; proponents of this approach argue that such approaches provide greater access to a representative and generalisable population of young people (Wagner et al 2004) and it cannot be denied that they are a captive audience. In addition, researchers have noted that there is the potential for greater effectiveness and validity in study design, due to high sample numbers, stability of the population for follow-up measures of intervention effects, and better control of environmental variables (Faggiano et al 2007).

From a practical viewpoint, the school-based intervention model offers the advantage of taking interventions directly to those who need it. In addition, it can

assess and influence the determinants and consequences of problem behaviours, as well as providing interventions in a very high-impact social environment. This in turn can shape the development and adaptation of behaviour (Wagner et al 2004). School-based interventions have expanded to include parents, and the wider community, recognising the fact that interventions become more effective when including the wider social infrastructure of young people, yet capitalising upon the stability of the school research environment.

This section was sub-divided into three study types; School; School and Community; and School and Family, and summaries of the findings in the inventory are reported here.

3.4.1 School

In general these 15 studies were characterised by clinical trials using one or two interventions plus control with large numbers of young people, followed up after varying periods of time to measure effects, usually annually. All interventions were delivered in school with either trained teachers or external facilitators. Most spanned over a year and some included 'booster' sessions taking place after varying periods of time (per term or yearly for example). Booster sessions were important to deliver the main messages again, but tuned to the growing needs of the audience. For example, McBride et al (2003: School 9) provided a 17 session programme followed up a year later with 12 more sessions accounting for changing knowledge levels, increased risky behaviour, attitudes, context of use, and harm to self and others.

The interventions could be clustered into the following types:

Normative Educational Approaches (eg. School 3, 7, 9)

> These focused largely on drug abuse prevention programmes such as information giving in the classroom using interactive techniques, discussion, role play and videos. Some also incorporated a degree of skills training, such as resisting pro-drug pressures. Donaldson et al's study (2000: School 3) is of particular interest as it tested these components alongside resistance skills to combat peer pressure, and as one of the measures, used both self and reciprocal best friend reports of substance use. This large scale study showed that, over time, this type of normative education can hold small but sustainable effects in school settings where teenagers are likely to overestimate the drug use prevalence and acceptability beliefs of their peers.

> Farringdon et al (2000: School 2) is included as it provides some key process variables for this approach. The authors found that it was important to provide programme activities that are interactive and based on skill development and that have a goal that is relevant and inclusive of all young people, in their case it was harm minimisation. Coupled with this, programmes need to be delivered at relevant periods in young people's development, impart knowledge that is of immediate practical use to young people and have booster sessions in later years. To iron out problems, pilot testing the program with teachers and students is vital, as well as providing appropriate teacher training for interactive delivery of the program.

Brief Motivational Interventions (eg. School 11, 14, 15)

Brief alcohol intervention appears to represent a promising approach for the reduction of alcohol-related harm in young people (Natarajan & Kaner 2004; Raistrick et al 2006). In general it is seen as a secondary prevention activity aimed at those who are already demonstrating signs of hazardous drinking or risky behaviour (O'Leary et al 2004). The brief interventions consist of structured 'talk-based' therapy of short duration, delivered usually in four or fewer sessions. Werch et al (2005: School 11) for example tested the efficacy of a brief, multi-health intervention integrating physical activity using one-to-one consultations and health promotion literature. Given the briefness and simplicity of the intervention the significance of effects at year one was fairly impressive, signalling potentially high cost effectiveness. This study also demonstrates the potential for taking brief interventions out of the classroom. Many of the levels of consumption however had more or less returned to pre-test levels after one year, suggesting the utility of regular 'booster' interventions.

Conrod et al's (2008: School 15) evidence is also compelling in this field. Personality targeted brief interventions seemed to be effective in preventing the growth of binge drinking in those students with a sensation seeking personality. This study contributes towards the notion of targeting as an effective approach to prevention. However such an approach is more specialised and may not be easy to apply as a general health promotion approach.

Life skills training (eg. School 1, 5, 8,10 & 12)

Life Skills Training (LST) within schools would appear to be a prominent approach in terms of its consistency and ability to demonstrate positive effects (Gorman 2002; Foxcroft et al 2002). An early Botvin study reported in 1995 (School 1) focused on developing cognitive behavioural abilities to raise self-esteem, resistance to pressure, assertiveness, anxiety management and communication skills. At the three year follow-up, knowledge and attitudes towards drinking improved, and frequency of being drunk decreased in the intervention group, although the differences between the groups were small and the population was criticised as being mainly white middle class. A further study by the same author (Botvin et al 2001: School 5) used a similar programme but this time targeted at minority ethnic teenagers to combat earlier criticisms. Results were more promising with larger differences between the intervention and control groups, suggesting the effectiveness of psycho-social models for specific groups. However, the attrition rate was high which may have skewed the sample.

In terms of outcomes, despite some promising findings especially in the brief interventions, the efforts and costs involved in designing such large studies under clinical trial conditions do not in general appear to reap rewards with respect to definitive results, which are on the whole small and open to criticism. For example, Gorman (2002) reports that the evidence from Botvin et al's (2001) six year trial of LST programme suggests that its effectiveness in reducing alcohol and drug use only emerges in analyses that are conducted with small sub-samples of programme

participants. Gorman considers this a 'violation' of a fundamental principle of randomised controlled trials.

In addition, a significant overall weakness is the seemingly heavy reliance on self-report measures, which when applied to past and present alcohol consumption, may not be as valid as assumed. Also, there are problems with fidelity issues regarding programme delivery. Fidelity refers to the extent to which teaching of the intervention does not vary between teachers or facilitators but remains faithful and consistent to the programme. Fagan & Mihalic's (2003: School 8) process evaluation of their LST sheds some light on this. They emphasise the importance of effective working relationships and clear communication between those overseeing the programme and the teachers charged with implementing it. So relationships and clear communication with teachers or those charged with presenting/teaching the programmes on the ground is essential.

Halifors et al (2006: School 12) consider an additional difficulty, this time with transferability of findings. The key findings of their study and the point of the paper is to note the difference between efficacy trials (to see whether the intervention does more harm than good) and effectiveness trials which test whether the interventions have any sizeable impact in 'real world conditions'. Positive efficacy trial findings were not replicated in the effectiveness trial, which highlights the difficulties of applying some impacts into live situations.

Social Marketing Elements
With respect to social marketing elements, many were not overly visible in the studies due perhaps to the normative style of some of the approaches, in that information was given as a curriculum programme rather than by any particular means of appealing to differentiating or capturing the specific social market. Of note however is Goldberg et al's intervention (2000: School 4) which was concerned with developing a drugs awareness programme for boys around the medium of sport. This involved interactive classroom and exercise sessions facilitated by coaches, looking at drug abuse in sport but also wider issues relating to alcohol. Some of the social marketing benchmarks are strong here, with a specific (young-male-adolescent) and appealing focus on sports training as well as information on substance misuse. Hence there is a clear behavioural change sought, the audience is segmented and targeted appropriately and the scheme is attractive by way of the training offered though professionals. In addition, Botvin et al's intervention (2001: School 5) developing life-skills among minority ethnic teenagers was developed and modified over a long period of time and geared towards a specific group, but again the social marketing elements are not taken further. However Fagan & Mihalic's (2003: School 6) comments highlight a tension between programme fidelity and a social marketing approach; sticking rigidly to what works at a scientific level (fidelity) and being contextually relevant from a social marketing angle are often not compatible.

3.4.2 School and Community

The four studies in this section highlight the potential of projects to cross over the boundaries of the school into the community, in recognition of the wider societal influences related to alcohol consumption. They are again large studies with large cohorts, all longitudinal in order to establish follow-on effects of interventions and applying RCT design. One paper reports on process issues emanating from a study yet to be completed (Stead et al 2007: School and Community 4).

The interventions focus on raising community awareness of how to enable young people to resist the effects of alcohol and drugs using a wide range of initiatives, with the aim of reducing overall alcohol consumption. Aspects include life skills school-based curriculum similar to those described in the above section, parent involvement and education, youth development, peer-led activity and the mobilisation of community forces to create a more 'alcohol aware' community. Slater et al's study (2006: School and Community 3) is particularly noteworthy. Local and wider research was used as a first step to better understand adolescents' attitudes, values and behaviours about substance use, and this guided the strategy for the in-school media campaign, 'Be Under Your Own Influence'. Knowledge of promotional issues such as media preferences were gained and images like rock-climbing were used that were appealing to risk-oriented, sensation-seeking youth. The central premise of the study related to the understanding that adolescence is about attaining greater independence and autonomy and the community has a part to play. The campaign sought to emphasize the inconsistency of drug, alcohol and tobacco use with teenagers' aspirations and the results were compelling. The likelihood of alcohol use was less with the combined community intervention and in-school media compared with the control.

The studies in general would appear strong in design and impressive in their ability to conduct community-wide trials over long periods of time, and to adapt interventions to suit the changing needs of young people as they mature. However, the outcomes do not demonstrate large changes in behaviour, as measured by indicators such as growth curve analysis of past and present alcohol use, drunkenness and 'hazardous' (binge) drinking. Two papers report on process outcomes, notably Stead et al (2007: School and Community 4), who suggest that fidelity issues within the design compromise the effectiveness of the intervention. Stead et al suggest that interventions may work best if there is room for flexibility and discussion within the programme to meet the needs of the young people attending, which would potentially contravene fidelity rules of programme delivery. This is particularly so for complex community affiliated interventions where the many stakeholders involved and the high level of user-involvement could make rigid adherence to programme delivery less meaningful.

Social Marketing Elements

Of particular note are the social marketing elements of these studies, which in the main would appear to fulfil Andreason's benchmark criteria (see p. for table). For example, Perry et al's (2003: School and Community 2) DARE plus project used a strong mix of user and community involvement coupled with previous research to develop their programme. It had clear behavioural goals, and used a mix of peer led classroom sessions with parental involvement. It also included youth-led activities, community adult action teams, and postcard mailings to parents as forms of

promotion. A clear segmentation of audience was evident (between parent and child and in curriculum design as the child advances through school) as well as an attempt to make the intervention attractive. Also, Slater et al (2006: School and Community 3) used social marketing principles to guide the development of the media for behavioural change, as described in the previous section.

3.4.3 School and Family

There were a total of 17 studies included in this section. Studies involving families and children appear to be gathering momentum in recent years and showing promising effects in the short and longer term. Velleman et al (2005) remark that researchers and practitioners are now assigning an increasingly crucial role to the family in the development or prevention of substance misuse. Interventions are based on the idea that the family plays an important part in socialising children to adjust to the demands and opportunities of the social environment. It has been known for some time that early antisocial behaviour is a strong predictor of substance misuse (Yoshikawa 1994), and that strengthening families can have a buffering effect against a number of risky behaviours. The studies reviewed, again largely RCT in design, demonstrated varying content and application, through different media and using clinicians, counsellors or trained teachers. Interventions also varied in the amount to which parents were involved. Some interesting examples are outlined here.

Park et al's study (2000: School and Family 1) had a strong focus on parents and developed a curriculum that helped parents to learn consistent communication skills for giving effective anti-alcohol messages, reducing family conflict, and resisting peer pressure to drink. While the short term effects were not convincing, Smit et al (2008) state that the parental involvement was advantageous and that there may have been longer term benefits beyond the scope of the study.

The large European study 'Unplugged' involving seven countries (Faggiano et al 2008: School and Family 16) adds further weight to the family approach. The study adopted a social influence design that included social skills and personal skills alongside normative education. Subjects were randomised to either of three variants of the intervention (basic curriculum, basic with peer involvement, and basic with parent involvement) with interactive workshops for parents. While it was unclear whether the results took full account of the baseline data, where the incidence of drinking and regular drinking among control schools was a lot higher, there was a lower increase in drinking among the parent arm of the intervention group than any of the others. This study is also noteworthy in that the programme was transferable across several culturally different European countries and is still expanding.

DeGarmo et al (2009: School and Family 17) used an approach firmly embedded in psychology to develop an intervention to support and co-ordinate parents, teachers and young people in generating positive affirmation for behaviour as opposed to threat of negative sanctions. The latter is associated with poor social skills and higher levels of alcohol and other substance misuse. Young people aged 10-11 took part until 17-18 years and completed self-report questionnaires annually. The intervention was associated with approximately a 9% reduced risk in initiating alcohol use and the programme operated in a preventive way to reduce the growth rates for girls. This study highlighted interesting gender issues, in that girls seem to be more

responsive to such an approach. Coordinating between family, peer and teacher approaches to positive and negative behaviour would seem to be important if modes of reinforcing behaviour are to enter positive cycles. There were however high rates of attrition in this study which raises questions regarding the large reduction in self-reported risk.

In addition to this, there are two research collaboratives that are worth noting. The first is Werch et al (2000 - 2003b: School and Family 2, 3 & 6) who used variations of brief nurse-led individual consultations, letters and 'prevention postcards' to parents, family sessions with clinicians and family home packs with a focus on social skills. These three studies led by Werch show the development and gradual tailoring of family focused interventions which is impressive, and combined a social marketing element in terms of targeting the way messages were conveyed. While School and Family 2 showed significant results for those teenagers whose alcohol consumption was high, this was however not repeated and none of the results in School and Family 6 were significant.

The second collaborative is led by Spoth and dominates in this area, as its focus is on developing the Strengthening Families Programme (SFP) and has been reviewed as promising by reliable sources (Foxcroft et al 2002; Velleman et al 2005; Foxcroft 2006). The SFP is the best-known example of the potential for combining child and family approaches for a variety of risky behaviours in adults and children, and has been successfully evaluated and replicated in different settings and with different socio-economic groups across the USA. Originally developed by Kumpfer, Spoth, Molgaard and colleagues have taken this approach forward with a focus on drug and alcohol prevention in adolescents. Typically, the programme has components for each group independently and runs for half-day weekly sessions for 14 weeks. It is designed to develop specific protective or 'resilience' factors and to reduce risky behaviours by improving aspects such as communication styles, school involvement, and a more nurturing parenting manner. In addition, children develop positive goals for the future, improve their relationships with parents, manage stress and develop skills for dealing with peer pressure.

Spoth et al conducted two main studies over several years and publications report on results throughout this time period. The first study (Spoth et al 2001-2008: School and Family 4, 7 & 14) compared the Iowa SFP with Preparing for the Drug Free Years (PDFY) programme in 33 rural schools. This study seemed to be relatively effective in terms of reducing the initiation of alcohol. In the second study (Spoth et al 2002-2008: School and Family 5, 8 & 15), involved 36 rural schools in testing the effectiveness of a classroom-based Life Skill Training (LST) plus the SFP, with LST only and a control. At the five and a half year follow-up, the findings are mixed as the cohort reached their 18th year; although changes over time do seem to suggest some efficacy, the differences in behaviour are compelling but do not reach a significant difference. The studies seem to suggest that LST together with SFP was much more effective than the LST on its own, but both are more effective than the minimal contact control. It must be noted however that both of these studies were conducted in a white, rural community with potentially quite unique socio-cultural norms, despite claims of representativeness.

The SFP is currently being adapted for use in the UK (Allen et al 2006: School and Family 9, 10 & 11). The three papers included in this review describe important process evaluations and a small pilot study of the development and trial implementation of the SFP. The findings of these studies suggest the importance of recognising the cultural limitations around transferability in the style and content of interventions carried out in the USA and elsewhere. While interventions may well be applicable and effective when transferred, great attention must be paid to the cultural reference points, language and general content (such as games/activities) applied. The authors state the need for wider testing to authenticate the approach here.

So while the design of family-based interventions would seem to rest upon sound theory, there were clear uncertainties surrounding the reliability of the results of trials reviewed here. Despite this, in their 2005 review of family interventions, Velleman et al appear supportive of the role of the family in preventing and intervening with adolescent substance use and conclude that there is considerable evidence that family factors are important in protecting young people in their take up of the use of various substances. There is also evidence that the involvement of families in prevention programmes may lead to reduced levels of initiation.

But the picture is complex due to the many variables that are difficult to disentangle in the family setting. For example, Velleman et al (2005) base their positive overall assessment on substance misuse in general and the results for specific alcohol use are not always so convincing. Gorman et al (2007) are particularly critical of Strengthening Family Programmes, and specifically of Spoth's studies (School and Family 5, 8 & 15). They provide a statistical critique and conclude that results are very fragile and of little practical significance. Gorman et al express their concern that programmes in the USA have widely adopted this approach to drug and alcohol use, believing it to be generalisable, rigorous and relevant to public health policy. In addition to this critique, it was apparent in our review that the reasons for why family interventions work is not always explicit and further process evaluations would be beneficial to shed light on this. Allen et al's (2006) UK contributions are useful in this respect.

Despite these concerns however there is a 'common sense' approach to family involvement, with its rationale firmly embedded in theoretical foundations. What seems to be evident from the studies reviewed is that prevention programmes need to harness the family in ways that strengthen it, and it is likely that programmes such as the SFP will work by having both a specific effect on use and misuse of drugs and alcohol, and also by building levels of resilience among all family members.

Social Marketing Elements

With reference to social marketing approaches, on the whole there was little evidence of techniques being used. Werch et al's studies (School and Family 2, 3 & 6) go some way towards this with clear motivation towards behavioural change and specific targeting and tailoring of the way messages are presented and refined over a number of studies. The means of marketing (via classes, one-to-one consultation with nurses, postcards to parents and take-home classes to be done as a family) was original and the authors considered the setting and means of promoting awareness. In the study 'Unplugged' (Faggiano et al 2007: School and Family 12), although it is based on the social influence approach, the intervention was delivered

through standard classroom settings, but there was some involvement in side-activities with either peers or parents. However little thought is given towards maintaining the audience's attention or making the intervention attractive. Indeed as the high drop-out rate among the intervention schools makes clear, this latter aspect could be related to teachers (most schools dropped out shortly after teacher training days) as to the young people being targeted.

3.5   University-Based Interventions

The three American studies included in this section focus on alcohol reduction among first year18 year old undergraduates ('freshers') and provide some interesting messages for practice, albeit at the 'older' end of our age range. The rationale for these studies is based on evidence that the first year of university is often a time of high alcohol consumption and associated risk-taking, even in the face of US drinking laws.

All are brief motivational interventions using RCT designs, one followed up after six weeks and the others after a year or longer. In two of the studies (University 1 & 2), students were selected on the basis of being heavy or moderate drinkers. All show degrees of effectiveness in reducing the quantity of alcohol consumed but there were variations in outcomes related to the negative consequences of drinking, which may be connected to the social context in which drinking occurs. The longitudinal studies do however tell us some important things about the 'exit trajectory' of teenage drinking. Those in the part of the population who go on to university will achieve some maturation effects regardless of intervention – they will peak in drinking at beginning of university and this starts to reduce again over time. However the studies also point to the potential for breaking negative dependencies among those already drinking heavily when they arrive at university. A further strength of these interventions would appear to be their personalised focus. It must be noted however that the sample were drawn from students of high socio-economic status, therefore the potential generalisability must be questioned.

Social Marketing Elements
There were very limited social marketing components in all studies.

3.6   Community Interventions

These nine studies were conducted in communities in America, Europe and Australia and used a variety of interventions aimed at the broad community population or specific cultural groups, and usually within a trial design. These are very interesting and impressive studies, complex to organise, manage and execute, and although they vary in effectiveness, they demonstrate potential (Foxcroft et al 2002; Foxcroft 2006).

Community-based projects are underpinned by the important view that many alcohol prevention programmes are limited in their effects due to the focus on individuals to the neglect of the wider societal influences. Some (eg Community 8 – the Trelleborg Project in Sweden) have based their programmes on a theoretical approach to describe the intensely social nature and rationale of alcohol consumption among young people, as developed by Wagenaar & Perry (1994). The core of this approach

is that a versatile programme is needed to tackle drinking habits, both in terms of supply and demand, and structural versus individual approaches, so that influences go beyond the intended target group and are sustainable. In addition, affiliations with peer group, parents, and the types of recreational activities available to young people are the strongest predictors of adolescent substance use and delinquency (Thorlindsson et al 2007). Hence the need for large-scale multi-stakeholder involvement. With this type of intervention model however, there are the inevitable problems in demonstrating cause and effect, applying experimental methods to complex community situations and controlling extraneous variables (Billings 2000). Saxe et al (2006) state that community models have yielded mixed results despite much attention and funding of the past decade.

Wagenaar et al (2000; Community 3) for example developed a five year intervention to reduce youth access to alcohol, and is typical of the wide stakeholder approach. Community organisers gained support of the community through stakeholders, heightening the project's profile and alcohol issues in general via local media. There were changes to local procedures and policies following a review on alcohol sales and monitoring. A community trial was conducted across 15 communities targeting a total of 1721 young people aged between 17 and 20. The types of measures used to gauge effectiveness included drink driving, alcohol related car crashes and self-reported heavy drinking. Overall there was limited evidence of significant effectiveness; arrests for drink driving were lower in the experimental community. Despite this, the mobilising of community is impressive with key components being community organisers and leadership, needed to galvanise and bring community stakeholders together. The cost-benefit ratio is also important here; the authors note that more that 1500 meetings were held in an attempt to affect change.

Community 2 (Schinke et al 2000) and 4 (Wu et al 2003) are examples of smaller culturally-focused community interventions that demonstrate more effectiveness as they move back to specific ethnic tailoring. Community 2 for example was a large trial of preventive interventions with Native American youth aged 10 years, based on Life Skills Training. At the three year follow up, there was a reduction in proportion of weekly drinkers, based on a measure of weekly drinking four or more drinks, with low attrition. Community 4 was predominantly an intervention with black teenagers focusing on HIV risk prevention where alcohol plays a part. This study had some short term positive outcomes, but interestingly, the intervention demonstrated that booster sessions were not effective in reducing alcohol risk in the longer term. With both these studies, however, the more focused the intervention, the less emphasis on community-wide involvement and change.

Sigfusdottir et al's (2008) Icelandic study (Community 9) is however noteworthy and fully embraces the notion and importance of social capital generated by community and family involvement as a gateway to success and sustainability. In addition it uses a multi-method approach to evaluation. The study was a very large four level intervention based on evidence, reflection and action to lower substance use among adolescents. This had become particularly problematic in Iceland; routine annual data collected from 14-16 year olds demonstrated a rapid increase in reported substance misuse in the preceding years. The intervention levels were as follows:
- Level 1 was the national level with researchers, whereby the extent of the problem was scoped.

- In level 2, project team members used the collated data to consult with local communities such as policy makers, teachers, parents and community members.
- In level 3, interventions were developed based on the 'unique talents, spirit and imagination' of the local community, and actioned at individual, family and community levels.
- For level 4, a series of comprehensive process and outcome evaluations took place alongside integrative reflection and results were considered in relation to a new round of national level data. Annual data of two cohorts of over 7000 young people used for the data.

This study showed a consistent and impressive reduction in levels of alcohol and other substance abuse. Alongside the national survey, a number of indicators were used, such as family based measures (child/parent communication and the extent to which the parent knew where the young person was) alongside more community-wide factors such involvement in recreational activities. In particular, levels of reported drunkenness reduced from 38% in 1997 to 20% in 2007 - with Iceland falling from 4th worst alcohol abuse level (amongst young people) in Europe to 11th.

Key lessons are pointed out by the authors through the process evaluation. The study stresses the importance of simultaneously involving young people, parents, schools and other clubs/organisations for the intervention to work. In addition, they highlight that those who drink a lot are likely to spend little time with parents, so parent only interventions will be of limited value. The critical age of starting interventions is 12-13 years and it is vital not to run interventions too late.

Importantly, it is emphasised that interventions such as this should be a long-term investment. Using multiple layers with constant reflection, mean that it is possible to work effectively and confidently with both known and emerging community-level risk and protective factors for a particular behaviour, without attempting to prove a direct causal relationship. This is an important message to those intent on only pursuing and advocating one form of evidence.

Impressive though this is, there are reasons for caution that are noted by the authors. It is possible that the observed reduction in substance use was part of a secular trend similar to other countries in Europe. There was during this time an increased interest in the role of parental monitoring in Iceland and other Nordic countries, which may have accounted for outcomes such as the low rate of alcohol-related accidents. In addition, ecological factors such as educational policies and factors relating to youth unemployment may have been influential, and these were not accounted for. The authors also confess that 'things move fast' in Iceland and so those seeking to replicate the Icelandic Model should take this should take this cultural tendency into consideration. Nevertheless, the study demonstrates the value of a well-grounded theoretical framework that links community-wide mobilisation to individual behaviour, and has some valuable messages for practice.

Overall, this section of projects are of interest, and highlight the importance of a multi-method approach in an effort to combat the inevitable difficulties in establishing cause and effect due to the complexity of the variables involved. Tapping into what can be measured to demonstrate positive effects through trials may not be in reality

entirely possible, such as revealing subtle changes in community attitudes towards tolerance of youth drinking that may in the longer term bring about change in maturing teenagers. In wide-ranging, complex projects it is very often the unknown influences that are not measured or captured that build towards the success, but not making them visible can result in the effects not being transferable outside of the communities in which they took place. It is hardly surprising that such interventions are not widely taken up, as the effort and cost does not seem to match up to the outcome as measured within experimental conditions.

Social Marketing Elements
The social marketing potential of community-based interventions is evident, particularly with respect to Community 3 and 9. With the former, it was a clear goal to change the behaviour of different actors within the community, from vendors to families to other adults who might supply alcohol to young people. Specific social markets were targeted in both the public sector (councils, schools, enforcement agencies) and private (vendors, local businesses more widely and local media). The intervention was novel and there was specific targeting through individual meetings with stakeholders. With Community 9, the goal was to change the behaviour of young people and parents and to raise levels of social capital in communities. The approach was refined in an ongoing way using national data as a basis for discussing what can work at a local level, and involving local policy makers, experts, parents, school personnel and the public. Innovative and organic projects were developed within the local community to meet the specific needs of localities, and while there was no apparent segmentation, all were part of the target audience. In this sense it was likely that the product, place, and price were appropriate to the local market and it could be argued that a sense of ownership and involvement fostered interest against competition.

3.7   IT and Media Based Interventions
These four papers reporting a total of three separate trials again in America were all conducted by Schinke and colleagues between 2004 and 2006. While Slater et al's (2006) study also makes a significant contribution to media based interventions, it is placed within the category of School and Community (see section 3.3.2)

Schinke's work focused on testing the effectiveness of a computer-based programme to reduce underage drinking. IT/Media 1 & 3 report the results of one study and a four year follow-up respectively, that tested the programme with and without parental involvement. The intervention involved young people in completing a CD-ROM prevention program that covered aspects such as goal setting, coping, peer pressure, refusal skills, self-efficacy and effective communication. The programme used simulated obstacles and distractions with animated characters similar to their age, gender and ethnic-racial background, with the intention of developing skills of problem-solving and alcohol avoidance. The family interventions consisted of videos and newsletters sent to homes, and there were follow-up booster sessions at 1, 2 and 3 years. In general the CD-ROM programme demonstrated positive effects in reducing underage drinking. Results were only marginally in favour of the intervention with the CD-ROM combined with family intervention, which shows its potential relevance in either situation. Interestingly in the four year follow-up,

youths were less likely to have drinkers (or people who had been drunk) among their five best friends.

In the other two studies (IT/Media 2 & 4), Schinke et al developed a CD-ROM that focused specifically on gender. These studies are smaller but are of value in that the programme was specifically tailored towards girls to enable them to manage stress and develop 'resistance' skills against substance use. In IT Media 2, the CD-ROM looked at four particular areas relating to understanding and dealing with stress, drugs and stress, and stress-reducing techniques. Again the programme was effective, albeit in a modest way, in that the intervention group were significantly less likely to see alcohol as a good means of dealing with stress, and they were more likely to have a wide-range of stress-addressing mechanisms.

In the second study (IT/Media 4), there was a further gender focus as the programme included mothers. The home-based interventive software sought to develop a nurturing mother/daughter relationship and hone skills for managing conflict, resisting media influence, refusing alcohol and drugs, and correcting peer norms with substance abuse. Parallels to the Strengthening Families Programme can be drawn here. Positive effects were found in the intervention group and in particular girls reported less alcohol consumption. With this study however there is no information as to the size of the effects. Nonetheless the CD-ROMs were evaluated very positively by the participants and the study shows the potential for structured interventions amongst the family within the comfort of the home. These findings do bring to the fore the potential for multi-media, computer-based, gender specific interventions.

Social Marketing Elements
Schinke et al's work is of particular note as it not only has the gender focus, but has a strong social marketing connection. The use of a media-platform such as CD-ROM for home PCs allows significant tailoring at a social marketing level to change substance use behaviour or intentions, especially when segmented not simply for age but also for gender. Audience research was conducted in order to make the product delivery as effective and attractive as possible, for example appropriate music, graphics and language were used. In general there would appear to be significant advantages to this approach. Notwithstanding the technological appeal to young people, the cost, controllability (no concerns over poor transmission of messages by teachers) and strong social marketing design, combined with effective findings would ear-mark this approach as one with strong potential (Smit et al 2008).

3.8   Hospital-Based Interventions
The two studies featured here look specifically at the potential for delivering brief interventions to a segmented, high risk cohort of young people, whose excessive drinking leads to medical emergencies. The purpose is to reduce alcohol-related consequences (eg harm to self and others) and consumption among adolescents. While they were conducted in America, there is increasing interest in this type of intervention in the UK, given the growing concern about the effects of binge drinking and the consequent impact on long term health, as well as the costs for emergency services.

Both studies used a brief motivational interview delivered by a nurse alongside usual treatment, in an oral and maxillofacial surgery out-patient clinic (Smith et al 2003: Hospital 1), and in an emergency department (Spirito et al 2004: Hospital 2). There were some interesting differences between the two studies. Results from the clinic intervention group (Hospital 1) showed a significant decrease in total alcohol consumption across the year, and a reduction in alcohol-related problems. Importantly, there were lower numbers of binge drinkers in the motivational intervention group. In the emergency department setting (Hospital 2), both the intervention arm and the control (which received standard treatment) resulted in reduced quantity of drinking during the 12-month follow-up. In the intervention group however alcohol-related negative consequences were relatively low and stayed low at follow-up. In addition, the more problematic the drinking as screened at baseline, the greater the improvement in alcohol reduction.

The studies suggest that brief interventions are recommended for adolescents who have experienced a harmful alcohol-related event and have pre-existing problems with alcohol use. Their success may lie with the nature of the traumatic experience itself, which may have engendered a sense of 'readiness to learn'. This refers to a critical junction in the life of a person where education has the greatest impact and is more likely to have long-lasting effects (Waldman et al 1999). This may explain the findings for the second study, where any intervention had some effect.

The ultimate sustainability of these particular effects with maintaining sensible alcohol intakes however has yet to be tested beyond a year. In addition there are some short-comings of the studies. There was an inevitable reliance on self-reported outcomes via a standardised questionnaire, although measures of blood alcohol content were taken in the second study, and this study was also inhibited by high refusal and attrition rates, perhaps due to the blood sampling. In addition, the samples in both were relatively small. Despite this, Boekeloo & Griffin (2007) imply that these weaknesses would not seem to have threatened the reliability of the findings to any great extent, and the approach warrants further research.

Social Marketing Elements
There were limited social marketing strategies employed in these studies.

4   Discussion

When considering the findings of this review as a whole, it must be stated that the data presented are interesting and intriguing, but puzzling and at times contradictory, which make for a fulsome discussion but fail to provide the much needed direction in this area.

There are various explanations for this. Above all, there would appear to be a real paucity of studies with compelling findings; many trials seem to present 'significant' findings but the actual effect size is often not big enough to engender confidence. In addition, due to the considerable contextual variations in where and how the studies are implemented, there are quite a number of mixed messages evident. For example, while a strong recurrent theme running through the review would be the suggestion that involving parents is important, there are other studies (IT/Media 1) where there was no significant benefit from involving parents. Also, where many studies emphasise the importance of boosters to augment and sustain effects, other findings (Community 4) did not note any significant utility. Coupled with this, there are studies that indicate that replicability of trials in the real world is near impossible (School 12); and that the strive to maintain intervention fidelity is actually at the cost of effectiveness (School and Community 4). Indeed, School 13 demonstrated that the greater the fidelity of the studies, the greater the levels of alcohol intake. So in an effort to find a solution to the problem of teenage drinking, studies and hence findings have become context dependent due to the need to test many different approaches. As a result, contradictions become evident when comparisons are made.

Embedded within these confusions are doubts surrounding statistical rigour and an important critique stems from Gorman (Gorman 2002; Gorman et al 2007). As outlined in School and Family (3.3.3), Gorman is particularly critical of and refutes the statistical evidence provided in support of effectiveness of SFP and LST programmes. Critiques such as Gorman's could be levelled at a number of quantitative analyses and the points made are no doubt relevant and should be considered when comparing findings. However, the crucial part of his reviews are not so much to ascertain which findings are significant and which are not, as if these were the 'golden keys' to reducing teenage drinking, but rather to compare similar analyses and ascertain why some are more effective than others. It is this latter issue that is so testing to ascertain however, given the potential for contradictions.

Raistrick et al (2006) state that a further difficulty in evaluating evidence is the tendency of journals not to publish negative findings, which may give important insights into the limitations of a particular approach. For example, some studies in our review did not make attrition rates transparent. Yet another difficulty is that there may be a formidable new treatment that has not been evaluated and cannot, therefore, appear in a review. Also no matter how good a clinical trial might be, there are inevitably differences between the real world and the trial as we have found. These differences are minimised in some methodologies, for example in a pragmatic trial design. Research typically answers one question; it may be a big question, but findings still need to be interpreted into clinical practice, in order to suit the variety of circumstances in which treatment takes place and the range of service users looking for help.

Another issue that must be taken into consideration when reviewing effective interventions is age. Teenagers are a very large variable cohort and it would be naïve to assume one end of the spectrum will react in the same way as the other. In particular some of the findings might be read as suggesting that younger adolescents are 'malleable' (eg Community 7), which infers that older ones are not. However the University freshers have been included to show that very short interventions can be effective, even into the longer term.

Leading on from this, many of these contradictions probably have their roots in the unpredictability of the target group and the inherent difficulties with dealing with the turbulence that is adolescence. It remains a stark fact that interventions to prevent alcohol misuse are being implemented at a time when alcohol experimentation is becoming desirable among young people. Given this backdrop, it is unsurprising that effectiveness is difficult to establish, that sometimes attrition rates are high and that the body of evidence for or against certain approaches remains indefinite. Superimposed on this is the very high reliance on self-report and accurate memory recall, although commentators state that the large numbers involved and randomised approach could negate some of these validity and reliability concerns (Foxcroft 2006).

In the absence of any cut and dried conclusions there are nonetheless a number of spectra which would seem to be salient. Multi-factoral interventions were often very effective such as the Trelleborg project (Community 8) and the Icelandic model (Community 9), which has had large effects on large swathes of the population over a period of time. Still, with these approaches, there were outcomes that could be attributed to variables outside of the experimental conditions. Also, brief motivational interviews would appear to be a promising way forward, as positive results were found in a range of settings. Certainly in terms of value for money, the type of short-term intervention used in the three University studies would seem to pay-off, especially in one case where this intervention was targeted at high risk drinkers (University 2). This study in particular showed the ability of interventions even at this stage (18-19 years) to move trajectories away from adult alcoholism. A review of the effectiveness of treatment for alcohol problems in the population at large (Raistrick et al 2006) concluded that in general, evidence for this kind of approach is strong but only effective if carried out in accordance with good practice and by a competent practitioner. The authors state that assumptions drawn from the evidence are predicated on the availability of trained practitioners.

Alongside this and despite Gorman's critique, a number of studies based on similar approaches to SFP and life skills training would seem to suggest that parental attitudes, skills and support are a key concern, and this was evident in all of the themes. How these parents are engaged is another vital issue, and some of the process evaluations gave some useful insights, particularly the UK transfer studies of Spoth et al's SFP (School and Family 4, 5, 7 & 8). These studies highlight in particular how to bring in parents and not alienate them, as well as overcoming some major cultural factors when importing a Mid-West USA programme into an area such as Barnsley.

With reference now to the social marketing approaches, none of the studies appeared to explicitly indicate the use of these methods, although social marketing principles were apparent in some form, especially in the community-based interventions. There also did not seem to be any clear connection between social marketing methods and intervention effectiveness. However Slater et al's study (2006: School and Community 3) seemed to make a strong contribution to this end, using consumer involvement and promotional activities to guide a strategy for the in-school media campaign, with positive outcomes. With respect to the more cultural studies, it was advantageous to present interventions in a way which was relevant to the group. Some studies did this by gender (IT/Media 3 & 4) and two studies in particular were effective at targeting their project to ethnic cleavages (Community 2 & 4). Involving people in the development of interventions and throughout the life of the project (Community 9) helped to support its promotion and 'buy-in', as well increasing the consumer relevance. It is evident however that projects would benefit from fully embracing social marketing principles, especially those connected to addressing competition (looking at project aspects that may keep young people away) and exchange (that young people get some explicit benefits from being engaged).

It would seem that social marketing principles do have a place in the design of interventions to tackle alcohol misuse, and it is indeed desirable that comprehensive prevention projects should include elements that have universal applicability to young people such as pricing, marketing and availability (Stockwell et al 2004).

4.1   Strengths and Weaknesses of the Review

As with all literature reviews, there can never be complete assurance that all available published information on the subject has been included. However the search strategy capitalised on the current extensive range of internet-based search engines and on-line publications, supplemented by more traditional hand searching of relevant journals. All available sources were cross-checked with each other and the inclusion of review articles proved to be additionally valuable in this respect. A weakness could be the reliance on secondary sources such as the Cochrane review; however it was judged to be a sound resource as seldom was any evidence presented here refuted and on the contrary, was the most cited review.

The judgement of the articles for inclusion was taxing on occasion, as commentators were sometimes divided on their opinions as to the worthiness of the article. Again, having clear inclusion criteria assisted the decision-making, and including a range of study methodology outside of the RCT format was particularly valuable in drawing out some important process variables. Assessing each selected article was also challenging for the same reasons; as is often the way with academic debate, statistical outcomes were supported by some reviewers and not by others, and elements of subjectivity in the review process will inevitably creep in. However, all perspectives are summarised in the inventory where possible; although this makes for a crowded matrix, inventories provided by other reviews were so abbreviated as to be unintelligible, and this author wanted to ensure clarity of reporting.

5 Conclusion: Evidence for Practice?

To conclude therefore, it is clear that there is a great deal of scientific uncertainty surrounding what constitutes effectiveness in alcohol misuse prevention among young people. As a result of this, the evidence is currently failing to provide definitive markers for practitioners and there are a number of convoluted and interwoven explanations for this that are wrapped up in adolescent development, demography, psychology sociology and methodology. On a practical note, Velleman et al (2005) state that in the same way that there is no one reason why a person starts to use or misuse alcohol and other substances, so there is no one method to prevention or intervention which will work with everyone.

An important consideration for practitioners in the Kent area is the transferability and applicability of results for their local areas. It must be remembered that most of the projects were based in the USA, and studies reporting cultural transfer of programmes to the UK have been useful in highlighting issues that need to be taken into consideration. Therefore recommending practice guidelines from this review, in the absence of evidence to ascertain good transferability, will mean that guidelines will need to be couched as broad principles for practice.

These impediments should not however be a barrier to action, and Foxcroft (2006) reviews an idea termed the 'precautionary principle' in relation to alcohol misuse prevention, that lends weight to the continuation of interventions in the absence of clear guidance. This concept was originally developed in 1992 as a global policy directive to cover environmental hazards relating to preventing irreversible ecological damage when scientific uncertainty prevailed; simply put, it is better to act than to do nothing. It has since been extended to other areas of public safety such as mobile phone use, and also where there is overlap between the prevention of harm and the promotion of health. Hence in this reconfigured meaning, the precautionary principle is used to support and justify an activity where there is scientific uncertainty of potential benefit, such as in health promotion.

Foxcroft states that it is possible to apply this to alcohol and drug prevention policy and practice, and intimates that policy makers and practitioners have probably been applying an implicit form of this principle for many years. In alcohol prevention activity as we know, there is provisional or equivocal evidence about the effectiveness of prevention programmes, and the potential for harm if a programme is not implemented is considered to be high. Thus policy makers and practitioners arguably have a rationale for invoking the precautionary principle until such a time as further evidence becomes available. This principle should not however be used so that just any preventive action can be justified. To avoid misuse, such as applying it to actions where there is no or poor evidence and possibly doing harm, Foxcroft puts forward four qualifying criteria:
- The costs and harms associated with a lack of effective action are considered to be high;
- There is some provisional high quality evidence of effectiveness for a specific preventive action, with no indication that the preventive action is in itself harmful but further research is needed to provide convincing evidence either for or against this action;

- Cost-effectiveness studies or models point to the potential of the preventive action to reduce costs and harms;
- Further high quality studies are fully resourced and planned, or on-going to establish convincing evidence for or against the specific action so that the costs associated with an ineffective action can be minimised.

These qualifying criteria have yet to be fully embraced by the alcohol prevention fraternity; however they do provide some guidance in the absence of any other.

6 Recommendations for Practice and Service Improvement: Elements for practice

The following elements for practice have been extracted from the reviewed studies, and provide some broad indicators for project development associated with reducing alcohol consumption and misuse. There are six sections that display the practice elements according to the most prominent and supported evidence from the review. These sections are general points; the school environment; involving the family; the community setting; brief motivational interventions; and social marketing approach.

6.1 Elements for Practice: General Points

- Effective alcohol prevention programmes must be well organised and co-ordinated with a central project manager.

- Programmes must be constructed and costed in a realistic and achievable way within the allocated resources. It is reasonable to seek funding from multiple agencies as interventions can result in multiple outcomes, not just in health.

- The goals of the programme must be acceptable and relevant to young people, and delivered by competent and knowledgeable facilitators. Appropriate training should be provided if necessary.

- Ideally young people and other stakeholders (such as parents, teachers, and community representatives) should be consulted about the content of the programme to ensure relevance and the programme should be piloted before rolling out. This is particularly important if using material developed in another country. Technological approaches have an engagement advantage and appeal. The interpersonal 'behind the scenes' engagement work is vital to ensure success and sustainability.

- Comprehensive prevention policies must include elements that have universal applicability to young people such as pricing and availability.

6.2 Elements for Practice: the School Environment

- The programme content must be clear and oriented towards life skills building with psychosocial components. Information giving in the classroom should be creative, using interactive techniques, discussion, role play and videos. Life skills training should contain aspects such as
  - developing cognitive behavioural abilities to raise self-esteem;
  - resistance to pressure and assertiveness;
  - anxiety management and communication skills.

- Age and gender should be considered when planning programmes. Older teenagers are able to process more complicated tasks such as weighing up the pros and cons of unhealthy behaviour and can learn more sophisticated approaches for resisting alcohol. Younger teenagers will however need to be taught simpler more concrete strategies. Separating genders may be

important in life skills training for self-esteem building, assertiveness skills, sexuality and health education.

- Booster sessions should be provided at relevant periods in young people's development and specifically tailored to their changing needs. Information should also be of immediate practical use to young people.

- Interactive CD-ROM prevention programmes seem to be effective. The programme should cover aspects such as goal setting, coping, peer pressure, refusal skills, self-efficacy and effective communication. Skills of problem-solving and alcohol avoidance are best developed when material is age appropriate and related to gender and ethnic-racial differences.

- Content should also include harm minimisation strategies – drinking safely - in recognition that teenagers will not respond to abstinence programmes and will at some stage experiment with alcohol.

- Interventions should not be too time-consuming or elaborate, as this will disengage teachers as well as students.

6.3   Elements for Practice: Involving the Family
- The Strengthening Families Programme (SFP) is a promising way forward:
  o the duration of the programme needs to be over a number of weeks (ideally half-day weekly sessions for 14 weeks) and use a combination of parent and young person only classes with some mixed;
  o it needs to be designed to develop specific protective or 'resilience' factors and to reduce risky behaviours by improving aspects such as communication styles, school involvement, and a more nurturing parenting manner;
  o personal and family goals for the future must be developed, alongside ways to improve family relationships, manage stress and develop skills for dealing with peer pressure;
  o translation of the US based programme to the UK setting is required to ensure acceptability and engagement.

- Family interventions that are underpinned by family psychology and the development of resistance skills are more likely to succeed:
  o interventions that help co-ordinate parents, teachers and young people in supporting and praising positive behaviour as opposed to threat of negative sanctions are of use, especially with girls;
  o interventions that have a strong focus on parents, helping them to learn consistent communication skills for giving effective anti-alcohol messages and reducing family conflict are also promising;
  o interventions that draw upon social networks and social support systems involving the family either centrally or peripherally will result in a more effective preventive programme;
  o prevention programmes that harness the family in ways that strengthen it (like the SFP) serve to increase the likelihood of preventing or decreasing substance misuse.

6.4   Elements for Practice: the Community Setting

- For community interventions to be effective and sustainable, project organisers must gain the support and involvement of the community at the beginning through the engagement of stakeholders, who must remain as advisors throughout. The mobilisation of community forces will create a more 'alcohol aware' community and simultaneously involving young people, parents, schools and other clubs/organisations increases success.

- Stakeholders can include:
  - key policy officials and community members;
  - school and local council representatives;
  - the police;
  - the leisure industry;
  - health and social care professionals;
  - parents/carers and young people.

- Successful interventions include the following characteristics:
  - scoping the extent of the problem and involving stakeholders in developing realistic interventions;
  - having achievable and different levels of action happening simultaneously. For example combining pro-active education in school with law and order responses, media coverage and parental information-giving appeared an effective, holistic approach;
  - frequent reflecting and process evaluation to reveal strengths and weaknesses, and to pre-empt any difficulties;
  - peer-led activity;
  - starting interventions at the critical age is 12-13 years and it is vital not to run interventions too late;
  - community interventions should be a long-term investment, therefore there should be sound financial backing.

6.5   Elements for Practice: Brief Motivational Interventions

- Brief motivational interventions are demonstrating increasing success. They should be directed at hazardous and harmful drinkers who are not typically complaining about or seeking help for an alcohol problem. The following aspects should be taken into consideration:
  - they can be carried out in a variety of setting such as schools, universities, hospitals and other general community settings;
  - they can be delivered by non-specialist personnel such as general medical practitioners and other primary healthcare staff, hospital physicians and nurses, and social workers, but interventions are only effective if carried out in accordance with good practice and by a competent practitioner;
  - the target group can be identified by opportunistic screening or some other identification process, such as Casualty attendance;
  - some studies using brief interventions to families have also been effective in sustaining reduced alcohol use.

- Brief interventions can themselves be subdivided into:
  o *simple brief interventions* (or minimal interventions) - which are structured advice taking no more than a few minutes usually with health promotion literature;
  o *extended brief interventions* – structured therapies taking perhaps 20 to 30 minutes and often involving one or more repeat sessions.

6.6   Elements for Practice: Social Marketing Approach

Social marketing approaches can be beneficial and effective in relation to alcohol misuse interventions, and should go beyond simply defining goals that change behaviour. The following provide some examples of noteworthy approaches.

- Having a clear goal is fundamental to programme success, but must be realistic and achievable:
  o ideally it should be developed with the target groups;
  o if interventions involve a number of stakeholders as in community-based ones, all must 'sign up' to the same goals such as changing the behaviour of different actors within the community, from vendors to families to other adults who might, for example, supply alcohol to young people.

- Consumer involvement approaches included the following:
  o using local and wider research as a first step to better understand adolescents' attitudes, values and behaviours about substance use, and this should guide programme development;
  o continuously getting feedback from those involved or external stakeholders and developing programmes accordingly; this is important for school-based 'booster sessions' and community interventions where there are many intervention layers to co-ordinate.

- Studies that were impressive with targeting their audience used a variety of approaches such as:
  o gradual tailoring of focused interventions through reflection and consumer involvement to ensure the right approach;
  o different mixes of components to appeal to their audience in the way messages were put across:
    ➢ from family interventions: brief nurse-led individual consultations, letters and 'prevention postcards' to parents, family sessions with clinicians and family home packs;
    ➢ from school-based interventions: a mix of peer-led classroom sessions with parental involvement, youth or teacher-led activities outside of the classroom, and community adult action teams;
    ➢ from IT/Media: the use of a media-platform such as CD-ROM for home PCs allows tailoring to change substance use behaviour or intentions, especially when segmented not simply for age but also for gender.

- Strategies to promote programmes included the following:
  - o knowing about what will attract young people, such as understanding their media preferences and using promotional images like rock-climbing that are appealing to risk-oriented, sensation-seeking youth;
  - o understanding that adolescence is about becoming more independent and autonomous and that interventions should take into consideration teenagers' aspirations;
  - o with CD-ROM interventions, using audience research to make the product as effective and attractive as possible, for example appropriate music, graphics and language;
  - o injecting a creative novelty value to avoid boredom and distraction, such as getting young people to make films of their peers.

- While issues relating to other aspects of social marketing principles were not explicit within any of the articles reviewed, interventions would benefit from their inclusion. These 'missing' issues relate to:
  - o *addressing competition*: this refers to considering 'risky' aspects of the project that will stop people from getting involved and becoming engaged. It necessitates that projects offer more attractive options to what alternatives may be, and examples might be coupling alcohol messages with other activities such as sport or creative arts;
  - o *mutually beneficial exchange*: this refers to ensuring that people taking part in the interventions get some benefit out of attending, which will increase a sustained involvement. Examples might be giving something that will be of immediate practical use, or offering new skills as with above.

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ID [00x]	Country	Author(s)	Intervention/publication name	Year	Included in main review articles?	Social Marketing components	Intervention	Outcomes	Elements for Practice	Notes (eg potential limitations etc)	www
School 1	USA	Botvin, Baker & Dusenbury	Life skills training/Long-term follow up results of a randomised drug abuse prevention trial	1995 - * outside timeframe but out for special mention by Cochrane review	Cochrane	Behaviour change is sought, but little else in terms of SM.	Cognitive-behavioural skills to raise self-esteem, resistance, assertiveness, anxiety management and communication skills (LIFE SKILLS TRAINING) given in school. 15 classes at year 8 (age 12-13), 10 booster sessions (yr 9), and 5 booster sessions in yr 10. Three arm A. teacher with formal training, B. teacher trained with video, and C. control group (no int). n=5954	Three year follow-up. Sig. improvement in knowledge and attitudes reported. Self-reported frequency of drunkenness reduced in teacher and video group, measured by drunkenness in last month on 9 point scale. Results = Formal training and feedback 2.31, teacher trained by video 2.19, control 2.32. NB p<0.05 between these last two.	Combination of social resistance skills and general life skills - need to be well implemented and include at least 2 years of booster sessions	This was a mainly white, middle-class population sample in the US. Described by Cochrane review as a "thorough study". Yet while statistically significant difference in outcomes between group b and the control, this is hardly a compelling difference.	http://jama.ama-assn.org/cgi/content/abstract/273/14/1106
School 2	Australia	Farringdon & McBride	The school health and alcohol harm reduction programme/IT WORKS! COMBINING RESEARCH AND EDUCATION TO ACHIEVE CHANGE IN SECONDARY SCHOOL STUDENT'S ALCOHOL RELATED BEHAVIOUR.	2000		Clear behavioural change sought but information was given as a 'curriculum programme' rather than by any particular means of appealing to, differentiating or capturing the specific social market. In the findings and recommendations section there are a number of social marketing related practice points. See 'Elements for Practice' section	Quasi-experimental conditions, (no control group) with a comparison group with a more 'typical' alcohol education classes lasting a term. The intervention group began with children aged 13 who were given a 17 session programme which was followed up a year later with another 12 sessions. Specfic teacher training over a couple of days was provided alongside teacher manuals, student workbooks and a video designed to trigger discussion. Sample of over 2300 students. The retention rate was 75.9% over 32 months.	Unlike the outcomes data reported in School 9 - McBride) this paper focuses more on process evaluation and reflection - these findings are given in the adjacent box as 'Elements for practice'	The young people interviewed were quite scathing in their views of the alcohol education they had received, indicating that it was boring, had abstinence as its primary goal and focused on the negative aspects of drinking. It was clear that these young people were unresponsive to an abstinence only message seeing it as inappropriate and hypocritical in a society were alcohol use is prevalent, accepted and encouraged. There was strong consensus that harm minimisation was the education approach most likely to be accepted by young people.	Process evaluation with many useful findings/recommendations which given the size of the study and the relative effectiveness might considered noteworthy	https://www.aare.edu.au/01pap/far01097.htm
School 3	USA	Donaldson, Thomas, Graham et al	Verifying Drug Abuse Prevention Program Effects Using Reciprocal Best Friend Reports	2000		Within this trial there were four different groups with different combinations of intervention type. The key element was that of 'normative education' ie thinking about the consequences of action etc. This was combined with either information and or resistance skills training re: peer pressure. Hence there was a clear attempt to change behaviour (1), apparently based on previous research into interventions (2) though no other SM characteristics were apparent (3-6).	Purpose - to assess the effects of normative education on alcohol and cigarette consumption using both self- and reciprocal best friend reports of substance use. Analyses of subsamples of data from 11,995 students in the Adolescent Alcohol Prevention Trial used to assess differences in self-reported and best friend reported behaviour in four groups: information only; information and resistance training; information and normative education; and information + resistance training + normative education. These sessions were administered via school sessions to age 10/11 and half of the total cohort received booster sessions in aged 12/13.	Data comparing self-reported drinking levels with 'best friend reports' suggested self-reporting was a fairly accurate measure within previous interventions of similar programmes. Measures were used to take account of life time alcohol use (totality of occasions and lifetime drunkeness) as well as last 30 day measures. While resistance training accentuated alcohol use when compared to the comparison (info only) groups - there was a significant effect of the normative education in public schools (state) in the programme (in comparison to the non-normative ed groups) though this was not the case within the private Catholic schools. That these figures are taken from follow-ups at 8th, 9th and 10th grade (up to 5 years after initial int.) is very impressive.	Length of time for which the interventions continued to be significantly different to comparison groups is impressive and suggests an effectiveness of normative education which highlights the potential for this type of programme: Normative education has been shown to be most effective in public school settings where adolescents are likely to overestimate the drug use prevalence and acceptability beliefs of their peers.	Large scale, rigorous study with long-term follow ups giving significant findings. Useful comparison between self-reported measures and best friend reports - though the latter should not be considered as reliable a benchmark as the study suggests.	http://www.cgu.edu/include/Verifying%20Drug%20Abuse%20Prevention%20Program%20Effects.pdf

	Country	Authors	Title	Year	Source	Social marketing critique	Intervention	Outcomes	Commentary	Notes	Link
School 4	USA	Goldberg, MacKinnon, Elliot et al	Adolescents Training and Learning to Avoid Steroids Programme	2000	Cochrane	Strong social marketing theme - with specific (young-male-adolescent) focus where the boys get sports training as well as info on substance misuse. Hence there is a clear change sought (1), audience is clearly segmented and targetted appropriately (3), the scheme is attractive by way of the training offered though again little explicit mention of the 4 'p's nor competitors (5,6).	Interactive classroom and exercise training sessions given by peer educators and facilitated by coaches and strength trainers. Program content included discussion of sports nutrition, exercise alternatives to steroids and sport supplements, and the effects of substance abuse in sports, drug refusal role-playing, and the creation of health promotion messages. 8 - 14 sessions led by coaches and peers. n=3207 over 31 schools. All male.	Outcomes were lower incidence of drink-driving after 1 year. Measured by cumulative incidence of this form of behaviour - ie baseline control = 4.6 and intervention = 5.0, 1 year on control = 12.1 and intervention = 10.7.	A useful model of social marketing via sport - and tailoring based on a specific gender/age/culture cohort	The steroid basis of the study is particular to American Football and may be of very limited salience to UK mainstream sport. NB significance of drink-driving results was by individual- not significant on a school-by-school basis	http://archpedi.a ma-assn.org/cgi/con tent/abstract/154 /4/332
School 5	USA	Botvin, Griffin, Diaz et al	Life skills training/Preventing Binge Drinking During Early Adolescence: One- and Two-Year Follow-Up of a School-Based Preventive Intervention	2001	WHO	Clear attempt to change behaviour (1) and the intervention has been developed and modified over a long period of time, towards minority ethnic teenagers (2) to which the intervention is especially targeted (3). While the approach is well-planned and specific, it is very much taught within a scholastic framework with little regard given to Andreasen's items 4-6.	Life-skills training which includes cognitive behavioural skills to raise self-esteem, resistance, assertiveness, relationship, anxiety management and communication skills. Cohorts of multiple minority ethnic groups (n=5233) across NYC experiencing clear socio-economic disadvantage. NB Teachers were given one-day training workshop. Intervention group (16 schools) vs control group (13 schools) who received normal NYC curriculum on drugs and alcohol. Participants were initially 12-13 year old.	1 year follow up measured binge-drinking (more than 5 drinks per occasion) = int. 1.8%, contrl. 4.3%; 2 year follow-up = int. 2.2%, contrl. 5.2%	Following further studies by the same author this study would seem to underline the effectiveness of psycho-social model interventions in schools and demonstrate their effectiveness in marginalised, multi-ethnic inner-city areas as well as with white, middle-class youth (see School 1). That this intervention was specifically targeted towards this 'market' would seem to be important.	High attrition rate which may have skewed sample, according to Foxcroft intent-to-treat analysis should have been performed.	http://psycnet.ap a.org/index.cfm? fa=search.displa yRecord&uid=2 001-05427-012
School 6	Netherlands	Cuijpers, Jonkers, De Weerdt et al	Healthy school and drugs project/The effects of drug abuse prevention at school: the 'Healthy School and Drugs' project.	2002	Stewart et al 2005	Behavioural goals evident (1), and developed with audience; 64–73% of Dutch secondary schools included and was gradually developed over the 1980s (2). Notion 3 of segmentation is not met. High level of dissemination has been reached by close cooperation with schools in the development of the intervention, and by building strong relationships with prevention specialists and local authorities (ensures against 'competition' of doing nothing - 6).	The 'Healthy School and Drugs' project was disseminated in the 1990s. Being used by 64-73% of Dutch secondary schools and at least 350 000 high school students receive this intervention each year. A quasi-experimental study was used in which students of nine experimental (N = 1156) schools were compared with students of three control schools (N = 774). The groups were compared before the intervention, 1 year later, 2 years later and 3 years later.	Groups - experimental (9 schools, n=1156) and control (3 schools, n=774) were measured at baseline and followed up at 1, 2 and 3 years afterwards. Measures were proportion who drank, proportion who drank weekly, how many drinks per week and how many drinks per occasion. At 3 year follow up the proportion who drank = int. 0.738, contrl. 0.805; proportion of weekly users = int. 0.442, contrl. 0.569; drinks per week = int. 4.06, contr. 5.27; drinks per occasion = int. 4.79, contrl. 5.82. All these were significant. However the actual differences with the control (no programme) are not compelling.	This study shows the impact that can be made with a coordinated strategy and while this impact is not vast, given the proportion of the country using this approach, a significant number of young people would seem to be affected positively. Moreover the study highlights the importance of the interpersonal, behind the scenes work in local authorities and schools which is essential.	Strong design and apparently robust study although the effects of change in behaviour are not great - eg 4.79 drinks per occasion versus 5.82. More than 25% attrition rate.	http://pt.wkhealth .com/pt/re/addi/ abstract.000085 14-200201000- 00010.htm;jsess ionid=KhTZ5y8c pv2SfpGMKnLs hkrJMkPSJ4gr9 x5FxW2QR5wK CpcPVvnN!- 701738752!181 195629!8091!-1

	Country	Authors	Title	Year	Source	Social marketing approach	Intervention/Curriculum	Method	Results	Outcomes	Critique	URL
School 7	USA	Ellickson, McCaffrey, Ghosh-Dastidar et al	ALERT/New Inroads in Preventing Adolescent Drug Use: Results From a Large-Scale Trial of Project ALERT in Middle Schools	2003	WHO	Little apparent social marketing approaches other than the clear attempt to change behaviour (1) and the development of this approach in previous research (2). The approach seems to use relatively straightforward teaching approaches within typical school settings.	The curriculum seeks to change students' beliefs about drug norms and the consequences of using drugs; to help them identify and resist pro-drug pressures from parents, peers, the media, and others; and to build resistance self-efficacy. Project ALERT uses interactive effective teaching methods, such as question-and-answer techniques and small-group activities. n=4276 12-14 year olds split between the intervention schools (teaching a revised version of the ALERT curriculum) and others within 'control' schools.	Measures (18 months after intervention) looked at alcohol issues from consumption (ever/in the past month/week) to 3 measures of misuse - one included vomiting, fighting, trouble at home, trouble at school, doing something later regretted; second, binge drinking, weekly drinking and polydrug usea; third, overall misuse (sum of all 8 variables). However the regular users at baseline had significant differences in measures of overall misuse, alcohol related consequences and high-risk use. Change in high risk use in particular was significant to a 99% confidence interval. The effects of the intervention were not significant on any of the measures for the non-users and experimenters.	It must be noted that while this school-based, curriculum focused intervention was significant among those most at risk, it nonetheless achieved relatively small changes in behaviour across the board. It would seem that mere knowledge impartation in a relatively formal classroom setting is insufficient.	Relatively small effects in changes and Foxcroft suggests that it would seem that even the significant effects are found via post-hoc tests and therefore should be approached with caution - ie it could be a chance finding of significance.	http://www.ajph.org/cgi/reprint/93/11/1830
School 8	USA	Fagan & Mihalic	Life skill training/STRATEGIES FOR ENHANCING THE ADOPTION OF SCHOOL-BASED PREVENTION PROGRAMS: LESSONS LEARNED FROM THE BLUEPRINTS FOR VIOLENCE PREVENTION REPLICATIONS OF THE LIFE SKILLS TRAINING PROGRAM	2003	Winters, Fawkes, Fahnhorst et al 2007	This process evaluation gives insight on the social marketability of Life Skills Training (LST) format. Hence while it has clear goals (1), has been refined over many studies (2) and is in some senses tailored to the age-level involved (3); the paper discusses issues around working with teachers as they try to adapt and work with the programme to the particular clientelle and classroom context (5) as a means of keeping the participants interested (4) and avoiding boredom and distraction (6).	See other Life Skills Training interventions eg School 7. This paper is a process evaluation.	As is the norm with process evaluations, the results are nuanced and unclear; an important result includes the importance of effective working relationships and clear communication between those overseeing the programme and the teachers charged with implementing it. This involved emphasizing the link between program fidelity and program success.	As referred to in the outcomes, relationships and clear communication with teachers or those charged with presenting/teaching the programmes on the ground is essential. At a SM level there is also an apparent tension between sticking rigidly to what works at a scientific level (fidelity) and being contextually relevant from a SM angle.	NB no actual scientific findings as such as this was a process evaluation. Due to the qualitative nature of the research notions of reliability and generalisability are unclear - however many of the difficulties referred to would seem likely to occur elsewhere.	http://www3.interscience.wiley.com/journal/104087782/abstract?CRETRY=1&SRETRY=0
School 9	Australia	McBride, Farringdon, Midford et al	The school health and alcohol harm reduction programme/Harm minimization in school drug education: final results of the School Health and Alcohol Harm Reduction Project (SHAHRP).	2003		Clear behavioural change sought but information was given as a 'curriculum programme' rather than by any particular means of appealing to, differentiating or capturing the specific social market.	Quasi-experimental conditions (no control group) but comparison group with more 'typical' alcohol education classes. Intervention group at 13 yrs given a 17 session (spread over 8-10 lessons) programme, followed up a year later with 12 more sessions. Specfic teacher training over 2 days provided with manuals, student workbooks and a video to trigger classroom discussion. The sample involved over 2300 students. The retention rate was 75.9% over 32 months.	Intervention (SHAHRP) followed up over a 32-month period from baseline, with earlier follow-ups at 8 and 20 months. Assessments about alcohol measured: knowledge, attitudes, consumption, risky patterns, context of use, harms/risks from self and others. Results: clear difference in consumption of alcohol - converged during follow ups after the scheme finished. Ie first measurement showed a 31.4% difference in consumption between the intervention and comparison group; second phase the intervention group drank 31.7% less. 32 month follow up - after completion - difference had dropped to 9.2%. This final follow up not reaching significance with the non-parametric tests. In terms of risky consumption the intervention group were only 4.2% less likely to drink to 'risky' levels. Most compellingly intervention students reported 22.9% less harm associated with their own use of alcohol than the comparison group.	Detailed contents of course unclear, but intervention had some degree of effect, partly in lowering levels of drinking in the short term but questionable in the long-term. Message would be to try to provide expertise so that heavy drinking will be done 'safely'.	In the Cochrane Report, Foxcroft notes the post-hoc tests which were applied in the 2000 paper (increasing likelihood of accidental levels of significance) are less apparent in the 2004 paper and the findings seem quite compelling. Aspects of non-significance are noted. Findings are impressive as the intervention is not drawn against a control group but one which had 'normal' levels of alcohol awareness classes. However the sample could have been skewed by the attrition rate.	http://pt.wkhealth.com/pt/re/addi/abstract.00008514-200403000-00003.htm;jsessionid=KcJLl1ztt3ygxNJzk2YTyHf12QhfYPTftLtVfQQXcccGDKFK78CW!-1775402713!181195628!8091!-1

School / Country	Authors	Title	Year							
School 10 Australia	Bond, Patton, Glover, Carlin et al	The Gatehouse Project: can a multilevel school intervention affect emotional wellbeing and health risk behaviours?	2004	WHO	Hard to define, project develops social marketing in the true sense of the 'social' - seeking to modify the social environment of the schools in which the adolescents interact for behaviour change (1). Well planned, theorised and based on prior WHO research in the field (2). There is clear consideration of segmentation from the overall school to the smaller adolescent social networks. Notions of place and promotion are apparent (5).	Intervention based on an understanding of risk processes behaviours that derive from social environments. Aims were to increase levels of emotional wellbeing and reduce rates of substance use. Conceptual framework identified three priority areas for action: building security and trust; increasing skills and opportunities for good communication; and building positive regard through participation in school life. School based cluster randomised controlled trial involing 2678 13-14 year olds. Two armed - intervention = 12 schools, control (no apparent intervention) = 14 schools.	Marginal effects on drinking were achieved in the short-term but following ups at 2years and 3 years show a narrowing of differences between experimental groups and control - with no significance in difference of drinking behaviour.	The adoption of a multilevel, whole of school approach to health and mental health promotion in schools requires a stronger interface between health and education at all levels. It is also therefore, appropriate to have multi-sectoral support and importantly, funding for such initiatives as they affect multiple outcomes. A more effective focus for health and mental health promotion is on people, processes, and support structures rather than health education packages. Furthermore, this approach leads to a broader conceptualisation of student welfare from individual service focus, to a focus on organisational health.	No significant impact on longer term though notions of considering social impact and environment seem well theorised and founded. Though importantly, attempted change in the social environment failed to bring about significant change in these measures.	http://jech.bmj.com/cgi/content/abstract/58/12/997
School 11 USA	Werch, Moore, DiClemente et al	Project SPORT/A Multihealth Behaviour Intervention Integrating Physical Activity and Substance Use Prevention for Adolescents	2005		Clear behavioural goals which combined health promotion towards active lifestyles with discouragement of alcohol use (1), as based on the behavioural image model developed elsewhere (2). One limitation may be that the project was targeted at those regardless of an interest in sport or not - though the lack of exclusion is a strength (3). The mix of positive and preventative messages is designed to be attractive (4) and placing the intervention within the right message and active setting (5) - ie out of the classroom may help in reducing distraction (6).	Purpose was to test the efficacy of a brief, multi-health intervention integrating physical activity and alcohol use prevention messages. A total of 604 participants, 335 14-15 year olds and 269 16-17 year olds from a suburban school in Florida. RCT employed randomly assigning within age groups to receive either a brief one-to-one consultation and list of health promoting activities with a mailed reinforcing follow-up flyer (Project SPORT) or a minimal intervention control consisting of a wellness brochure provided in school and a pamphlet about teen health and fitness mailed to the home.	Differences between intervention groups were evaluated with a series of MANCOVA tests. Project SPORT participants demonstrated significant positive effects at 3-months postintervention for alcohol consumption, alcohol initiation behaviors, alcohol use risk and protective factors, drug use behaviors, and exercise habits, and at 12-months for alcohol use risk and protective factors ('p's < 0.05).	This study demonstrates the potential for running interventions within schools yet taking these out of the classroom - given the briefness and simplicity of the intervention the significance of effects at 1 year are impressive - signalling high likely cost effectiveness. Though significantly different, many of the levels of consumption had returned to pre-test levels (more or less) after one year suggesting the likely utility of regular interventions.	While significant, the size of the effects are often not of great magnitude.	http://www.springerlink.com/content/vp7l0j18323585k5/
School 12 USA	Hallfors, Cho, Sanchez et al	Reconnecting youth/Efficacy vs Effectiveness Trial Results of an Indicated "Model" Substance Abuse Program: Implications for Public Health	2006	Skager 2007	Study has clear behavioural aims (1) and uses a tried and tested approach (Reconnect Youth) (2) though this is taught in school through typical classroom formats. Though it is targeted at high risk young people so in that sense is segmented and efficient (3).	1370 high-risk youths randomized to experimental or control groups across 9 high schools in 2 large urban school districts. Intent-to-treat and on-treatment approaches were used to examine baseline equivalence, attrition, and group differences in outcomes at the end of the program and at a 6-month follow-up. The Reconnect Youth curriculum included 55 core lessons and 24 booster lessons focusing on 4 themes: self-esteem, decision-making, personal control, and interpersonal communication. Students monitored their school attendance, academic achievement, drug use, and moods, and set personal goals.	The key findings of the study and the point of the paper is to note the difference between efficacy trials (to see whether the intervention does more harm than good) and effectiveness trials which test whether the interventions have any sizeable impact in 'real world conditions'. Positive efficacy trial findings were not replicated in the effectiveness trial. All main effects were either null or worse for the experimental than for the control group.	The paper makes a strong point about the concerns of applying approaches which are deemed efficacious by trials and whether these are bourne out by less than expert local professionals.	The premise of the paper is a word of caution against the apparent efficacy of RCTs and their likely limitations in real world conditions.	http://www.ajph.org/cgi/content/full/96/12/2254

Country	School	Author	Title	Year	Ref	Aims	Intervention	Findings	Interpretation	Assessment	URL
USA	School 13	Sanchez, Steckler, Nitirat et al	Fidelity of implementation in a treatment effectiveness trial of Reconnecting Youth	2007	Skager 2007	Study has clear behavioural aims (1) and uses a tried and tested approach (Reconnect Youth) (2) though this is taught in school through typical classroom formats. Though it is targeted at high risk young people so in that sense is segmented and efficient (3).	Intervention is highly similar to School 12 except that the RY syllabus was taught over 41 classes rather than 55. The program consists of 1-semester class, to improve academic achievement, reduce or prevent drug use and improve mood management (depression, anger and anxiety). School A situated in a large city in southwestern USA; B in a large metropolis on the Pacific coast. Site B completed in spring 2003 and Site A in autumn 2004. Data collected over 3 semesters from 41 RY classes in nine high schools across the two sites. Outcome data are from 369 students who enrolled in the semester-long class and who attended >1 day.	The particular interests of this paper is in the relationship between fidelity of implementation of the programme (in terms of sticking to the curriculum and teaching the requisite classes) and effectiveness of outcomes. Overall, implementation fidelity was high with an average 90% of core lessons being taught. Unexpectedly, increased quality of implementation predicted increased alcohol use and anger. Adherence (teaching more of the curriculum) predicted increased marijuana use, while exposure (student attendance) significantly increased bonding to high-risk peers, alcohol use and anger.	It is unclear quite how these findings should be interpreted. However, the more systematic the approach - the more aspects like value-based notions, knowledge assimilation and values of young people are missed out. An important findings was that the ideal RY teacher with excellent classroom teaching skills and experience working with high-risk students, were the least likely to be released from regular teaching to do the project work.	Only one study and perhaps should be seen as anomalous. However it does raise concerns over how the inter-personal aspects of teaching can be overlooked by a disembodied, policy-focused approach to meeting objectives. This would seem to be a rigorous RCT and the surprising linkages around alcohol and fidelity were not always significant, or with marginal effect.	http://her.oxfordjournals.org/cgi/content/full/22/1/95
UK	School 14	Coleman & Ramm	Digital stories/Researching the effects of Digital Storytelling as a brief alcohol intervention for young people delivered in non-medical settings	2008		Clear aim (1). A novel intervention so no 'history' on which to refine the project (2), and no segmentation at this stage (3). The concept would seem to be attractive - though the videos produced were poorly evaluated by many young people (4) - yet the setting, medium of communication and form of promotion are clearly apparent (5) and efforts have been made to engage the young people away from distractions (6).	Intervention consist of two components delivered within one 45 minite session. One of these is watching four digital stories which have been made by young people about their day to day experiences. The other segment is 20-25 minutes in small group discussions. Baseline cohort n=423 - the third questionnaire (completed 6 months post-int.) n=283. NB high attrition rate	Mixed method evaluation presents a wide range of data: the quality of the videos was evaluated as poor - and often not explicitly related to alcohol issues. Effectiveness of the intervention evaluated by measuring - within the experimental and control groups - the numbers who did not get drunk over the previous week. Baseline 53.3%, follow up 54.1%, 6 month follow up 52.7% - whereas the control group = baseline 74.6%, follow up 53.8%, 6 month follow up 34.3%. This was significant to the 93% confidence interval. Qualitative interviews suggested the intervention also reaffirmed the strength of those with non-drinking views.	There would seem to be some effectiveness here in the intervention - although the apparently poor quality of the films belies the change in behaviour. The novelty and relevance of having young people make films for their peers is perhaps effective in some senses.	Whilst the fact that the control group initially drank substantially less and ended up drinking more is compelling, no account is made of the high attrition rate.	http://www.studyofadolescence.org.uk/publications/acatalog/Publications_New_Titles_3.html
UK	School 15	Conrod, Castellanos & Mackie	Personality targeted interventions/Personality-targeted interventions delay the growth of adolescent drinking and binge drinking	2008		The key novelty and interest with this intervention is in its segmented targeting of the population by which young people are screened for personality type which might indicate disposition towards binge-drinking and tailors specialist interventions towards this (3). This is based on research about prior attempts (2) and has clear behavioural oriented goals (1). As to the attractiveness, positioning and competition (4,5,6) this is less clear.	RCT was carried out with 368 adolescents recruited from years 9 and 10 (median age 14) with personality risk factors for substance misuse. Participants received either a personality-targeted brief intervention or no intervention. Outcome data were collected on alcohol use through self-reports at 6 and 12-month post intervention and analyses were conducted on the full intent to treat sample.	Multi-group analysis of a latent growth curve model showed a group difference in the growth of alcohol use between baseline and 6-months follow-up, with the control group showing a greater increase in drinking than the intervention group. Interventions were effective in preventing the growth of binge drinking in those students with a sensation seeking (SS) personality. SS drinkers in the intervention group were 45% and 50% less likely to binge drink at 6 and 12 months respectively, than SS drinkers in the control group, $p = .001$, phi = .49.	While there may be some points of discussion regarding the ethics of this type of approach and targeting certain types of people, it nonetheless seems to be an effective and efficient method. It demonstrates the importance of a focused approach to prevention.	Compelling evidence although no account taken of social factors which might account for personality (ie it is a very 'psychologised' approach) and potentially ethical issues regarding labelling and resource foci.	http://www3.interscience.wiley.com/journal/119392215/abstract?CRETRY=1&SRETRY=0

	Country	Authors	Title	Year		Social Marketing	Method	Results	Outcomes	Critique	URL
School and community 1	USA	Perry, Williams, Komro et al	Project Northland: long-term outcomes of community action to reduce adolescent alcohol use	2002		Similar approach to DARE (School and Community 2). This fulfills in a many senses a number of SM criteria (1,2,3,4,5).	Similar to below: Phase 1 (1991–1994), when the targeted cohort was aged (11-14), included school curricula, parent involvement, peer leadership and community task forces. The Interim Phase (ages 14-16) involved minimal intervention. Phase 2 (1996–1998), when the cohort was aged 16-18, included a classroom curriculum, parent education, print media, youth development and community organizing. N= 2351 at baseline. Control group and intervention.	Measures were multifarious and included local attempted purchases by 'young looking' people at off-licences as well as self-reported drinking levels etc. The results also included growth curve analysis (change over time – see below. 2.5 year follow up = significant results both in terms of past month alcohol use as well as past week. 4 year follow up = no significant results. 6.5 year follow up = significant effects in growth curve rates (ie change over-time using 2.5 year follow up as baseline) in terms of past month alcohol use, past week, and binge drinking (defined as 5 or more drinks in a row at some point in last 3 weeks).	Outcomes are significant in some cases but this depends on growth curve analysis (ie changes over time) rather than absolute differences. Even then these changes are not vastly impressive, so no conclusive elements for practice.	Some conflicting results which remain unexplained.	http://her.oxfordjournals.org/cgi/content/full/17/1/117
School and community 2	USA	Perry, Williams, Komro et al	A Randomized Controlled Trial of the Middle and Junior High School D.A.R.E. and D.A.R.E. Plus Programs	2003	WHO	While DARE is a formal social awareness and life skills education about resisting the 'subtle effects' of alcohol and other drugs, DARE plus is much more novel and social marketing relevant. Apart from the clear aim (1), the approach has been refined (2), and uses a mix of peer-led parental involvement classroom program called "On the VERGE," youth-led activities, community adult action teams, and postcard mailings to parents (5). A clear segmentation of audience (3) (between parent and child - and in curriculum as child advances through school) as well as an attempt to make the mode attractive (4).	RCT design with schools separated between control, DARE curriculum and DARE plus further activities (see social marketing box for info). NB Intervention begins at 11-12 age and follows them throughout secondary school for approx 6 years (with the odd year without classes). N=6237 at baseline.	Key component of results was 'growth curve' analysis which takes time-series data and compares changes over time. Of relevance was that the various findings at the 18 month follow up were significant for boys but for not for girls. These measures were: past year alcohol use, past month alcohol use (significant difference in growth rate for boys at 99% confidence interval) and ever been drunk (not significant). Where results were significant this was in the case of DARE plus, not DARE.	The effects and scale of this study are impressive in some senses although the changes in behaviour, whilst statistically significant, are not substantial. Key finding is that DARE on its own is not significant but DARE with further components is. However good elements include community strategies of involvement, user-led approach and SM components.	Relatively rigourous study which is carried out on large scale and uses impressive time series data - and whilst noting the utility of DARE plus (as opposed to DARE) is important, once again the findings do not suggest vast differences.	http://archpedi.ama-assn.org/cgi/content/abstract/157/2/178
School and community 3	USA	Slater, Kelly, Edwards et al	Combining in-school and community-based media efforts: reducing marijuana and alcohol uptake among younger adolescents	2006		SM principles used to guide the development of the media for behaviour change (1). Research used to better understand adolescents' attitudes, values and behaviours about substance use, and this guided the strategy for the in-school media campaign (2), 'Be Under Your Own Influence'. Knowledge of promotional issues (ie media preferences) gained through interviews (4/5). Materials included posters, book covers, T-shirts etc. Resulted in low cost and increased benefit of the non-use choice by adolescents (6). Used images like rock-climbing that were appealing to risk-oriented, sensation-seeking youth (3).	N=4216 11-13 year olds (at baseline) across 16 communities. 8 media treatment/8 control communities throughout US randomly assigned. Within both media treatment and media control communities, one school received a research-based prevention curriculum (one did not), so crossed, split-plot design. Central premise: adolescence is about attaining greater independence and autonomy. Principal benefit of substance use likely to be noncompliance and independence. Campaign sought to emphasize the inconsistency of drug, alcohol and tobacco use with aspirations. Mixed method evaluation.	4 waves of data collected at follow ups over two years and analysed for growth rates and levels of use. Combined effect on the odds ratio (OR - likelihood of alcohol use) of combined community coalition intervention and in-school media (compared with control) was 0.398 significant above the 99% confidence interval. This would seem compelling. The RCT was combined with process evaluation and whille the study mentions that factors affecting ability to run media in communities and schools was variable there is very little information on this.	The utility of combined community and school intervention which is sensitive and creative in terms of social marketing would seem to be highly effective.	Apparently robust study though, as is so often the case, what looks like a smooth running machine on the outside would seem to have hit certain 'process' problems in implementation though there is little useful information given to this end. Nonetheless highly impressive findings.	http://her.oxfordjournals.org/cgi/content/full/21/1/157

School and community 4	UK	Stead, Stradling, Macneil et al	Blueprint/Implementation evaluation of the Blueprint multi-component drug prevention programme: fidelity of school component delivery	2007		The project sought to change behaviour (1) and took a multi-component approach (School and Community 2) using schools, parents, media, health policy and the local community. This multi-factoral approach does not seem to have been segmented as such - being 'universal' (3), but appears to be attractive (4), considerate of place, promotion etc (5).	Class based teaching used three modes of delivery: pupil-pupil interactions; teacher-class interactions; and teacher-led sessions; these were joined with substantial teacher training, parental workshops, mass media publicity, stakeholder communications. The project also sought to engage the wider community in terms of 'readiness' - though this is not discussed in any detail.	This particular assessment of Blueprint is a process evaluation - in particular it focuses on the quality of implementation and how different dimensions of fidelity could conflict with one another: under pressure of time, generic elements and processes designed to reflect on learning were sometimes sacrificed in order that core drug education activities could be completed.	There is a lot of reliability and fidelity information. It suggests that high fidelity may detract from effectiveness. But it is recommended that future drug education curricula need to build in more flexibility for discussion without compromising core evidence-based elements. Even with substantial training and support, individual variations in delivery were found, although few differences were found between teachers with prior expertise and teachers new to drug education. The methods and measures applied in the Blueprint study all represent attempts to improve on previous measures in terms of both reliability and sensitivity.	Important observations about issues around the fidelity of interventions when roled out on a large scale - though other studies suggest that this concern with fidelity may come at the expense of effectiveness.	http://www.informaworld.com/smpp/content~db=all~content=a783041988
School and Family 1	USA	Park, Kosterman, Hawkins et al	Preparing for Drug Free Years/Effects of the ''Preparing for the Drug Free Years'' Curriculum on Growth in Alcohol Use and Risk for Alcohol Use in Early Adolescence	2000	Smit et al 2008	The intervention is trying to bring about better parenting skills to reduce alcohol and other drug consumption (1), is using a programme that has been refined and conceptually developed over a number of studies (2) but which fails to present any other SM characteristics.	Preparing for the Drug-Free Years (PDFY) is a curriculum designed to help parents learn skills to consistently communicate clear norms against adolescent substance use, effectively and proactively manage their families, reduce family conflict, and help their children learn skills to resist antisocial peer influences. Examined the effects of PDFY on the trajectories of these factors, and on the trajectory of alcohol use from early to mid-teens. Sample of 424 rural families of 11-12 year olds from schools randomly assigned to an intervention or a control condition.	Followed outcome measures from parents and children at a number of points - from pretest and posttest through to 1, 2 and 3.5 year follow ups. While the comparisons between levels of drinking between intervention and control groups was not signficant, the trajectory of growth over-time (from early towards mid-teens) was significant to a 95% confidence interval. Appeared to significantly reduce the growth of alcohol use and improved parent norms regarding adolescent alcohol use over time.	This type of early intervention scheme targeting parents is important and may have long-lasting benefits beyond what would seem significant in the short-term. Focus on developing parents' skills therefore advantageous.	While the trajectory argument is compelling, the study still fails to achieve significant differences in consumption between the experimental and control groups - hence would not appear to be very impressive, at least in the short term.	http://www.springerlink.com/content/x33858g3175g258w/
School and Family 2	USA	Werch, Carlson, Pappas et al	STARS for families (Start taking alcohol risks seriously)/Effects of a Brief Alcohol Preventive Intervention for Youth Attending School Sports Physical Examinations	2000a	Cochrane - NB information in systematic review about this study differs from the information in the publication abstract.	Not clear and article not able to be accessed - though one would assume that the approach was similar to Werch 2003 (see below)	Brief nurse consultation at 11-12 years - follow up consultatation later. Physician endorsed parent/guardian letter. Up to 9 physician endorsed family based prevention lessons. N=211 in three schools, urban, suburban and rural. Controlled trial with the control group receiving an information leaflet.	Clear differences between 3 settings. Measures included a discussion of 'intention to use alcohol' as well as measures of regular and heavy use of alcohol within the last 30 days. In urban area intervention group, alcohol was consumed by 13.8% compared with 7.4% contr; suburban = int. 5.9%, contr. 15.6%; rural = int. 0%, contrl. 9.4%. 30 day heavy use results: Urban = int. 6.9%, contr. 0%; suburban = int. 0%, contr. 9.4%; rural = int. 0%, contr. 10%.	The combination of one-to-one consultation combined with direct information to parents/guardians and then family lessons would seem to be effective in suburban and rural areas though would appear to be conterproductive in urban settings.	This counter-productivity in urban areas is confusing and Foxcroft notes, in his Cochrane review, how there is potential for contamination of information across the experimental and control groups as both were in the same schools. More baseline differences existed in drinking behaviour which is not ideal and may skew the results	http://www.informaworld.com/smpp/content~content=a792563891~db=all

	Country	Author	Title	Year	Source	Marketing analysis	Intervention description	Results	Conclusions	Commentary	URL
School and Family 3	USA	Werch, Pappas and Carlson et al	STARS for families (Start taking alcohol risks seriously)/Evaluation of a Brief Alcohol Prevention Program for Urban School Youth	2000b	Cochrane	Clear motivation towards behavioural change (1) and specific targeting and tailoring of the way message is presented as refined over a number of studies (2) (3). The means of marketing (via classes, one-to-one consultation with nurses, postcards to parents and take-home classes to be done as a family) was original and considered the setting, product and means of promoting awareness. No explicit mention of competition (6) though one might assume this is implied by the clear need to gain child and parental attention.	Brief nurse consultation at 11-12 years re: alcohol use - follow up consultation a year later. 10 prevention parent/guardian postcards. Following year 4 take home packs for the family. N=650 in 2 schools one local school and one magnet school (where kids are bussed in). 87% of those eligible recruited. 2 year follow up. Control = alcohol information booklet. Information concentrates on social skills and emotion/affect.	Key measures include 30 day use and heavy use: neighbourhood school 30 day use = int. 2.1%; contr. 5%; 30 day heavy use = int. 1%,contr. 2%. 'Magnet' school 30 day use = int. 9.6%, contr. 14.9%; 30 day heavy use = int. 3.8%, control. 9.3%. NB only heavy use results are statistically significant (to 95% confidence interval).	In contrast to School and Family 2, this study includes follow up social marketing after a year and uses postcards rather than letters. The elements of SM would appear to be useful to practice and potential success.	Whether this follow and postcard pattern explains the success of interventions in urban areas (in contrast to Werch et al 2000a) or whether the data (much of which is not significant) is mere happenstance is a moot point.	http://www.atypon-link.com/PNG/doi/abs/10.5555/ajhb.2000.24.2.120
School and Family 4	USA	Spoth, Redmond & Chin	Iowa Strengthening Families Program (ISFP) and Preparing for the Drug Free Years (PDFY) program/Randomised trial of brief family interventions for general populations: adolscent substance use outcomes 4 years following baseline	2001		Apparent notions of behavioural change (1), but not of piloting and adaption to audience (2), audiences clearly segmented in the scheme with parents and children having seperate sessions before joint family sessions (3), but (4,5,6) the recruitment and participation seems based on audience goodwill (and perhaps moral obligation) rather than any tailored or targetted means to attract them, satisfy them or win them over.	2 interventions with 33 rural schools: PDFY (based on social learning theory - life skills), 5 weekly sessions and ISFP (based on biopsycosocial models), 7 weekly sessions, plus control group with minimal contact. Focus on parents and children; for parents, discipline skills, child-parent relationship and bonding, managing emotions, effective communication. For children; peer relationships and peer resistance. Family sessions include conflict resolution, communication skills, family cohesiveness and positive involvement of the child in the family. (11-12 year old children and their families). Initial baseline sample = 446 families, 293 (at 2 years), 303 families (4 years).	Very significant results from follow ups after 1, 2 and 4 years. With signifcantly lower levels of children reporting that they had: ever used alcohol; ever used alcohol without permission; ever been drunk.	Study concludes that brief family skills-training interventions designed for general populations have the potential to reduce adolescent [drinking] and therefore have important public health implications.	This study took place within a distinct culture milieu - that of a rural mid-west community in the US with potentially different levels of social and cultural capital than might be the case in East Kent.	http://psycnet.apa.org/index.cfm?fa=main.doiLanding&uid=2001-18163-005
School and Family 5	USA	Spoth, Redmond, Trudeau et al	Strengthening Families Program and Life Skills Training/Longitudinal substance initiation outcomes for a universal preventive intervention combining family and school programs.	2002	Cochrane	Apparent notions of behavioural change (1), but not of piloting and adaption to audience (2), audiences clearly segmented in the scheme with parents and children having seperate sessions before joint family sessions (3), but (4,5,6) the recruitment and participation seems based on audience goodwill (and perhaps moral obligation) rather than any tailored or targetted means to attract them, satisfy them or	Thirty-six rural schools were randomly assigned to one of 3 conditions: a) the classroom-based Life Skill Training (LST) and the Strengthening Families Programme for parents and children 10-14; b) LST only; c) a control condition. N=1664 where LST and SFP=549; LST only=621; control=494.	This is a different manifestation of Schools and Families 4 to test different programme features. Measures based on self-reporting of lifetime drunkenness and first time (new) users of alcohol. Relative reduction rates for alcohol initiation were 30.0% for the combined intervention and 4.1% for LST only. This suggests the efficacy of family strengthening interventions.	The study adds further weight towords the efficacy of family strengthening programmes - where behaviour might be best understood within the social context of the family as opposed to merely the result of assimilated information.	A question that begs asking is why was there not an arm with purely an SFP intervention as a means of comparing the efficicy of the two - as the conclusions drawn suggest the superiority and importance of family strengthening as opposed to lifeskills with little consideration of the possible complimentarity of two separate approaches. Again the participants are almost entirely white/rural.	http://psycnet.apa.org/index.cfm?fa=main.doiLanding&uid=2002-01321-006

	Country	Author	Title	Year	Source	Description	Intervention Details	Results	Commentary	Evaluation	Link
School and Family 6	USA	Werch, Owen, Carlson et al	STARS for families (Start taking alcohol risks seriously)/One-year follow-up results of the STARS for Families alcohol prevention program	2003	WHO	Clear motivation towards behavioural change (1) and a specific targeting of the way this message is presented and refined over a number of studies (2) (3). The means of marketing (via classes, one-to-one consultation with nurses, postcards to parents and take-home classes to be done as a family) was original and considered the setting, product and means of promoting awareness. No explicit mention of competition (6) though one might assume this is implied by the clear need to gain child and parental attention.	Follow up of Werch 2000b (Schools and Families 3) - one year following the end of the programme	Attrition was split evenly between schools and exp/contr groups and 78% completed questionnaire. Key measures again include 30 day use and heavy use: neighbourhood school 30 day use = int. 20%; contr. 13.2%; 30 day heavy use = int. 6%,contr. 9.3%. Magnet school 30 day use = int. 11.3%, contr. 17.4%; 30 day heavy use = int. 4.7%, control. 7%. Though impressive in many instances, most of these results are not statistically significant. The study did find significant and large differences relating to intentions to drink and similar variables - ie these might be considered some way from robust outcomes.	These three Werch studies (Schools and Families 2,3,6) show the development and gradual tailoring of family focused interventions which include follow-ups after a year both in terms of nurse consultation and further information provided to families. While the first study used letters and was unsuccessful in modifying behaviour in urban contexts, the move towards postcard approaches seems to have proved successful. High SM relevance.	Given limitations discussed before by Foxcroft, this study shows continuing (a year later) impact within an urban environment where initially things had not been successful and suggests there is a degree of mileage to the approach. NB lack of signficance in actual modified drinking behaviour. Still the possibility for contamination as both control & experimental groups located in the same schools. WHO review suggests the results may be 'under-powered' and would have been more compelling if used on bigger sample.	http://her.oxfordjournals.org/cgi/reprint/18/1/74
School and Family 7	USA	Spoth, Redmond, Shin et al	Iowa Strengthening Families Program (ISFP) and Preparing for the Drug Free Years (PDFY) program/Brief Family Intervention Effects on Adolescent Substance Initiation: School-Level Growth Curve Analyses 6 Years Following Baseline	2004		Follow-up study - see Schools and Families 4.	Follow-on from Schools and Families 4. 2 brief interventions with 33 rural schools: PDFY (based on social learning theory - life skills), 5 weekly sessions and ISFP (based on biopsycosocial models), 7 weekly sessions, plus control group with minimal contact. Focus on parents & children; for parents, discipline skills, child-parent relationship and bonding, managing emotions, effective communication. For children; peer relationships and peer resistance. Family sessions include conflict resolution, communication skills, cohesiveness. (11-12 year old children and their families). Initial baseline = 446 families, 293 (2 years), 303 families (4 years).	6 years following baseline the data seem quite compelling, with the difference between the ISFP and control groups in terms of drinking without parental permission (12.4% lower) and drunkenness (13.3%) over the lifecourse significantly different. While both programmes slowed growth in initiation of substances over 6 years, the PDFY programme achieved very marginal or negative success with respect to alcohol.	These 6 year from baseline findings add further weight to the assertions of the effectiveness of the strengthening families programme.	One must always wonder as to the accuracy of the self-completed data by the young people and the extent to which trust (in confidentiality) and moral obligation (of what they would have liked to be the case) might skew the results. This being said, the way in which the alternative programme clearly had limited or no success measured in the same way suggests a certain validity of the measures. Again the participants are almost	http://www.ebppc.hawaii.edu/Resources/Spoth_2004_Iowa_SFP_6yr_outcomes.pdf
School and Family 8	USA	Spoth, Randall, Shin et al	Combined Universal Family and School Preventive Interventions/Randomized Study of Combined Universal Family and School Preventive Interventions: Patterns of Long-Term Effects on Initiation, Regular Use, and Weekly Drunkenness	2005	WHO	Follow-up study - see Schools and Families 5	Follow up on Schools and Families 5. Thirty-six rural schools were randomly assigned to one of 3 conditions: a) the classroom-based Life Skill Training (LST) and the Strengthening Families Programme for parents and children 10-14; b) LST only; c) a control condition. N=1664 where LST and SFP=549; LST only=621; control=494.	As with other Spoth studies the findings highlight the importance of combining lifeskills training with strengthening families, as the former on its own does not achieve significance (in comparison to the control) whereas both combined do achieve significant differences in terms of weekly drunkenness at the 2 year follow up (0.34 vs 0.56 - mean score based on scale of 0 and 1). Though importantly the results are not significant for regular drinking.	Once again the same study (as reported above) shows the importance of combining life-skills with family strengthening though, even with both, the results (though significant in one area) are not compelling.	Weekly drunkeness affected significantly but not regular drinking	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2409287

School and Family 9	UK	Alcohol Education and Research Council (Coombes)	Strengthening Families Program (SFP)/ Implementation of the SFP 10-14 in Barnsley: The perspectives of facilitators and families	2006		This study replicates the Strengthening Families Programme developed by Spoth et al to test transferability issues in the UK	The running of the SFP (see Schools and Families 7 for intervention details) in a northern city in the UK. Essentially a process evaluation concerned with transferability questions. 50 families attended SFP10-14 programmes in the Barnsley area 2002-2004. 50 parents and 52 young people attended programmes. The median age of the young people was 12 years. 23 facilitators reported having undergone SFP10-14 training in the Barnsley area. Mixed method study using focus groups, interviews and questionnsires.	Families who participated found the SFP10-14 useful in preventing young people's alcohol and drug use in terms of: learning more about alcohol and drugs, using knowledge and skills to reduce behaviours that might lead to alcohol and drug use and dealing with peer pressure. Also had a positive influence on the emotional health and well being of the participating families. The SFP 10-14 contributed to changes in the behaviour of the young people during the programme in how they relate to rules, boundaries, dealing with peer pressure etc. and helped to improve family functioning. Also families noted it was important not to be seen as a "problem family" or as a "failure", the timing and place of programmes was crucial regarding family attendance.	The findings would suggest that the relative effectiveness of family focused interventions as reported through the work of Spoth and others above may be highly transferable to the UK context. Though with a number of cultural caveats borne in mind - see next study (Allen 2006a)	Process evaluation with many useful findings - particular around practical issues of involving and not alienating participants. However as much as the study refers to the high transferability of the programme, no particular data is cited in this study explicitly describing changes in drinking behaviour.	http://www.aerc.org.uk/documents/pdfs/finalReports/AERC_FinalReport_0022.pdf?zoom_highlight=barnsley
School and Family 10	UK	Allen, Coombes & Foxcroft	Strengthening Families Program (SFP)/ Cultural accommodation of the Strengthening Families Programme 10–14: UK Phase I study	2006a		This study replicates the Strengthening Families Programme developed by Spoth et al to test transferability issues in the UK	The running of the SFP (see Schools and Families 7 for intervention details) in a northern city in the UK. Essentially a process evaluation concerned with transferability questions. 50 families attended SFP10-14 programmes in the Barnsley area 2002-2004. 50 parents and 52 young people attended programmes. The median age of the young people was 12 years. 23 facilitators reported having undergone SFP10-14 training in the Barnsley area. Mixed method study using focus groups, interviews and questionnsires.	This is another process evaluation of the same intervention as above - this time looking at issues of transferability regarding the content of the material. Themes that emerged with young people and their parents indicated that changes to the US SFP10–14 materials needed to consider language, narrators, realism, acceptability of exercises/games, perceived religiosity and ethnic representativeness. However, not all changes reflected straightforward cultural differences, as adaptations were also required to improve the quality and to update the material, indicating that cultural accommodation does not necessarily imply cultural diversity.	The findings of this study suggest the importance of recognising the cultural limitations around transferability in the style and content of interventions carried out in the US and elsewhere. While interventions made in other settings (even within the same country) may well be applicable and effective when transferred, great attention must be paid to the cultural reference points, language and general content (eg games/activities) applied.	This is only a process evaluation - hence no explicit outcomes data re: effectiveness on behaviour, however much relevant material for considering issues/problems around transferability across different cultural conditions.	http://her.oxfordjournals.org/cgi/content/full/22/4/547
School and Family 11	UK	Allen, Coombes & Foxcroft	Strengthening Families Program (SFP)/Preventing Alcohol and Drug Misuse in Young People: Adaptation and Testing of the Strengthening Families Programme 10-14 (SFP10-14) for use in the United Kingdom	2006b		This study replicates the Strengthening Families Programme developed by Spoth et al to test transferability issues in the UK	The same SFP intervention as used in the studies above was applied amongst a small, pilot group of 23 parents/care givers and 24 young people from 3 sites.	There are no clear or consistent outcomes associated with the data due to small numbers. This was a pilot exploration and authors recommend a larger scale RCT-type study be carried out. Assert that SFP10-14 (UK) had played a part in improving family functioning including improving parent communication, using a consistent approach, increasing the repertoire for dealing with situations, identifying family strengths, learning to listen more, developing more interaction among the family.	Again the findings draw some small question marks over the transferability issues relating to the apparent success of SFP in rural America.	Small study - limited findings - but these draw question marks (albeit small ones) around transferability of apparently successful American studies.	http://www.drugslibrary.stir.ac.uk/documents/sfp10.pdf

ID	Country	Authors	Title	Year		SM approach	Study description	Evaluation / Outcomes	Effectiveness	Limitations	URL
School and Family 12	EU - several countries	Faggiano, Richardson, Bohm et al	EU-Dap design/A cluster randomized controlled trial of school-based prevention of tobacco, alcohol and drug use: The EU-Dap design and study population	2006		The intervention is referred to as 'Unplugged' and based on the 'social influence approach'. But the intervention is delivered through standard classroom settings although some involve side-activities with either peers or parents. In some senses this is in consideration of place, product, etc (5). However little thought is given to maintaining the audience's attention (6) or making the intervention attractive (4). Indeed as the high drop out rate among the intervention schools makes clear - notions around points 4 and 6 are as importantly related to teachers (most schools dropped out shortly after teacher training days) as the young people being targeted.	170 schools from 9 centres from seven countries (Austria, Belgium, Germany, Greece, Italy, Spain, Sweden), stratified according to average social status in the catchment area, randomized to either three variants of the intervention (basic curriculum, basic with peer involvement, and basic with parent involvement) or to a control group. The program is based on a comprehensive social influence approach, and was delivered during the scholar year 2004–2005 to a population of 12-14-yr olds. An anonymous questionnaire administered before and after the intervention was used to track behavioural and attitudinal changes.	This is largely a methods paper, but the large drop-out rate is evident. At a more process evaluation level, the study clearly notes the burden on teachers and likely effect this had on the dropout rate/poor participation of schools. This is an important finding in itself.	The only applications worth noting here are the dangers that too elaborate or time-consuming an intervention will fail to win over the teachers who are integral to its success - especially in such a school based intervention. Hence it is clear that notions of social marketing should be considered as much for teachers (or others running the intervention) as young people.	No actual reported post-study outcomes. Only 'process evaluation' information.	http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WPG-4M8777J-2&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=9490976c54d6247bbef4c129c5604c89
School and Family 13	Sweden	Koutakis, Stattin & Kerr	Örebro intervention programme/Reducing youth alcohol drinking through a parent-targeted intervention: the Örebro Prevention Program	2008		There is little social marketing evidence presented.	Aim was to evaluate a 2.5-yr prevention programme working through parents, targeting drinking among 13–16-yr-olds. Quasi-experimental using matched controls with a pre–post, intention-to-treat design in schools located in inner city, public housing and small town areas. A total of 900 pupils and their parents, followed longitudinally. Parents received information by mail and during parent meetings in schools urging them to: (i) maintain strict attitudes against youth alcohol use and (ii) encourage their youth's involvement in adult-led, organized activities. Supported by teachers.	Evaluation used measures of parental attitudes against underage drinking and youths' participation in organized activities. Outcomes were youths' drunkenness and delinquency. The implementation successfully influenced parents' attitudes against underage drinking, but not youth participation in organized activities. At post-test, youths in the intervention group reported less drunkenness and delinquency. Effect sizes were 0.35 for drunkenness and 0.38 for delinquency. Findings were similar for boys and girls and for early starters. Effects were not moderated by community type.	Working via parents proved to be an effective way to reduce underage drinking as well as delinquency.	Effective, apparently robust study which applies useful measures and considers its own limitations as: self-reported subjective measures of drunkeness etc, that the effects were measured at the individual levels and not at school or class level. Nonetheless the results seem relatively reliable.	http://www.rus-ost.no/docs/0000052B/Reducing%20youth%20alcohol%20drinking.pdf
School and Family 14	USA	Spoth, Randall & Shin	Iowa Strengthening Families Programme/Increasing school success through partnership-based family competency training: Experimental study of long-term outcomes.	2008a		Follow-up examination of data. See Schools and Families 4 for SM approach.	See Schools and Families 4 and 7. This study reports on follow-up data of 8th grade (13-14 years) and 12th grade (17-18 years) and looks at the data for academic success, school engagement, substance related risk and parenting competency.	Measures were taken for a number of indicators at 2 and 6 years post intervention. Data presented here relates to academic achievement. However there were three measures used pertaining to alcohol: alcohol initiation index; alcohol use attitude; peer pressure re: substances. While the intervention versus control did not make substantive impacts on attitude or peer pressure measures, the alcohol initiation index rose from 0.27 (2 year) to 0.41 (6 year) in the control group but from 0.22 (y2) to 0.24 (y6) in the intervention group. However there is a lack of explanation as to why these figures are so low (as they should be scaled from 0-4).	Same as the other Spoth et al studies - the strengthening families approach involving children and parents in a social/biophysical model would seem to be relatively effective. Yet was conducted in a white, rural community with potentially quite unique socio-cultural norms, despite claims of representativeness.	One must always wonder as to the accuracy of the self-completed data by the young people and the extent to which trust (in confidentiality) and moral obligation (of what they would have liked to be the case) might skew the results. This being said, the way in which the alternative programme clearly had limited or no success measured in the same way suggests a certain validity of the measures. Again the participants are almost	http://psycnet.apa.org/index.cfm?fa=search.displayRecord&uid=2008-04403-007

	Country	Authors	Title	Description	Intervention	Findings	Analysis	Comments	Link
School and Family 15	USA	Spoth, Randall, Trudeau et al	Iowa Strengthening Families Programme/Substance use outcomes 51/2 years past baseline for partnership-based, family-school preventive interventions.	2008b	Follow-up examination of data. See Schools and Families 4 for SM approach.	Same intervention as in Schools and Families 5 and 8. This time the data is 5.5 years past baseline looking at 12th Grades - 17-18 years.	This 5.5 year follow up takes the students into 12th grade (ie age 17-18). In terms of alcohol initiation, the life skills training (LST) contributed to a 2% reduction in levels from the control, with LST + strengthening familes programme (SFP) creating a 2.5% reduction level. In terms of drunkeness initiation the figures are quite different - with reduction levels for LST only = 10.6, and for the LST+SFP = 5.2. These figures are all significant and based on linear growth - the basic mean levels of alcohol initation did not vary significantly between conditions at 12th grade.	Mixed findings which fail to show a compelling difference in behaviour - mean levels fail to reach a significant difference, although changes over time do seem to suggest the efficacy of intervention. While studies referred to above at earlier follow ups seem to suggest that LST + SFP was much more effective than the LST on its own - the growth curve analyses at 5.5 years in (age 17-18) seem to suggest a much less contrasting effect between the two - but both are more effective than the minimal contact control (when measured by change over time).	Whille the data based on growth curve analyses (change over time) are significant, the intervention fails to reach significance when comparing basic levels of drunkeness and initiation at 17-18. Although by using the words 'significant findings' the study may be able to suggest 'success' - there is lack of anything which convinces of stark efficacy.	http://www.ncbi.nlm.nih.gov/pubmed/18434045
School and Family 16	EU - several countries	Faggiano, Galanti, Bohrn, Buckhart et al	EU-Dap/ The effectiveness of a school-based substance abuse prevention program: EU-Dap cluster randomised controlled trial	2008	See School and Family 12. More information here is given of the parental and peer arms: peer arm involved class representatives conducting short meetings with peers to encourage reflection on key issues from the classes. Parent-arm of the study involved three interactive workshops of 2 to 3 hours each.	170 schools from 9 centres from 7 countries (Austria, Belgium, Germany, Greece, Italy, Spain, Sweden), stratified according to average social status, randomized to either 3 variants of the intervention (basic curriculum, basic with peer involvement, and basic with parent involvement) or to a control group. Program is based on a comprehensive social influence approach, delivered during 2004–2005 to a population of 12-14-yr olds. An anonymous questionnaire administered before and after the intervention was used to track behavioural and attitudinal changes.	Builds on School and Family 12. The follow up 3 months after the end of the programme found large effects on 'any drunkeness' and 'frequent drunkeness' (3 or more episodes within the last 30 days): episodes of drunkenness in the past 30 days (POR = 0.72; 0.58–0.90 for at least one episode, POR = 0.69; 0.48–0.99 for three or more episodes). NB POR=prevalence odds ratio (pooled interventions vs pooled controls). It is unclear whether these take full account of the baseline data where the incidence of drinking and regular drinking amongst control schools was a lot higher.	The findings must be considered within their limitations however it would seem that there was a lower increase in drinking amongst the parental arm of the intervention groups than any of the others. The peer arm seems to be the least effective.	Important differences in change over time are seemingly brought about by interventions though the apparent scale of the differences reported ignores the differences in baseline figures.	http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WPG-4SY6W28-1&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=60c7d2640a8e1da563258e875a5950f4
School and Family 17	USA	DeGarmo, Eddy, Reid et al	Linking the interests of families and teachers (LIFT)/Evaluating Mediators of the Impact of the Linking the Interests of Families and Teachers (LIFT) Multimodal Preventive Intervention on Substance Use Initiation and Growth Across Adolescence.	2009	The study is very scientific in its description of the intervention - with a real focus on the psychology behind the intervention, in terms of avoiding aversive treatment of young people and instead encouraging more positive affirmation. Hence whilst this intervention in some senses has a goal (1), and a refined science behind it (2), few other SM facets were reported.	An intervention to support and co-ordinate parents, teachers and young people in generating positive affirmation for behaviour as opposed to threat of negative sanctions. The latter is associated with poor social skills/norms and higher levels of alcohol and other substance misuse. 351 young people from ages 10-11 took part in the RCT until age 17-18 - completed self-report questionnaires annually. Measures of substance misuse were included along with eg parental behaviour, family contexts and peer relationships.	The intervention was associated with approximately a 9% reduced risk in initiating alcohol use. Girls were more likely than boys to move towards accelerated patterns of smoking and drug use, though this was not the case for alcohol. However, the LIFT programme operated in a preventive way to reduce the growth rates for girls. Deviant peer pressure was the strongest risk factor for substance use initiation.	Interesting psychological model re the dangers of negative means of seeking behavioural change. This study highlights interesting gender issues, in that girls seem to be more responsive to such an approach. Coordinating between family, peer and teacher approaches to positive and negative behaviour would seem to be important if modes of reinforcing behaviour are to enter positive cycles.	Good time series data which paints a relatively positive picture of the effectiveness of the intervenion - though high attrition rate and unclear evidence around the impact of this.	http://www.ncbi.nlm.nih.gov/pubmed/19238545

University	Country	Author	Title	Year	Source	Social marketing	Method	Results	Discussion	Limitations	URL
University 1	USA	Walters, Bennett & Miller	Reducing Alcohol Use in College Students: A Controlled Trial of Two Brief Interventions	2000	Natarajan & Kaner 2004	Segmented and targeted via a questionnaire though not so much in marketing sense. Though arguably the personalisation is a strong marketing feature in itself in regards to competition - though was not conceptualised as such (6).	Thirty-seven 18 year old college students who were moderate to heavy drinkers completed measures of quantity/frequency, drinking consequences, and attitude questionnaires. Participants were randomly assigned to one of three groups: 1) a two-hour information and motivation session plus mailed personal feedback on their drinking; 2) mailed feedback only; or 3) no treatment. Brief intervention model.	At a 6-week follow-up session, the feedback-only group decreased drinks per month as compared to control with a large effect size (0.57). Motivational interview was not effective.	The personalised mailed feedback seems to have been more effective with the cohort than a motivational interview. The notion of personalisation might well be very important here.	Large effect size though small sample and only 6 week follow up and the study involved first year psychology students.	http://baywood.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,7,7;journal,34,152;linkingpublicationresults,1:300320,1
University 2	USA	Baer, Kivlahan, Blume et al	Brief Intervention for Heavy-Drinking College Students: 4-Year Follow-Up and Natural History	2001	Natarajan & Kaner 2004	Limited evidence of social marketing. Clear attempt to change behaviour (1) and targeted at a particular high risk group (young people who drank heavily at high school) hence it would seem to be targeted in terms of effectiveness and efficiency (3).	A single-session, individualised brief preventive intervention was evaluated within an RCT with university freshers aged 18 who reported drinking heavily while in high school. An additional group randomly selected from the entire screening pool provided a normative comparison. Participant self-report was assessed annually for 4 years. 433 sample size, follow-up after 2 and 4 years.	363 of the original 433 participants were involved in the 2 and 4 year follow up. While there was little change in drinking frequency amongst the groups there was significant reductions in quantity and negative consequences. The effect sizes of these changes were not great. Individual change analyses suggest that the dependence symptoms of those receiving the brief intervention are more likely to decrease and less likely to increase.	The findings of these cohorts tell us some important things about the 'exit trajectory' of teenage drinking. Those in the part of the population (42% in the UK) who go on to university will achieve some maturation effects regardless of intervention (ie peak in drinking at beginning of university starts to reduce again over time). However it also points to the potential for breaking negative dependencies amongst those already drinking heavily when they arrive at university.	Study involves the relatively wealthy minority of young people who go to university. Moreover the experiences of young people at university in the US is peculiar as they are still 'transgressing' by warrant of the 21 year drinking age. Small effect size on drinking though more substantial changes to harmful consequences of drinking.	http://www.ajph.org/cgi/content/full/91/8/1310
University 3	USA	Larimer, Turner, Anderson et al	Evaluating a brief alcohol intervention with fraternities.	2001	Natarajan & Kaner 2004	Limited evidence of social marketing. Clear attempt to change behaviour (1) and targeted at a particular high risk group (college fraternities in the US) hence it would seem to be targeted in terms of effectiveness and efficiency (3).	Twelve fraternities randomly assigned to receive either a motivational enhancement intervention with individual and house-wide feedback components or a treatment-as-usual control condition (n = 159). Individual feedback was delivered either by peer interviewers or professional research staff. Participants were assessed during their pledge (first) year of house membership and during a follow-up period 1 year later.	Of the participants who completed follow-up (N = 120), fraternity members who received the brief intervention reported significant reductions in alcohol use (total average consumption) and typical peak blood alcohol concentrations when compared with fraternity members in the control condition (effective size on drinks per week = 0.37). No differences in drinking-related consequences were observed. Fraternity members who received their individualized feedback from peer interviewers and professional members of the	The short-term (1 year) effectiveness of the intervention should be noted - especially given first year at university/college can be a high risk time for late teenagers. However the lack of significant effects on drink-related consequences underlines the social context in which drinking occurs (regardless of individual or small group behaviour) and fraternity members are from high socio-economic status even within university students. How transferable this intervention is more widely should be questioned.	Whilst drinking was lowered the negative consequences were not. NB level of analysis was different from that of randomisation. Also difficult to separate house-wide and individual feedback.	http://www.ncbi.nlm.nih.gov/pubmed/11414347

Community 1	USA	Holder	Community Prevention Trials Project/Preventing sales of alcohol to minors - results from a community trial	1997* outside timeframe, special mention by Cochrane review	Cochrane	Behaviour change aimed at vendors and young people. Little evidence of specific targetting and segmenting or other aspects. Intervention has multiple effects across the population as a whole. eg heightening awareness among vendors of the illegality of selling alcohol to underage people (via local TV and newspapers) the information also reaches and impacts on a more general audience.	Enforcement of underage drinking laws and purchase of alcohol. 3 experiemenal communities in Carolina targeting 100 off licences in each community. Experimental with training, experimental no training and control. Key components of intevention:- enforcement of underage sales law, retailer training, retail policy development, media advocacy for enforcement efforts. 148 outlet visits by police to enforce sales laws, newpaper and tv coverage, one year follow-up.	Overall reduction in selling alcohol to underage buyers. Experimental with training 29%, experimental no training 34% , control 12% (interesting that the group who had training for servers had a slightly smaller reduction = 29%).	Environmental' or supply-side interventions are an important consideration alongside interventions which more directly focus on demand. Involving the police in an intervention would appear to enhance gravitas and effectiveness.	Cochrane review describes this as a large and complex study that shows good positive effects on underage sales of alcohol. Unclear whether reduced sales means direct reduction in drinking, also must be considered that young people could buy alcohol elsewhere. Insufficient number of time points pre- and post- to provide robust time series data.	http://www3.inter science.wiley.co m/journal/11915 8340/abstract? CRETRY=1&SR ETRY=0
Community 2	USA	Schinke, Tepavac & Cole	Preventing substance use among native American youth: Three-year results	2000	Cochrane	Behavioural change is sought (1), and while little evidence of research into target market (2) the attempt to be culturally relevant (4, 6) is clear. No apparent segmentation or attention paid to the 4 'p's.	Culturally focused skills and community focused preventive intervention with Native American youth. RCT. N=1396, from 27 schools and 5 states. Average age 10.28. Experimental groups, skills-based with and without training and control.	Three year follow up. Based on measure of weekly drinking 4 or more drinks, 7% reduction in proportion of weekly drinkers in skills-based group compared to control over 42 months. Low attrition.	Specific ethno-cultural tailoring is deemed a key strength/finding of the study	Successful intervention and demonstrates the importance of segmenting audience and ethnic focus. Specific cultural relevance to the UK low but key life skills approach could be transferable to some settings here.	http://www.scienced irect.com/science?_ ob=ArticleURL&_udi =B6VC9-406WBVW- 6&_user=10&_rdoc =1&_fmt=&_orig=se arch&_sort=d&view =c&_acct=C000050 221&_version=1&_u rlVersion=0&_userid =10&md5=049de3a ed2a22530a84e541 6486305a7
Community 3	USA	Wagenaar, Murray, Gehan et al	Communities mobilising for change on alcohol (CMCA)/Communities mobilising for change on alcohol (CMCA) outcomes from a randomised communuity trial	2000	Cochrane	Clear attempts to change behaviour of different actors within the community, from vendors to families to other adults who might supply alcohol to young people. Specific social markets were targeted in both the public sector (councils, schools, enforcement agencies) and private (vendors, local businesses more widely and local media). The novelty of the intervention and community mobilisation, alongside specific targetting through individual meetings with stakeholders suggest Andreasen's notions 3 and 4 were fulfilled.	Reducing youth access to alcohol, 5 year intervention. Community organisers gained support of the community through stakeholders, heightening the project's profile (and that of alcohol issues) via local media, and the review of and change to local procedures and policies on alcohol sales and monitoring. 'Community trial' across 15 communities (experimental and control - no organiser). Focused on measures amongst 17-18 year olds and 18-20 year olds.	Measures include drink driving, alcohol related car crashes, self-reported heavy drinking, number of drinks on last occasion, and number of drinking occasions in last month n=1721. No significant results re: self-reported drinking levels although arrests for drink driving significantly lower in experimental community.	Limited evidence of significant effectiveness. The mobilising of community is impressive but could be expensive. Key factor is the community organisers, leadership needed to galvanise and bring community stakeholders together.	Limited evidence for effectiveness other than drink driving arrests. Strong design and analysis (says Foxcroft) yet costly for a lack of effectiveness. The authors note 1,518 one-to-one meetings took place.	http://www.epi.u mn.edu/alcohol/ pubs/pubpdf/11 6_110.PDF

Community 4	USA	Wu, Stanton, Galbraith et al	Focus on Kids (FOK)–plus informed parents and kids together (imPACT) / Sustaining and Broadening Intervention Impact: A Longitudinal Randomized Trial of 3 Adolescent Risk Reduction Approaches	2003	WHO	Clear behavioural change intended but more focused on sexual relationships than alcohol (1), with alcohol as a means to an end. The intervention has been honed and refined during previous research and is specifically targeted - first at children and then at children with parents (FOK and imPACT). Other characteristics (4-6) are difficult to guage from the paper - the approach uses video, games and role-play though it is hard to say whether these are creative, novel and appealing or not. No awareness of competition (ie distractions) apparent.	FOK is an HIV risk reduction intervention among black teenagers- 8 sessions - includes decision making, relationships, information about abstinence & safe sex/drugs/alcohol. Format includes games, discussions, videos. ImPACT includes 20-minute video (made in and for the targeted communities) emphasizing concepts of parental monitoring and communication, with 2 instructor-led role-play vignettes. Intervention given in youth's home. Boosters for FOK were conducted after the 6-month follow-up and at 10 months among the youths only. n=817 aged 12-16 divided into 3 groups: FOK, FOK+imPACT, FOK+imPACT + booster.	12 month follow looked at drinking of alcohol (as measured on a five point scale). Baseline vs follow up = FOK only 0.23 vs 0.31 (n=243); FOK+impact= 0.28 vs 0.22 n=172); FOK+impact+booster=0.28 vs 0.23 n=165). The addition of the imPACT intervention seemed to reduce drinking when compared with the results from the FOK alone group. Mean difference though statistically significant is small and effect size not clear.	In contrast to some of the other studies cited here which would seem to endorse the importance of boosters further down the line, this study would seem to show little effect. For practice it must be noted that there is an apparent difference between merely doing interventions with children and those involving parents with the children.	Results significant though insubstantial to convincingly effect change. Variation in baseline consumption of alcohol makes one wonder about the comparabilities of cohorts. NB There was no control group in this study with which to compare.	http://pediatrics.aappublications.org/cgi/content/full/111/1/e32
Community 5	Australia	Bailey, Baker, Webster et al	Cognitive Behavioural Therapy (CBT)-type motivational interview/Pilot randomized controlled trial of a brief alcohol intervention group for adolescents	2004		Recruitment into the programme was via posters in local youth centres. Apart from this a fairly standard motivational interview set-up with clear aim to reduce alcohol levels (1), approach based on previous cognitive models - not least CBT approaches (2), and the project was aimed at an area of New South Wales with typically low socio-economic status (3). Notions 4, 5, 6 not apparent.	Two groups int. (n=17) and control (n=17) of young people (age 12-19) were assigned - with control having no exposure to any alcohol related interventions and the intervention group comprised of 4 x 30-40 minutes of group motivational and information sessions partly based on a CBT-type model. A trained psychologist 'administered' the intervention. Various measures were applied pre- post- and at 1 and 2	The questionnaires on which data are based comprised of 4 tests in 1: alcohol use disorders test; the Readiness to Change Questionnaire; locally devised knowledge questionnaire; and the Drug and Alcohol Problem (DAP) quick screen. The int. group drank more regularly than the control at the pre-test, but at post-test, 1 month and 2 month follow up there were significant changes over time and between groups (95% confidence int). At 2 months the levels of drinking had returned to slightly above the pre-test for the int. group - but this was significantly less than the control group. Similar results for binge-drinking - hazardous drinking reduced among the int. group over the period of testing, but increased substantially amongst the control.	Very short term trial, hence it is hard to take many conclusive lessons from this - however some apparent benefit of effectiveness of CBT orientated motivational interviewing. Given the spread of age range in this study, and the effectiveness of this types of approach amongst college students it could be hypothesised that these interventions are effective towards the upper levels of our age range. This is speculation as no comparison data is given across ages.	Small sample size and very short period of testing. Measures are often based on 4 or 5 point scales which are open to interpretation.	http://www.informaworld.com/smpp/content~db=all~content=a713780503
Community 6	USA	Brody, Murry, Kogan et al	Strengthening African American Families (SAAF)/The Strong African American Families Program: A Cluster-Randomized Prevention Trial of Long-Term Effects and a Mediational Model	2006	WHO	Clear aim of changing behaviour at the family and child level (1), this was specifically targeted at rural ethnic segment and this approach has been tested and developed over a number of years (2,3). Factors 4-6 were absent, although name and conotation of the programme may have had a pull on potential participants through the moral obligation around the family/child and the links to ethnicity.	The intervention is regulated-communicative parenting - encourages parents to be involved and vigilant, present clear expectations to the child, offer positive supportive relationships - all in a context sensitive to 'racial socialisation' . The experimental group (n= 172) were compared against a control group (n=133) of 11 year olds and their families. The setting was rural USA.	The adolescents were assessed three times from ages 11 to 13.5 years - examined via the influence of SAAF participation on alcohol use. Compared with adolescents in the control condition, fewer SAAF participants initiated alcohol use and those who used alcohol increased their use at a slower rate over time. 'Alcohol initiation' after 3 months = int. 0.06, contrl. 0.13; at 29 months = int. 0.19; contrl. 0.29. Both these are significant at 95% confidence level.	The regulated-communicative parenting is a clear, straightforward and apparently effective model and benefits from its ethnicity-sensitive marketing approach, and its parent-child configuration. The intervention has similarities with other parent/child approaches in different contexts and would therefore have potential for transferability.	Strong findings and while the specifities of the social environment of rural African Americans might appear to raise transferability questions, the basic assumptions of the programme and its socio-geographic and ethnic sensitivities are a clear strength.	http://darkwing.uoregon.edu/~cfc/classes/CPSY_642/Readings/Class%202/The%20strong%20African%20American%20families.pdf

Community 7	USA	Gerrard, Gibbons, Brody et al	Strong American Families Program/A Theory-Based Dual-Focus Alcohol Intervention for Preadolescents: The Strong African American Families Program	2006	Smit et al 2008	Clear intention to change behaviour toward alcohol (1) based on theoretically sophisticated and refined model (2) which is aimed at a specific ethnic cleavage within American families (3). As with discussion of SAAF in Community 6, there is little evidence of factors 4-6 being covered, but explicit focus and tailoring towards African Americans makes it relevant.	The program is a seven 2-hr weekly group meetings held at community facilities. Each meeting includes separate training sessions for parents and children, followed by a joint parent– child session where families practice the skills they learned. Focus is on communication, understanding influences and boundaries of alcohols, guidance and support, decision-making. Group size ranged from 3 to 12 families, with an average of 10 families attending each session. 64% of the families attended five or more sessions, and 36% attended all seven. N=281 African American children. Mean age = 11.2 years.	Outcomes looked at overall consumption of alcohol at the two year follow up (which was significantly reduced) as well as a number of intermediary factors. Crucially the study shows that drinking behaviour is related to willingness (disposition to the idea of drinking) and intentions (influenced by parental role models and expectations) which are independent of one another. The increases in parental involvement, monitoring, and communication changed intentions to drink, and this favourability changed willingness to drink. Both of these changes were linked to changes in consumption.	This study suggests that a dual-focus approach to intervention that targets both intentions and willingness can be more successful than either approach alone. Second, it demonstrates that risk factors (intentions, willingness, and images) are malleable—more so than many other antecedents of adolescent risk behaviour, for example, socioeconomic status, access to substances, and peer or family use. Finally, it demonstrates that altering preadolescents' health cognitions can have a lasting effect on behaviour—up to 2 years post-intervention.	The study was unable to control for parenting behaviour during the course and understand fully how this might or might not have changed. Very young adolescents used (mean age =11.2) so low levels of drinking anyway. This issue also raises questions of whether older adolescents become more independent of their parents in terms of behaviour and thus less 'malleable' as the authors put it.	http://www.psychology.iastate.edu/~fgibbons/pdfs/gerrard2006SAAF.pdf
Community 8	Sweden	Stafström, Ostergren, Larsson et al	A community action programme for reducing harmful drinking behaviour among adolescents: the Trelleborg Project.	2006		Clear purpose (1) (focus on alcohol preventative strategies for children and adolescents; decreasing heavy episodic drinking; delaying onset of consumption; achieving changes in attitudes towards alcohol and drinking behaviour in the adult population) and based on previous research (2): social structures, interaction, environment, economics, the role of public policy, and risk and protective factors. Curriculum was accompanied by a number of local measures including leaflets being sent to parents re: good practice. Other SM factor unclear.	Action programme: (1) city council adopted a community policy and action plan on alcohol and drug management; (2) approved a school policy and action plan with same goal; (3) police and city admin inspected grocery and convenience stores where black market alcohol could be sold (led to 1 conviction); (4) curriculum on alcohol and drugs started in all schools and one designed for parents of 7th-9th graders; (5) all parents of 7th graders got leaflet with information on promoting alcohol and drug-free teens; and (6) survey of adolescent alcohol and drug use in the community publicised.Cross-sectional data collected from a classroom questionnaire (1999 to 2001 and 2003 n =1376, 724 boys and 652 girls; response rate = 92.3%). The results from the intervention compared with similar Swedish cross-sectional data sets.	From baseline data in 1999, 3 surveys done annually to 2003. Analysis determined the link between risk factors and excessive drinking, binge drinking, purchaser of alcohol, and alcohol provided by parents.. Results: decrease in harmful drinking behaviour in Trelleborg when comparing baseline with postintervention measures (consumption; excessive drinking; binge drinking in last month; purchasing alcohol; parental provision of alcohol). Comparison with other studies showed changes in indicators were more rapid and consistent in Trelleborg. Finally, multivariable logistic regression analyses showed that the outcomes were not likely to be attributed to changes in environmental factors.	The strength of the successful project would seem to be its multi-factoral interventions which acknowledge both demand and supply factors, at the structural and agency levels. Combining pro-active education with law and order responses, media coverage and parental information-giving would seem to be an effective, holistic approach.	Very robust study with long-term data, and impressive regression analysis which seems to elucidate the effects of the intervention from external environmental factors - especially through comparisons with data of changes over time from elsewhere in Sweden. However the curriculum for parents was only completed by a pilot group, which raises questions about full parental engagement.	http://pt.wkhealth.com/pt/re/addi/abstract.00008514-200606000-00012.htm;jsessionid=Kv1XtCWQy9zZ0yZFhnbnvppZfGs23Gh2gJFGvkzS1KHL7nwCcGmM!1966694724!18119 5629!8091!-1

Country / ID	Author	Title	Year	Org	Social marketing / approach	Intervention description	Results	Policy / lessons	Critique	URL
Iceland Community 9	Sigfusdottir, Thorlindsson, Kristjansson et al	Icelandic model/Substance use prevention for adolescents: the Icelandic Model	2008		Clear intention to change behaviour (1) of young people & parents and to raise levels of social capital in communities. Approach is refined in an ongoing way using national data as a basis for discussing what can work at a local level - involving local policy makers, experts, parents, school personnel and the public (2). Innovative and organic projects/interventions developed within the local community to meet the specific needs of localities (3,4) while no apparent segmentation, all are part of target audience as all contribute to social capital. In this sense it is likely that the product, place, price etc are appropriate to the local market and a sense of ownership and involvement fosters interest against competition (6).	A four level intervention based on evidence, reflection and action. Level 1: national level with researchers to scope extent of the problem. Level 2: team members consult with local communities (eg policy makers, teachers, parents, community members). Level 3: local action using targeted interventions based on the 'unique talents, spirit and imagination' of the local community. Level 4: integrative reflection; process and outcome evaluations take place at a local level and considered in relation to new round of national level data. Annual data of two cohorts of over 7000 young people used for the data - 14-16 year olds. Multi-method approach.	Consistent and impressive reduction in levels of alcohol and other substance abuse with higher levels of social capital - using indicators of degree of child/parent communication and the extent to which the parent knows where the young person is. In particular levels of reporting drunkeness in the last 30 days reduced from 38% in 1997 to 20% in 2007 - with Iceland falling from 4th worst alcohol abuse level (amongst young people) in Europe to 11th - as measured by external study data.	Three key lessons pointed out, though many more apparent. Study stresses the importance of simultaneously involving young people, parents, schools and other clubs/organisations for the intervention to work - they point out that those who drink a lot are likely to spend little time with parents - hence parent only interventions will be of limited value. The critical age of starting interventions is 12-13. important not to run interventions too late. In addition this is a long term strategy and it is possible to work effectively with both known and emerging community-level risk and protective factors for a particular behaviour without attempting to prove a direct causal relationship.	Impressive study which has shown continued success over the long term as evidenced by different (separate) studies. The size of the cohorts is also impressive and makes concerns over statistical significance a non-issue for this study.	http://heapro.oxfordjournals.org/cgi/content/abstract/dan038v1
USA IT/Media 1	Schinke, Schwinn, Di Noia et al	Computer-Based Intervention with and without Parent Involvement/ Reducing the Risks of Alcohol Use among Urban Youth: Three-Year Effects of a Computer-Based Intervention with and without Parent Involvement	2004	WHO	Very strong social marketing basis as clear attempt to limit alcohol use (1), specifically tailored to a certain age range and the mode of consumption (CD-ROM) shows clear and novel mode of appealing to young people (2,3). This would appear to be attractive to young people (4), have strong characteristics in terms of product, place etc (5) though whether the CD-ROM is actually used or shelved for another distraction (6) would inevitably be hard to discern.	Youths in the intervention groups completed 10 45 min sessions of a CD-ROM prevention program. This covered goal setting, coping, peer pressure, refusal skills, self-efficacy, problem solving, communication; used skills of problem-solving and alcohol avoidance. Included simulated distractions with animated characters similar to their age, gender and ethnic background. Family interventions consisted of videos and newsletters sent to homes. 3 groups in this RCT; Youths (N = 513, av. age 11.5 at onset) randomised by site to receive the CD-ROM intervention, the CD-ROM plus parent intervention, or no intervention. Follow-up at 1, 2 and 3 years with boosters inbetween.	Results seem convincing and seem to suggest very modest difference between the groups with CD-ROM *and* parents from those who only used the CD-ROM. Mean alcohol over the past 30 days at baseline (n=514) = all 0.7. 1 year follow up (n=513) = CD-ROM 0.8, CD+Parent 0.8, contr. 1.2. 2 year follow up (n=452) = CD 0.9, CD+P 0.9, contr. 1.4. 3 year follow up (n=469) CD 1.0, CD+P 0.9, contr. 1.6. All these findings are significant at 95% confidence interval. Attrition is relatively small.	The cost, controllability (no concerns over poor transmission of messages by teachers) and strong social marketing design, combined with effective findings would ear-mark this approach as one with strong policy-potential. Technological approach would appeal to young people, and parental involvement here does not seem to be a factor in the marginal success over controls. Perhaps would need to be run on a large scale to maximise economies of scale.	Foxcroft criticises this as being analysed/evaluated at the individual rather than site level, though given the private consumption of the intervention this would seem appropriate. Effect sizes are not vast but influential nonetheless. This study is also mention in Smit et al's review as favourable and with potential.	http://www.questia.com/googleScholar.qst?docId=5006861330
USA IT/Media 2	Schinke & Schwinn	Gender-specific Computer-based Intervention for preventing drug abuse among girls	2005		The use of a media-platform such as CD-ROM for home PCs allows significant tailoring at a social marketing level to change substance use/abuse (1) especially when segmented (3) not simply for age but also for gender. Audience research (2) in order to make the product delivery effective (5) and attractive (4) was clearly evident. Appropriate music, graphics and language etc was used.	Participants were seventh grade (12-13) girls (n=91) from 2 schools in New York city. Take-up rates were high (95%) and girls were assigned to receive either conventional interventions or a gender-specific computer based intervention. CD-ROM looked at 4 areas - what is stress?; Drugs and stress; Dealing with stress; Stress-reducing techniques.	Measures were taken at pre- and post- test in terms of how the girls handled/dealt with stress, attudinal issues re: their appearance and weight, and substance use questions regarding attitudes towards consumption as a means for dealing with stress. All of these measures were scaled 1-5. The intervention group were significantly less likely to see alcohol as a good means of dealing with stress, they were more likely to have a wide-range of stress-addressing mechanisms.	These findings are modest yet do bring to the fore the potential for multi-media, computer-based, gender specific interventions.	Interesting study though very modest findings, small sample, small time frame and the data only refer to attitudinal change, not behavioural change.	http://www.ncbi.nlm.nih.gov/pubmed/16320437

IT/Media 3	USA	Schinke, Schwinn & Cole	Computer-Based Intervention with and without Parent Involvement/ Preventing Alcohol Abuse among Early Adolescents through Family and Computer-Based Interventions: Four-Year Outcomes and Mediating Variables	2006		Same as 'IT/Media1': Very strong social marketing basis as clear attempt to limit alcohol use (1), specifically tailored to a certain age range and the mode of consumption (CD-ROM) shows clear and novel mode of appealing to young people (2,3). This would appear to be attractive to young people (4), have strong charachteristics in terms of product, place etc (5) though whether the CD-ROM is actually used or shelved for another distraction (6) would inevitably be hard to discern.	Four year follow- up of ITMedia 1 - see for original intervention description. Follow-on interventions consisted of annual CD-ROM booster sessions with a review of prior components. Issues covered increasing peer pressure, dating, greater access to alcohol, media influences and increased unsupervised time. Parent booster sessions consisted of 4-hour workshop addressing stresses of having teenagers, different gender needs, communication and discussions around alcohol. Five years after first testing, 91/8% completed the four year follow-up measures.	Building on the findings for 'IT/Media 1' this four-year follow-up adds to the longitudinal understandings of this innovative intervention. The findings were marginally in favour of the intervention with the CD-ROM combined with family intervention, which in turn was marginally more effective than the control. Further evidence was stated that the CD-ROM/family arm youths were less likely to have drinkers (or people who had been drunk) among their 5 best friends.	Though effective, the success of the intervention over the control is marginal. However the study does point out the potential mediating variable of the best friends that young people were associating with. Technological approach advantageous.	Very marginal effectiveness - the extent of which the study seems to try to play down.	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1766321
IT/Media 4	USA	Schinke, Cole & Fang	Computer-mediated mother-daughter programme/ Gender specific intervention to reduce underage drinking among early adolescent girls: a test of a computer-mediated, mother-daughter programme	2008		Similar details to IT/Media 2: The use of a media-platform such as CD-ROM for home PCs allows significant tailoring at a social marketing level to change substance use/abuse (1) especially when segmented (3) not simply for age but also for gender. Audience research (2) in order to make the product delivery as effective (5) and attractive (4) as possible was clearly evident. Appropriate music, graphics and language etc was used.	202 mother/daughter (age 10-13) pairs took part in the study as recruited through local advertisements both online and elsewhere. The software sought to develop a nurturing mother/daughter relationship and hone skills for managing conflict, resisting media influence, refusing alcohol and drugs, and correcting peer norms regarding substance abuse. A control group was also assessed. There was a 2 month and one year follow up.	Various factors measured: parental rules, authority and relationships which correlated positively with the intervention group. In particular girls reported less alcohol consumption in the last week (p<.01), 30 days (p<.05), and year (p<.01).	While the findings were significant, there is no information as to the size of the effects. Nonetheless the CD-ROMs were evaluated very positively by the participants and the study shows the potential for structured interventions amongst the family within the comfort of the home.	No data given as to the size of the effect on behaviour. Intervention assumes computer literacy and owning a PC. The alcohol consumption levels were highly significant even though at the 2 month follow up.	http://www.ncbi.nlm.nih.gov/pubmed/19118394
Hospital 1	USA	Smith, Hodgson, Bridgeman et al	Brief motivational interview/ A randomized controlled trial of a brief intervention after alcohol-related facial injury.	2003	Boekeloo & Griffin 2007	Clear attempt to change behaviour (1) and segmented marketing (3) by targeting young people who have had a facial injury requiring surgery following an accident related to alcohol and could be deemed high risk (and willing to learn). The fact that they are in the midst of receiving treatment in A&E also suggests high level of attention versus competitors (6) albeit not in a typical marketing sense.	The setting was an oral and maxillofacial surgery out-patient clinic in an urban teaching hospital. 151 participants were randomized to motivational intervention and control conditions. The intervention was treatment as usual plus a one-session brief motivational intervention administered by a nurse. Control was treatment as usual.	Three sets of measurements: baseline, 3-month & 1-year follow-up. Collateral measurements also taken at 1-year follow-up. Primary outcome measures: total alcohol consumption, typical weeks consumption and days abstinent in preceding 3 months. Other outcome measures included the Alcohol Use Disorders Identification Test and a measure of satisfaction with social relationships. Results showed significant decrease in 84-day total alcohol consumption across the year (P < 0.006) and a significant effect for the motivational intervention (P < 0.029). This pattern repeated for days abstinent and alcohol consumption in a typical week as well as alcohol-related problems. Significantly greater reduction in the percentage of binge drinkers in the motivational intervention group (from 60% to 27%, P < 0.009) compared to control group (from 54% to 51%, NS).	This approach demonstrates a useful way of targeting a segmented, high risk cohort. The study concludes that brief interventions are recommended for adolescents who present to an A&E with an alcohol-related event and report pre-existing problematic alcohol use. May need the skills of a nurse trained in this technique to be effective.	Strong study which seems rigorous. Reliance on self-reported outcomes via a standardised questionnaire (according to the systematic review) - though this would not seem to overtly threaten the reliability of the findings.	http://pt.wkhealth.com/pt/re/addi/abstract.00008514-200301000-00007.htm;jsessionid=KkrGyWvkwj3yyQ4vPgRnNLFPbnnQfWW8YVyVyG91HTzQ3J3D1vs5!-1260103914!181195628!8091!-1

| Hospital 2 | USA | Spirito, Monti, Barnett et al | Brief motivational interview/A randomized clinical trial of a brief motivational intervention for alcohol-positive adolescents treated in an emergency department | 2004 | Boekeloo & Griffin 2007 | Similar segmentation and approach to Hospital 1. Clear attempt to change behaviour (1) and segmented marketing (3) by targeting young people who have had an accident related to alcohol and could therefore be deemed 'high risk'. The fact that they are in the midst of receiving treatment in A&E also suggests high level of attention versus competitors (6) albeit not in a typical marketing sense. | The study tested whether a brief motivational interview (MI) would reduce alcohol-related consequences and use among adolescents treated in an emergency department (ED) after an alcohol-related event. Patients aged 13 to 17 years (N=152) with a positive blood alcohol concentration (BAC) by lab test or self-report were recruited in the ED and randomly assigned to receive either MI or standard care (SC). | Both conditions resulted in reduced quantity of drinking during the 12-month follow-up, whereas alcohol-related negative consequences were relatively low and stayed low at follow-up. Adolescents who screened positive for problematic alcohol use at baseline reported significantly more improvement on 2 of 3 alcohol use outcomes (average number of drinking days per month and frequency of high-volume drinking) if they received MI compared with SC. | This approach demonstrates a useful way of targeting a segmented, high risk cohort. The study concludes that brief interventions are recommended for adolescents who present to an A&E with an alcohol-related event and report pre-existing problematic alcohol use. May benefit from skilled nurse to deliver intervention. | Study inhibited by high refusal rate, an inevitable reliance on self-reported outcomes data and difficulty with people dropping out of the study. | http://linkinghub.elsevier.com/retrieve/pii/S0022347604003786 |