Review details	Review search parameters	Included studies	Results
Baxter (2011) **Study design:** Systematic review **Author objectives:** "to examine the effectiveness of interventions to encourage the establishment of smoke-free homes in pregnancy and in the year following childbirth". **Funding source:** National Institute for Health and Clinical Excellence, UK	**Years searched:** 1990–2009 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - All households containing a child <12 months of age (or where the majority of infants/children were aged 0–12 months) and a pregnant or recently pregnant woman who smokes. I - Programmes aiming to establish smoke-free homes or targeting ETS C - NR O - NR S - No limit on study design was applied. **Exclusion criteria:** "Studies were excluded if they did not report data from interventions or where the majority of the study population were children >1 year".	**Number of included studies (total):** 17 of which 12 were synthesised **Study designs:** 12 RCT, 1 trial with non-random allocation, 4 before and after studies (1 RCT and 3 before and after studies were excluded from synthesis) **Country:** 10 USA, 1 Canada, 2 Sweden, 1 Finland, 1 Italy, 1 UK, 1 China **Included studies relevant to our review:** 5 studies which measured outcomes in children (infant cotinine levels or respiratory illness) **Study designs:** all RCT **Country:** 4x USA, 1 Finland **Sample sizes and follow-up:** Relevant studies: ~100 - 150 in three studies; > 1,000 in two studies. Details on attrition not reported. Follow-up not systematically reported but review authors note short follow-up times as limitation of studies. **Quality of included studies as assessed by review authors:** Study quality was appraised using the NICE checklist. Scores for relevant studies: 3 ++, 2 +. In relation to all included studies - "The papers tended to provide limited details regarding characteristics of their study populations". "The main limitation of study quality at randomized controlled trial (RCT) level was lack of blinding. For studies of health promotion interventions, it is not possible to blind the participants and there are many practical challenges to blinding the assessors. The quality of other designs was commonly limited by small samples, short follow-up, high dropout and poor analysis and/or presentation of data". "Across the included papers, there was a lack of intervention fidelity, with large numbers of participants reportedly not adhering to the programme". **Limitations identified by review authors:** Study quality; specific population included in studies.	Of the 5 relevant studies, 1 study showed significant effects in reducing children's exposure to ETS as measured by infant cotinine levels, 1 study found a significant effect on infant cotinine levels but not respiratory illness, 3 studies found no significant effect. No relationship between study quality rating and finding. Review authors note that conflicting findings may be due to differences in levels of implementation fidelity or depending on who delivered the intervention. The other studies measured ETS exposure through different means (e.g. maternal self-report) and the findings were similarly mixed.

Review details	Review search parameters	Included studies	Results
Brinn (2010) **Study design:** Systematic review **Author objectives:** To review the effectiveness of mass media interventions to prevent smoking amongst young people. **Funding source:** NHS Centre for Reviews and Dissemination; NHS Research and Development National Cancer Programme	**Years searched:** 1997-2010 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Under 25 years. I - Mass-media campaigns with the primary aim of preventing smoking, including mass media campaigns combined with school-based programmes. C - NR O - Tobacco use/smoking status, smoking attitudes, knowledge and related behaviours, self esteem and self efficacy, smoking perception, media reach. S - RCT, NRCT, time series. **Exclusion criteria:** Study design: UBA studies, studies with no baseline measurements.	**Number of included studies (total):** 7 **Study designs:** All studies RCT or CCT **Country:** 6: USA; 1: Norway **Included studies relevant to our review:** same as above **Sample sizes and follow-up:** Sample sizes varied greatly; samples were taken from clusters of schools and across communities and studies included up to 23,000 individuals. Rates of attrition varied by study; the authors speculated that this may be due to very different follow up lengths (up to 6 years with 62% attrition rate) and different criteria for being included in the final analysis. **Quality of included studies as assessed by review authors:** Bias assessed according to the Cochrane Handbook. The authors state that "all included studies in this review had at least four significant methodological limitations based on the risk of bias assessment". **Limitations identified by review authors:** Limitations related to methodological limitations as assessed in risk of bias measure.	Tobacco use: three of seven studies reported significant associations between mass media campaigns and a reduction in smoking uptake in young people. Common characteristics of the campaigns included: combining school and media approaches, utilising multiple media outlets and repeated exposure to messages over a minimum of three years. All of these studies contained methodological limitations. Four other studies produced no significant results: these were characterised by short media campaign periods and lacking structured educational elements.

Review details	Review search parameters	Included studies	Results
Bryant (2011) **Study design:** Meta-analysis **Author objectives:** "To assess the methodological quality and effectiveness of behavioural smoking cessation interventions targeted at six disadvantaged groups; the homeless, prisoners, indigenous populations, at-risk youth, individuals with low socio-economic status and individuals with a mental illness". **Funding source:** NR	**Years searched:** Relevant studies published prior to October 2010 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Population not specified in inclusion criteria, although review and search strategy focus on six disadvantaged groups; the homeless, prisoners, indigenous populations, at-risk youth, individuals with low socio-economic status and individuals with a mental illness. I - Behavioural smoking cessation intervention. Studies that included pharmacotherapy as a component of a behavioural intervention were included only when pharmacotherapy was not being tested for effectiveness. C - Another behavioural intervention or usual care. O - Smoking cessation. S - Randomized controlled trials (RCTs) and clinical controlled trials (CCTs). Studies had to be conducted in "developed countries" (United States, Canada, Australia, New Zealand, United Kingdom and western Europe). **Exclusion criteria:** "Studies that were not published in English, that were case reports or cross-sectional studies, or studies that reported on population-level public health campaigns or pharmacotherapies alone were excluded. Multiple risk factor interventions where smoking cessation was one of a number of health-related outcomes were excluded because of the inability to distinguish the impact of the smoking intervention alone".	**Number of included studies (total):** 32 **Study designs:** 13 RCT, 16 CCT (RCTs where the method of randomization was not described) and 3 cluster RCTs **Country:** Most studies were conducted in the United States, with one study each conducted in Australia, New Zealand and the United Kingdom. **Included studies relevant to our review:** 6 studies in at-risk adolescent smokers. **Study designs:** 1 RCT, 4 CCT (RCTs where the method of randomization was not described) and 1 cluster RCT **Country:** USA **Sample sizes and follow-up:** Meta-analysis of short terms effect (up to 3 months): 213 in intervention, 197 in control group. Meta-analysis of long-term effects (6 months or the longest): 187 in intervention, 139 in control group. Sample sizes ranged from 54 to 191 participants (note, one study included 1574 participants but only 62 students were smokers). Withdrawals were highlighted in two of the relevant studies as a weakness, but no details were provided. In relation to all included studies - "Where reported, attrition rates varied from 8–77% at the longest follow-up point". **Quality of included studies as assessed by review authors:** Used Effective Public Health Practice Project Quality Assessment Tool for quantitative studies. In relation to all included trials: "The majority (n = 20) were rated low in methodological quality". "Unrepresentative samples, non-reporting of consent rates, non-reporting of blinding of participants and outcome assessors and high attrition rates were common issues across all studies". Out of the 6 relevant studies, 4 received a global rating of 'weak', 1 'moderate', 1 'strong'. Weaknesses of relevant studies related in particular to possibility of selection bias and confounders. **Limitations identified by review authors:** Small number of studies eligible for inclusion in the review and the small number of studies included in the meta-analysis, no consideration of intervention details (e.g. intensity), different outcomes measures including self-report, limitation to developed countries, low quality studies were included.	No long-term significant effects found among at-risk adolescents. Details: "Six studies examined the effectiveness of cessation interventions for at-risk youth. Four studies used a behavioural support intervention and were combined for meta-analysis. At short-term follow-up a non-significant effect was found (RR 1.55, CI 0.74–3.26, I2 = 21%). Three studies were pooled at long-term follow-up and also showed a non significant effect (RR 1.69, CI 0.83–3.41, I2 = 0%). Two studies also used a behavioural support intervention but could not be included in the meta-analysis due to the method of reporting of results. Albrecht et al. examined the effectiveness of an 8-week group cognitive behavioural therapy (CBT) group programme for pregnant adolescents incorporating NRT and buddy support compared with a CBT programme alone and usual care. It appeared that the addition of a support person was of modest benefit, with a significant difference found at 8-week follow-up (P = 0.01). No differences were found at 1-year follow-up. Prokhorov examined the effectiveness of a computer-based smoking prevention and cessation programme among disadvantaged high school students. No significant effects were found among a small subsample of adolescent smokers at 18-months follow-up".

Review details	Review search parameters	Included studies	Results
Calabria (2011) **Study design:** Systematic review **Author objectives:** To identify interventions aimed at young people with existing alcohol use problems or at high risk of alcohol related harm, delivered outside educational settings; critique their methodology; identify future opportunities for studies. **Funding source:** Alcohol Education and Rehabilitation Foundation, Alcohol Action in Rural Communities Program	**Years searched:** 2005-2009 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Young people who met any of four alcohol related criteria including dependence, at-risk status, referral for treatment, engaging in high-risk alcohol-related behaviour. I - Delivered outside normal education settings. C - NR O - NR S - NR **Exclusion criteria:** Outcomes: did not focus on alcohol abuse, dependence or related problems. Study design: not peer reviewed.	**Number of included studies (total):** 9 **Study designs:** 7 RCT, 2 uncontrolled **Country:** USA n=8, Australia n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Five studies had follow up rates between 80% and 100%, one study 60-79% and three studies <60%. **Quality of included studies as assessed by review authors:** Quality was assessed using the Dictionary for the Effective Public Health Practice Project Quality Assessment Tool for Quantitative Studies. No overall scores were provided. Issues across studies were raised with controlling for baseline differences between groups, reliance solely on self-report measures, non-blinding of outcome assessors and low follow up rates in some studies. Low intent-to-treat rates were reported. **Limitations identified by review authors:** Unable to undertake meta-analysis, poor methodology of studies.	"Despite their methodological limitations, the studies identified by this systematic review represent best evidence for the effectiveness of interventions for young people with existing alcohol use problems or who participate in behaviour that places them at high risk of harm. The most promising approaches to reduce such harms are CBT, family therapy and community reinforcement. Evaluations using more rigorous methodologies are required before clear conclusions can be reached about the most effective interventions to reduce alcohol-related harms among youth who have existing alcohol use problems, or who participate in behaviour that places them at high risk of harm".

Review details	Review search parameters	Included studies	Results
Carson (2011) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To determine the effectiveness of multi-component community based interventions in influencing smoking behaviour, which includes preventing the uptake of smoking in young people". **Funding source:** Australasian Cochrane Airways Group Network Scholarship, Australia.	**Years searched:** 2002-2010 **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - Under 25 years I - Targeted at communities/large areas, aimed to influence smoking behaviour, multi-component. C - NR O - Validated or self-reported smoking. S - RCT, controlled clinical trials, controlled before and after studies. **Exclusion criteria:** Intervention: single-component, mass-media only, no community involvement; Study design: did not report baseline characteristics.	**Number of included studies (total):** 25 **Study designs:** RCT n=15, CCT n=10 **Country:** USA n=17, Australia n=3, UK n=2, India n=1, Finland n=1, Europe n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** "The duration of follow up at which smoking status was assessed differed between studies and in some cases was not clear"; included at the end of the intervention (n=3), one year later (n=3), approximately one and a half years later (n=2), three and a half years later (n=1), and in the case of one study, fifteen years after the intervention. **Quality of included studies as assessed by review authors:** Assessed using the Cochrane tool. Inadequacies as reported by authors: blinding (all studies), allocation concealment (12 studies), incomplete outcome data (five studies, unclear in 12 studies), selective reporting (unclear in 9, high risk in 15 studies), baseline imbalance (unclear in 5 studies, inadequately addressed in 3 studies), contamination (seven studies), selective recruitment (high risk of bias in 7, unclear in 18 studies). No overall quality score provided. **Limitations identified by review authors:** Studies did not always refer to correct unit of analysis.	Smoking behaviour: "Overall ten interventions presented in the 25 studies demonstrated intervention effectiveness in influencing smoking behaviour including prevention, at primary follow up. One programme statistically and clinically significant short-term benefits (<12 months) (Winkleby 2004) and nine provided longer-lasting effectiveness". Common features to successful programmes "include nine of the ten incorporating school based multi-component interventions with intervention delivery by school teachers and other faculty members, six had parental involvement in the intervention programme, eight had intervention durations longer than 12 months and nine of the ten interventions were based on the social influences or social learning theory". "Three of the five studies which included community leader participation with active involvement in both the development and ongoing support of the community programmes were also effective in reducing youth smoking, however the remaining two studies showed significant benefits in favour of the control. Five of the nine studies that included mass media as additional programme components favoured the intervention". 16 studies included in meta-analysis, 8 studies included for any one outcome: "Of the studies categorised as showing evidence of clinically and statistically significant benefit, only two reported outcomes that could be included in the meta-analysis". "There were no statistically or clinically significant results for weekly, monthly or smokeless tobacco use. For daily smoking and 'ever smoked' the point estimates were consistent with a clinical benefit but the number of studies were small and the confidence intervals wide (daily smoking, two studies, OR 0.89 (95% CI 0.69 to 1.15)), (ever smoked, three studies, OR 0.82 (95% CI 0.39 to 1.74))".

Review details	Review search parameters	Included studies	Results
Carson (2012) **Study design:** Systematic review **Author objectives:** "To evaluate the effectiveness of intervention programmes to prevent tobacco use initiation or progression to regular smoking amongst young Indigenous populations". **Funding source:** NR	**Years searched:** start date NR - 2011 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - "Young people aged 25 or less who are members of indigenous populations". I - To prevent tobacco use initiation, or progression amongst already using participants C - Usual practice, no intervention, reduced intervention or co-intervention participants. O - Primary outcome was self-reported or validated tobacco use status; secondary outcomes were intentions, exposure and costs. S - RCT or CCT. **Exclusion criteria:** NR	**Number of included studies (total):** 2 (plus 1 ongoing study, not included here) **Study designs:** RCT: 2 **Country:** USA: 2 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample size at baseline 109-1396 participants. One study reported attrition of 18% and participants n=1199 at final follow up at three years. Follow up in the second study was 6 months. **Quality of included studies as assessed by review authors:** Methodological biases were unclear in the two studies, but both had at least two categories marked as high risk for bias. **Limitations identified by review authors:** Lack of data, limitation of study designs.	Tobacco use: at final follow up, neither study detected significant differences between intervention groups and controls. One study reported positive post-test intervention effects not maintained at follow up. In one study weekly tobacco use trebled during the study period. In one study reporting outcomes for secondary outcomes, no significant intervention effects were reported except for knowledge which significantly favoured the intervention group at post-test and six month follow up.

Review details	Review search parameters	Included studies	Results
Civljak (2010) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To determine the effectiveness of Internet-based interventions for smoking cessation". **Funding source:** Department of Primary Care and Social Medicine, Imperial College London, UK. Ministry of Science, Education and Sport, Croatia. NHS Connecting for Health Evaluation Programme, UK.	**Years searched:** No restrictions on publication year, most recent searches in June 2010. **Language restrictions:** Any language included. **Inclusion criteria (according to PICOS):** P - Any smokers who participated in Internet interventions for smoking cessation. I - Internet studies in all settings and from all types of provider, stand-alone or adjust to pharmacotherapy. C - No treatment or with other forms of treatment, such as self-help booklets. O - Smoking cessation at least six months after the start of the intervention were preferred, although trials with follow-up periods of four weeks were also included (self-reported as well as those biochemical validation of abstinence). S - Randomized or quasi-randomized controlled trials. **Exclusion criteria:** "We excluded trials which used the Internet solely for recruitment and not for delivery of smoking cessation treatment. We also excluded trials where Internet-based programmes were used to remind participants of appointments for treatment that is not conducted online, e.g. face-to-face counselling, or pharmacotherapy. Text messaging interventions were covered in a Cochrane review of mobile phone interventions (Whittaker 2009) and are not covered in this review". "We excluded trials with fewer than four weeks follow up".	**Number of included studies (total):** 20 **Study designs:** All RCTs (although randomisation methods not always described) **Country:** Mostly USA, in addition 1 Switzerland, 1 Norway, 1 Netherlands, 1 England and 1 Republic of Ireland, 2 studies recruited from multiple countries. **Included studies relevant to our review:** 4 - One in college students, three in adolescents **Study designs:** All RCTs **Country:** All 4 USA **Sample sizes and follow-up:** Sample sizes ranged from 136 (77 intervention, 59 control) to 517 (257 intervention, 260 control) participants per trial. Follow-up periods were at least 4 weeks due to review inclusion criteria; follow-up periods for assessment of long-term abstinence ranged from 3 months to 12 months. One of the studies (An 2008) ascertained smoking status for over 80% of participants at follow up. The remaining three studies ascertained smoking status for 50-80% of participants at follow up. "All studies reported similar proportions loss to follow up in each group except in one study where survey non-response was higher among intervention participants then among controls (Woodruff 2007)". **Quality of included studies as assessed by review authors:** Cochrane review. "In the two studies (Mermelstein 2006; Woodruff 2007) that randomized schools to conditions there was the potential for bias due to the way in which individual students were recruited once their school was randomized. In both there were differences in the baseline smoking behaviour of intervention and control participants. The two studies also needed to take account of the non-independence of outcomes for students clustered within schools. Mermelstein (2006) used hierarchical linear modelling to allow for clustering. Woodruff (2007) assessed baseline variable intra class correlations and average cluster sizes. Intra class correlations were generally small (0.1 or less) and the magnitude of the effect sizes was below two, so analyses were conducted at the individual level without a school-level cluster term". "Only one of the four studies in adolescents and young people did not use biochemical verification of self-reported abstinence". **Limitations identified by review authors:** "More rigorous studies comparing the long-term effects of Internet interventions with non-Internet interventions or no intervention at all are needed in order to determine the true long-term effectiveness of the Internet as a tool for smoking cessation".	Summary: "A trial in college students increased point prevalence abstinence after 30 weeks but had no effect on sustained abstinence. Two small trials in adolescents did not detect an effect on cessation compared to control, whilst a third small trial did detect a benefit of a web-based adjunct to a group programme amongst adolescents". Young adult college students: "One study in a population of college students (An 2008) detected a significant effect on 30-day abstinence at 30-week follow up (RR 1.95, 95%CI 1.42 to 2.69) although rates of prolonged abstinence were only six per cent and did not differ between groups". Adolescents: "Patten (2006) compared a home-based Internet delivered intervention (SOS) to a brief office intervention (BOI) for adolescent smoking cessation, and did not detect a difference in abstinence. Rates at 24 and 36 weeks follow up were higher for BOI (RR 0.44, 95% CI 0.14 to 1.36 at 36 weeks). Mermelstein (2006) detected a significant effect of the web-based adjuncts to the group-based approaches for adolescent smoking cessation (crude RR 1.96, 95% CI 1.02 to 3.77; also reported as significant, ($p < .05$), using mixed model logistic regression to account for clustering within schools). Woodruff (2007) recruited eligible adolescents based on a report of smoking in the past month; at baseline some described themselves as 'former' smokers or had not smoked in the past week. Intervention participants had lower past week abstinence rates at baseline than controls (14% vs. 29%). At the post-assessment, they had significantly higher abstinence rates than controls (35% vs. 22%), but by the final 12-month follow up, the two groups had almost identical past-week abstinence rates (RR 0.93, 95% CI 0.60 to 1.44). The interaction term considering all four assessments was not significant. Intervention participants (68%, n = 52) completed a five item questionnaire assessing their satisfaction with the programme immediately after the post-test assessment; 89% of participants reported they would recommend the programme to another person who smoked".

Review details	Review search parameters	Included studies	Results
Clark (2002) **Study design:** Meta-analysis **Author objectives:** "To compare the efficacy and acceptability of LAAM maintenance with methadone maintenance in the treatment of heroin dependence". **Funding source:** State Government of Victoria, Community Support Fund, Australia.	**Years searched:** Earliest-2000 **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - Heroin dependent or in opioid replacement therapy for heroin dependence. I - Levo-α-acetylmethadol (LAAM) C - Methadone O - Included at least one of retention in treatment, reduction in opiate use, abstinence from opiates, global assessments of health, various secondary outcome measures, S - Controlled studies. **Exclusion criteria:** NR	**Number of included studies (total):** 18 of which 15 were included in MA. **Study designs:** RCT (n=15), controlled prospective studies (n=3) **Country:** "All of the studies were conducted in the US in the 1970's apart from recent trials in the US and Australia". **Included studies relevant to our review:** 14/15 studies included in MA report on heroin use **Study designs:** NR **Country:** NR **Sample sizes and follow-up:** Sample sizes included in meta-analysis: cessation outcomes n=1454, heroin use outcomes n=983-1262. Breakdown of numbers by group and time not fully reported. Follow up time varied and was not well reported. **Quality of included studies as assessed by review authors:** Used the Cochrane tool: Quality scores were not used to exclude or weight studies in the MA. All studies in the MA received similar quality scores with the exception of one study that was not randomised and did not control for confounders. Scores for all studies were provided in the tables, but not summarised in text. Most studies were older and therefore methodological details (e.g. related to randomisation, allocation concealment) were not reported. Blinding attempted but success not reported. **Limitations identified by review authors:** Variations in attendance and dosage might have impacted on findings; political context (e.g. acceptability of LAAM); being able to switch from LAAM to methadone but not the other way round.	Heroin use - non-abstinence: across five studies, there were significantly lower rates of non abstinence in subjects allocated to LAAM treatment (RR 0.81, 95%CI 0.72-0.91, p=0.0003). One study reporting repeated urine test data found a Weighted Mean Difference (WMD) of -10.0, 95%CI -11.5 to -8.5, p<0.00001) in favour of LAAM. Eight studies analysed heroin urine tests as a proportion of all collected samples (including repeated samples, thus violating statistical assumption of independence): RR 0.87 (95%CI 0.72-1.05, p=0.15). Mortality: There was a non-significant trend for mortality to be higher with LAAM RR2.28 (95%CI 0.59-8.90, p=0.2; ten studies). Reasons for drop out "More drop outs were seen due to LAAM side effects than methadone". Findings unchanged by removing poorest quality trial. In relation to all 15 trials included in MA: Treatment cessation - allocated medicine: LAAM Participants in ten studies were more likely to have ceased treatment than methadone RR 1.36 (95%CI 1.07-1.73, p=0.001). Greatest differences were seen at short term follow up (3 month vs. 6 or 12 month) studies (1.64 vs. 1.24); all opioid substitution therapy: no significant differences between the two groups (RR 1.01, 95%CI 0.58-1.76, p=1[n=2 studies]).

Review details	Review search parameters	Included studies	Results
Cleary (2010) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To determine if there is a relationship between maternal methadone dose in pregnancy and the diagnosis or medical treatment of neonatal abstinence syndrome". **Funding source:** Friends of the Coombe and School of Pharmacy, Royal College of Surgeons in Ireland.	**Years searched:** Inception - 2009 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Opioid dependent pregnant women. I - Methadone dosage. C – NR O - Incidence of NAS in infants. S - Cohort studies and RCTs. **Exclusion criteria:** Outcomes: insufficient reporting of methadone dosage or outcomes related to NAS. Study design: case reports and case-control studies.	**Number of included studies (total):** 67 **Study designs:** RCT n=2, retrospective cohort studies n=28, prospective cohort studies n=37 **Country:** Europe n=27, USA n=37; Australasia n=3 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** 67 studies reported outcomes of interest for 5139 neonates exposed to methadone in pregnancy. **Quality of included studies as assessed by review authors:** Authors state that: most studies reported a clearly focussed objective and described population adequately. Some studies did not define NAS clearly, potentially confounding factors were rarely considered in analyses and blinding was rarely adequate. No overall scores are provided. **Limitations identified by review authors:** Significant heterogeneity across studies, limited reporting of methadone dosage.	29 studies included in the meta-analysis: There was a statistically significant difference in the incidence of NAS in neonates born to women on methadone doses above and below 20 mg and 40 mg. There were no other statistical differences between dosage levels. When only prospective studies or studies using an objective NAS diagnosis are included there were no significant results regarding doses above and below 20mg and 40mg. 67 studies were included in the systematic review: 19 reported a relationship between methadone dose and incidence, severity or duration of NAS and 18 did not. 30 studies did not report this relationship. Mean methadone dose across 21 studies appeared higher in those that did not report a relationship compared with studies that did.

Review details	Review search parameters	Included studies	Results
Coleman (2012) **Study design:** Meta-analysis **Author objectives:** "To determine the efficacy and safety of smoking cessation pharmacotherapies, including NRT, varenicline and bupropion (or any other medications) when used to support smoking cessation in pregnancy". **Funding source:** La Trobe University 1996 to date, Australia. UK Centre for Tobacco Control Studies: a Public Health Centre of Research Excellence, UK. NIHR National School For Primary Care Research, UK. Victorian Health Promotion Foundation, Australia. Department of Health, UK funding for EPI-Centre, London University, UK. Public Health Branch Victorian Department of Human Services, Australia.	**Years searched:** Searches conducted in March 2012, publication years NR **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - "Women who are pregnant and who also smoke." I - NRT or other pharmacotherapy with or without behavioural support/CBT or brief advice for smoking cessation in pregnancy. C - Placebo NRT and additional support of similar intensity as in intervention group OR behavioural support/CBT or brief advice only; trials had to provide very similar (ideally identical) levels of behavioural support or cognitive behaviour therapy (CBT) to participants in active drug and comparator trial arms. O - Primary: Self-reported abstinence from smoking in later pregnancy, Secondary: child outcomes, adherence. S - Randomised controlled trials (RCTs) with designs that permit the independent effects of any type of nicotine replacement therapy (NRT) (e.g. patch, gum etc.) or any other pharmacotherapy on smoking cessation to be ascertained. Parallel- or cluster-randomised design trials. **Exclusion criteria:** S - quasi-randomised, cross-over and within-participant designs.	**Number of included studies (total):** 6 **Study designs:** All RCTs - "Four included studies were placebo-RCTs (Coleman 2012; Kapur 2001; Oncken 2008;Wisborg 2000), two compared NRT plus behavioural support with behavioural support alone (Hotham 2006; Pollak 2007) and in these, participants could not be blinded to treatment". **Country:** "Studies were conducted in the USA (n = 2) (Oncken 2008; Pollak 2007) Australia (n = 1) (Hotham 2006), Canada (n = 1) (Kapur 2001), Denmark (n = 1) (Wisborg 2000) and England (n = 1) (Coleman 2012)". **Included studies relevant to our review:** 4 **Study designs:** All RCTs **Country:** 2 USA, 1 Denmark, 1 England **Sample sizes and follow-up:** ~ 200 participants in three studies, and ~ 1000 participants in Coleman trial; Attrition was low for perinatal outcomes (<10%); follow-up NR for 2 studies, one study 3 months post-partum, one study 12 months post-partum. **Quality of included studies as assessed by review authors:** Cochrane review. For all 6 included trials - "The risk of bias was generally low across trials with virtually all domains of the 'Risk of bias' assessment tool being satisfied for the majority of studies and an absence of blinding was the principal difference between trials". Two of the four relevant trials were rated as being at low risk of bias across all 7 risk domains; risk of bias was unclear on 2/7 dimensions for one study, but overall assessment was low risk of bias; one study was rated at high risk of bias due to lack of blinding. **Limitations identified by review authors:** None	"There was no statistically significance difference in risk of miscarriage/ spontaneous abortion between groups in the three studies that reported this outcome (RR 1.24, 95% CI 0.37 to 4.17, T^2 = 0.00, I^2 = 0%, three studies, 1407 women". "There was no statistically significant difference in the numbers of stillbirths between NRT and control arms of trials (RR 1.98 95% CI 0.55 to 7.07, T^2 = 0.00; I^2 = 0%, three studies, 1402 women). Due to a high level of heterogeneity (I^2 = 87%), we did not present a pooled estimate for differences in birth weight between NRT and control groups". "Data relating to low birth weight also could not be pooled due to similarly high levels of heterogeneity between the four trials reporting this outcome (I^2 = 80%)". "Preterm births (RR 0.85, 95% CI 0.57 to 1.26, T^2 = 0.06, I^2 = 33%, four studies, 1628 women), neonatal intensive care unit admissions (RR 0.94, 95% CI 0.64 to 1.38, T^2 = 0.00, I^2 = 0%, three studies, 1386 women) and neonatal deaths (RR 0.28, 95% CI 0.06 to 1.41, T^2 = 0.00, I^2 = 0%, three studies, 1386 women) were all less frequent in NRT groups, but differences between NRT and control groups did not reach statistical significance". "Coleman (2012) also reported the distribution of the following birth outcomes between NRT and placebo groups noting no statistically significant differences: Apgar score at five minutes after birth, cord arterial blood pH, intraventricular haemorrhage, neonatal convulsions, congenital abnormalities, necrotising enterocolitis, mechanical ventilation of infant, assisted vaginal delivery and maternal death. This study also reported a significantly higher caesarean section rate among NRT group women 20.7% (105/507) versus 15.3% (79/517)".

Review details	Review search parameters	Included studies	Results
Coren (2013) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To summarise the effectiveness of interventions for street-connected children and young people that promote inclusion and reintegration and reduce harms. To explore the processes of successful intervention and models of change in this area, and to understand how intervention effectiveness may vary in different contexts". **Funding source:** International Initiative for Impact Evaluation, Inc (3ie)	**Years searched:** From inception to 2012 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Street-connected children and young people between the ages of 0 and 24 years (inclusive), their families and carers, professionals working with children, young people and their families, the police and employers. I - Any interventions that: involved harm-reduction, inclusion or reintegration programmes for street-connected children and young people, were intended to reduce harms associated with risky sexual activity and substance misuse, and promoted inclusion and reintegration; increased literacy, numeracy and self-esteem; increased participation in education and skills-based employment; provided shelter, housing and drop-in support. C - Either groups who did not receive an intervention, who received standard practice interventions, or who received a different type of intervention. O - Any intervention studies which "aimed to achieve any one of the listed primary or secondary outcomes, or both". Primary outcome: inclusion and reintegration (i.e. the children and young people entering a residential and/or educational environment that has the potential to provide them with elements of physical safety, medical care, nutrition, counselling, education, inclusion in social and economic opportunities, and room for recreation and personal and spiritual growth that may impact positively on longer term life chances). Secondary outcomes: 1. Safer or reduced sexual activity. 2. Safer or reduced substance use (e.g. reduced sharing of injecting equipment). 3. Increased use of hostel or shelter type services. 4. Literacy. 5. Numeracy. 6. Self-esteem. 7. Depression. 8. Participation in education. 9. Participation in skills-based (rather than exploitative) employment. 10. Reduced use of violence. 11. Increased contact with family. 12. Participation in intervention planning and delivery. S - Randomised controlled trials (RCTs), clinical controlled trials (CCTs), controlled before-and-after trials (CBA) and quasi-randomised trials. Quasi-randomised trials refer to studies which allocate the children and young people to treatment or control conditions depending on methods determined as not truly randomised, for example, on their date of birth or the day of the month they enter the intervention site. Some other quasi-randomised designs, such as regression discontinuity designs, were eligible for inclusion in the review. **Exclusion criteria:** "We did not include any studies that did not report separate outcomes data on street-connected children and young people in the context of systemic interventions".	**Number of included studies (total):** 11 studies evaluating 12 interventions - 8 studies included in meta-analysis and 3 in narrative synthesis only **Study designs:** 8 RCTs, 2 CBAs, 1 quasi-RCT **Country:** 9 USA, 1 UK, 1 Korea, "We did not find any sufficiently robust evaluations conducted in low and middle income countries (LMICs) despite the existence of many relevant programmes". **Included studies relevant to our review:** 8 studies on safer or reduced substance use (e.g. reduced sharing of injecting equipment) (Baer 2007; Cauce 1994; Milburn 2012; Peterson 2006; Slesnick 2005; Slesnick 2007/08; Slesnick 2009 EBFT; Slesnick 2009 FFT; Rotheram-Borus 2003). **Study designs:** All RCT except for 1 CBA **Country:** All USA **Sample sizes and follow-up:** Of relevant studies, participant numbers were mostly between 100-200 with one study > 300.. Four studies had a follow-up period exceeding six months, while three had a follow-up period of three months or below. The longest follow-up was 24 months (Rotheram-Borus 2003); however the longest follow-up for which raw data were available was 15 months (Slesnick 2009 EBFT; Slesnick 2009 FFT). Follow-up rates at longest follow-up were as follows (in ascending order): 43% (intervention), 49% (control) at 12months (Milburn 2012); 62% (EBFT), 65% (FFT), 62% (control) at 15 months (Slesnick 2009 EBFT; Slesnick 2009 FFT); 66% (intervention), 74% (control) at 24 months (Rotheram-Borus 2003); 80% (total) at 3 months (Peterson 2006); 84% (control), 88% (intervention) at 6 months (Slesnick 2007/08); 88% (intervention), 81% (control) at 6 weeks); 89% (intervention), 88% (control) at 12 months (Slesnick 2005), and 92% (total) at 3 months (Baer 2007) (no attrition reported in Baer 2007; 10 participants were excluded from the analysis due to exclusion criteria). With regard to attrition analysis "available data were too limited for drawing overall conclusions". Two studies reported differential attrition, although no clear pattern emerged. "Only one study (Slesnick 2009 EBFT; Slesnick 2009 FFT) found no differences between the demographic profiles of drop-outs and retained participants". **Quality of included studies as assessed by review authors:** Overall judgement for all included studies: "Study quality overall was low to moderate and there was great variation in the measurement used by studies, making comparison difficult". "All studies showed a high risk of bias in relation to blinding as it was not possible to blind participants in such interventions". "We considered the attrition rates good to very good considering the typical characteristics of the research populations, their life	Results with regard to safer or reduced substance use were described by the review authors as "uncertain and of mixed direction". "According to the authors of three studies, family therapy interventions for runaway adolescents appear to have achieved some statistically significant and lasting (12 to 15 month) benefits in reducing alcohol or drug use, somewhat above the similarly positive benefits for participants receiving SAU (Milburn 2012; Slesnick 2005; Slesnick 2009 EBFT; Slesnick 2009 FFT). The changes in both groups also appear clinically significant." Milburn study suffered from high attrition. "Interventions may to some degree change the pattern of substance abuse rather than reduce it. For example, in Milburn (2012) intervention participants (with a primarily alcohol using profile) increased their use of marijuana while reducing their use of alcohol and hard drugs". Details: 1. Number of days of alcohol use in last 30 days: No statistically significant or important effect was found at 1 month follow-up and the mixed findings reflected uncertainty (total MD - 0.3, 95% CI -2.25 to 1.59, 2 studies). The combined MD at 3 months was 1.10 (95% CI -0.67 to 2.88) favouring the comparison intervention (2 studies). 2. Percentage days of alcohol use in last 90 days: The combined MD at 3 months was -0.34 (95% CI -2.34 to 1.75), that is clinically small and not statistically significant (2 studies). In a third study, results were uncertain and may have reflected a short term positive change but no maintenance of gains in the longer term. 3. Number of standard drinks in last 90 days: combined MD was small but statistically significant and favoured the intervention group (MD -2.87, 95% CI -5.68 to -0.07). (Slesnick 2009 EBFT; Slesnick 2009 FFT). 4. Adolescent drinking index (ADI) score: combined MD for 3-month data was 1.08 [-4.42, 6.57] (Slesnick 2009 EBFT; Slesnick 2009 FFT). 5. Percentage days of alcohol/ drug use in last 90 days (alcohol and illegal drugs not possible to separate): combined MD at 3 months was -2.97 (95% CI -16.02 to 10.08) (Slesnick 2009 EBFT; Slesnick 2009 FFT). 6. Percentage days of only drug use in last 90 days: combined MD at 3 months was -3.31 (95% CI -16.16 to 9.53) (Slesnick 2009 EBFT; Slesnick 2009 FFT). 7. Number of categories of drug use in last 90 days: No statistically or clinically significant effect was found. The combined MD was 0.14 (95% CI -0.33 to 0.61; 2 studies). A third study found reductions in the short term but no significant differences between intervention and control groups in the

Review details	Review search parameters	Included studies	Results
	AIDS and HIV risks were not included as outcome variables as these topics had been covered in another Cochrane review.	styles and the drop-out rates for interventions in general." "Four of the twelve included interventions were from studies conducted by one research team (Slesnick 2005; Slesnick 2007/08; Slesnick 2009 EBFT; Slesnick 2009 FFT) and there are similarities in terms of study design, type of intervention, location and population characteristics." The three studies classed as being at high risk of bias on most dimensions were not considered relevant for this review because they did not report relevant outcomes. **Limitations identified by review authors:** Control conditions 'services as usual' (and of high quality) rather than no-treatment, unclear descriptions of control conditions, lack of consistency in outcome measures, lack of clinical significance even for statistically significant results, maturational effects as confounders cannot be ruled out, unable to include relevant data in the meta-analysis due to different measurement types and time points.	longer term. 8. Number of days of marijuana use in last 30 days: results from two studies showed mixed direction of effects and reflected uncertainty. A third study found positive effects in the short term, but not in the long term (no effects for boys and iatrogenic effects for girls). 9. Number of days of illicit drug use other than marijuana in last 30 days: results from 2 studies were mixed and reflected uncertainty. - combined MD for 3-month data was 0.22 (95% CI -1.84 to 2.28). 10. Number of problem consequences (POSIT): At 3 months the combined MD was 1.51 (95% CI 0.56 to 2.47), which was statistically significant showing overall benefit for the control group (2 studies). No statistically significant effect was found at 6 months. The combined MD was 0.34 (95% CI -0.67 to 1.34). For Peterson 2006, data on drug use consequences (RAPI) were not available.

Review details	Review search parameters	Included studies	Results
Cowlishaw (2012) **Study design:** Meta-analysis **Author objectives:** "To synthesise evidence from randomised trials of psychological therapies for pathological and problem gambling, in order to indicate the efficacy of therapies and durability of therapy effects, relative to control conditions". **Funding source:** Victorian Government, Department of Justice, Australia.	**Years searched:** 1980-2011 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Pathological or problem gamblers. I - Any psychological therapy intended to reduce pathological or problem gambling C - No treatment, referral to gamblers anonymous, non-specific treatment. O - Primary outcomes - reduction in gambling symptom severity, financial loss or frequency. S - RCT. **Exclusion criteria:** Interventions: where psychological interventions did not include systematic or face to face time with a clinician; Control: comparisons between different psychological therapies or psychological therapy and a psychopharmacological intervention; Study design: quasi-randomised trials.	**Number of included studies (total):** 14 **Study designs:** 14 RCT **Country:** USA n=7, Canada n=4, Australia n=2; Sweden n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Follow up was at end of treatment (n=7), one week post treatment (n=2), one month post-treatment (n=1), 3-4 months after baseline (n=2), six weeks after baseline (n=2). Further follows up were at 3 months (n=1), six months (n=12), nine months (n=3), 1 year (n=6) and 2 years (n=1) post-treatment. Total participants 1245. **Quality of included studies as assessed by review authors:** Varied in quality: some provided limited or no description of randomisation method, some studies managed attrition through a method that may overestimate treatment effects. **Limitations identified by review authors:** "A substantial amount of the evidence comes from studies that suffered from multiple limitations, and these may have led to overestimates of treatment efficacy. Furthermore, the evidence only shows short-term benefits from therapy, and there is insufficient evidence to indicate whether or not treatment effects observed soon after therapy are maintained across longer periods of time".	CBT approach: gambling frequency (n=7, 505 participants) - significant benefit of therapy at short term follow up (SMD -0.78; 95% CI -1.11 to -0.45), one study that reported long-term effects did not find any significant differences between groups; pathological gambling (n=2) - significant difference between groups with a positive intervention effect on diagnosis at short-term follow up (RR 0.13; 95% CI 0.05 to 0.31). Motivational interviewing: gambling frequency (n=2, 145 participants) - non-significant differences between groups at short term follow up (SMD -0.18; 95% CI -0.50 to 0.15), but one study reported a beneficial therapy effect at 9 months. Integrative therapy: gambling frequency (n=1, 52 participants) - no significant between group differences at short or long term follow ups. Therapy approach based on 12 step model: gambling frequency (n=1, 18 participants) - significant beneficial therapy effect at short-term follow up (SMD - 1.66; 95% CI -2.78 to -0.53); pathological gambling diagnosis: significant beneficial treatment effect at short-term follow up (RR 0.32; 95% CI 0.12) 0.87.

Review details	Review search parameters	Included studies	Results
D'Onise (2010) **Study design:** Systematic review **Author objectives:** "To examine the evidence for the adult health impacts of centre-based preschool interventions for preschoolers". **Funding source:** National Health and Medical Research Council of Australia, National Heart Foundation.	**Years searched:** 1980-2008 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Included 4-year-old children, i.e. the age at which most children enter preschool (but may also have included a wider age range). I - Preschool programmes involving a centre-based preschool component (but may also have included other intervention components such as home visits). C - NR O - Health outcomes for individuals aged 18 years and over; "health outcomes were defined broadly to encompass the presence or absence of disease, disease risk factors, health behaviours and indicators of well-being". S - "All studies that involved comparison with some type of control group were included (observational, experimental but not descriptive papers)". **Exclusion criteria:** Conference abstracts, review articles, editorials. One report from the Institute for Developmental Studies met the inclusion criteria but was excluded due to very high attrition (80.7% lost).	**Number of included studies (total):** 12 studies of 8 programmes **Study designs:** Of 13 eligible studies, "five publications from three randomised controlled trials (42%), four cohort studies examining attendance at Head Start programmes and four quasi-experimental cohort studies" - one quasi-experimental cohort study was subsequently excluded due to high attrition. **Country:** All studies were conducted in the USA except for a study conducted in Mauritius. **Included studies relevant to our review:** 6 studies of 5 programmes **Study designs:** 3 RCT, 1 quasi-experimental cohort, 1 cohort **Country:** All USA **Sample sizes and follow-up:** Total sample sizes at base line ranged from 64 (16 intervention, 25 home visitation, 23 control group) to 1539 participants (989 intervention and 550 control group), with 2 studies ~ 100 participants, and one study NR. Sample sizes at final follow up ranged from 35 to > 2,000 participants (intervention 324, preschool 572, control 1542). Retention rates for 3 studies > 90%, one study 74%, one study NR. Follow-up mostly at age of under 30 years (i.e. about 10-20 years after intervention). Follow up at age 21 for three studies, one study 22-24 years, one study 18-35 years, one study 27 and 40. **Quality of included studies as assessed by review authors:** Narrative quality assessment using bespoke criteria [1, small sample size (including within subgroups); 2, intervention group mix of services; 3, control group mix of programmes/services; 4, sibling control; 5, post-hoc control group; 6, deviation from random assignment; 7, not randomized; 8, self-report outcome measure; 9, incomplete outcome measure; 10, recall exposure measure; 11, inadequate control for confounding; 12, small randomized controlled trial, possible residual confounding; 13, multiple models similar results; 14, attrition moderate to high (>20%); 15, instrumental variable estimate.] The problems identified for the relevant studies include small sample sizes, control group receiving a mix of programmes/services, use of self-report measures, incomplete outcome measures, and possibility of residual confounding for RCTs. **Limitations identified by review authors:** Restricted range of health outcomes, reliance on self-report measures (11 studies), small sample sizes (nine studies with <100 in each arm) and a relatively young adult age at follow-up.	"Six studies examined tobacco smoking. For five of the six studies, there was consistent evidence for centre-based preschool programmes reducing the prevalence of current and ever smoking. There was an absolute risk difference (ARD) in the two methodologically rigorous randomized studies, the Perry Preschool study (followed to 40 years of age) and the Abecedarian study (followed to 21 years of age), of 13% and 16%, respectively. The Project CARE intervention was the only study to find an increased risk of smoking in the intervention group, although with wide CIs due to small numbers (n = 9) in both the intervention and control groups." "Other substance use was examined in five studies. There was consistent evidence for a reduction in the absolute risk of marijuana consumption in the methodologically rigorous Perry Preschool, Abecedarian and Project CARE studies (-7 to -23%). There was, however, a moderate increase in the absolute risk of binge drinking in the past month in the Perry Preschool and Abecedarian studies (10 and 13%), but no difference in reports of driving after 'probably drinking too much' in the Perry Preschool study. There was an overall beneficial effect of preschool programmes on cocaine or other illicit drug use; however, the absolute number of participants who reported heroin or LSD use was small". Current smoker (27 years) RR = 0.80, ARD=-11% (-29.0—7.0%). Current smoker (40 years) RR = 0.76, ARD=-13% (-31.4—5.4%). Current smoker RR = 0.81, ARD=-4.2% (-9.7—1.2%). Current smoker ARD=-12.4% (-27.1—2.3%). Current smoker (Head Start exposure 2 years) ARD=-33.3% (-65.6 to -1%). Ever regular smoker RR = 0.71, ARD=-16% (-34.9—2.9%). Ever smoker ARD=-9.6% (26.3—7.1%). Ever smoker (Head Start exposure 2 years) ARD=-52.2% (-88.9 to -15.5%). Ever regular smoker RR = 1.4, ARD = 19% (-13.9—51.9%). Marijuana in last month RR = 0.46, ARD=-21% (-37.9 to -4.1%). Marijuana in last month RR = 0.84, ARD=-7% (-39.9—25.9%). Marijuana in last 15 years RR = 0.68, ARD=-23% (-40.7 to -5.3%). Cocaine or other drug ever RR = 1.67, ARD = 4% (-6.4—14.4%). Cocaine, crack, free base in last 15 years RR = 0.79, ARD=-6% (-22.4—10.4%). Sedatives, sleeping pills, tranquilizers in last 15 years RR = 0.72, ARD=-9% (-25.6—7.6%). Heroin in last 15 years RR = indeterminate, ARD=-9% (-16.4 to -1.6%). LSD/other hallucinogens RR = 0.57, ARD=-3% (-11.5—5.5%). Any substance use age 16 years RR = 0.91, ARD=-2.5% (-8.6—3.6%).

Review details	Review search parameters	Included studies	Results
			Frequent substance use RR = 0.82, ARD=-3% (-7.2—1.1%) Negative effect in those who used drugs/alcohol RR = 0.82, ARD=-9% (-29.9—11.9%). Alcohol use 5+ alcohol drinks in a row in last month RR = 1.37, ARD = 10% (-7.8—27.8%). Alcohol several times a week/daily (27 years) RR = 0.62, ARD=-10% (-24.6—4.6%). 5+ alcohol drinks in a row in last month (40 years) RR = 2.08, ARD = 13% (-1.3—27.3%).

Review details	Review search parameters	Included studies	Results
Faggiano (2005) **Study design:** Meta-analysis **Author objectives:** "To evaluate the effectiveness of school-based interventions in improving knowledge, developing skills, promoting change, and preventing or reducing drug use versus usual curricular activities or a different school-based intervention". **Funding source:** National Fund Against Drug - 1996 - Piemont Region grant No. 239/28.1, Italy.	**Years searched:** Earliest-2004 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Primary or secondary school pupils. I - School-based. C - Curricular activities, different intervention O - Various drug related outcomes including knowledge, attitude, social and behavioural. S - RCT, CCT, well-conducted observational design, evaluations had to include a well-described intervention. **Exclusion criteria:** Population: interventions targeting special schools.	**Number of included studies (total):** 32 **Study designs:** 29 RCT, 3 controlled prospective studies (CPS) **Country:** USA n=30, Canada n=1, UK n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Follow up included immediately post-intervention up to 10 years. In total, 46,539 participants were included across the 32 studies. Loss to follow up was reported to be under 25% in 19 studies but ranged to over 40% across all studies. **Quality of included studies as assessed by review authors:** Risk of bias assessed according to Cochrane methods. Insufficient allocation concealment reported in all studies. The authors concluded that no information bias was likely because of the nature of study setting and nature of data collection methods. One study was marked as high quality, 24 studies were classed as moderate quality, and seven as low quality. **Limitations identified by review authors:** Issues with the quality of studies, lack of long-term follow up, effect measures not presented in studies.	Knowledge-based interventions: no impact compared to usual curricula controls on drug use. Skills-based interventions: generally positive impacts on generic drug use and hard drug use including long-term follow up. Mixed impacts on cannabis and glue use across studies including in comparison to knowledge-based interventions. Interventions with affective objectives: negative intervention impact on cannabis use reported in two studies and positive impact on stimulant use as reported in one study compared to usual curricula controls.

Review details	Review search parameters	Included studies	Results
Ferri (2013) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To assess the effectiveness of mass media campaigns in preventing or reducing the use of or intention to use illicit drugs amongst young people". **Funding source:** No explicit funding. Authors supported by European Monitoring Centre for Drugs and Drug Addiction.	**Years searched:** Inception to Jan/Feb 2013 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Young people under the age of 26. I - Mass media campaigns explicitly aimed at influencing people's drug use, intention to use or attitude towards illicit drugs use. C - 1) No intervention; 2) other types of communication interventions such as school-based drug abuse prevention programmes; 3) community-based prevention programmes; 4) lower exposure to intervention; 5) time before exposure to intervention. O - Illicit drug use, intention not to use or the attitude towards illicit drugs. S - Cluster- or individual-randomised controlled trials, controlled trials without randomisation allocating schools, communities or geographical regions, prospective and retrospective cohort studies, interrupted time series and controlled before and after studies. **Exclusion criteria:** NR	**Number of included studies (total):** 23 studies reported in 28 articles; subset of 13 studies (eight RCTs and five ITS) were included in meta-analyses. **Study designs:** 12 RCTs, 2 prospective cohort studies (PCS), one study was both a RCT and a PCS, 6 interrupted time series and 2 controlled before and after (CBA) studies. **Country:** 21 USA, 1 USA/Canada and 1 Australia **Included studies relevant to our review:** 15 studies: Carpenter 2011; Fang 2010; Hornik 2006; Lee 2010; Miller 2000; Newton 2010; Palmgreen 2001; Scheier 2010; Schwinn 2010; Slater 2006; Slater 2011; ColoradoMeth 2011;GeorgiaMeth 2011; HawaiiMeth 2011; Idaho Meth 2010; Wyoming Meth 2011. **Study designs:** 5 RCTs; one RCT and prospective cohort study; 2 prospective cohort studies; 6 interrupted time series (ITS), 1 controlled before and after (CBA) study. **Country:** 13 USA, 1 USA/Canada and 1 Australia **Sample sizes and follow-up:** Three of relevant studies had relatively small samples sizes; three more had around thousand participants, most studies included several thousand participants; one study involved 130,245 youths (Carpenter). No follow-up was applicable for Carpenter (2011) and Meth Project studies. Follow-up was shorter than 12 months for three of the relevant studies (Fang 2010; Lee 2010; Schwinn 2010), and longer than or equal to 12 months for the remaining studies. No details reported with regard to attrition. **Quality of included studies as assessed by review authors:** Range of instruments used depending on study design. Assessment for all included studies (not reported separately for relevant studies) - "The RCTs had an overall low risk of bias, along with the ITS (apart from the dimension 'formal test of trend'), and the PCS had overall good quality, apart from the description of loss to follow-up by exposure". Details: RCTs - "Overall the quality of the included RCTs is acceptable: the stronger dimension is the consideration of risk of attrition bias (incomplete data addressed in the discussion) and the weaker dimension the risk of selection bias (unclear description of method for randomisation). More than half of the studies were clearly free of selective outcome reporting. In one case (Schwinn 2010) there was a clear indication of potential high risk of reporting bias". ITS - "Overall the studies reported sufficient data points to enable reliable statistical inferences; they also had good strategies to ensure anonymous or computer-administered	RCTs - "Five RCTs (Fang 2010; Lee 2010; Newton 2010; Schwinn 2010; Slater 2006) enrolled 5470 young people and were included in a meta-analysis. Their pooled results show no effect of media campaign intervention (standardised mean difference (SMD) - 0.02; 95% confidence interval (CI) -0.15 to 0.12, heterogeneity P = 0.02). Youngsters exposed to a media campaign tend to use, on average, fewer illicit substances measured through an array of published and unpublished scales including the American Drug and Alcohol Survey (Centers for Disease Control and Prevention), Youth Risk Behavior Survey, Australian National Drug Strategy Household Survey and Global Appraisal of Individual Needs-I". One study (Newton 2010) showed a reduction of use in the control group; "The theoretical background for the five studies was varied, with two studies based on the social learning theory (Schwinn 2010) and the social ecological framework (Slater 2006) providing the better results, whereas the study based on the social influence approach (Newton 2010) favoured the control group". RCT + prospective cohort study - "Slater 2011, the only RCT that included a prospective cohort study (the reason why it was not included in the meta-analysis) found evidence that a community-level campaign, adjusted for the effect of a school-level campaign, reduced marijuana uptake compared to no intervention (estimate -0.511; P = 0.026)". Prospective cohort studies - "Two prospective cohort studies (N = 10,632) found results ranging from non-significantly effective to a significant iatrogenic effect. Scheier (2010) found that over time young participants in the experimental arms reported increasingly more awareness and recalled increasingly more campaign messages, and also a concomitant but not statistically significant decrease in their reported levels of marijuana use. Hornik (2006) measured past-year marijuana use after exposure to a national media campaign as a function of exposure to a specific advertisement at a prior round and found an increase in use (odds ratio (OR) 1.21; 95% CI 1.19 to 1.65), controlled for considered confounders." ITS - "Five ITS (ColoradoMeth 2011;GeorgiaMeth 2011; HawaiiMeth 2011; Idaho Meth 2010; Wyoming Meth 2011, 26,405) evaluated the Meth Project intervention in five US states [...] Among study participants aged 12 to 17 years old there was no evidence of an effect on past-month prevalence of methamphetamine (odds ratio (OR) 1.16, 95% CI 0.63 to 2.13) and evidence of a [significant] reduction in past-year prevalence (OR 0.59; 95% CI 0.42 to 0.84). Among participants aged between 18 and 24 years old there was no evidence of an effect for past-month (OR 0.72; 95% CI 0.16 to 3.20) or past-year (OR

Review details	Review search parameters	Included studies	Results
		questionnaires and to ensure that interventions did not affect data collection. The reliability of primary outcome measures was also satisfactory for all the studies. The weaker points were the lack of a formal test for trends and the unclear completeness of the data sets for many studies". Prospective cohort studies (PCS) - "Overall, all PCS addressed an appropriate and clearly focused question. In two studies subjects were selected with proper procedures in order to make them comparable in all respects. The same two studies indicated how many of the people asked to take part actually participated in the study. One study (Slater 2011) failed to address these issues. Attrition was 35% in two studies and 42.9% in Slater (2011). Comparison between participants and those lost to follow-up was made only in Scheier (2010)". **Limitations identified by review authors:** Limited comparability of studies due to different interventions (e.g., type of media used) and outcome measures; RCTs being efficacy rather than effectiveness trials.	0.91; 95% CI 0.43 to 1.94) prevalence of methamphetamine." 5th ITS - "In this 32-month study, high sensation-seekers exhibited a significant upward trend in 30-day marijuana use before exposure to the campaign and a significant downward trend after exposure. This finding was reported in both the communities involved in the study (Knox County Time Series (P = 0.001) and the Fayette County Time Series (P = 0.003 and P=0.001 after campaign 1 and 2, respectively))". 6th ITS - "One ITS (Carpenter 2011) analysed the relationship between exposure to the 'Above the Influence' campaign in 210 US media markets and adolescent marijuana use from 2006 to 2008. The study showed lower rates of past-month (adjusted odds ratio (AOR) 0.67; 95% CI 0.52 to 0.87) and lifetime (AOR 0.76; 95% CI 0.62 to 0.93) marijuana use among girls in grade eight. For boys in grade eight and both girls and boys in grades 10 and 12 there was no evidence of an association between the campaign and a reduction in marijuana use." CBA - "The only controlled before and after (CBA) study (Miller 2000) found a modest increase in drug use in the control campus, paralleled by a modest decrease in drug use in the experimental campus, without statistical significance".

Review details	Review search parameters	Included studies	Results
Fletcher (2008) **Study design:** Systematic review **Author objectives:** "We aimed to (1) identify the effect of school-level changes on drug use and (2) explore the possible mechanisms by which school-level influences on individual drug use might occur". **Funding source:** No explicit funding. Authors supported by U.K. Medical Research Council, London School of Hygiene and Tropical Medicine, U.K. Economic and Social Research Council and Medical Research Council.	**Years searched:** Searches in March 2006, no restrictions by publication date. **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Young people in the age range of 11–16. I - "whole-school" drug prevention interventions, "which went beyond individual-focused, classroom-based drugs education and involved changes to schools' overall organization, policies, working practices, culture, or environment, and aimed to reduce drug use among young people in the age range of 11–16" (only relevant for intervention studies). C - NR O - Drug use at follow-up. S - Two types of study designs were eligible: 1. Experimental/quasi-experimental - Intervention studies "if they employed a comparison group and included longitudinal data"; "To minimize confounding, a study had either to allocate schools to intervention/comparison arms randomly, restrict or match the intervention and comparison groups according to the major potential confounders, or adjust for major potential confounders in the analysis. To avoid selection bias, attrition rates should not have differed significantly by treatment groups according to age, sex, or SES". 2. Observational studies "if they used a longitudinal design to measure the temporal relationship between exposure and subsequent outcomes and reported one or more exposure that was a measure of either school-level factors or individual-level school related attitudes or behaviors"; "To be considered of "high quality," studies were required to minimize problems arising from confounding via adjustment or restriction; age, sex, and SES were again considered to be the major potential confounders. Observational studies were not quality assessed according to any differential attrition rates because observational studies rarely report attrition by exposure category". **Exclusion criteria:** "Cross-sectional studies were not included because they cannot provide evidence about temporality and therefore causation".	**Number of included studies (total):** 24 = 6 intervention + 18 observational studies **Study designs:** 3 Cluster RCT, 1 quasi-experimental, 18 longitudinal observational **Country:** Mostly USA, 1 Netherlands, 1 Australia, 1 Scotland, 1 Sweden **Included studies relevant to our review:** 4 intervention studies **Study designs:** 3 Cluster-RCT, 1 Quasi-experimental study (matched control group) **Country:** 2 USA, 1 Netherlands, 1 Australia **Sample sizes and follow-up:** Number of participating schools ranged from 8 schools (4 intervention, 4 control) to 26 schools (12 intervention, 14 control). Number of participating students ranged from > 700 students (366 intervention, 372 control) to > 4,000 students (2,221 intervention, 1,790 control). Follow up was 2 years in one study, 3 years in two studies, 4 years in another studies. Unclear if follow-up was post baseline or post intervention. Attrition rates for two studies were < 20%, for one study 27%, for one study high at 49% - this, however, was also the study with the longest follow-up period. "Loss at follow-up ranged between 10% and 49%, but did not differ significantly by allocation condition according to main potential confounders in these studies". **Quality of included studies as assessed by review authors:** "All four studies were deemed to be of high quality when judged against the quality-assessment criteria outlined above: three studies randomly allocated schools to an intervention or comparison group; one study matched intervention and control schools according to sociodemographic factors, reported no significant baseline differences in terms of age or gender, and adjusted for prior health behaviours". **Limitations identified by review authors:** Limited number of intervention studies, programs varied widely in their scope, combination of whole-schools and curriculum elements does not allow examination of the effect of whole-schools approaches in isolation.	Effects on young people's drug use: " The Aban Aya study reported that, 4 years after the start of the intervention, there was a 34% reduction in the rate of increase of a combined measure of alcohol, tobacco, and cannabis use for boys in the intervention group compared to the comparison group. Boys at D.A.R.E. plus schools reported a significantly lower rate of "growth" in the use of drugs other than cannabis, and intentions to use these drugs, compared to the comparison group, after 2 years of the intervention. These interventions had no significant effect on girls' drug use. Three years after the start of the Gatehouse project, fewer young people in the intervention group than the control group reported having used cannabis in the last 6 months. There was a 3.1% risk difference between the intervention and comparison group, a non significant association. Although the Dutch Healthy School and Drugs project had a significant positive effect on young people's health-related knowledge, it had no effect on the number of the students who had used cannabis at the end of the intervention; of those students who had used cannabis, cannabis appeared to be used more frequently among students at intervention schools compared to control schools". Effects on other outcomes: "Three studies reported rates of smoking and drinking separately from young people's drug use. All three suggested that the interventions had a protective effect for these outcomes. At the end of the D.A.R.E. plus intervention, boys reported fewer occasions when they had drank alcohol in the last month and the last year, and were less likely to be current smokers. Evaluation of the Gatehouse project showed non significant but consistent 3% to 5% protective risk differences, such as for students drinking alcohol in the last month, smoking in the last month, smoking regularly, and their friends' substance use. The Dutch Healthy School and Drugs project found that students in the intervention were drinking less alcohol than the control group and smoking less". School conduct: "Three studies reported outcomes relating to school conduct and education. The Aban Aya study found that intervention reduced violent acts, bullying, and truancy, and school suspension for boys. The D.A.R.E. plus intervention had borderline-significant effects on reducing violence at school among boys. The Gatehouse project had no significant impact on measures of bullying, school relationships, and students' depressive symptoms. The Dutch Healthy School and Drugs project did not aim to influence school relationships".

Review details	Review search parameters	Included studies	Results
Foxcroft (2011b) **Study design:** Systematic review **Author objectives:** "To systematically review evidence on the effectiveness of universal family-based prevention programs in preventing alcohol misuse in school-aged children up to 18 years of age". **Funding source:** NR	**Years searched:** Up to 2010 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Young people 18 years or under attending school. I - Universal family psychosocial or education based prevention program. C - Any alternative intervention or no intervention. O - Primary - alcohol use, incidence of drunkenness. S - RCT **Exclusion criteria:** NR	**Number of included studies (total):** 12 **Study designs:** 12 RCT **Country:** USA n=11, Netherlands n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample size varied from 202 to 3,496. Follow up ranged from post-intervention to long term follow up over a number of years up to 10 years. Attrition was <20% at first follow up in 10 studies and >20% in 2 studies. **Quality of included studies as assessed by review authors:** Assessed using Cochrane methods. Quality was believed to be limited by studies not accounting for clustering effects at design or analysis. Reporting of features of RCT was assessed to be poor in some studies and over 30% of studies were assessed to be susceptible to bias through confounding or contamination. **Limitations identified by review authors:** Methodological and reporting weaknesses of included studies.	"Results from 9 trials indicated statistically significantly greater reductions in alcohol use (e.g. alcohol use initiation, mean composite index, frequency/quantity score of alcohol use, alcohol use or being drunk in past year, proportion of youth reporting lifetime alcohol use, alcohol use occasions, initiation and frequency of drunkenness) for the family-based intervention alone groups compared to the control groups". Follow ups ranged from 2 months to 8 years in these studies and intervention effects were recorded throughout this time period. No factors identified that distinguished these 9 trials from studies that did not report intervention effects.

Review details	Review search parameters	Included studies	Results
Foxcroft (2011c) **Study design:** Systematic review **Author objectives:** "To systematically review evidence on the effectiveness of universal multi-component prevention programs in preventing alcohol misuse in school-aged children up to 18 years of age". **Funding source:** NIHR	**Years searched:** Earliest-2010 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Young people up to 18 attending school. I - Any universal multi-component psychosocial or education prevention program. C - Any alternative program or no intervention. O - Self-reported or objective measures of alcohol use or problem drinking, alcohol initiation, drunkenness initiation. S - RCTs **Exclusion criteria:** NR	**Number of included studies (total):** 20 **Study designs:** 20 RCT **Country:** USA n=17, India n=1, Netherlands n=1, Australia n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Length of follow up ranged from 6 months to 11 years post baseline. 57,545 participants were included over the 20 studies. Attrition at first follow-up was generally acceptable across studies, but high attrition at longer-term follow-up was commonly reported. **Quality of included studies as assessed by review authors:** Cochrane methods. Generally, for random sequence generation, allocation concealment and blinding there was an unknown risk of bias. There was a low risk of bias of selective reporting, and a mixed risk of bias across studies for attrition bias and other bias. **Limitations identified by review authors:** Issues with selection bias/confounding and reporting of methods amongst included studies. Unable to undertake meta-analysis.	"Results in 12 out of the 20 trials indicated statistically significant reductions in alcohol use amongst adolescents receiving universal multi-component interventions compared to adolescents in the control groups". For four trials, post-test results only were reported and in the remaining 8 trials significant findings were reported at 3 month to 3 year follow up. Six studies found no intervention effects, one study reported significant effects but questions about analysis were identified by the reviewers and one study found significant intervention effects on a sub-group of baseline drinkers only.

Review details	Review search parameters	Included studies	Results
Foxcroft (2011d) **Study design:** Systematic review **Author objectives:** "To review evidence on the effectiveness of universal school-based prevention programs in preventing alcohol misuse in school-aged children up to 18 years of age". **Funding source:** Internal: Oxford Brookes University, UK. External: NIHR, UK.	**Years searched:** Earliest-2010 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Young people under 18 years attending school. I - School-based educational or psychosocial prevention programs (alcohol specific or generic). C - Any alternative prevention program or standard curriculum. O - Self-reported or validated measures of alcohol consumption or problem drinking. S - RCT only. **Exclusion criteria:** Outcomes: measures related to perceptions/attitudes or awareness.	**Number of included studies (total):** 53 **Study designs:** 53 RCT **Country:** North America n=41, Europe n=6, Australia n=6, India n=1, Swaziland n=1, multiple countries n=2. **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Time of last follow up ranged from one month to 12 years post-baseline. "The attrition rates (at first follow-up) of 26 trials were acceptable (<= 20%) and for 21 trials not acceptable (> 20%). One trial reported no loss to follow-up (Brewer 1991).The attrition rates were not reported for 6 trials". Study samples varied widely from <100 participants to >5,000 randomised. Majority of studies randomised over 3,000 individuals. Largest study randomized >19,500 pupils. Only a few studies had fewer than 100 participants. **Quality of included studies as assessed by review authors:** Quality was assessed using standard Cochrane methods. Across all studies, there was a largely unclear risk of selection bias and performance bias/ detection bias, a low risk of reporting bias and equal low, unclear and high risk of attrition bias and other bias. "The reporting quality of trials was poor, only 3.8% of them reporting adequate method of randomisation and program allocation concealment. Incomplete data was adequately addressed in 23% of the trials". **Limitations identified by review authors:** Failure of some studies to account for clustering effects in design or analysis, high/differential attrition.	Alcohol specific programs (n=11) - in six studies intervention groups had significant reductions in alcohol misuse compared with controls including immediate post-test and long-term follow up. There were no significant differences between groups in alcohol misuse in five studies. Generic programs (n=39) - in 14 studies intervention groups had significant reductions in alcohol misuse compared with controls including from immediate post-test to long-term follow up. "In 24 trials, there was no statistically significant difference in the effectiveness between the intervention programs and the control/standard curriculum groups". One trial seemed to increase alcohol use although confounders or chance cannot be ruled out. Generic programs based on psychosocial or developmental approaches were more likely to report significant results in comparison to controls. The authors concluded that "there were no discernible pattern in characteristics that would distinguish studies with positive results from negative results". Effectiveness often only in relation to particular sub groups (e.g. baseline non-drinkers, by gender or ethnicity) or type of outcome. "All trials that evaluated the Life Skills Training (LST) program yielded positive results in favour of the intervention (Botvin 1984; Botvin 1995; Botvin 2001; Botvin 2003; Schinke 2000; Spoth 2002). Similarly, two of the three trials that evaluated the GBG program (van Lier 2009, Furr-Holden 2004, Kellam 2008) demonstrated positive results in favour of the intervention. Trials that evaluated the ALERT (Ellickson 1990; Ellickson 2003; Ringwalt 2009; St. Pierre 2005) or drug abuse resistance education program (DARE) (Clayton 1991; Perry 2003; Ringwalt 1991) showed no effects (i.e., statistically non-significant)".

Review details	Review search parameters	Included studies	Results
Gates (2006) **Study design:** Systematic review **Author objectives:** To review the evidence about the effects of non-school interventions to prevent or reduce drug use by young people. **Funding source:** EDAP Project (Evidence for Drugs and Alcohol Policy) sponsored by the European Community-Directorate Public Health (Grant Agreement SPC.2002454).	**Years searched:** Earliest-2004 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Young people aged up to 25. I - Non-school based. C - No-intervention or alternative intervention. O - Drug-related use, dependence, mortality, initiation, hospitalisation, criminal activity. S - Comparison studies. **Exclusion criteria:** Population: where age not defined or over 26. Interventions: treatment settings, those where it was not possible to separate school-based and non school-based intervention effects, those focussing on non-addictive drugs.	**Number of included studies (total):** 17 **Study designs:** 17 RCT **Country:** USA n=15, UK n=1, China n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** The follow-up periods varied from immediate post-intervention to six years. Eight studies followed up participants for > 1 year. **Quality of included studies as assessed by review authors:** Many of the RCTs in this review were affected by methodological problems or poor reporting. High losses to follow up in studies. Review authors noted issues with cluster analysis in some studies. **Limitations identified by review authors:** Variation in study approaches; loss to follow up high in studies.	Education and skills training (n=2): no intervention effects on drug or cannabis use amongst young women. Family interventions (n=5): "generally showed no clear differences between groups". Analysis of three interventions (Focus on Families, Iowa Strengthening Families Program [ISFP]) and Preventing the drug free years indicated positive programme effects compared to comparison groups who received no intervention on cannabis use outcomes. At six year follow-up (ISFP) lifetime use: adjusted RR 0.55, 95% CI 0.32 to 0.95; past year use adjusted RR 0.44, CI 0.20-0.96. Brief intervention/ motivation interviewing (n=2): scores on a drug use scale were higher amongst controls than the intervention group at one month (p=0.05) and three months (p=0.04) follow up in one study. In one other study there were significant decreases in cannabis use frequency in intervention group use of cannabis (15.7 to 5.4 times per week) but not in controls (13.3-16.9 times per week). Multi component interventions: one study reported finding reductions in drug use initiation in males in villages that received community interventions compared to those that did not (authors noted methodological weaknesses of this study). In interventions including school education plus community elements - generally no effects or marginally significant intervention effects on substance misuse reported. In one study, self-reported cannabis use was significantly lower in community and school education group compared to school education only, but numbers of cannabis users was low in both groups. There were no effects on cannabis use of one study on native Americans.

Review details	Review search parameters	Included studies	Results
Gray (2007) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To determine which primary preventions and associated early interventions work best on problem gamblers who are recruited from the general community". **Funding source:** NR	**Years searched:** Earliest-2006 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Members of the general community. I - All types of interventions and primary prevention for gambling. C - NR O - Gambling behaviour, change in scores on measures of outcomes related to gambling. S - Randomised or quasi randomised controlled trials. **Exclusion criteria:** Participants: "People engaged in any primary, general practice or outpatient care and those who had been diagnosed with pathological gambling".	**Number of included studies (total):** 13 **Study designs:** 13 RCT **Country:** Canada n=11; USA n=1; Australia n=1 **Included studies relevant to our review:** 6 [measuring behavioural outcomes] **Study designs:** RCT n=6 **Country:** Canada n=4, USA n=1, Australia=1 **Sample sizes and follow-up:** Sample sizes ranged from 29 to 1193 participants (majority of studies < 300 participants). The warning message program included post-test follow up only, and in all other five studies follow up was conducted up to six months and longer. Longest follow up time in one study was 24 months. Two of the six studies reported losses to follow up being due to participants declining or not being located. Four studies did not report attrition. **Quality of included studies as assessed by review authors:** The authors used methods from the Cochrane handbook to assess the quality of studies. No overall scores were given. Issues identified included that authors in three studies were unclear about potential confounders and that blinding was inadequately reported in three studies. With regard to two school based educational studies, review authors note that clustering was not accounted for in analysis. **Limitations identified by review authors:** Lack of detail in original studies, lack of consideration of clustering.	Two studies that evaluated educational programs did not find any significant program effects on gambling behaviour. One study evaluating the impact of displaying warning messages during roulette found that was no difference between intervention and control participants on number of spins of the roulette wheel, but that those receiving the warning message finished the session with more dollars remaining. Three studies evaluated the impact a workbook and motivational interviewing on behaviour: results suggested that motivational interviewing can be effective for reducing gambling behaviour and money lost through gambling in the short term and on gambling behaviour at 6 months in comparison to workbook only or control conditions. Summary: "Six studies assessed the impacts of interventions on improving a range of gambling behaviours. Results were unable to be included in a meta-analysis due to the variability in measurement tools and lack of data reported. Narrative reviews of these studies suggested that educational programs improved gambling behaviours. Warning messages reduced the amount of money lost but not the number of games played. The use of work books and motivational interviews reduced the number of gambling days, lost money and money spent per gambling day".

Review details	Review search parameters	Included studies	Results
Grimshaw (2006) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To evaluate the effectiveness of strategies that help young people to stop smoking tobacco". **Funding source:** NR	**Years searched:** Earliest-2009 **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - Regular tobacco smokers under 20 years where the majority of people in a study were <20. I - Tobacco cessation. C - No interventions, delayed intervention, brief intervention, general tobacco education. O - Change in smoking behaviour. S - RCT, cluster RCT, control trials. **Exclusion criteria:** Intervention: primary prevention, relapse prevention	**Number of included studies (total):** 24 **Study designs:** Cluster RCT n=22; controlled studies n=2. **Country:** USA n=22, UK n=1, Australia n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** In total, over 5,000 people participated in the included studies. In the pooled sample of motivational enhancement studies, participants totalled 1,503. Power within the Not on Tobacco studies was noted to be small. Follow ups varied greatly between studies and included short- to long-term follow up periods. Reporting of sample sizes of intervention and control groups within studies was poor. Attrition was not summarised, but was typically 20-30%, with some studies reporting lower attrition and some studies reporting attrition rates of over 50%. **Quality of included studies as assessed by review authors:** Studies were assessed for quality using Cochrane methods. Studies were assessed for bias and scored from one (low risk) to three (high risk): seven studies were classed as high risk, four moderate risk, 13 high risk. **Limitations identified by review authors:** Definitions of quitting in papers varied.	Four studies based upon the transtheoretical model, two of which could be pooled. The pooled findings demonstrate that intervention is effective at one year (OR 1.70, CI 1.25-2.33) and is maintained at 2 years (OR 1.38, CI 0.99-19.2), although the number needed to treat doubles over that time. Eleven studies evaluated some form of motivational enhancement and the pooled OR for these studies was 1.70, (CI 1.21-2.20, n=1503). Five studies that used motivational interviewing as one intervention component produced a pooled significant intervention effect, although other intervention components in these studies were considered to be different. Six trials which included cognitive behavioural therapy did not individually achieve statistically significant results. None of the four trials of the Not on Tobacco intervention demonstrated a significant effect on smoking status on their own, although pooled data suggested the intervention may have had a significant effect (OR 1.77, CI 1.00-3.11). Three studies of pharmacological interventions suggested that these were not be effective for smoking cessation in young people.

Review details	Review search parameters	Included studies	Results
Hettema (2010) **Study design:** Meta-analysis **Author objectives:** Meta-analysis of motivational interviewing for smoking cessation. **Funding source:** NR; "Jennifer E. Hettema developed and receives revenue from the sale of a motivational interviewing training video".	**Years searched:** Studies published or available electronically before June 2008. **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - NR [no restrictions]. I - Motivational interviewing (MI). C - At least one comparison condition that did not include the administration of MI. O - Abstinence-related outcome. S - "Indicate use of a procedure to ensure the equivalence of groups". **Exclusion criteria:** NR	**Number of included studies (total):** 31 **Study designs:** All trials had comparison condition but not clear if all were randomised. **Country:** Mostly USA, 3 Australia, 1 Northern Ireland, 1 Sweden, 1 Spain. **Included studies relevant to our review:** 7 studies of adolescent samples **Study designs:** NR **Country:** NR **Sample sizes and follow-up:** Sample size ranged from 40 - 2,526. Two studies around 80 participants, two studies 100-200 participants, one study around 400 participants. No details provided regarding intervention/control groups. Follow-up periods of 12 months or more in 4/7 studies. Attrition NR. **Quality of included studies as assessed by review authors:** QA only available for all included studies, not reported separately for relevant studies. "The average methodological quality score for included studies was 10.56 (range = 5–14, SD = 2.60) out of a possible score of 16. This level is similar to levels of methodological quality that have been observed in other large reviews of addiction treatment. This suggests that most of the studies were of medium to high methodological quality and did not represent a significant probability of bias". **Limitations identified by review authors:** Level of treatment fidelity unclear, comparison conditions and multiple treatment conditions make it difficult to isolate effects of MI, possible that comparison conditions using brief advice used components of MI, different ways of conducting MI, difficulties with measuring motivation to quit.	Studies with adolescent samples (under 18 years old) had significant combined effect sizes at both follow-up points (dc = .15 [0.06, 0.24], $p < .01$, and dc = .11 [0.03, 0.20], $p < .01$). Six studies reported short term outcomes and six studies reported long term outcomes. General findings: "The current investigation demonstrates that MI generally outperforms or does as well as comparison conditions for the treatment of tobacco dependence among non-pregnant samples. Effects were smaller among pregnant samples. Overall, the magnitude of MI's effect was modest, particularly when compared to the observed effects of MI for other conditions (Hettema et al., 2005; alcohol dc = .26, drugs dc = .26). Estimates of the magnitude of effect of MI on smoking are consistent with previous meta-analyses of MI. Subgroup analyses revealed that MI may show particular promise as follows: for individuals living outside the United States, adolescents, and those with medical co-morbidities; for individuals with low tobacco dependence and motivation to quit; and when it is applied for a total of less than 1 hour and when the MI protocol includes training or fidelity practices".

Review details	Review search parameters	Included studies	Results
Hutton (2011) **Study design:** Systematic review **Author objectives:** "To evaluate the efficacy of Web-based interventions in adults, college students, and adolescents". **Funding source:** International Union Against Tuberculosis and Lung Disease.	**Years searched:** 1990- Dec 2009/Feb 2010 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Adolescents, college students, and adults of either gender from any setting or country. I - Web-delivered smoking cessation program. C – NR. O - Self-reported smoking cessation at the longest point of follow-up. S - RCTs with minimum of 1-month follow-up after intervention. **Exclusion criteria:** NR	**Number of included studies (total):** 21 (15 among adults) **Study designs:** Only RCTs **Country:** United States (n = 13). **Included studies relevant to our review:** 6 (one among college students and 5 among adolescents) **Study designs:** RCTs **Country:** 4 USA, 1 Canada, 1 USA/Australia **Sample sizes and follow-up:** Sample sizes ranged from 136 to 2514 participants. The two larger studies (> 1,000 participants) were not limited to smokers. No separate details were provided regarding intervention/control group. College students trial: 30-week follow-up, loss to follow-up was less than 10%. Adolescents trials: Study follow-up ranged from 3 to 12 months. Losses to follow-up ranged from 13% to 47%. **Quality of included studies as assessed by review authors:** Based on Jadad criteria. College students - The study quality of the identified trial was considered good "using concealed allocation, biochemical validation of smoking status, and ITT analyses. In addition, loss to follow-up was less than 10%." Adolescents trials - The overall study quality was fair, but none described concealed allocation. **Limitations identified by review authors:** College students - Conclusions limited by small number of studies; Adolescents - Studies with widely varying intervention and control conditions; different types of internet interventions, not delivered in isolation (not possible to isolate effects), participants may have used other cessation methods concurrently (e.g. pharmacological therapy), indications that participants might have not accessed website, lack of information regarding drop out.	College students trial "Thirty-day abstinence at 30-week follow-up was 40.5% in the multicomponent intervention group and 23% in the comparison group ($p < .05$). Biochemically validated abstinence rates were lower (33% Internet group and 17% control group; $p < .05$)." "This single study suggests that Web-based interventions may be effective in promoting smoking cessation in college students, with the intervention effects favouring the treatment groups compared with the control condition. We graded the evidence in college students as insufficient because the one study was a multicomponent intervention. With Web and non-Web–based elements, the effect of the Web-based element cannot be isolated". Adolescents Buller (2008): "Among Australian smokers (184), the intervention was associated with a lower 30-day prevalence of smoking a whole cigarette compared with control (intervention/control difference = -0.045, $p = .02$). Five percent of smokers in the intervention condition stopped smoking compared with 3% in the control ($p > .05$). In contrast, there was no significant change in 30-day smoking prevalence among U.S. smokers (n = 45)". Norman (2008): "At 24 weeks, there was no change in smoking rates among smokers in either group". Woodruff (2007): "Immediately post intervention, the intervention group (N = 77) had higher rates of 7-day abstinence than the control condition (N = 59; 35% vs. 22%; $p < .01$); however, at 12 months, there was no difference between the two groups (39% vs. 38%; $p > .05$)." Mermelstein et al. (2006): "At 3-month follow-up, the intervention condition was associated with increased cessation compared with the control (20.4% vs. 10.6%). Lighter smokers, younger age, female, and non-White participants were more likely to be abstinent". Patten (2006): "At 36 weeks, the abstinence rate was 13% in the BOV [brief office visits] group and 6% in the SOS [web-based intervention] group ($p > .05$)". Summary: "While the Internet based virtual reality world appeared promising, immediately post-intervention, these effects were not sustained. When group therapy was combined with telephone counselling and a Web based adjunct, there was an effect at 3 months, but there were no results reported at 6 or 12 months, making it unclear if there was a sustained effect. It is difficult to determine whether proactive telephone calls, the Web, or a combination of the two accounted for increased cessation rates. In two school based studies that combined smoking prevention and cessation, only a small proportion of the sample smoked, making it unclear if the lack of effect was

Review details	Review search parameters	Included studies	Results
			secondary to lack of statistical power or if the intervention itself had little effect. In the final study, face-to-face counselling was superior to a computerized intervention, though only a third of individuals randomized to the Web-based intervention logged on to the Web site. Based on these results, the evidence on the efficacy of Web-based interventions for adolescents is insufficient".

Review details	Review search parameters	Included studies	Results
Jackson (2012) **Study design:** Systematic review **Author objectives:** To identify and assess the effectiveness of experimental studies of interventions that report on multiple risk behaviour outcomes in young people. **Funding source:** The Medical Research Council and the Scottish Government Chief Scientist Office.	**Years searched:** Earliest-2010 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Aged 11-25 years. I - Universal substance misuse prevention. C - NR O - Reported alcohol, tobacco or drug use at minimum 6 months follow-up. S - Experimental or quasi experimental studies that were not weak quality. **Exclusion criteria:** Targeted interventions with high risk groups, secondary prevention, and clinical intervention.	**Number of included studies (total):** 18 (15 included in synthesis) **Study designs:** RCT (n=15), controlled trials (n=3) **Country:** 11 USA, others from Canada, England, South Africa, Namibia, Australia **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Great variety in included studies on all aspects. Not summarised in the review. **Quality of included studies as assessed by review authors:** One study was rated strong, 12 moderate and 5 weak using the 'quality assessment tool for quantitative studies'. Results for the 5 weak studies were presented separately (online) and did not report any significant intervention effects. **Limitations identified by review authors:** Potential reporting bias.	Across all study types, intervention effects on all behavioural outcome were either not significant or significance varied between studies and by gender, follow-up length and behaviour. Generally, significant findings were most likely for smoking outcomes and least likely to be found for alcohol outcomes.

Review details	Review search parameters	Included studies	Results
Johnston (2012) **Study design:** Systematic review with Meta-analysis **Author objectives:** To determine what incentives prevent children and adolescents from starting to smoke. **Funding source:** NR	**Years searched:** Earliest-2012 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Aged 5-18, non-smokers at baseline. I - "any tangible benefit externally provided with the explicit intention of preventing smoking". C - NR O - Primary outcomes were smoking status at longest follow up including verified and self-reported status. S - Controlled randomised and non-randomised. **Exclusion criteria:** Studies in pregnant women.	**Number of included studies (total):** 7 (n=19 articles) **Study designs:** RCT (n=3), NRCT (n=4) **Country:** Germany (n=3); USA, Canada, Finland, Netherlands (n=1) **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Meta-analysis conducted for 5 studies: included 3466 non-smokers at baseline in intervention groups and 2896 controls. Follow up in all studies was at least 6 months from baseline, the shortest follow-up was 10-18 months and the longest 24 months. **Quality of included studies as assessed by review authors:** Risk of bias assessed using Cochrane methods. Authors stated that studies "were of variable quality". The one study to report LT intervention effects was reported to be at high risk of selection bias. Attrition was a significant issue in 6 studies, and there were baseline differences between groups in 4 studies. Only 3 studies adjusted analysis to account for clustering. **Limitations identified by review authors:** Variability in the reported detail of interventions, small incentives that may not provide sufficient motivation.	Smoking status amongst non-smokers at baseline (n=5): findings from meta-analysis of RCTs (n=3) suggest "no statistically significant effect of incentives to prevent smoking initiation among children and adolescents in the long term (RR 1.00, CI 0.84-0.19)" . No significant effect was detected from combining findings from NRCTs (n=2), (RR 0.81, CI 0.61-1.08). One of these 2 NRCTs reported an intervention effect at longest follow up (17% smoking prevalence in intervention classes compared to 21.3% in control classes, OR 1.36, CI 1.04-1.76) but was at high risk of selection bias and when the review authors re-ran analysis effects were NS. Two studies that did not report smoking status amongst non-smokers at baseline: one study reported a short-term effect of the intervention with "lower smoking daily prevalence" in intervention (11.1%) compared to control groups (16.4%), not sustained at long term follow-up. In one study using validated measures, non-significant higher mean levels of salivary TCN were reported in intervention versus control participants.

Review details	Review search parameters	Included studies	Results
Khadjesari (2011) **Study design:** Meta-analysis **Author objectives:** "To determine the effects of computer-based interventions aimed at reducing alcohol consumption in adult populations". **Funding source:** None stated.	**Years searched:** Inception - Dec 2008 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - All adult populations (aged 18 years and over) with any level of alcohol consumption. I - Stand-alone (non-guided) computer-based behavioural interventions, aimed at bringing about positive behaviour change. C - A minimally active (e.g. assessment-only, usual care, generic non-tailored information or educational materials) or an active comparator group (e.g. brief intervention). O - Alcohol consumption [total alcohol consumption and number of binge drinking episodes included in meta-analyses]. S - Randomized controlled trials. **Exclusion criteria:** NR.	**Number of included studies (total):** 24 (19 combined in meta-analysis) **Study designs:** RCTs **Country:** United States (n = 18). **Included studies relevant to our review:** 18 studies in students **Study designs:** RCTs **Country:** 14x USA, 3x New Zealand, UK **Sample sizes and follow-up:** 6 studies had ~ 100 participants or less. Sample sizes ranged from 40 (20 I / 20 C) to > 600 (310 I - 312 C) participants. Follow-up periods were generally short. Only 4/18 studies had follow-up times of 6 months or more (maximum was 12 months in two studies). 6/18 studies had follow-up time of 1 month or less. Retention at follow-up was under 80% in 5 studies (+ 1 study NR). **Quality of included studies as assessed by review authors:** "Three studies made explicit reference to randomization sequence generation and the procedure for allocating participants to groups. These studies were classified as having low risk of bias associated with allocation concealment. The remainder of studies were assessed as having unclear risk of bias, meaning that there was insufficient information in the publication to judge this aspect of trial quality". "The current literature is also limited by small sample sizes, short-term follow-up, insufficient information to judge potential sources of bias, few studies in non-student adult populations and few comparisons with active comparator groups". **Limitations identified by review authors:** Main limitation is skewed data - few studies presented appropriate measures of central tendency.	Findings suggest that computer-based interventions are not more effective than active comparators to reduce alcohol consumption of binge frequency per week. In comparison to minimally active comparator, the findings depended on whether studies presented appropriate measures of central tendency or not (including all studies suggested effect on total alcohol consumption, using sub-set of higher quality studies suggested no effect). Findings also suggest potential reduction in frequency of binge drinking. Details: The review authors compared computer-based intervention versus minimally active comparator for changes in total alcohol consumption (g/week). Student trials were compared with non-student trials (including one YP trial). "The two groups were found to differ significantly from each other ($P < 0.001$), suggesting a more pronounced effect in the non-student adult population." Meta-analysis Mean Difference in student trials: -19.42 [-29.83, -9.00]. A sensitivity analysis was carried out with a subset of 5 studies presenting appropriate measures of central tendency. "These five studies in student populations (994 participants) found no significant difference between computer-based interventions and minimally active comparator groups in alcohol consumed per week". With regard to binge frequency/week, the analysis included 5 trials with a total of 848 student participants. "Participants receiving a computer-based intervention appeared to reduce their frequency of binge drinking compared with those receiving a minimally active comparator (mean difference = -0.23 days per week; 95% CI: -0.47, 0.00; P = 0.05)". A further analysis compared computer-based intervention versus active comparator (3 studies). "There was no significant difference between participants receiving a computer-based intervention and an active comparator group in alcohol consumed per week. [...] However, the analysis was heavily weighted by one particular study". Two studies measured binge frequency/week for this comparison. "Both studies reported no significant difference in binge frequency between the intervention and an active comparator group".

Review details	Review search parameters	Included studies	Results
Kim (2011) **Study design:** Meta-analysis **Author objectives:** "The effectiveness of pharmacological therapy for smoking cessation in adolescent smokers was evaluated". **Funding source:** NR	**Years searched:** NR **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Adolescent smokers. I - Pharmacological therapy. C -Did not receive pharmacological therapy. O - Smoking cessation status. S - RCTs only. **Exclusion criteria:** NR	**Number of included studies (total):** 6 (7 trials reported in the 6 studies) **Study designs:** RCT (n=6) **Country:** USA (n=5), UK (n=1) **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Included a total of 816 participants including 409 intervention participants and 407 controls. The range of the longest follow-up periods was 8–26 weeks. **Quality of included studies as assessed by review authors:** Assessed using the Jadad scale. All studies except one had a score of 4 or greater (out of a maximum of 5 points). **Limitations identified by review authors:** Small number of trials and overall sample size, lack of long-term follow ups.	No significant effect in abstinence rates detected for pharmacological therapy (RR 1.38, CI 0.92-2.07) at longest follow up. No significant effects were reported at short- or medium-term follow ups. No effects were reported by type of therapy or type of analysis. Two trials were associated with an adverse effect, but these were not associated with the therapy.

Review details	Review search parameters	Included studies	Results
Konghom (2010) **Study design:** Meta-analysis **Author objectives:** "To search and determine risks, benefits and costs of a variety of treatments for inhalant dependence or abuse". **Funding source:** Department of Medical Services, Ministry of Public Health, Thailand.	**Years searched:** Inception to February 2010 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Adults and adolescents (aged 13 years or more) with inhalant dependence or abuse diagnosed by any set of criteria. I - Treatment of inhalant use disorders, any kind of pharmacological or psychosocial treatment, or a combination C - 1. Placebo, 2. No intervention (e.g., those are on wait-list), 3. Treatment as usual. O - Inhalant use, self-report - Primary: 1. Number or percentage of people who return to inhalant use, 2. Number or percentage of inhalant-use days, 3. Overall discontinuation rate, 4. Discontinuation rate due to adverse events; Secondary outcomes 1. Death 2. Time to the recommencement of inhalant abuse or use 3. Craving as measured by validated scales 4. Severity of dependence, abuse, or addiction as measured by validated scales, 5. Functioning, and Health status or health-related quality of life. S - Randomised-controlled trials and controlled clinical trials (CCTs). **Exclusion criteria:** "Interventions for the prevention of inhalant use disorders, e.g., educational program, community interventions, were excluded".	**Number of included studies (total):** 0 **Study designs:** NA **Country:** NA **Included studies relevant to our review:** NA **Study designs:** NA **Country:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** NA **Limitations identified by review authors:** "Due to the lack of studies meeting the inclusion criteria, no conclusion can be drawn for clinical practice. A review of cohort studies or case series may be helpful in identifying lower levels of evidence to guide the treatment of inhalant dependence and abuse".	NA

Review details	Review search parameters	Included studies	Results
Lui (2008) **Study design:** Systematic review **Author objectives:** "To evaluate the effectiveness of psychosocial interventions in pregnant women enrolled in alcohol treatment programs for improving birth and neonatal outcomes, maternal abstinence and treatment retention". **Funding source:** Alcohol Education Research Council, UK.	**Years searched:** Earliest - 2007 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Pregnant or postpartum women in alcohol treatment programs. I - Psychosocial interventions for alcohol treatment. C - Other psychosocial or pharmacological treatment, placebo, no-intervention. O - Birth weight, gestational age at birth, placental abruption, FAS, admission to and time spent in hospital, abstinence and retention outcomes. S - RCT or quasi allocation methods. **Exclusion criteria:** Population: illegal drug users; Outcomes: no alcohol use reported.	**Number of included studies (total):** 0 **Study designs:** NA **Country:** NA **Included studies relevant to our review:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** NA **Limitations identified by review authors:** NA	NA

Review details	Review search parameters	Included studies	Results
Lumley (2009) **Study design:** Meta-analysis **Author objectives:** "To assess the effects of smoking cessation interventions during pregnancy on smoking behaviour and perinatal health outcomes". **Funding source:** Australian Commonwealth Department of Health and Ageing, 3centres Collaboration (supported by the Victorian Department of Human Services). NHS Central R & D Programme, Department of Health 1995-1996, UK. Department of Health, UK funding for EPI-Centre, London University, UK. Public Health Branch Victorian Department of Human Services, Australia. Mother and Child Health Research (LaTrobe University) formerly Centre for the Study of Mothers' and Children's Health (Judith Lumley) receives a funding contribution from the Victorian Health Promotion Foundation, which has a statutory responsibility for reducing tobacco use in the State of Victoria.	**Years searched:** January 2003 to June 2008 (this is an update of previously published reviews and includes also trial register searches). **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Women who are pregnant, in any care setting; Women seeking a pre-pregnancy consultation; Health professionals in trials of strategies to change knowledge, attitudes and behaviour with respect to smoking cessation. I - range of smoking cessation interventions: 1. Cognitive behaviour therapy, educational and motivational interviewing strategies (using a range of media). 2. Interventions based on stages of change (using a range of media). 3. Feedback of foetal health status or measurement of by-products of tobacco smoking to the mother. 4. Provision of rewards and incentives for smoking cessation. 5. Provision of pharmacotherapies (nicotine replacement therapy, bupropion or other pharmacological agents). 6. Other strategies, including hypnosis. C - NR. O - Smoking behaviour and perinatal health outcomes: 1. Smoking cessation (continued smoking in late pregnancy, self-reported and validated). 2. Smoking reduction from the first antenatal visit to late pregnancy self-reported and validated. 3. Smoking cessation in the puerperium, self-reported and validated. 4. Birth weight (mean birth weight, proportion less than 2500 g, less than 1500 g). 5. Gestation at birth (proportion less than 37 weeks, less than 32 weeks, less than 30 weeks). 6. Perinatal mortality (stillbirths, neonatal deaths, all perinatal deaths). 7. Mode of birth. 8. Proportion of women initiating breastfeeding; breastfeeding at three and six months after birth. 9. Measures of anxiety, depression and maternal health status in late pregnancy and after birth. 10. Participants' views of the interventions, both women and intervention providers. 11. Measures of family functioning in late pregnancy and postpartum. 12. Measures of knowledge, attitudes and behaviour of health professionals (obstetricians, midwives and family physicians) with respect to facilitating smoking cessation in pregnancy. S - Randomised and quasi-randomised controlled trials **Exclusion criteria:** "Trials which combine strategies for smoking cessation with other interventions in pregnancy were considered for the review for smoking cessation and reduction outcomes but not for outcome measures such as birth weight, preterm birth, breastfeeding and perinatal mortality which might be attributable to other components of an intervention package".	**Number of included studies (total):** 72 **Study designs:** RCTs, including cluster randomised RCTs **Country:** USA (39), United Kingdom (14), Netherlands (7), Australia (6), New Zealand (2), Canada (2), Latin American countries (Argentina, Brazil, Cuba and Mexico) (1), Poland (1) **Included studies relevant to our review:** 21 **Study designs:** NR **Country:** NR **Sample sizes and follow-up:** In relation to all included trials (not reported separately for relevant ones) - "Withdrawals from the trials were common. When women were recruited at their first antenatal visit some participants had a miscarriage or a termination of pregnancy before the time when smoking behaviour was reassessed. Others moved out of the area or changed to another provider of care. The latter was a common cause of attrition in those trials carried out among populations characterised by severe poverty and the receipt of special needs benefits such as Medicaid, or WIC (food program for women, infants and children) clinics. In studies where there was longer-term follow up, attrition was sometimes high; approximately half of the included studies had high levels of missing data (> 20%) for some outcomes". **Quality of included studies as assessed by review authors:** In relation to all included trials (not only relevant trials) - "The studies included in the review were of mixed quality. For educational and counselling interventions blinding of participants, clinical staff and outcome assessors was frequently not feasible and rarely attempted. […] Levels of attrition were generally high, particularly for outcomes where information was collected by postal questionnaire months after the initial intervention" "The method of randomisation was rarely described in sufficient detail to permit assessment of whether the allocation was concealed at the time of trial entry". "It was not clear in many trials the extent of outcome data which were collected and therefore, difficult to assess whether the outcomes have been selectively reported." Particularly the earlier trials relied on self-report data which was considered less reliable if collected in healthcare settings. **Limitations identified by review authors:** Major limitation was potential misclassification of smoking by self-report, lack of biochemical validation, very high level of heterogeneity amongst the trial results.	"The 21 trials with information on perinatal outcomes revealed a reduction in low birth weight (RR 0.83, 95% CI 0.73 to 0.95), a reduction in preterm birth (RR 0.86, 95% CI 0.74 to 0.98), and an increase in mean birth weight of 39.26 g (95% CI 15.77 g to 62.74 g) in the treatment group. There was adequate power to detect differences for these outcomes (n = > 10 000). Trials using CBT and incentives as the main intervention strategy demonstrated statistically significant improvements in mean birth weight." "There were no statistically significant differences in neonatal intensive care unit admissions; very low birth weight, stillbirths, perinatal or neonatal mortality but these analyses had very limited power". "A follow up of MacArthur's trial […] assessed subsequent child growth and development at nine to 10 years. Neither height nor weight, nor intelligence quotient (IQ) or a screening test for 'soft' neurological signs identified any differences between the intervention and control groups. Two trials measured mode of delivery (Tappin 2005; Thornton 1997) and showed no significant difference in outcome by intervention group. Two trials measured breastfeeding initiation (McLeod 2004; Panjari 1999) and showed no significant difference in initiation or duration of breastfeeding in control or intervention arms." "Heil (2008) reported significant increases in fetal growth measures including birth weight, fetal femur length and fetal abdominal circumference, but no significant difference in lean thigh area, head circumference or biparietal diameter. MacArthur (1987) reported a small difference in mean infant length at birth, but no difference in head circumference". "NRT in this review does not appear to have a significant advantage over other types of interventions in terms of smoking cessation in subgroup analysis, but there has been no direct comparison of NRT outcomes with any other strategy." "The safety of NRT in terms of effect on fetal development and birth outcomes remains unclear in pooled data from this review." Some studies indicated potential adverse effects.

Review details	Review search parameters	Included studies	Results
Maziak (2007) **Study design:** Meta-analysis **Author objectives:** "To evaluate the effectiveness of tobacco cessation interventions for waterpipe users". **Funding source:** US Public Health Service Grants TW05962, TW07233 USA; Initiative for Cardiovascular Health Research in the Developing Countries (IC-Health), India.	**Years searched:** start date NR - February 2011 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Current (past month) users of waterpipes for tobacco smoking, at any age and of either gender. I - Waterpipe smoking cessation interventions. Interventions can be pharmacological (including, for example, nicotine replacement therapy (NRT) or bupropion) or behavioural, or both, and can be directed at individual waterpipe users or at groups of users. C - NR. O - Abstinence from tobacco use, preferably sustained and biochemically verified, for at least six months from the start of the intervention. S - Randomized, quasi-randomized or cluster-randomized controlled trials. **Exclusion criteria:** "We only include tobacco cessation interventions, and have not considered trials of prevention of uptake".	**Number of included studies (total):** 0 **Study designs:** NA **Country:** NA **Included studies relevant to our review:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** NA **Limitations identified by review authors:** NA	NA

Review details	Review search parameters	Included studies	Results
McGuire (2001) **Study design:** Meta-analysis **Author objectives:** To determine the effect of naloxone on the need for or duration of ventilatory support or neonatal unit admission in newborn infants who have been exposed in-utero to narcotics. **Funding source:** Tayside Institute of Child Health, Ninewells Hospital and Medical School, Dundee, UK. Tayside University Hospitals Trust, Dundee, UK. No external support.	**Years searched:** Inception to February 2007 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Newborn infants cared for in a hospital setting, with suspected or confirmed exposure to opiates, either 1. As maternal pain relief prior to delivery 2. As a result of use during pregnancy. I - Administration of naloxone. C - Placebo or no drug or more than one dose of naloxone. O - Primary outcomes: 1. Need for assisted ventilation (any form of mechanical ventilation including continuous positive airway pressure) in the neonatal period 2. Duration of assisted ventilation (days) 3. Admission to neonatal intensive care unit or special care baby unit in the neonatal period 4. Duration of neonatal intensive care unit or special care baby unit admission (days) Secondary outcomes: 1. Time, from birth, to establish full oral feeds, independently of parenteral fluids or nutrition or of enteral tube feeding 2. Features of opiate withdrawal, using validated behavioral assessment measures in the neonatal period 3. Seizures in the neonatal period 4. Neurodevelopmental outcomes during infancy and beyond using validated assessment tools 5. Measures reflecting respiratory function, such as Apgar score, or arterial blood pH or arterial or alveolar carbon dioxide tension measured within the first six hours after birth S - Controlled trials utilizing either random or quasi-random patient allocation. **Exclusion criteria:** NR.	**Number of included studies (total):** 9 **Study designs:** All RCTs **Country:** NR. **Included studies relevant to our review:** 0 **Study designs:** NA **Country:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** In relation to all included trials (no relevant trials)- "All of the trials were small and none presented a power or sample size calculation. Most reports did not provide any details of measures to ensure allocation concealment. Therefore, it is unclear if the assignment of infants to naloxone or no drug could be predicted. In most trials the intervention was not blind to the caregivers or assessors. All of the trials appear to have achieved complete or near-complete follow-up of infants recruited, although none of the trials undertook follow up beyond the first three days after birth". **Limitations identified by review authors:** NR.	"No trials that examined the effects of naloxone in infants of mothers who had used a prescribed or non-prescribed narcotic during pregnancy were identified". In relation to trials where women used opiate-based pain relief in labour - "This review did not find any evidence that naloxone reduces the need for assisted breathing or admission to neonatal care units for babies born after women used opiate-based pain relief in labour […] There was some evidence that infants who received naloxone had increased alveolar ventilation, higher expired carbon dioxide levels and lower alveolar carbon dioxide tensions than control infants. However, the clinical significance of these findings is unclear. Similarly, although there is some evidence from one study that naloxone results in a shorter time to habituate to auditory stimuli (Wiener 1977b), the clinical relevance of this finding is unknown. No data were reported on clinically important neurological or behavioral outcomes in the neonatal period or on any longer term outcomes".

Review details	Review search parameters	Included studies	Results
Minozzi (2008) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To assess the effectiveness of any maintenance treatment alone or in combination with psychosocial intervention compared to no intervention, other pharmacological intervention or psychosocial interventions on child health status, neonatal mortality, retaining pregnant women in treatment, and reducing use of substances". **Funding source:** No external funding. Internal source: Department of Epidemiology, ASL RM E, Italy	**Years searched:** Inception - 2007, no restrictions for publication year **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Opiate dependent pregnant women of any age irrespective of duration of pregnancy. No restriction for women with physical or psychological illness. I - Any maintenance treatment alone or in combination with psychosocial intervention. C - No intervention, other pharmacological intervention or psychosocial interventions alone. O - Child health status, neonatal mortality, retaining pregnant women in treatment, and reducing use of substances - Primary outcomes For the woman (1) drop out from treatment as measured by: number of women dropped out at the end of the intervention, (2) use of primary substance as measured by: number of women using heroin at the end of treatment confirmed by urine analysis, (3) results at follow up as measured by: number of women using heroin at the end of follow up (after the childbirth), drop out from treatment at the end of follow up (after the childbirth); For the child (4) health status measured as: birth weight, APGAR score (Activity, Pulse, Grimace, Appearance, and Respiration score), Neonatal Abstinence Syndrome (NAS), prenatal and neonatal mortality. S - Randomised controlled trials and quasi randomised controlled trials. **Exclusion criteria:** "Studies started after the delivery will be excluded".	**Number of included studies (total):** 3 **Study designs:** RCTs **Country:** 2 Austria, 1 USA **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Three studies with 96 participants, although sample sizes for comparisons in meta-analyses varied (due to differences in outcomes measured). Sample sizes very small at 18, 30 and 48 participants total. Follow up mean: 15-18 weeks. Dropout rate was one of the primary outcomes (reported in results section). **Quality of included studies as assessed by review authors:** "The methodological quality of included studies is good for the two studies comparing methadone with buprenorphine whereas the study which compares methadone with morphine has some methodological flow [sic]. The sample size is very small in all studies, so we cannot exclude the possibility that the non significant results could be done to second type error". "All the studies were randomised controlled trials. The allocation concealment was adequate in two studies (Fischer 2006, Jones 2005) and unclear in the third study (Fischer 1999). Two studies were double blind (Fischer 2006, Jones 2005) and one was unblinded (Fischer 1999). The outcome assessor was blind in two studies (Fischer 2006, Jones 2005) and unblinded in the third study (Fischer 1999). Sensitivity analysis excluding studies with inadequate allocation concealment was not performed because none of the included studies had inadequate allocation concealment". **Limitations identified by review authors:** The level of nicotine exposure during pregnancy does affect birth weight and could affect NAS but cigarette consumption was only considered in one study, small sample sizes, small number of trials, short follow up.	"We found few differences in neonatal or maternal outcome in women who received methadone compared to either buprenorphine or oral slow morphine." "For the women there was no difference in dropout rate RR 1.00 (95% CI 0.41 to 2.44) and use of primary substance RR 2.50 (95% CI 0.11 to 54.87) between methadone and buprenorphine, whereas oral slow morphine seemed superior to methadone in abstaining women from the use of heroin RR 2.40 (95% CI 1.00 to 5.77)." "Only one study reported on the number of cigarettes the women smoked, a mean of 29 cigarettes per day at enrolment and 14 cigarettes per day at delivery". "For the newborns in one trial buprenorphine seemed better than methadone for birth weight [WMD -530 gr (95% CI -662 to -397 gr)], but this result is not confirmed in the other trial. For the APGAR score both studies which compared methadone with buprenorphine didn't find significant difference. For NAS none of measures used by studies found a statistically significant difference between the two treatments. The study which compares methadone with oral slow morphine didn't find any statistically significant difference for birth weight and mean duration of NAS. The APGAR score wasn't considered by the study." "Length of hospital stay: one study (Jones 2005), 21 participants, WMD 1.30 (95% CI 0.60 to 2.00); the result is in favour of buprenorphine".

Review details	Review search parameters	Included studies	Results
Minozzi (2009) **Study design:** Meta-analysis **Author objectives:** To assess the effectiveness of any maintenance treatment alone or in combination with psychosocial intervention compared to no intervention, other pharmacological intervention or psychosocial interventions on retaining adolescents in treatment, reducing the use of substances and reducing health and social status. **Funding source:** Internal: Department of Epidemiology ASL RM E, Italy. No external sources of support.	**Years searched:** Inception - August 2008 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Opiate dependent adolescents (up to18 years old). No restriction for subjects with physical or psychological illness. I - Any opioid agonist treatment (methadone, buprenorphine, LAAM, heroin) alone or associated with psychosocial intervention for maintenance treatment. C - No intervention or Different opioid agonist treatments or Other pharmacological interventions or Any Detoxification intervention or Psychosocial interventions alone. O - Primary outcomes 1. Dropouts measured as number of subjects that did not complete the maintenance treatment 2. Use of primary substance measured as number of subjects with opiate positive urinalysis during and at the end of treatment or/and self reported data 3. Results at follow up measured as number of subjects relapsed at the end of follow up Secondary outcomes 1. Use of other substances of abuse 2. Side effects 3. Mortality any cause 4. Nonfatal overdose 5. Criminal activity 6. Social functioning (integration at school or at work, family relationship). S - Randomised controlled trials (RCTs) and clinical controlled trials (CCTs). **Exclusion criteria:** NR.	**Number of included studies (total):** 2 **Study designs:** 1 multi centre randomised controlled trial, 1 controlled trial (unclear if randomised or not) **Country:** USA **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample size 35 in one and 154 (152 randomised) in other trial. Drop out NR. In one study, "patients were contacted at all assessment point regardless of whether they remained in treatment". **Quality of included studies as assessed by review authors:** "One study (Lehmann 1973) is very old (published in 1973) and of very low quality: it is not specified if it is a randomised study also if it is declared that it was double blind, the study does not report any information about sequence generation and allocation concealment, does not report data about drop out and does not report figures about the outcomes which are assessed but only narrative description. The other study (Woody 2008) has been judged to be a low risk of bias for all domains but allocation concealment which appears to be inadequate". **Limitations identified by review authors:** NR.	Comparison 1: any pharmacological maintenance treatment versus other pharmacological treatment: LAAM vs. methadone - Substance use: "the authors reported that there were no urine positives for non prescribed drugs in both groups"; no follow-up data reported. - Side effects: "the authors reported that no side effects such as nausea, vomiting, constipation, weakness or fatigue were reported". - Social functioning (integration at school or at work, family relationship): "authors reported that there were no difference between groups in performances of job functions which improved during the fourth week of treatment, athletic involvement, high school and education involvement which started only after the eighth week of treatment, community and home improvement which improved after the fourth week of treatment". Comparison 2: maintenance treatment vs. detoxification treatment: buprenorphine-naloxone maintenance for 9 weeks then tapered to 12 week vs. buprenorphine detoxification 14 days. - Use of substance of abuse: no significant difference at the end of treatment. Results at follow up: "RR 0.73 (95%CI 0.57, 0.95) in favour of maintenance treatment". - Use of other substances of abuse: "no significant difference for alcohol and marijuana; RR 0.12 (95%CI 0.02, 0.90) in favour of maintenance treatment". - Side effects: "the authors reported that no serious side effects attributable to buprenorphine - naloxone were reported and no patients were removed from the study for side effect. The most common side effect was headache, which was reported by 16% - 21% of patients in both groups".. - Mortality any cause: "one death for methadone overdose (as reported by the medical examiner report) occurred in the maintenance group in a patients who dropped out after 3 doses and was not located until her obituary appeared in a newspaper three months later. No further information is reported in the study". - Drop out of treatment: "RR 0.37 (95% CI 0.26 - 0.54) in favour of maintenance treatment". Summary: "Maintenance treatment seems more efficacious in retaining patients in treatment but not in reducing patients with positive urine at the end of the study. Self reported opioid use at 1 year follow up was significantly lower in the maintenance group even if both group reported high level of opioid use and more patients in the maintenance group were enrolled in other addiction treatment at 12-month follow up."

Review details	Review search parameters	Included studies	Results
Moreira (2009) **Study design:** Meta-analysis **Author objectives:** "To determine whether social norms feedback reduces alcohol misuse in university or college students". **Funding source:** Internal: Oxford Brookes University-School of Health and Social Care, UK. External sources: FCT-Fundação ciência e tecnologia, Portugal. AERC - Alcohol Education and Research Council, UK. ERAB -European Research Advisory Board, Belgium.	**Years searched:** Inception - March 2008 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Students from university or college settings. I - Social norms intervention: Universal personalised normative feedback to individuals, where all students are asked to participate regardless of drinker status or risk level; Targeted interventions focusing on members of a particular group, such as first-year students, fraternity and sorority members, athletes, members of an academic class, or individuals who are deemed to be at higher risk of alcohol problems; Social Norms Marketing Campaigns, e.g. community-wide electronic and/or print media campaigns that refer to normative drinking patterns. C - No social norms intervention - assessment only, questionnaire used to measure alcohol consumption or alternative educational or psychosocial intervention O - Primary outcomes 1. Alcohol use and misuse as measured by self-reported measures of consumption (e.g. self reported daily drinking questionnaire), including quantity-frequency measures (e.g. quantity frequency scale), binge drinking (e.g. 4 or more drinks for women or 5 of more drinks for men), calculated blood alcohol content (BAC), calculated Peak BAC and drinking norms (e.g. drinking norms rating form). Secondary outcomes: Measures of alcohol related problems (e.g. Rutgers Alcohol Problems Index) that include questions regarding: 1. Adverse legal events as a consequence of alcohol i.e. violence, driving offences 2. Inappropriate risky behaviours (e.g. sex without use of condom) 3. Alcohol related injuries 4. Illicit drugs consumption (e.g. marijuana, cocaine). S - Randomised control trials with individual or cluster designs. **Exclusion criteria:** NR.	**Number of included studies (total):** 22 **Study designs:** RCT **Country:** All of the studies were conducted in the USA, with the exception of three studies conducted in New Zealand. **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample sizes ranged from 37 to 2,936 participants. Majority of studies involved > 100 participants. Several studies reported outcomes for more than one follow-up period. The follow-up periods of included studies varied from the immediate post-intervention period (1 study) to 12 months (4 studies) and longer: one study followed up participants for more than a year; two studies had a follow-up of three years; and one followed-up their students for four years. Majority of studies had attrition rates between 10 and 20 %. A few studies reported attrition of up to 35%. "Twelve of the studies did not perform an intention-to treat analysis, and had moderate to high levels of attrition, so we therefore regarded them as at high risk of bias". **Quality of included studies as assessed by review authors:** "Several sources of potential bias in the individual studies were detected: e.g. lack of blinding of students or researchers, use of self reported outcome measures. Only a few studies reported how important aspects of study design were conducted, such as concealment of treatment allocation and handling of missing data, making it difficult to assess the risk of bias. Lack of adequate allocation concealment, blinding and analysis is associated with overestimation of intervention effects, and therefore we cannot rule out the possibility that the effects observed in this review may be exaggerated due to methodological limitations." **Limitations identified by review authors:** Small number of studies available, particularly for longer term follow-up, substantial heterogeneity, limited generalizability due to the nature of the samples recruited into the trials (majority of studies recruited from psychology courses or included high risk students only), not able to isolate effect of social norms feedback within individual face-to-face feedback as this typically involved social norms feedback as one aspect of a broader motivational interviewing intervention; it is not possible to infer which delivery mode is most effective, via web/computer or individual face-to-face sessions, as no studies directly compared these two options.	Immediate short-term outcomes (Up to 3 months follow-up) Alcohol related problems: Significant reduction with Web/computer feedback (WF) (SMD-0.31 95%CI -0.59 to -0.02), three studies, 278 participants. No significant effect of mailed feedback (MF), individual face-to-face feedback (IFF) or group face-to-face feedback (GFF). Peak Blood Alcohol Content (BAC): Significant reduction with WF (SMD-0.77 95%CI -1.25 to -0.28), two studies, 198 participants. No significant effect of MF or IFF. Drinking Frequency: Significant reduction with WF (SMD -0.38 95%CI -0.63 to -0.13), two studies, 243 participants and IFF (SMD -0.39 95% CI -0.66 to -0.12), two studies, 217 participants. No significant effect of MF. Drinking Quantity: Significant reduction with WF (SMD -0.35 95% CI -0.51 to -0.18), five studies, 556 participants and GFF (SMD -0.32 95% CI -0.63 to -0.02) three studies, 173 participants. No significant effect of MF or IF. Binge drinking: Significant reduction with WF (SMD -0.47 95% CI -0.92 to -0.03) one study, 80 participants, IFF (SMD -0.25 95% CI -0.49 to -0.02) three studies, 278 participants and GFF (SMD -0.38 95% CI -0.62 to -0.14) four studies, 264 participants. No significant effect for MF. BAC: No significant effect of MF and IFF Drinking norms: Significant reduction with WF (SMD -0.75 95% CI -0.98 to -0.52) three studies, 312 participants "Significant effects were more apparent for short term outcomes (up to three months). However, there was some evidence of effect continuing through to medium-term follow-up from four to sixteen months, particularly for web/computer feedback". "For social norms interventions which were designed specifically for women or men separately, there was no evidence that the gender-specific interventions were more efficient than a general social norms intervention. However, there was limited evidence from only two small studies reporting results for few outcomes".

Review details	Review search parameters	Included studies	Results
Müller-Riemenschneider (2008) **Study design:** Meta-analysis **Author objectives:** To evaluate the long-term effectiveness of recent behavioural interventions in the prevention of cigarette use among children and youth and to compare the effectiveness of different school-based, community based and multisectorial intervention strategies. **Funding source:** German Institute of Medical Documentation and Information (DIMDI).	**Years searched:** August 2001-August 2006 **Language restrictions:** Several languages included **Inclusion criteria (according to PICOS):** P - Youths up to 18 years of age. I - NR (behavioural interventions to prevent smoking). C – NR. O - Suitable outcome measure smoking behaviour. S - Randomised controlled trials if they were of a duration of at least 12 months. Published in English or German between August 2001 and August 2006. **Exclusion criteria:** NR	**Number of included studies (total):** 35 **Study designs:** RCTs, mostly cluster randomised **Country:** 20 USA, 3 UK, 3 Australia, 2 Canada, 2 Netherlands, 1 each from India, China, Germany, Ireland and Europe (not further specified) - most variety in relation to school based programmes; studies of community and multisectorial programmes mostly from USA. **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample sizes were rather large, as all studies involved at least 500 participants. Sample sizes ranged from 514 to 20,166 participants. For school based interventions, all good/high quality studies had over 1,000 participants. The follow-up duration ranged from 12 months to 120 months. A number of studies had retention rates < 50 % but these were classed as fair quality. High quality studies mostly had retention rates > 80 %. **Quality of included studies as assessed by review authors:** Used standardised quality checklists employed by DIMDI (German Institute of Medical Documentation and Information). Synthesis included only studies judged to be of small to moderate risk of bias. In sensitivity analysis also fair-quality studies. "More than half of [included studies were rated] as being of good or high methodological quality. Reasons for limited methodological quality included inadequate descriptions of allocation methods; missing descriptions of baseline characteristics or of statistical analysis; and low follow-up rates. In addition, only a limited number of studies blinded participants or investigators to the intervention, validated outcome measures, or performed an intention-to-treat analysis". 14 classified as school-based of which 8 high/good quality, 10 classified as community based of which 7 high/good quality, 11 classed as multisectorial of which 6 judged as high/good quality. **Limitations identified by review authors:** Heterogeneity between studies could explain varying degree of intervention effectiveness, control groups described as 'no intervention' but likely to have received standard drug education, publication bias was shown to exist - likely to overestimate effects, classification into school-based, community based, or multisectorial can mask that these three categories include a very diverse set of interventions, study selection criteria and the classification of intervention strategies differed from those used in other reviews which may explain differences between this and other reviews, intervention strategies were seldomly tested against each other.	Meta-analysis of school-based interventions (excluding fair quality studies) - outcomes at 12 months or more Lifetime smoking NS at OR 0.94 (CI 0.78, 1.13), 5 studies, heterogeneity I2>50%. 30-day smoking NS at OR 0.87 (CI 0.69, 1.11), 4 studies, heterogeneity I2>50%. Regular smoking NS at OR 0.88 (CI 0.74, 1.06), 4 studies, heterogeneity I2>50%. Meta-analysis of community-based interventions (excluding fair quality studies) - outcomes at 12 months or more Lifetime smoking NS at OR 0.77 (0.53, 1.11), 5 studies, heterogeneity I2>50%. 30-day smoking effective at OR 0.85 (0.72 to 0.99), 3 studies, no heterogeneity detected. Regular smoking NR. Meta-analysis of multi-sectorial interventions (excluding fair quality studies) - outcomes at 12 months or more. Lifetime smoking effective at OR 0.73 (CI 0.64, 0.82), 3 studies, no heterogeneity detected. 30-day smoking NS at OR 0.79 (CI 0.61 to 1.02), 1 study, no heterogeneity detected. Regular smoking effective at OR 0.59 (0.42 to 0.83), 1 study, no heterogeneity detected. "The intervention effects reported for community-based and multisectorial strategies were not only more consistent than those observed for school-based strategies they also resulted in a larger reduction in smoking rates. Indeed; whereas the greatest reduction in smoking rates among school-based strategies was only 3.6%, community-based and multi-sectorial interventions reported reductions of up to 10%". "Specific intervention components were investigated only infrequently. However, family-based interventions were used in many community-based and multisectorial intervention strategies. Although it was difficult to identify their specific impact, there seems to be some evidence for the additional effectiveness of this approach. In order to achieve reductions in smoking rates, however, it appears that providing smoking related information to parents was not sufficient on its own, but rather that the family members needed to be actively involved. Activities targeted at parents who smoke were found to be especially effective". "Few studies specifically tested different intervention strategies against each other. Spoth et al observed a greater reduction in smoking rates when school-based life skills training and an additional family-strengthening intervention were used. This difference did not reach statistical significance,

Review details	Review search parameters	Included studies	Results
			however. Similarly, Perry et al observed substantial intervention effects associated with the DARE-Plus intervention compared to the DARE intervention, although only among boys. Conversely, Furr-Holden et al demonstrated that, compared to control, a classroom-centred intervention had greater intervention effects than did a family-school partnership; however, these two interventions were not formally tested against one another". "Two methodologically reliable studies targeted children between 5 and 10 years. These studies found strong evidence of intervention effectiveness."

Review details	Review search parameters	Included studies	Results
Myung (2009) **Study design:** Meta-analysis **Author objectives:** "Examined the effects of Web- and computer-based smoking cessation programs in RCTs". **Funding source:** Centers for Disease Control and Prevention through Cooperative Agreement U48/DP000033.	**Years searched:** Inception - August 2008 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Current smokers. I - Web- or computer-based smoking cessation program. C - NR. O - "The principal outcome measures included point-prevalence abstinence, sustained abstinence, prolonged abstinence, and continuous abstinence. Biochemical validation was not required in the current study". S - RCTs with at least 3 months of follow-up data. **Exclusion criteria:** "Trials involving smokeless tobacco (ST) users and quasi-experimental trials were excluded from this study."	**Number of included studies (total):** 22 **Study designs:** RCTs **Country:** United States (n=13), United Kingdom (n=4; 1 trial involved the Republic of Ireland), Australia (n=2), Germany (n=1), Norway (n=1), and Switzerland (n=1). **Included studies relevant to our review:** 3 **Study designs:** RCTs **Country:** NR **Sample sizes and follow-up:** Sample sizes in relevant trials were 139 (70 intervention / 69 control), 351 (181 i / 170 c), and 1090 participants (547 i/ 543 c). Follow-up periods 3 months, 36 weeks, and 12 months. Attrition rates: ~11%, 33.9%, 47/58%. In one study there appeared to be greater attrition in the control group. **Quality of included studies as assessed by review authors:** Jadad 5-point scale. Overall, there were 10 trials considered to be of high quality, and 12 trials considered to be of low quality. No details provided for individual studies. Results did not differ by methodological quality. **Limitations identified by review authors:** Small number of trials, small sample sizes.	Web- or computer-based smoking cessation programs did not significantly increase the abstinence rate in adolescent populations: "Regarding age group, the Web- or computer-based smoking cessation programs obtained a significantly greater abstinence rate for adults (RR, 1.49; 95% CI, 1.31-1.70; I2=58.2%; n=19) but not for adolescents (RR, 1.08; 95%CI, 0.59-1.98; I2=65.3%; n=3)". Taking all trials into account (not limited to studies in young people) - "The effect of the Web- or computer-based intervention was statistically significant in both the high-quality (RR, 1.48; 95% CI, 1.18-1.85; I2=67.9%; n=10) and low-quality trials (RR, 1.42; 95% CI, 1.20-1.68; I2=57.0%; n=12)".

Review details	Review search parameters	Included studies	Results
Osborn (2010a) **Study design:** Systematic review with Meta-analysis **Author objectives:** To assess the effectiveness and safety of using a sedative compared to a non-opiate control for NAS due to withdrawal from opiates, and to determine which type of sedative is most effective and safe. **Funding source:** Internal: RPA Newborn Care, Royal Prince Alfred Hospital, Sydney, Australia. External: Australian Satellite of the Cochrane Neonatal Group, Australia.	**Years searched:** Inception - September 2010 **Language restrictions:** unclear **Inclusion criteria (according to PICOS):** P - infants in the neonatal period with Neonatal abstinence syndrome (NAS) born to mothers with an opiate dependence I - sedative (e.g. clonidine, a benzodiazepine, barbiturate or neuroleptic agent) C - another sedative or non-opiate control (either placebo, usual management of the newborn infant or non-pharmacological treatment designed to settle infant and mother, establish feeding and facilitate mother-infant interaction). O - Primary outcomes 1. Treatment failure: including failure to achieve control defined as a failure to reduce a standardised score of NAS from a clinically significant level to a clinically 'safe' level defined by author of trial, or the use of additional pharmacological treatments for control of NAS in the neonatal period; 2. Seizures; 3. Neonatal and infant mortality; 4. Neurodevelopmental outcome. Secondary outcomes 1. Time to control of NAS (control of symptoms or reduction of NAS score to a clinically 'safe' level); 2. Duration of admission to newborn nursery; 3. Duration of hospitalisation (days); 4. Time to establishment of full sucking feeds; 5. Success of breast feeding (e.g. absence of complementary formula feeds, adequate weight gain whilst breast feeding); 6. Rate of weight gain; 7. Side effects occurring after commencement of therapy: a) apnoea, b) need for resuscitation, c) need for mechanical ventilation d) any other; 8. Duration of treatment of NAS (days); 9. Disruption to the mother infant relationship (e.g. separation of mother and infant, admission to a newborn nursery, failure to successfully breast feed, maternal depression, or parental dissatisfaction). S - Trials using random or quasi-random patient allocation with > 80% follow-up **Exclusion criteria:** NR	**Number of included studies (total):** 7 **Study designs:** 3 Randomised or 3 quasi-randomised trials (quasi-random, e.g. allocated according to first letter of surname), 1 study mixed approach **Country:** NR **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample sizes ranged from 20 to 107, mostly small studies. Overall 385 infants across the 7 trials. Attrition NR. Authors state, "Few losses to follow up were reported by the individual studies, although in some cases this could have been by omission". **Quality of included studies as assessed by review authors:** "There were substantial methodological concerns for most studies including the use of quasi-random allocation methods and sizeable, largely unexplained differences in reported numbers allocated to each group." "Agthe (2009) reported infants in Clonidine + DTO group had significantly lower mean birth weight. Two studies (Finnegan 1984; Kaltenbach 1986) reported stopping enrolment in the diazepam arm early due to an interim analysis demonstrating the possibility of adverse effects. None of the other studies provided sufficient detail of reporting to be clear about balance of groups after randomisation or other potential biases". "Agthe (2009) met criteria for studies of good methodology with adequate randomisation and allocation concealment, blinding of intervention and no losses to follow up". **Limitations identified by review authors:** Lack of information concerning long term neurodevelopmental outcomes, further trials regarding drug safety needed, small sample size (overall 385 infants enrolled in reviewed trials). It is unclear whether the effect on duration of hospital stay was due to a policy of keeping the infants in hospital whilst receiving pharmacological therapy.	"One study reported phenobarbitone compared to supportive care alone did not reduce treatment failure or time to regain birth weight, but resulted in a significant reduction in duration of supportive care (MD -162.1 min/day, 95% CI -249.2, -75.1). Comparing phenobarbitone to diazepam, meta-analysis of two studies found phenobarbitone resulted in a significant reduction in treatment failure (typical RR 0.39, 95% CI 0.24, 0.62). Comparing phenobarbitone with chlorpromazine, one study reported no significant difference in treatment failure. In infants treated with an opiate, one study reported addition of clonidine resulted in no significant difference in treatment failure, seizures or mortality. In infants treated with an opiate, one study reported addition of phenobarbitone significantly reduced the proportion of time infants had a high abstinence severity score, duration of hospitalisation and maximal daily dose of opiate". "Of concern was the occurrence of adverse events in the clonidine group (one infant with a seizure, one an arrhythmia and three with post-discharge death), although none of these events were ascribed to the use of clonidine".

Review details	Review search parameters	Included studies	Results
Osborn (2010b) **Study design:** Systematic review with Meta-analysis **Author objectives:** To assess the effectiveness and safety of using an opiate compared to a sedative or non-pharmacological treatment for treatment of NAS due to withdrawal from opiates. **Funding source:** Internal: RPA Newborn Care, Royal Prince Alfred Hospital, Sydney, Australia. No external sources.	**Years searched:** Inception - October 2010 **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - Infants with neonatal abstinence syndrome (NAS) in the neonatal period born to mothers with opiate dependence I - Opiate treatment (such as tincture of opium, paregoric, morphine or methadone). C - Placebo or no treatment or other opiate or sedative (e.g. clonidine, a benzodiazepine, barbiturate or neuroleptic agent) or non-pharmacological treatments (e.g. swaddling, settling, massage, relaxation baths, pacifiers or waterbeds). O - Primary outcomes 1. Treatment failure: including failure to achieve control defined as a failure to reduce a standardised score of NAS from a clinically significant level to a clinically 'safe' level defined by author of trial, or the use of additional pharmacological treatments for control of NAS in the neonatal period. 2. Seizures. 3. Neonatal and infant mortality. 4. Neurodevelopmental outcome. Secondary outcomes 1. Time to control of NAS (control of symptoms or reduction of NAS score to a clinically 'safe' level). 2. Duration of admission to a newborn nursery. 3. Duration of hospitalisation (days). 4. Time to establishment of full sucking feeds. 5. Success of breast feeding (e.g. absence of complementary formula feeds, adequate weight gain whilst breast feeding). 6. Rate of weight gain. 7. Side effects occurring after commencement of therapy - a) apnoea, b) need for resuscitation, c) need for mechanical ventilation. 8. Duration of treatment of NAS (days). 9. Disruption to the mother infant relationship (e g. separation of mother and infant, admission to a newborn nursery, failure to successfully breast feed, maternal depression, or parental dissatisfaction). S - Randomized or quasi-randomized controlled trials **Exclusion criteria:** NR	**Number of included studies (total):** 9 **Study designs:** 3 RCTs using random numbers, 3 quasi-RCTs, 3 RCTs where randomisation methods not described **Country:** NR although funding sources suggest USA and Germany for some studies **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample sizes ranged from 26 to 139. Overall 645 across all included trials. No details on attrition. "Few losses to follow up were reported by the individual studies, although this could have been by omission". **Quality of included studies as assessed by review authors:** "There were substantial methodological concerns in all studies comparing an opiate with a sedative. Two small studies comparing different opiates were of good methodology". **Limitations identified by review authors:** Concerning one study: "It is unclear whether the effect on duration of hospital stay was due to a policy of keeping the infants in hospital whilst receiving pharmacological therapy".	Opiate (morphine) versus supportive care (one study): A reduction in time to regain birth weight (MD -2.8 days, 95%CI -5.3, -0.3) and duration of supportive care (MD -197.2 min/day, 95% CI -274.2, -120.3) and a significant increase in hospital stay (MD 15.0 days, 95% CI 8.9, 21.1) was noted. No significant difference in treatment failure (80 infants, RR 1.29, 95% CI 0.41, 4.07). "This review finds limited evidence from one quasi-random study that morphine and supportive care compared to supportive care alone does not affect treatment failure rate, but results in a significant reduction in time to regain birth weight and duration of supportive care at the cost of increased hospital stay". Opiate versus phenobarbitone (four studies): Meta-analysis found no significant difference in treatment failure (302 infants, typical RR 0.76, 95% CI 0.51, 1.11). One study reported opiate treatment resulted in a significant reduction in treatment failure in infants of mothers using only opiates. One study reported a significant reduction in days treatment and admission to the nursery for infants receiving morphine. One study reported a reduction in seizures, of borderline statistical significance, with the use of opiate. "There is conflicting evidence whether use of an opiate results in a reduction of treatment failure for infants with opiate withdrawal". Opiate versus diazepam (two studies): Meta-analysis found a significant reduction in treatment failure with the use of opiate (86 infants, RR 0.43, 95% CI 0.23, 0.80). Different opiates (six studies): there is insufficient data to determine safety or efficacy of any specific opiate compared to another opiate.

Review details	Review search parameters	Included studies	Results
Peadon (2009) **Study design:** Systematic review **Author objectives:** A systematic review of the literature to identify and evaluate the evidence for pharmacological and non-pharmacological interventions for children with FASD. **Funding source:** Drug and Alcohol Services, South Australia	**Years searched:** Inception - January 2009 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Children with FASD aged under 18 years. I - Pharmacological or non-pharmacological (behavioural, speech therapy, occupational therapy, physiotherapy, psychosocial and educational interventions and early intervention programs). C - No treatment, waiting list, usual therapy or placebo. O - Measures of physical and mental health, developmental status, cognitive status, quality of life, educational attainment, employment, contact with the law and substance abuse. S - Randomized controlled trials (RCT), quasi RCT, controlled trials and pre- and post-intervention studies. **Exclusion criteria:** NR.	**Number of included studies (total):** 12 **Study designs:** six RCT; one quasi-RCT; one controlled trial; four pre- and post- intervention studies **Country:** 7 USA, 3 Canada, 2 South Africa **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** By category: pharmacological interventions (2 studies - total n participants = 16), educational and learning strategies (7 studies - total n = 167), social skills and communication (2 studies - total n = 101), behavioural intervention (1 study - n = 20). By study: sample sizes ranged from 1 to 100. Three largest studies were 61, 65 and 100 participants; remainder had 32 participants or fewer. Follow-up length very short; appears to have been immediate post-intervention in most cases or a few weeks post-intervention. Follow-up rates were consequently good, over 90% in all applicable cases, including larger studies. **Quality of included studies as assessed by review authors:** "Methodological weaknesses were common, including small sample sizes; inadequate study design and short term follow up". "Pre- and post-assessments and retrospective reviews are frequently used rather than RCT and in the RCT we identified, the method of randomization, allocation concealment, and blinding are rarely described". "Significant methodological problems limit the extent to which conclusions can be drawn". **Limitations identified by review authors:** Poor methodological quality, inadequate study designs (not RCTs), very small sample sizes, inconsistency in how FASD is diagnosed, short follow up times.	Pharmacological interventions (2 studies, both RCT): "stimulant medication may decrease hyperactivity and impulsivity but not does improve attention". Educational and learning strategies (7 studies, of which 3 RCT): "Some evidence to suggest that virtual reality training, cognitive control therapy, language and literacy therapy, mathematics intervention and rehearsal training for memory may be beneficial strategies [e.g. to facilitate learning]". Social skills and communication (2 studies, of which 1 RCT): social skills training may improve social skills and behaviour at home but not at school. Behavioural intervention (1 study, RCT, n = 20): Attention Process Training may improve attention and non-verbal reasoning.

Review details	Review search parameters	Included studies	Results
Petrie (2007) **Study design:** Systematic review **Author objectives:** A systematic review of controlled studies of parenting programmes to prevent tobacco, alcohol or drug abuse in children <18. **Funding source:** The Hertfordshire Workforce Development Confederation	**Years searched:** Inception - October 2003 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Parents with children <18 years of age. I - Any parenting programme that aimed to prevent or reduce substance use among young people. For the purpose of the review, we defined 'parenting programmes' as any intervention involving parents which was designed to develop parenting skills, improve parent/child communication or enhance the effects of other interventions, e.g. classroom-based programmes. We included all types of learning medium, e.g. group discussion, distance learning by internet or post, video programme, individual coaching, etc. and any source of delivery, e.g. programmes provided by health visitors or school nurses, programmes run by charities or voluntary organizations, etc. C - No programme or other type of intervention such as school- or community-based programme. O - Objective or self-reported measure of at least one of the following: (i) smoking, drinking or drug use by child; (ii) intention of child to participate in smoking, drinking or using drugs; (iii) alcohol and drug-related risk behaviours in child such as criminal offending, anti-social behaviour, risky sexual behaviour and (iv) antecedent behaviours such as truancy, conduct disorders or poor academic performance. S - Randomized controlled trials (RCTs), controlled trials and controlled before/after (CBA) studies. **Exclusion criteria:** "Studies were excluded if they were designed to manage children with established drug, alcohol or smoking habits or focused on parents who were receiving treatment for their own addictions to alcohol or drugs". "Interventions where there was minimal contact with parents (e.g. leaflets only) were not considered to constitute a 'programme' and were therefore excluded".	**Number of included studies (total):** 20 **Study designs:** 16 RCTs, 3 CBAs, and 1 controlled trial. **Country:** Mostly United States, 1 Russia, 1 Australia, 1 Norway. **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample sizes ranged from 245 to 6,728 participants. Only 4 studies < 400 participants, half of studies had over 1,000 participants. Length of follow-up varied widely, ranging from 1 to 12 years. Follow-up over 80% in 9/16 RCTs (no study under 60%). Adequate follow-up in 3/4 non-RCTs. **Quality of included studies as assessed by review authors:** "The quality of the studies and nature of the interventions varied considerably, making assessment of the empirical literature difficult. In general, methodological quality of included studies was fair. However, only three reported adequate allocation concealment, in the rest it was unclear. Although poorly concealed trials may introduce selection bias and inflate treatment effect, all three trials with good allocation concealment showed significant positive effects. Other methodological problems included, inappropriate analysis for the unit of allocation which may overestimate significance of differences, high losses to follow-up, poor reporting of results and contamination." 7/20 studies fulfilled fewer than half of specified quality criteria (i.e., scores of 3/7 or below for RCT or 2/5 or below for non-RCT). **Limitations identified by review authors:** Heterogeneity of studies makes comparison difficult, mostly complex interventions not limited to parenting component so difficult to isolate effects, self-report rather than objective measures, and lack of generalisability due to US focus of studies.	"Five studies focused on alcohol, five on tobacco and the remainder on a combination of substance misuse behaviours". "Statistically significant self-reported reductions of alcohol use were found in six of 14 studies, of drugs in five of nine studies and tobacco in nine out of 13 studies. Three interventions reported increases of tobacco, drug and alcohol use". "The strongest evidence found in the review was based on work that had been undertaken with preteen and early adolescent children. Seven of the studies that were of good or fair quality, being well-designed and conducted RCTs, had focussed on this group. Each of these studies reports that the parenting programme evaluated led to a significant reduction in one or more of the outcome variables measured, in particular the use of alcohol, drugs or tobacco compared with controls". "The most effective appeared to be those that shared an emphasis on active parental involvement and on developing skills in social competence, self-regulation and parenting. However, more work is needed to investigate further the change processes involved in such interventions and their long-term effectiveness"

Review details	Review search parameters	Included studies	Results
Premji (2006) **Study design:** Systematic review **Author objectives:** A systematic review to identify research-based interventions for children and youth with a Fetal Alcohol Spectrum Disorder and areas for future study. **Funding source:** Alberta Centre for Child, Family and Community Research	**Years searched:** 1973-2007 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Up to 18 years, diagnosis or evidence of FASD or FAS. I - Target individual with FASD or caregiver/family. C - NR O - NR S - NR **Exclusion criteria:** Population: adults or prenatal; Intervention: No evidence of FAS, FASD or equivalent; no programme discussed.	**Number of included studies (total):** 3 **Study designs:** RCT n=2, quasi-experimental n=1 **Country:** USA, Canada, South Africa n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** n=26 children across 3 studies, 1 child excluded during the studies. "The sample size varied from 4 (Oesterheld et al. 1998) to 12 (Snyder et al. 1997)". **Quality of included studies as assessed by review authors:** "The study designs varied across studies and included pretest–posttest controlled intervention (Riley et al. 2003), randomized double-blind cross-over (Oesterheld et al. 1998), and modified, placebo-controlled, cross-over design (Snyder et al. 1997). All studies were described as randomized, although the method to generate the sequence of randomization was not described. [...] Although all studies were described as double-blind, only Snyder (Snyder et al. 1997) adequately described the concealment of treatment allocation for their double-blind study." "All studies reported only short-term outcomes". **Limitations identified by review authors:** Lack of evidence and of scientific rigour in studies.	"No significant differences were reported in Adnams and colleagues as cited in Riley et al. (2003), on neuropsychological tests or intelligence tests after implementation of a Cognitive Control Therapy programme. However, teachers anecdotally reported behavioural improvements following the intervention. Qualitative improvements with a trend towards functionality for children in the intervention group were noted in the therapists, teachers and school reports (Riley et al. 2003)". "In the study of Oesterheld and colleagues (1998), significant reductions in hyperactivity, as measured by behavioural checklists, Conners Parent Rating Scale-48 and Conners Teacher Rating Scale-39, were seen when children were administered methylphenidate versus either placebo or vitamin C. No significant differences were found on measures of attention. Snyder et al . (1997) also reported significant reductions in hyperactivity when the child was taking psychostimulant medication versus placebo. The Abbreviated Symptom Questionnaire-Parents was used to measure hyperactivity. There was no significant effect of medication on measures of attention (i.e. Vigilance Task) or impulsivity (i.e. short form of the Underlining Test)".

Review details	Review search parameters	Included studies	Results
Priest (2008a) **Study design:** Systematic review **Author objectives:** "To determine the effectiveness of interventions aiming to reduce exposure of children to ETS". **Funding source:** National Health & Medical Research Council, Australia. Murdoch Children's Research Institute, Australia. VicHealth (Victorian Health Promotion Foundation), Australia.	**Years searched:** start date NR - 2007; update of a 2001 review **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - People (parents and other family members, child care workers and teachers) involved with care and education of infants and young children (aged 0-12 years). I - All mechanisms for reduction of children's ETS exposure, and smoking prevention, cessation, and any other tobacco control programmes targeting the participants described above. These included smoke-free policies and legislation, health promotion, social-behavioural therapy, technology, and educational and clinical interventions. We included studies where the primary aim was to reduce children's exposure to ETS (thereby preventing adverse health outcomes), but where secondary outcomes included reduction or cessation of familial/parental/ carer smoking, or changes in infant and child health measures. We also included studies where the primary outcome was reduction or cessation of familial/ parental/ carer smoking resulting in reduced exposure for children. C - NR O - The primary outcome measures were children's exposure to tobacco smoke, child illness and health service utilisation, and the smoking behaviours of children's parents and carers. We included studies where the outcome was only parental or carer's smoking status. S - Controlled trials with or without random allocation. **Exclusion criteria:** "In this updated review we have not evaluated the effects and impacts of recent legislative changes on smoking and ETS exposure, as this will be addressed in a forthcoming review (Callinan 2006 [protocol])". "We excluded studies of uptake of smoking by minors".	**Number of included studies (total):** 36 **Study designs:** 30 studies classed as RCTs; 1 cluster-randomized controlled trial; 2 studies compared an intervention community with a control community; 1 study alternated intervention by birth month of the infant, and another alternated intervention by week of clinic attendance. 1 study alternated intervention by day of admission to postpartum ward. **Country:** 17 x USA, 2x Canada, 3x Australia, 2x UK, 1x Finland, 1x Japan, 1x Sweden, 1x German, 1x Netherlands, 1x Italy, 1x Norway, 4x China, 1x Turkey **Included studies relevant to our review:** 9 - Eight studies explicitly aimed to improve child health outcomes (Hughes 1991; Greenberg 1994; Armstrong 2000; Wilson 2001; Kimata 2004; Krieger 2005; Schonberger 2005; Wiggins 2005) and a ninth (Wahlgren 1997) measured child health outcomes although they were not a primary outcome variable. **Study designs:** 9 RCTs **Country:** 4x USA, 1x Canada, 1x Australia, 1x UK, 1x Netherlands, 1x Japan **Sample sizes and follow-up:** Sample sizes ranged from 87 to 933 participants, 3 studies had sample size < 100 participants, 1 study NR. 6 studies conducted a power calculation in the design of their studies, and one study explicitly reported that the statistical power of their study was limited due to small sample size. Follow-up 12 months or more post-intervention in 4 studies; 6-12 months post-intervention in 3 studies, and less than six months post-intervention in 2 studies. Retention rates not reported for all studies, reported for 6/9 studies. Over 80% retained in 3 studies, lowest reported retention rate 59% in one study. **Quality of included studies as assessed by review authors:** In four of the relevant studies, there appeared to be adequate concealment of group allocation. In the remainder, allocation concealment was either unclear or inadequate. **Limitations identified by review authors:** Reliability of parental self-report data, reductions in both groups regardless of whether allocated to intervention or control (possible reasons: effect of measurement, control condition greater effect than expected, external influences such as peer pressure to quit as a parent or introduction of bans), lack of 'no treatment' control groups.	"There is insufficient evidence of the effects on child health indicators of efforts to change child exposure to ETS." Four of the relevant studies are reported to have a significant intervention effect. However, the evidence with regard to child health outcomes is difficult to interpret, with positive effects found for some indicators but no significant differences found for other indicators. In several instances, positive effects in children where found even though their exposure to ETS (parental smoking) had not been affected. The review authors suggest that these improvements were due to other elements of the intervention (e.g. asthma education) rather than the smoking behaviour programme.

Review details	Review search parameters	Included studies	Results
Priest (2008b) **Study design:** Systematic review **Author objectives:** "To update a review of all controlled studies evaluating policy interventions organised through sporting settings to increase healthy behaviour (related to smoking, alcohol, healthy eating, sun protection, discrimination, safety and access)". **Funding source:** Victorian Health Promotion Foundation (VicHealth), Australia	**Years searched:** No date restrictions; searches for updated review 2004-2007, for previous review inception - 2004 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - People of all ages. I - Any policy intervention implemented through sporting organisations to instigate and/ or sustain healthy behaviour change, intention to change behaviour, or changes in attitudes, knowledge or awareness of healthy behaviour. Policies must address any of the following: smoking, alcohol, healthy eating, sun protection, access for disadvantaged groups, physical safety (not including injuries), and social and emotional health (e.g. anti-vilification, anti-discrimination, anti-gambling). C - NR O - Behaviour change; Intention to change behaviour; Change in attitudes, knowledge or awareness of healthy behaviour; and Changes in policies or policy presence. S - Randomised controlled trials (RCTs)/cluster RCTs, 'Quasi-randomised' trials, Controlled before and after studies Note, uncontrolled studies which met the other inclusion criteria were to be described and presented in an annex to the review. **Exclusion criteria:** Policies and practices surrounding sports injury prevention (such as padding for goal posts); and policies relating to the reduction of sports performance enhancement drugs and recreational drug use.	**Number of included studies (total):** 0 **Study designs:** NA **Country:** NA **Included studies relevant to our review:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** NA **Limitations identified by review authors:** NA	"The updated search identified no controlled studies that met the inclusion criteria. No uncontrolled studies, with pre- and post-test data, were identified in order to be included in an annex to this review."

Review details	Review search parameters	Included studies	Results
Rammohan (2011) **Study design:** Meta-analysis **Author objectives:** To assess the effectiveness of dram shop liability and the enhanced enforcement of overservice laws for preventing excessive alcohol consumption and related harms. **Funding source:** Centers for Disease Control and Prevention (CDC), USA	**Years searched:** Inception - Oct 2007 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Conducted in a country with a high-income economy. I - Dram shop liability or initiatives for enhanced enforcement of overservice regulations that could and did apply legal or administrative sanctions. C - No intervention in case of controlled trials. O - Outcomes related to excessive alcohol consumption or related harms, such as alcohol-impaired driving or alcohol-related motor vehicle crashes. S - Compare attributes of participants before and after the implementation of the intervention or compare a group receiving the intervention with a group not receiving it. **Exclusion criteria:** NR	**Number of included studies (total):** 11 **Study designs:** All studies but one were panel studies of U.S. States using econometric models to assess the effects of dram shop liability and other interventions on diverse outcomes. **Country:** USA **Included studies relevant to our review:** 4 **Study designs:** As above **Country:** USA **Sample sizes and follow-up:** NR. **Quality of included studies as assessed by review authors:** Of relevant studies, three were judged to have greatest design suitability. Two had good quality of execution, and one had fair quality of execution. Quality for one study NR. Note, studies with limited quality of execution were excluded. **Limitations identified by review authors:** Overlapping time periods and geographies (States of the USA).	In relation to young people: “Those that reported all-cause motor vehicle fatalities among underage drinkers all found reductions of between 2.2% and 13.0% “. In relation to all included studies: “Eleven studies assessed the association of state dram shop liability with various outcomes, including all-cause motor vehicle crash deaths, alcohol-related motor vehicle crash deaths (the most common outcome assessed in the studies reviewed), alcohol consumption, and other alcohol-related harms. There was a median reduction of 6.4% (range of values 3.7% to 11.3% reduction) in alcohol-related motor vehicle fatalities associated with the presence of dram shop liability in jurisdictions where premises are licensed. Other alcohol-related outcomes also showed a reduction”.

Review details	Review search parameters	Included studies	Results
Ranney (2006) **Study design:** Systematic review (including review of reviews) **Author objectives:** "Reviewed the evidence on (a) the effectiveness of community- and population-based interventions to prevent tobacco use and to increase consumer demand for and implementation of effective cessation interventions; (b) the impacts of smokeless tobacco marketing on smoking, use of those products, and population harm; and (c) the directions for future research". **Funding source:** Agency for Healthcare Research and Quality (AHRQ), Rockville, MD	**Years searched:** depended on research question - KQ 1: prevention 2000-2005; tobacco product restrictions 1980-2005; KQ 2 and KQ 3: 1999- 2005; KQ 4 and KQ 5: 1980-2005 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - KQ 1: Adolescents (13-18 years of age), young adults (18-24 years of age), and diverse populations KQ 2: Adolescents, young adults, adults (18 years of age and older), and diverse populations KQ 3: Adults and diverse populations KQ 4: Adolescents, young adults, and adults KQ 5: Adolescents, young adults, and adults with comorbidities and risk behaviors I - Not specified - interested in broad range of prevention and cessation strategies. C - NR. O - KQ 1: Reduced initiation of tobacco use KQ 2: Increased quit rates; greater numbers of smoking cessation participants (i.e., increased participation) KQ 3: Increased quit rates; change in provider behaviors concerning smoking cessation KQ 4: Increased use; increased substitution of smokeless tobacco for smoking; harm reduction KQ 5: Reduced initiation of tobacco use; increased quit rates S - Randomized controlled trials (RCTs); Nonrandomized controlled trials; and Observational studies: prospective and retrospective cohort studies, case-control studies, and cross-sectional studies. Original research studies that provide sufficient detail regarding methods and results to enable use and adjustment of the data and results; relevant outcomes must be able to be abstracted from data presented in the papers. Sample sizes must be appropriate for the study question addressed in the paper. RCTs: 30 or more participants, Observational studies and nonrandomized controlled trials: 100 or more participants. Study duration of more than 6 months. Study geography limited to Developed countries: United States, Canada, United Kingdom, Western Europe, Australia, and New Zealand. Primary studies were included to update existing systematic reviews. **Exclusion criteria:** Single case reports or small case series are excluded. We excluded articles that did not report outcomes related to our KQs or provide sufficient information to be abstracted. We also excluded all editorials, letters, and commentaries.	**Number of included studies (total):** 102 primary studies and reviews **Study designs:** Not reported in total **Country:** Not reported in total but according to inclusion criteria only developed countries. **Included studies relevant to our review:** 13 for KQ1; 3 for KQ2; 1 for KQ5; KQ 3 and KQ 4 not relevant to our review **Study designs:** KQ1: 12 RCT, 1 cross-sectional; KQ2 and KQ5 RCTs **Country:** All USA except for school based prevention, which included studies from the USA, Netherlands, Australia, Canada, Norway, and the United Kingdom **Sample sizes and follow-up:** 13 studies total for KQ1; Access restrictions (supply restrictions, minimum age, advertising) - 1 study - 3,831 youth in cross-sectional survey. Family based prevention - 1 study - 1,316 adolescent-parent pairs sampled from 48 contiguous US states - last follow up 12 months. School based prevention - 10 studies - Sample sizes ranged from 22 to 99 schools and 103 to 8,352 participants. In the within-year trials, follow-up assessments ranged from 6 months to 24 months. In the multiple-year trials, investigators collected follow-up measures at the end of the interventions in four trials and up to 6 months post-intervention in one trial. Targeted prevention /psychosocial treatment - 1 study - 103 cancer survivors. Baseline measures were similar across the two groups. Followed up at 6 and 12 months. 3 studies total for KQ2 (cessation) counselling support - 2 studies - in one study 402 adolescents followed up to 8 months post-baseline. In the other study 3,522 young adults and adults, followed up to 6 months. Family-directed cessation program - 1 study - 85 parent-adolescent pairs. Follow-up up to 12 months post intervention or drop out. 1 study KQ 5(prevention/cessation for Populations with Co-occurring Morbidities and Risk Behaviors) - motivational interviewing vs. brief advice - 1 study - The MI arm had 116 participants and the BA arm had 75 participants. Follow up at 1, 3, 6, 9, and 12 months. **Quality of included studies as assessed by review authors:** Assessed the internal validity of trials based on predefined criteria developed by the US Preventive Services Task Force (ratings are good, fair, or poor) and the National Health Service Centre for Reviews and Dissemination. Poor studies were excluded. 13 studies total for KQ1	KQ 1: Prevention - Access restrictions (supply restrictions, minimum age, advertising) - 1 study - no correlation with smoking behaviour "In the fully adjusted model, only two provisions were statistically significant and only one in the expected direction. Youth living in towns that ban free-standing displays were less likely to perceive tobacco as easy to purchase (adjusted odds ratio [AOR], 0.6; 95% confidence interval [CI], 0.5-0.9; P = 0.007). Counterintuitively, youth reported easy access in towns that required tobacco vendors to have a license (odds ratio [OR], 1.3; 95% CI, 1.1-1.5; P = 0.009). Overall, 37 percent believed that it was easy to buy cigarettes in their town. No associations were found between youth access ordinances and attempts to purchase or between ordinances and tobacco use. Individual factors associated with increased attempts to purchase were associated with being older (P < 0.01) and male (P = 0.004). Individual factors associated with tobacco use were being older, living with a smoker, and having a close friend who smokes (P < 0.0001)". - Family based prevention - 1 study - no significant effects at long term follow up. "Baseline data showed fewer non-Hispanic whites students in the Family Matters intervention than in controls. The effects of the intervention were present only among non-Hispanic white adolescents—a subset of the population (n = 791). Adolescents in the control group were more than 1.5 times as likely to smoke at the 3-month follow-up assessment than adolescents in the Family Matters intervention (OR, 1.59; P = 0.008, lower bound CI = 1.19 for a one-way test of significance). No significant effects were evident at the 12-month follow-up. The conceptual model underlying the Family Matters program was validated for non-Hispanic whites only." These two studies described by review authors as having "some success in reducing tobacco initiation among adolescents and young adults. Alone, they provided little conclusive evidence about such programs". - School based prevention - 10 studies - mixed evidence, lack of effects in the longer term - "Sufficient evidence was found for short-term effects (less than 2 years) of school-based prevention programs. Interventions implemented in a single school year or conducted over multiple school years produced mixed results in 10 school-based studies. Consistent with prior reviews, we found sufficient evidence to demonstrate that prevention measures conducted in schools have positive short-term effects but insufficient evidence for long-term effects". - Targeted prevention /psychosocial treatment - 1 study - no

Review details	Review search parameters	Included studies	Results
		- Access restrictions (supply restrictions, minimum age, advertising) - 1 study - "Fair" - Family based prevention - 1 study - "Fair" - School based prevention - 10 studies - 1 "Good", 9 "Fair" - Targeted prevention /psychosocial treatment - 1 study - "Fair" 3 studies total for KQ2 (cessation) - counselling support - 2 studies - both "Fair" - family-directed cessation program - 1 study - "Fair" 1 study KQ 5 (prevention/cessation for Populations with Co-occurring Morbidities and Risk Behaviors) - motivational interviewing vs. brief advice - 1 study - "fair" **Limitations identified by review authors:** inadequate randomization and concealment allocation, deficient study designs, refusal and attrition rates, construct validity problems, inconsistent terminology	effect on behaviours. "Intervention group had higher mean knowledge and perceived vulnerability scores and lower intention-to-use tobacco scores". "At 12 months, multivariate comparison of difference scores for patient smoking status (12-month scores minus baseline scores) found no differences (all were P > 0.10), indicating the intervention had no effect on smoking initiation." KQ2: Cessation - Counselling support - 2 studies - one study found no differences in abstinence between intervention and control although suggested dose-response relationship in that participants completing more counselling calls were more likely to report cessation (8-month OR = 1.54, 95% CI 1.15, 2.07, P < 0.007); the other study suggested higher 48 hours abstinence in two age categories (younger than 18 years of age and 18 to 25 years of age). "Three-month quit rates were 19.6 percent for persons 18 to 25 years of age who received telephone counselling and 9.3 percent for those who received self-help booklets only (P < 0.005)"; among older smokers the figures were 15.1 percent vs. 9.6 percent. - Family-directed cessation program - 1 study - "No statistically significant difference in tobacco use between control and treatment for baseline cigarette users". KQ 5: Prevention/cessation for Populations with Co-occurring Morbidities and Risk Behaviors - Motivational interviewing vs. brief advice - 1 study - no difference between two interventions arms. "The findings did not show higher quit attempts for those receiving MI than those receiving BA (mean quit attempts = 1.1 vs. 1.3, P = not significant [NS]). Seven-day point prevalence abstinence at 1, 6, and 12 months was not significantly different between the groups. The mean number of days for the longest quit attempt was 48.2 days for the MI group and 60.9 days for the BA group; however, this difference was not significant. Two findings were associated with significantly less smoking among adolescent psychiatric patients. Examination of covariates revealed that having an anxiety disorder increased the odds for quit attempts (AOR, 1.99; 95% CI, 1.08-3.71); in the hierarchical linear model, higher discharge self-efficacy scores were associated with less smoking during follow-up (b1 = -0.02, standard error = 0.007; P = 0.007). MI and BA were equally ineffective smoking cessation interventions for this population".

Review details	Review search parameters	Included studies	Results
Rice (2009) **Study design:** Systematic review **Author objectives:** The primary aim of this review was to examine the impact of price on cigarette smoking in young people aged 25 years or under. **Funding source:** Department of Health, UK	**Years searched:** Inception-2007 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - "Young people aged 25 or under were eligible. Studies involving participants of any age where results were presented separately for young people were also included". I - "Change in cigarette price and/or tax on cigarettes. Studies including interventions other than price and/or tax but where information on prices and/or tax was separately available were also included". C - NR O - "Any measure of behaviour related to cigarette smoking was of interest, including smoking initiation, participation and prevalence, cigarette consumption or demand (quantity smoked), and quitting". S - "All types of study design were eligible for inclusion". **Exclusion criteria:** Simulation studies, where the smoking responses to changes in price are not based on observed data	**Number of included studies (total):** 45 **Study designs:** Econometric analyses of observational survey data; forty-four studies utilised survey data and one used administrative data; most studies used cross sectional designs, some were repeated cross sectional and a few longitudinal **Country:** USA n=38; Canada n=3; USA + Canada n=1; Australia n=1; Sweden n=1; UK n=1 **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Most studies used survey data with > 10,000 participants; in some cases > 100,000 participants although reported sample sizes were not always limited to young people; only few studies < 1,000 participants. Sample size NR in some cases as referred to nr of states (not individuals). Follow up/ attrition NA in case of cross sectional studies and not summarised for remaining studies. **Quality of included studies as assessed by review authors:** The use of cross sectional survey designs using observational data limits the ability to attribute differences in smoking outcomes to price. "The evidence base is derived almost exclusively from the secondary analysis of observational data. In the absence of experimental evidence, the attribution of outcomes to policy instruments is sensitive both to the quality and reliability of the survey data and the empirical approach to modelling" "All studies included one or more of a standard set of controls (for example, gender, age, income, ethnicity), with the exception of one study that simply regressed outcome on price. Sixteen studies specified either individual policy variables or an index indicating clean indoor air regulations; twelve studies used individual variables or an index for restrictions on youth access to cigarettes, and ten studies had variables or an index representing other policies aimed at controlling cigarette consumption. Six studies conditioned on state level fixed effects in an effort to control for state level attitudes and policies towards cigarette use and two studies used a variable to indicate whether a state was a tobacco producing state". **Limitations identified by review authors:** Wide variation in sources of data and techniques used in analyses; lack of detail regarding surveys, price or tax data; representativeness of surveys; price data used weighted average price across all sales of cigarettes but this may not be the most relevant price to apply to studies of young people who tend to be more brand-conscious than older smokers; different definitions of smoking initiation; little consensus on what controls for covariates should be used; reliance on self-report data; lack of information regarding differential effects on different sub groups of young	PRICE ELASTICITIES: Smoking participation: "While there is fairly consistent evidence across studies of a negative effect of price on smoking participation, the magnitude of this effect is less clear. Better quality evidence from the two studies using longitudinal data suggest an elasticity of around -0.18 (range: -0.240 to -0.112), implying a 10% increase in price is associated with between a 1.1% and 2.4% decrease in smoking participation. Evidence from the eight studies using repeated cross-sectional data suggest a more elastic response of around -0.49 (range -0.77 to -0.126) implying a decrease of between 1.3% and 7.7% for a 10% increase in price. Across all studies reporting participation results, the mean is -0.548. The mean, however, masks large variability in estimates with a range of -1.43 to 0.082". Smoking prevalence: "Limited evidence was found on the price elasticity of smoking prevalence. The three available studies suggest that price had a negative impact on smoking with elasticity estimates ranging from -4.74 to -0.131. Evidence from the strongest study however, suggests a modest response to price (-0.131 using the local level dataset and -0.243 using the state level dataset) for school-aged children, implying a 10% increase in price is associated with between a 1.3% and 2.4% decrease in smoking prevalence". Quantity smoked: Level of smoking for smokers - "There is consistent evidence of a negative effect of price on the quantity of cigarettes smoked by smokers. The evidence however, is less consistent on the magnitude of this effect. The single study using longitudinal data suggests an elasticity of -0.731, implying a 10% increase in price is associated with a 7.3% decrease in the quantity of cigarettes smoked. Evidence from the five studies using repeated cross-sectional data suggests a more inelastic effect of around -0.327 (range -0.567 to -0.022), implying between a 0 and 6% decrease in quantity smoked for a 10% increase in price. The mean response across all studies is similar at -0.337; however this mean masks greater variability in estimates with a range between -0.87 and 0.02". Quantity smoked: Total level of smoking - "Price was found to be negatively related to the total quantity of cigarettes smoked. The single study using longitudinal data suggests an elasticity of -0.844, implying a 10% increase in price is associated with an 8.4% decrease in the total quantity of cigarettes smoked. Evidence from the five studies using repeated cross-sectional data suggests a more inelastic effect of around -0.511 (range -0.652 to -0.331), implying between a 3.3 and 6.5% decrease in quantity smoked for a 10% increase in price. The mean response

Review details	Review search parameters	Included studies	Results
		people.	across all studies is similar at -0.671. This mean, however, masks greater variability in estimates with a range between -1.7 and 0.86". Smoking initiation: "Evidence from studies using longitudinal data suggests that price is effective in deterring young people from starting to smoke. Three of the four studies find an elastic response to price (range: -0.91 to -0.65) implying a 10% increase in price is associated with between a 6.5 and 9% decrease in smoking initiation. A single study which included dummy variables for each state to control for state level anti-smoking sentiment and other policies related to attitudes towards smoking, found a lower response to price, suggesting a reduction of 1% in smoking initiation for a 10% price increase. The results suggest that appropriate controls for state-level anti-smoking sentiment are crucial in determining price effects". Smoking cessation: "Based on the two available studies using longitudinal data price appears to be effective in encouraging young people to quit smoking. Evidence from one study on the price elasticity for a single quit suggests a 10% increase in price is associated with a near 12% increase in the probability of a quit. A second study, recognising that young people who stop may return to smoking and make subsequent quits, modelled multiple quit attempts. The findings suggest that quitting is less responsive to price with the corresponding elasticity implying a 3.7% increase in the probability of quitting for a 10% increase in price. Across the two studies, while price appears effective in encouraging quit attempts it is less effective in sustaining quits among young people". Differential effects for sub groups of young people: "Results based on sub-group analysis should be treated with some caution. The findings relating to gender are the most consistent, followed by those for age, but the number of studies reporting results for sub-groups is small". - Smoking participation: "There was little evidence to suggest a difference in price response by age of young person, while results across gender suggest males are more responsive to price than females. Evidence from two studies suggests that black ethnic groups are more price responsive than whites". - Prevalence: "A single study found evidence of a gradient across age groups with older females being more responsive to price than younger females. In the same study white females were found to be more responsive to price than black females" - Quantity smoked - Level of smoking for smokers: "Studies based on surveys of older rather than younger young people suggest a greater response to price for the former. Evidence from two studies suggests that price may have a greater impact

Review details	Review search parameters	Included studies	Results
			on males than on females. Two studies provide evidence to suggest that white ethnic groups are responsive to price but black ethnic groups are not. There was some evidence to suggest that cross-border shopping reduced the price responsiveness of young people". - Quantity smoked - total level of smoking: "There was some evidence to suggest that this price response is greater for older rather than younger young people and that males are more responsive than females. Conflicting evidence on the price responsiveness across ethnic group was found. Mixed evidence of the effect of cross-border purchasing of cigarettes on the price responsiveness of young people was found." - Initiation - "There was limited evidence of a greater response to price for younger than for older young people, obtained from respondent recall of the age of starting to smoke and is likely to be subject to reporting bias. In relation to gender, evidence from two studies suggests that males are more responsive to price than females". TAX ELASTICITIES: "Evidence from the three studies reporting tax elasticity estimates suggests mixed findings in relation to the impact of tax on smoking. Results based on a longitudinal survey suggest no tax effect on smoking participation (0.01 and 0.05 with other policy variables). This contrasts with evidence estimated from three cross-sectional surveys suggesting a negative impact of tax on participation, ranging from -0.07 to -0.22 implying a 10% increase in tax is associated with between a 0.7% and 2.2% decrease in smoking participation".

Review details	Review search parameters	Included studies	Results
Russell (2011) **Study design:** Systematic review **Author objectives:** To examine the effectiveness of Graduated driver licensing (GDL) in reducing crash rates among young drivers. **Funding source:** Alberta Research Centre, Edmonton Alberta Dept of Public Health, Alberta Heritage Foundation for Medical Research, Population and Public Health Alberta	**Years searched:** 1970-2009 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Teenage drivers (under 20). I - Studies that evaluated GDL programs with a minimum of 3 stages that allow the driver to progress from lower to higher risk driving conditions. C - NR O - Crash rates, secondary outcomes included injury rates, fatalities, hospitalisation, alcohol crashes, night time crashes, and traffic offences. S - Studies were included in the review if: 1) they compared outcomes immediately pre and post-implementation of a GDL program; 2) comparisons were made between similar or adjacent jurisdictions with and without a GDL program; or 3) both. **Exclusion criteria:** programs that did not include an intermediate stage of unsupervised driving with conditions	**Number of included studies (total):** 34 **Study designs:** "Six studies used both internal and external control groups to control for factors beyond the GDL program that may have affected outcomes. Two studies used only external control groups. Five studies had no control groups. The remaining studies used internal control groups only". **Country:** Unclear **Included studies relevant to our review:** 6 (Agent 2001, Boase 1998, Bouchard 2000, Frith 1992, Foss 2001, Shope 2001a) **Study designs:** All studies used an internal control group (e.g., general population), but none of these studies used an external control group (e.g., similar region without GDL). **Country:** Canada n=2, New Zealand N=1, USA n=3 **Sample sizes and follow-up:** Across the six relevant studies, the first measurement took place 1-6 years pre-intervention (i.e., before implementation of the program) and the final measurement 1-4 years post-intervention. **Quality of included studies as assessed by review authors:** All studies were ecological studies and used data obtained from routinely collected sources. **Limitations identified by review authors:** Studies were unable to control for confounding factors; relatively short periods of follow up.	Alcohol related crashes: four studies reported between 16 and 39% reduction in alcohol related crashes in the first year post GDL with similar outcomes for two and three years post GDL. One study reported a 15% increase in the first year, with 0% and 4% decrease by the 3rd year. One study reported a 12% reduction in injuries/fatalities relating to alcohol crashes 2 years post-GDL.

Review details	Review search parameters	Included studies	Results
Shoptaw (2009b) **Study design:** Systematic review **Author objectives:** To evaluate risks, benefits, costs of treatments for amphetamine psychosis. **Funding source:** Department of Mental Health and Substance Dependence, World Health Organization, Switzerland	**Years searched:** 1966-2007 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - People with amphetamine psychosis diagnosed by any set of criteria. If other substance abusing participants included, studies could only be included if data for amphetamine psychosis patients is reported separately and more than half of patients were amphetamine users. I - Placebo, any pharmacological treatment, any psychosocial treatment, any combined pharmacological and psychosocial treatment. C - NR O - Response to treatment, side effects, incidence of antiparkinson drugs, discontinuation rate, death, global status, psychotic symptoms, adherence to treatment, health status, functioning, patient satisfaction, economic outcomes. S - RCT and CCT. **Exclusion criteria:** NR	**Number of included studies (total):** 1 **Study designs:** 1 RCT **Country:** NR, likely to be Thailand **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample n=58. n=12 patients did not complete the study due to being lost at follow up or treatment side effects. **Quality of included studies as assessed by review authors:** "The study was double-blinded and reported using a simple randomisation but did not specify its allocation concealment approach. The methodological quality was not used as a criterion for inclusion". **Limitations identified by review authors:** Only one trial eligible for inclusion.	"The results show that both olanzapine and haloperidol at clinically relevant doses were efficacious in resolving psychotic symptoms, with the olanzapine condition showing significantly greater safety and tolerability than the haloperidol control as measured by frequency and severity of extrapyramidal symptoms". "Leelahanaj (2005) reported that olanzapine and haloperidol delivered at clinically relevant doses both showed similar efficacy in resolving psychotic symptoms (93% and 79%, respectively), with olanzapine showing significantly greater safety and tolerability than haloperidol as measured by frequency and severity of extrapyramidal symptoms". "Overall, olanzapine was significantly favoured over haloperidol as measured using changes in extrapyramidal symptoms".

Review details	Review search parameters	Included studies	Results
Smith (2009) **Study design:** Systematic review **Author objectives:** To evaluate the effectiveness of pharmacologic interventions in pregnant women enrolled in alcohol treatment programs for improving birth and neonatal outcomes, maternal abstinence and treatment retention. **Funding source:** NR	**Years searched:** 1806-2008 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Pregnant or post-partum women receiving alcohol treatment; I - Pharmacological treatments for alcohol dependence C - Other pharmacological treatment alone or with psychosocial treatment, placebo, no intervention, psychosocial intervention alone. O - Primary outcomes - Birth outcomes: 1. birth weight. 2. gestational age at birth. 3. placental abruption. 4. foetal alcohol syndrome (FAS). 5. admission to and length of time spent in hospital (i.e. neonatal intensive care unit [NICU]). Secondary outcomes - Abstinence outcomes: 1. alcohol abuse measured by: maternal toxicology, maternal self-report, newborn toxicology and any biological markers provided in the original studies. Retention outcomes 1. treatment attendance as measured by the proportion or count of treatment visits attended. 2. treatment attendance as measured by the proportion or count of individuals who complete treatment. 3. prenatal care attendance as measured by the proportion or count of prenatal visit attended. S - RCT or quasi-random design. **Exclusion criteria:** studies that did not report alcohol use levels, participants who were illicit drug users and received treatment for this drug use	**Number of included studies (total):** 0 **Study designs:** NA **Country:** NA **Included studies relevant to our review:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** NA **Limitations identified by review authors:** Study design most common reason for exclusion.	NA

Review details	Review search parameters	Included studies	Results
Soole (2008) **Study design:** Systematic review with Meta-analysis **Author objectives:** (1) Do school-based drug prevention programs reduce rates of illicit drug use? (2) What features are characteristic of effective programmes? and (3) do these effective program characteristics differ from those identified as effective in reviews of school-based drug prevention of licit substance use (such as alcohol and tobacco)? **Funding source:** NR	**Years searched:** 1990-2008 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - NR I - Any drug prevention intervention with a school-based component. C - NR O - At least one illegal drug use outcome measure. S - Pre-test-post-test controlled design. **Exclusion criteria:** NR	**Number of included studies (total):** 58 of which 12 included in meta-analysis **Study designs:** NR **Country:** NR **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Attrition was higher amongst males, racial minorities and those reporting higher baseline drug use. 12 studies in the meta-analyses included short-term impact on cannabis use (n=2430), long-term impact on cannabis use (n=8992), short-term impact on all drugs (n=2438), long-term impact on all drugs (n=8875), other illicit drugs short and long term (n=NR). Sample size, follow up and attrition details NR. **Quality of included studies as assessed by review authors:** Quality assessed through a methodological rigour scale from 1-5 with 5 being the most methodologically sound. 23 studies were given 5.0 points, 16 were rated between 3.0 and 4.5 and 22 were rated between 0.5 and 2.0. **Limitations identified by review authors:** Studies examined drug use at a time when few use drugs; the review only examined use, not other outcomes.	Findings from the narrative review: - One study evaluating an affective education program reported no significant impact on drug use. - Results from six studies evaluating resistance skills programs suggest that these interventions can be effective at reducing cannabis initiation among non-users, and this approach is more effective with girls than boys. - Out of eight studies evaluating generic skills training, two studies reported significant reductions in drug use and one study found significant reductions in cannabis use and there were no significant findings in the other five studies. Results suggest that impacts may be greater amongst low-risk young people. - Eleven studies evaluated social influence programs with around half reporting significant program impacts on cannabis use including initiation and overall use. Evidence suggested that programs were only effective in the short-term and amongst young people at lower risk. - 25 studies evaluated competency enhancement interventions with mixed results on drug use. Results suggested that peer delivered competency enhancement interventions may be more effective at reducing cannabis use compared to teacher-led interventions. - Five studies involved system wide change programs and reported mixed results. These interventions may be more effective amongst lower-risk young people. - Two studies of interventions that included recreational activities and theatre and drama based education reported negative effects on cannabis use. Findings from the meta analysis: impact of programs on cannabis use provided significant short- and long-term results in a positive direction (short term d. = .136, 95% CI = .035–.237, p<.01; long term d. = .219, 95% CI = .071–.367, p < .01). Higher quality studies provided higher effect sizes at long-term follow up, but not at short-term follow up. Impact of programs on all drug use provided significant short- and long-term results in a positive direction also (short term d=.141, 95% CI = .042–.24,p=< .01; long-term d=.208, 95% CI = .087–.329,p=< .001). Higher quality studies provided higher effect sizes at short- and long-term follow up than lower quality studies. For other illicit drugs including cocaine and amphetamine, meta analysis did not indicate any significant program impact at short- or long-term follow up.

Review details	Review search parameters	Included studies	Results
Stade (2009) **Study design:** Systematic review **Author objectives:** "To determine the effectiveness of psychological and educational interventions to reduce alcohol consumption during pregnancy in pregnant women or women planning pregnancy". **Funding source:** National Institute for Health Research, UK. Department of Pediatrics, St Michael's Hospital, Toronto, Canada.	**Years searched:** Inception - November 2007 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Pregnant women or women planning pregnancy who consume alcohol. Alcohol consumption would be demonstrated by women's self-report or by urine or blood screening for alcohol. I - Psychological and/or educational interventions during pregnancy or 12 months before conception for women planning pregnancy. Psychological interventions include cognitive-behavioural therapy, brief psychodynamic psychotherapy, interpersonal psychotherapy and supportive counselling/therapy. Educational interventions include brief educational counselling sessions, structured long-term educational programs with motivational enhancement interventions (greater than five sessions), individual-focused educational strategies, family-focused programs, professional group education interventions and self-help group educational interventions. C - No intervention; 'routine care'; or compared to different educational and/or psychological interventions O - Primary outcomes 1. Abstinence from alcohol during pregnancy; 2. Reduction of alcohol consumption during pregnancy to less than seven standard drinks a week. Secondary outcomes: Maternal 1. Duration of abstinence or reduced intake during pregnancy, and postnatally; 2. Adverse effects in the mother such as delirium tremors, depression, anxiety, withdrawal from prenatal care; 3. Benefits to the mother such as reduction in psychological distress, depression, anxiety, improvement in quality of life. Neonatal: 1. Diagnosis of fetal alcohol syndrome, partial fetal alcohol syndrome, alcohol-related neurodevelopmental disorder (ARND); 2. Admission to neonatal intensive care unit/special care nurseries, paediatric hospital unit; 3. Weight, length (height) and head circumference; 4. Signs of neurological sequelae such as poor suck, irritability, increased muscle tone; 5. birth defects associated with prenatal exposure to alcohol with or without a diagnosis of fetal alcohol syndrome such as cardiac anomalies, urogenital defects, skeletal abnormalities, absence or partial absence of the corpus callosum; 6. Placement in foster or adoptive care. S - Randomized controlled trials. **Exclusion criteria:** "This review does not focus on pregnant women participating in treatment programmes for alcohol abuse or dependence; this group is included in a related Cochrane Review (Lui 2008)".	**Number of included studies (total):** 4 **Study designs:** RCTs **Country:** All USA **Included studies relevant to our review:** 2 **Study designs:** RCTs - one individually randomised, one cluster-randomised (by clinic) **Country:** USA **Sample sizes and follow-up:** Sample sizes were 250 and 345. In the larger study, 245 women were followed to third trimester (71%). In the smaller study, few women lost to follow up (participants were paid to complete assessments). In the largest study, attrition 24.6% in the control group and 27.8% in the experimental group. Those lost to follow up were different in terms of race and education compared to those remaining part of the sample. **Quality of included studies as assessed by review authors:** Sequence generation was adequate in one study, the remaining studies did not provide information on this. It was not clear in any of the studies how randomization was achieved and whether there was adequate allocation concealment. Blinding participants and care providers to group allocation for educational and psychological interventions is generally not feasible. One study reports that outcome assessors were not aware of group allocation. Levels of attrition were low (less than 10%) in one study but high in the other (26% attrition, and those lost to follow up were reported as being different in several respects from those remaining in the study). A problem with all of the included studies was that the description of the intervention and comparison conditions and the methods of assessment were not sufficient to allow for study replication. For both studies, review authors commented that results were difficult to interpret and so risk of bias was unclear on several dimensions. **Limitations identified by review authors:** Reliance on self-report data, alcohol consumption decreased in intervention and control groups likely due to external factors (e.g. life style changes as part of pregnancy independently of intervention), control condition (assessment) may have already produced reduction.	"Only limited information was provided on the effects of the interventions on the health and wellbeing of mothers and babies". "O'Connor (2007) reported that, after adjustment, the intervention was associated with slightly higher birth weights for babies, whose mothers were heavier consumers of alcohol at the initial assessment, but this pattern was reversed for women who initially consumed low amounts of alcohol; for low initial alcohol consumers, babies in the control group were slightly heavier at birth. There was a similar pattern of results for birth length. This study also reported on miscarriages and stillbirth rates in the two groups; there was one miscarriage in the intervention group and two miscarriages and two stillbirths in the control group (these results relate only to those women available at follow up in a study with high rates of attrition)". "Chang (1999) reported that there were no significant differences between groups in terms of birth weights or one- and five-minute Apgar scores".

Review details	Review search parameters	Included studies	Results
Stead (2006) **Study design:** Meta-analysis **Author objectives:** "The objective of this review was to assess the effects of Nicobrevin on long term smoking cessation". **Funding source:** External: NHS Research and Development Programme, UK. Internal: Department of Primary Health Care, Oxford University, UK. National School for Health Research School for Primary Care Research, UK.	**Years searched:** start year NR – January 2009 **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - Smokers wishing to quit. I - Treatment with Nicobrevin (a 28-day course of tablets). C - Placebo or an alternative therapeutic control. O - Smoking cessation with at least six months follow up. S - Randomized trials. **Exclusion criteria:** NR	**Number of included studies (total):** 0 **Study designs:** NA **Country:** NA **Included studies relevant to our review:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** NA **Limitations identified by review authors:** NA	"We identified no trials meeting the full inclusion criteria including long-term follow up. [...] Only two trials of Nicobrevin have been published and neither had long term follow up".

Review details	Review search parameters	Included studies	Results
Stead (2012) **Study design:** Meta-analysis **Author objectives:** "The objective of this review was to assess the effects of lobeline on long term smoking cessation". **Funding source:** External: NHS National Institute for Health Research, NIHR Evaluation Trials and Studies Coordinating Centre, UK. Internal: Department of Primary Health Care, University of Oxford, UK. National School for Health Research School for Primary Care Research, UK.	**Years searched:** start year NR - December 2011 **Language restrictions:** unclear **Inclusion criteria (according to PICOS):** P - Any smokers. I - Treatment with any form of lobeline. C - Placebo or an alternative therapeutic control. O - Smoking cessation, assessed at follow-up at least 6 months from start of treatment. S - Randomized studies. **Exclusion criteria:** NR	**Number of included studies (total):** 0 **Study designs:** NA **Country:** NA **Included studies relevant to our review:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** In relation to identified trials - "Lack of long term follow-up was a reason for exclusion in all cases. A large number of the studies were not controlled. Where comparison was made with a placebo control or alternative treatment it was rarely clear that an appropriate method of randomization had been used". **Limitations identified by review authors:** NA	"We identified no trials meeting the full inclusion criteria including long term follow-up. One large trial failed to detect any effect on short-term abstinence"; participants' age for this trial unclear.

Review details	Review search parameters	Included studies	Results
Terplan (2007) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To evaluate the effectiveness of psychosocial interventions in pregnant women enrolled in illicit drug treatment programs on birth and neonatal outcomes, on attendance and retention in treatment, as well as on maternal and neonatal drug abstinence. In short, do psychosocial interventions translate into less illicit drug use, greater abstinence, better birth outcomes, or greater clinic attendance?". **Funding source:** NR	**Years searched:** 1982/1996 – 2006 (varied by database) **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Pregnant women enrolled in illicit drug treatment programs. Women on methadone are also included. I - Psychosocial interventions. C - Pharmacological interventions or placebo or non-intervention or another psychosocial intervention for treating illicit drug use in pregnancy. O - Birth and neonatal outcomes, attendance and retention in treatment, maternal and neonatal drug abstinence. Primary outcomes: (1) Obstetrical outcomes: -birth weight -gestational age at birth -placental abruption (2) Neonatal outcomes: -neonatal abstinence syndrome (NAS) -admission to and length of time spent in neonatal intensive care unit (NICU) (3) Use of primary substance abuse measured by: -maternal toxicology -maternal self-report -newborn toxicology -any biological marker eventually provided in original studies Secondary outcomes: (4) Retention in treatment measured as number of subjects retained at the end of the study, or (5) Retention in treatment measured as number of subjects retained at the end of one month or greater (6) Treatment attendance (7) Prenatal care attendance S - Randomised controlled trials. **Exclusion criteria:** NR	**Number of included studies (total):** 9 **Study designs:** RCTs **Country:** 8x USA, 1 x Australia **Included studies relevant to our review:** 2 **Study designs:** RCTs **Country:** USA **Sample sizes and follow-up:** Sample sizes were very small – 12 and 14 women. In one study, "unable to measure retention as not reported, however, 20 patients randomised and only 14 analysed. 6 dropouts (unclear from which randomised groups) -- one for delivery, one for sedative detox, and 4 for noncompliance with group therapy". No details for other study. **Quality of included studies as assessed by review authors:** Randomisation: method not reported. None of the trials adequately described any methods of allocation concealment. Blindness: not possible. Demographic data between groups similar. **Limitations identified by review authors:** Obstetrical and neonatal outcomes NR, small number of studies, small sample sizes.	(1) Obstetrical outcomes – "Only two studies reported obstetrical outcomes (Carroll 1995, Elk 1998).Given the difference in both the outcome reported as well as method of reporting, statistical comparison of the results between the two studies was impossible. Carroll (1995) compared median gestational age at delivery as well as median birth weight between the control and intervention groups. Women in the intervention group had slightly longer gestations (40 versus 38 weeks) as well as heavier infants (3,348 gm versus 2,951 gm). Null hypothesis testing was not provided. Elk (1998) described adverse events between the intervention and the control group. None of the individuals in the intervention group had an adverse event, whereas 80% of the control group did: two had preterm labor and two delivered pre-term (prior to 37 weeks). This difference, however, was not statistically significant (p=0.22). Neither study had performed an a priori power calculation and, given the small sample sizes, it is unlikely that either were powered to detect differences in obstetrical or neonatal outcomes between the groups". (2) Neonatal outcomes – "Only one study reported neonatal outcomes. Elk (1998) stated that there was no difference in length of hospital detoxification for the newborns between the intervention and control groups, although mean days or any other summary statistic were not reported". "Birth outcomes were reported in only two studies (Carroll 1995; Elk 1998). Both studies showed a benefit with contingency management treatment; however neither performed a power calculation. Given that these two studies had a combined total of 26 participants, one can safely surmise that neither was powered to detect any difference in obstetrical outcomes. There is also inconsistency between the studies in regards to which obstetrical outcomes were measured. Carroll (1995) measured both mean gestational age and mean birth weight. Elk (1998), on the other hand, counted 'adverse perinatal events', a category that included both preterm delivery, a serious obstetrical event, as well as preterm labor, a clinical event of far less significance".

Review details	Review search parameters	Included studies	Results
Thomas (2007) **Study design:** Systematic review **Author objectives:** To assess the effectiveness of interventions to help family members to strengthen non-smoking attitudes and promote non-smoking by children and other family members. **Funding source:** None	**Years searched:** Searched up to 2007 **Language restrictions:** Unclear **Inclusion criteria (according to PICOS):** P - Young people aged 5-18 and family members. The search strategy chosen also located studies that follow these participants beyond age 18. I - All types of family-based interventions with children and family members intended to deter the use of tobacco. C - Varied, including non-family based classroom intervention, no intervention. O - Primary outcome was smoking status in baseline abstainers. Secondary outcomes were smoking in parents and other family members, and child smoking attitudes. S - RCT; Country: USA, Norway, Australia, Finland, India, UK. **Exclusion criteria:** Outcomes: do not assess baseline smoking status in the pre-test survey; measure attitudes and intentions to smoke, and do not measure smoking behaviour; Intervention: do not allow separation of the effects of the family intervention from those of other co-interventions; the primary focus is cessation rather than prevention; Study design: do not follow up participants for at least six months from the start of the intervention.	**Number of included studies (total):** 22 **Study designs:** 22 RCT **Country:** 16 USA, 2 Norway, and one each in Australia, Finland, India and the UK. **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Follow up varied: one year (eight trials), twenty months (one trial); two years (two trials); three years (six trials); and one trial each at 6, 7, 15, and 27 to 29 years. **Quality of included studies as assessed by review authors:** 6 trials were rated as having minimal bias; 10 trials low risk of bias; 6 trials as having multiple biases. **Limitations identified by review authors:** None	Comparison 1: Are family interventions better than no intervention or 'usual care'? For the high quality studies, four RCTs found more baseline non-smokers remained non-smokers with a family intervention compared to no intervention control. Meta analysis was not conducted but for individual studies: i) OR = 2.16; 95% confidence interval (CI) 1.39 to 3.37; P < 0.001; ii) OR 0.48; 95% CI 0.39 to 0.59; iii) no OR reported; iv) 0.55; 95% CI 0.34 to 0.88; P = 0.013). Four RCTs found no difference. Comparison 2: Are family interventions better than school interventions? One high quality RCT found a significant effect of family vs. school. Strengthening Families average age to initiation was 55 months, compared to 31.8 months in preparing for drug free years, and 31.0 months in no intervention control ($p < 0.05$). Secondary analysis suggested that Strengthening Families delayed initiation longer that the school programme. 4 RCTs found no differences for this comparison. Comparison 3: Are combined family plus school interventions better than school interventions? Seven RCTs found no incremental effects of family + schools on smoking initiation. Comparison 4: Are family interventions which target tobacco better than family interventions which do not target tobacco? One RCT found that a specialist family tobacco intervention did not produce significant effects vs. a family intervention targeting gun, bicycle helmet and seat belt safety (OR 0.97; 95% CI 0.79 to 1.20; P = 0.78). Comparison 5: Are family plus peer interventions to reduce risks better than peer interventions to reduce risks? 2 RCTs suggested that family interventions were more effective than peer based approaches ($p < 0.001$; $p < 0.01$).

Review details	Review search parameters	Included studies	Results
Thomas (2008) **Study design:** Systematic review **Author objectives:** "To assess the effects of population tobacco control interventions on social inequalities in smoking". **Funding source:** Department of Health Policy Research Programme (PRP)	**Years searched:** Inception - January 2006. **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Smokers, people at risk of taking up smoking, people at risk of exposure to environmental tobacco smoke (ETS), or the general population were included. Studies needed to report socio-demographic or socio-economic data about the participants to be eligible. I - Any population-level tobacco control intervention. C - NR. O - Changes in smoking behaviour (such as prevalence or consumption), indirect measures of tobacco consumption (such as illegal sales to minors or quantity of smuggled cigarettes), exposure to ETS, intermediate outcomes (such as changes in knowledge or attitudes), process measures (such as participation rates), implementation measures (such as enforcement of policy changes) and any health outcomes (such as mental health or wellbeing), as well as adverse or unintended effects. S - Primary studies of any study design. **Exclusion criteria:** "We excluded studies of interventions conducted exclusively within closed settings (such as psychiatric or addiction treatment facilities, detention centres or prisons) because this review was concerned with effects in the wider population. We also excluded studies that assessed the effects of restrictions on sales to minors (youths) by only reporting test purchases as outcomes." "We did not include interventions whose main aim was to strengthen the capacity of individuals to stop smoking or to resist taking up smoking, even if these interventions were applied to whole groups or populations (for example, mass media health education campaigns)".	**Number of included studies (total):** 84 **Study designs:** Dominated by econometric analyses (half of the included studies) modelling the effects of the prices of tobacco products. "Stronger designs tended to have been used for studies of the effects of restrictions on smoking in workplaces, public places and schools and restrictions on sales to minors, of which three were cluster randomised controlled trials […] studies of other types of intervention were predominantly cross-sectional or retrospective". **Country:** "Over half of the studies having been conducted in the United States and just six in the United Kingdom". **Included studies relevant to our review:** 20 **Study designs:** Econometric models **Country:** All USA **Sample sizes and follow-up:** NR **Quality of included studies as assessed by review authors:** Used bespoke quality checklist adapted from existing tools. Quality assessment only in relation to all included studies (not reported separately for relevant ones). Studies of restrictions on sales to minors were the most likely to fulfil the criteria for quality of execution, with one study meeting all six criteria and two studies meeting five. Two studies of restrictions on smoking in schools met four criteria. The remaining studies in this review met between zero and three of the criteria. **Limitations identified by review authors:** Possibility of publication bias.	"All 20 studies restricted to adolescents or college students found that these groups were sensitive to price and concluded that increasing the price of tobacco products would reduce youth smoking. The only study comparing children within different age groups found that those aged 17 or 18-years-old were more sensitive to price increases than those aged between 13 and 16-years-old. Four studies found that boys aged 13–18 were more sensitive to price than girls. All three studies which examined effects by ethnicity found that black or Hispanic adolescents were more affected by price increases than their white counterparts. No studies provided evidence about possible differential effects by parental income, occupation or educational level".

Review details	Review search parameters	Included studies	Results
Thomas (2011) **Study design:** Systematic review with Meta-analysis **Author objectives:** To assess the effectiveness of mentoring to prevent adolescent alcohol/drug use. **Funding source:** None	**Years searched:** 1806-2011 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Adolescents aged 13-18. I - All mentoring programmes whose goal was to deter alcohol and drug use, irrespective of theoretical intervention. C - No intervention, or standard health education, alcohol or drug education, individual counselling or support group. O - Abstinence; monthly use; reduction in use; alcohol related aggression. S - RCT or cluster RCT; Country: international. **Exclusion criteria:** Aged 19+	**Number of included studies (total):** 4 **Study designs:** 4 RCT **Country:** 4 USA **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Alcohol use at +18 month follow up ES calculation: treatment 583, control 533; alcohol use at +6 months: treatment 76, control 118; monthly alcohol use at +6 months: treatment 76, control 122; drug use initiation ES at +18 months: treatment 487, control 472; cannabis use +6 months: treatment 76, control 118; monthly cannabis use + 6 months: treatment 76, control 122; last year drug use + 12 months: treatment 96, control 61. **Quality of included studies as assessed by review authors:** Reviewers noted that most assessments of bias were unclear and it was not clear whether this was due to poor methodology or poor reporting. **Limitations identified by review authors:** None.	Alcohol use: relative risk for mentoring compared to no intervention was 0.71, p = 0.005 > 12 months follow up. 6 month follow up non significant compared to no intervention and a school curriculum. Drug use: inconsistent findings. 1 study out of 3 reported less use of drugs at follow up. No effects on cannabis use, and no additive effect of delivering mentoring + prevention curriculum. Substance use (including alcohol): no difference at 3 year follow up for use in the previous 2 months.

Review details	Review search parameters	Included studies	Results
Thomas (2013) **Study design:** Systematic review with Meta-analysis **Author objectives:** To determine whether school smoking interventions prevent youth from starting smoking. The secondary objective was to determine which interventions were most effective. **Funding source:** NIHR (UK)	**Years searched:** 1966-2012 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Children (aged 5 to 12) and adolescents (aged 13 to 18) in school settings. I - School-based programmes that had as one of their goals; preventing tobacco use, irrespective of theoretical intervention. C - (Tobacco) education as normal, no intervention. O - Smoking initiation at a minimum of + 6 months. S - RCT **Exclusion criteria:** NR	**Number of included studies (total):** 134 **Study designs:** 1 RCT, 133 Cluster RCT **Country:** Prevention cohorts: 26 USA, 4 ND, 4 UK, 3 CA, 3 DE, 3 IT, 2 China, 2 ES, 1 AU, 1 AUS, 1 BE, 1 CR, 1 DE, 1 FI, 1 GR, 1 PT, 1 S Africa, 1 SW, 1 THAI; change in behaviour: 12 USA, 2 India, 1 CA; point prevalence cohorts: 12 USA, 2 AUS, 2 ND, 2 UK, 1 FR, 1 DE, 1 India, 1 Mexico, 1 NO, 1 RO, 1 SW **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** In total, 134 studies involving 428,293 participants. Prevention of initiation cohort included 49 studies (N = 142,447); Change in Smoking Behaviour over time included 15 studies (N = 45,555). Some studies provided data for more than 1 outcome. **Quality of included studies as assessed by review authors:** Low risk of reporting bias; unclear risk of selection and detection bias; low risk of attrition bias. **Limitations identified by review authors:** Bias could have been introduced due to the high variability of outcome measures; bias may also have been introduced by certain assumptions made by the study authors in data extraction and subsequent statistical analysis.	Prevention of initiation: Pooled results at follow-up at one year or less found no overall effect of intervention curricula versus control (odds ratio (OR) 0.94, 95%confidence interval (CI) 0.85 to 1.05). In a subgroup analysis, the combined social competence and social influences curricula (six RCTs) showed a statistically significant effect in preventing the onset of smoking (OR 0.49, 95% CI 0.28 to 0.87; seven arms); whereas significant effects were not detected in programmes involving information only (OR 0.12, 95% CI 0.00 to 14.87; one study), social influences only (OR 1.00, 95% CI 0.88 to 1.13; 25 studies), or multimodal interventions (OR 0.89, 95% CI 0.73 to 1.08; five studies). In contrast, pooled results at longest follow-up showed an overall significant effect favouring the intervention (OR 0.88, 95% CI 0.82 to 0.96). Subgroup analyses detected significant effects in programmes with social competence curricula (OR 0.52, 95% CI 0.30 to 0.88), and the combined social competence and social influences curricula (OR 0.50, 95% CI 0.28 to 0.87), but not in those programmes with information only, social influence only, and multimodal programmes. Change in smoking behaviour over time: At one year or less there was a small but statistically significant effect favouring controls (standardised mean difference (SMD) 0.04, 95%CI 0.02 to 0.06). For follow-up longer than one year there was a statistically non significant effect (SMD 0.02, 95% CI -0.00 to 0.02). Point prevalence of smoking: heterogeneity too high to warrant data pooling.

Review details	Review search parameters	Included studies	Results
Turnbull (2012) **Study design:** Systematic review with Meta-analysis **Author objectives:** "To determine the effects of home visits during pregnancy and/or after birth for women with a drug or alcohol problem". **Funding source:** NR	**Years searched:** Inception - November 2011 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - Pregnant or postpartum women with a drug or alcohol problem. Trials enrolling high-risk women of whom more than 50% were reported to use drugs or alcohol were also eligible. I - Home visits. C - No home visits or a different type of home visiting intervention. O - Vast range of outcomes including Drug and alcohol related outcomes, Pregnancy and puerperium outcomes, Infant/child outcomes, and Psychosocial outcomes. Note - Neonatal abstinence syndrome listed under drug and alcohol related outcomes (not infant/child outcomes). S - Random or quasi methods of participant allocation, and where the unit of allocation was the individual or a group (cluster-randomised studies). **Exclusion criteria:** "Crossover trials were not eligible".	**Number of included studies (total):** 7 **Study designs:** 6 RCT, 1 Quasi-randomised controlled trial **Country:** Not consistently reported. Appears to have been USA and Australia. **Included studies relevant to our review:** 6 (all except Dakof 2003 reported child related outcomes) **Study designs:** 5 RCT, 1 Quasi-randomised controlled trial **Country:** Not consistently reported. Appears to have been USA and Australia. **Sample sizes and follow-up:** All studies were relatively small. Sample sizes ranged from 60 to 227 woman-infant pairs. Attrition highlighted as major weakness by review authors. Two of relevant studies had less than 10% losses post randomisation. "Bartu (2006) reported 9.5% post-randomisation losses of survivors." "Quinlivan (2000) reported only one (0.7%) mother-infant pair who withdrew from study post randomisation. A further 11 (8%) infants had adverse neonatal outcomes and did not contribute to knowledge outcomes. Reported post randomisation losses for other studies were: Black (1994) 28%, Butz (1998) 43% for self-reported drug and alcohol use data and 51% for behavioural outcomes, Grant (1996) 27%, and Schuler (2000) 25% at six months and 54% at 18 months". **Quality of included studies as assessed by review authors:** Cochrane Risk of bias. One of the relevant studies (Quinlivan 2000) reported adequate allocation concealment and randomisation procedures and had less than 10% losses post-randomisation. The other studies had substantial methodological limitations, particularly with large losses to follow-up. Bartu (2006) did not number envelopes so allocation concealment was unclear, and there were baseline differences for risk factors between study groups. It was judged to be at high risk of bias. No study was able to be blinded due to the nature of the intervention. **Limitations identified by review authors:** Heterogeneity of interventions and outcomes, large losses to follow-up, no study providing a major antenatal intervention, low intensity of home visits.	"No study provided a major antenatal intervention so risk of adverse pregnancy/neonatal outcomes is not reported". "Three studies (Black 1994; Grant 1996; Schuler 2000) used the Bayley Scales of Infant Development to assess infant development. Grant (1996) reported no significant difference in incidence of cognitive delay at three years using the Bayley MDI (RR 1.36, 95% CI 0.41 to 4.45), but an increase in incidence of psychomotor delay using the Bayley PDI of borderline statistical significance (RR 3.26, 95% CI 1.00, 10.59; risk difference (RD) 0.27, 95% CI 0.03 to 0.51). Meta-analysis of three studies (Black 1994; Grant 1996; Schuler 2000) found no significant differences in cognitive development (Bayley MDI: FE mean difference (MD) 2.89, 95%CI -1.17 to 6.95) or psychomotor development (Bayley PDI: FE MD 3.14, 95% CI -0.03 to 6.32). Limiting the meta-analysis to the two studies providing a developmental intervention as a component of the home visiting program (Black 1994; Schuler 2000) there was no significant difference in cognitive development (Bayley MDI: FE MD 3.13, 95% CI -1.46 to 7.72) but a significant improvement in psychomotor development (Bayley PDI: FE MD 4.14, 95% CI 0.79 to 7.50)". "Three studies (Black 1994;Butz 1998; Schuler 2000) incorporated developmental interventions as part of the home visiting program, all using the Carolina Preschool Curriculum and Hawaii Early Learning Program. Effects on longer-term development were inconsistent, with Black (1994) reporting no difference in the Bayley MDI or PDI at 18 months and Schuler (2000) reporting significant improvements in the Bayley PDI for infants receiving intervention". "Butz (1998) reported a reduction in behavioural problems of borderline statistical significance (RR 0.46, 95% CI 0.21 to 1.01; RD -0.17, 95% CI -0.33 to -0.01). Butz (1998) also reported no significant difference in the Child Behavioural Checklist total score at 18 months (MD -3.10, 95% CI -7.26 to 1.06). Meta-analysis of two studies (Bartu 2006; Quinlivan 2000) found no significant difference in infant death (FE RR 0.70, 95% CI 0.12 to 4.16). No study reported measures of school success including the need for special educational classes, retention in grade, competence in reading, writing, mathematics and general knowledge. No study reported self-esteem, career aspiration, truancy or school completion. Long-term outcomes including teenage pregnancy, unemployment, not married, criminal behaviour, welfare assistance and suicide were not reported".

Review details	Review search parameters	Included studies	Results
Vaughn (2004) **Study design:** Meta-analysis **Author objectives:** Assessment of outcomes of controlled evaluations of adolescent substance abuse treatments. **Funding source:** NR	**Years searched:** 1989-2002 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Adolescent substance users. I - Psychosocial interventions. C - NR O - Substance use. S - 'Controlled evaluations'. **Exclusion criteria:** i) Interventions targeting adults were excluded unless studies of mixed groups of adults and adolescents could allow specific determinations as to the effectiveness of treatment outcomes for adolescent subjects. ii) Pharmacological therapies excluded if drugs were not administered as part of an integrated treatment protocol combining medications with one or more psycho-social interventions.	**Number of included studies (total):** 15 **Study designs:** 13 RCT; 2 quasi experimental **Country:** NR **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** Sample sizes ranged from 22 to 426 (M = 128.5, SD = 103.8). Adequate power with adequate sample size (12 studies). Follow-up less than 6 months (7 studies), follow-up 6 to 11 months (3 studies), follow-up 12 months or longer (5 studies). **Quality of included studies as assessed by review authors:** The reviewers noted that in general the quality of the studies was high, with a mean score of 12, SD1.9 (max. 16). **Limitations identified by review authors:** Modest number of evaluations reviewed, publication and search bias, some methodological critiques were not part of the authors' assessment tool, generalisability as several criminal justice populations.	Treatment gains occurring immediately following treatment were often not maintained at follow-up. Post-treatment effect sizes ranged from an increase in substance use of .51 (medium, non-beneficial effect) for coping skills training to a substantial reduction in substance use of –1.25 (large) for behavioural therapy. At follow-up, effect sizes ranged from .39 (medium, non-beneficial effect for cognitive behavioural treatment, to large reductions in substance use for both cognitive-behavioural group treatment and multidimensional family therapy of –.87 and –.86, respectively.

Review details	Review search parameters	Included studies	Results
Villanti (2010) **Study design:** Systematic review **Author objectives:** Systematic review of smoking cessation interventions for young adults (18-24). **Funding source:** Maryland Cigarette Restitution Fund Research Grant to the Johns Hopkins Medical Institutions (FY 10).	**Years searched:** Database start date -2009 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Aged 18-24 living in USA. I - Behavioural or pharmacologic interventions delivered at the individual or small-group level and communication interventions delivered to larger groups. C - No intervention, waiting list control or treatment as usual O - Smoking cessation or abstinence with a minimum follow-up period of 1 month. S - Randomised and non-randomised studies; country: USA **Exclusion criteria:** Case studies and interventions conducted through high schools, targeting pregnant women, and primarily focused on the adult population were excluded from this review. Interventions focusing on smokeless tobacco cessation or smoking prevention rather than smoking cessation were excluded, unless they measured effects on smoking cessation separately.	**Number of included studies (total):** 14 **Study designs:** 12 RCT; 2 quasi experimental studies **Country:** USA **Included studies relevant to our review:** Same as above **Sample sizes and follow-up:** The initial sample sizes of these studies ranged from 42 to 33,215; and final sample size ranged from 33-25,000. Follow up ranged from 1-12 months. Retention ranged from 52% at 3 months to 99.5 at 1 month. The majority of studies reported retention rates > 75%. "Five studies retained more than 90% of participants, three reported 75% to 90% retention, and the remaining six reported 50% to 75% retention at last follow-up". **Quality of included studies as assessed by review authors:** All studies subject to some degree of bias such as incomplete detail on randomisation or treatment allocation bias. Randomised studies were free of selective outcome reporting, non-randomised studies were not. Funding sources reported for 10/14 studies. Most study populations were matched at baseline. Five studies used unbiased outcome assessment (e.g. cotinine). **Limitations identified by review authors:** Great variability in reviewed study quality; "all of the significant effects were observed for self-reported outcomes".	Randomised studies reporting period abstinence: Self report - 48hr abstinence OR = 2.39 (1.34, 4.25; at 1-3 months) to 3.25 (1.34, 7.85; at 4-6 months) both significant (1 study). 7 day abstinence OR = 0.75 (0.25,2.28; 1-3 months) to 2.79 (2.47, 3.16; 10-12 months). Biochemically verified: 7 day abstinence OR = 1.44 (0.75, 2.75; 10-12 months) to 1.92 (0.35, 10.52; 4-6 months) both non-significant. Self reported 30 day abstinence 0.99 (0.62-1.58; 1-3 months) to 2.27 (1.55, 3.32; 7-9 months), latter significant. Biochemically verified 30-day abstinence OR = 2.61 (0.97, 6.98; 1-3 months) non significant. Four studies had positive significant effects. "Only two interventions had effects beyond 6 months. One [additional] study showed promise for 30-day smoking abstinence in the short term and one improved 48-hour abstinence from smoking among young adults […] The remaining ten interventions had no effect on smoking cessation in this group, although pooled results from two studies support young adult interventions based on social cognitive theory". "The most promising studies point to the need for proactive recruitment of young adult smokers and personalization of the intervention content to meet the specific interests of the participant. Three of the promising interventions identified in this review were brief with extended support via telephone quitline, telephone counselling, web resources, and e-mail".

Review details	Review search parameters	Included studies	Results
Whitworth (2009) **Study design:** Systematic review **Author objectives:** "To assess the effectiveness of routine pre-pregnancy health promotion for improving pregnancy outcomes when compared with no prepregnancy care or usual care". **Funding source:** External: National Institute for Health Research, UK. Internal: The University of Liverpool, UK.	**Years searched:** start date NR - February 2009 **Language restrictions:** Any language included **Inclusion criteria (according to PICOS):** P - All women of childbearing age rather than those in high-risk groups. We include interventions which target all women of childbearing age, but which happen to include women from high-risk groups. I - Health promotion interventions which aim to identify and modify risk factors before pregnancy. C - NR O - Primary outcomes: 1. Perinatal death. 2. Small-for-gestational age. 3. Extremely preterm birth (defined as birth < 28 weeks' gestation). 4. Maternal death. Secondary outcomes - Pregnancy outcomes 1. Reported maternal behavioural change: smoking, diet, alcohol or drug use. 2. Development of antenatal complications. 3. Preterm birth (defined as birth < 37 weeks' gestation). 4. Spontaneous miscarriage. 5. Therapeutic abortion. 6. Pregnancy within one year of intervention. 7. Mode of birth. Infant outcomes: 1. Parameters of birth asphyxia. 2. Neonatal intensive care unit admission. 3. Birth weight < 2500 g. 4. Respiratory distress syndrome. 5. Congenital anomaly. Measures of maternal satisfaction and anxiety 1. Woman not satisfied with care. 2. Women's preferences for care. 3. Maternal anxiety (measured on validated scales or visual analogue scales). Costs 1. Costs associated with pre-pregnancy health promotion versus standard care (including follow-up visits and tests). 2. Number of antenatal visits. 3. Number of antenatal admissions to hospital. S - Randomised trials and quasi-randomised trials. **Exclusion criteria:** "We have excluded trials where interventions are aimed specifically at women with established medical, obstetric or genetic risks or already receiving treatment as part of programmes for high-risk groups (e.g. women identified as having serious alcohol or substance abuse problems)".	**Number of included studies (total):** 4 **Study designs:** RCT **Country:** 2 USA, 1 Australia, 1 NR (likely USA) **Included studies relevant to our review:** 1 (Lumley 2006) **Study designs:** RCT **Country:** Australia **Sample sizes and follow-up:** "1579 women randomised. 176 became ineligible before the start of the trial. Of the remaining 1403 women there was further attrition (44%). 364 (26%) women were lost to follow up and 253 (18%) did not become pregnant during the study period. For the 786 women included in analyses there were low levels of missing data". "In the study by Lumley (2006), women who did not become pregnant in the follow-up period were not included in the analyses and there were further losses to follow up for other reasons (34.2% of the sample randomised were lost to follow up and we do not know how many of these women did or did not become pregnant; further, of those women available at follow up 18% did not become pregnant and were not eligible to experience pregnancy outcomes). Overall, half of the women randomised were not followed up. Although missing data were balanced across groups, this level of attrition makes interpretation of results very difficult". **Quality of included studies as assessed by review authors:** Cochrane Risk of bias. "A source of bias in the Lumley (2006) trial was that data included in the analyses were for those women who became pregnant in the study period (786 women of 1579 randomised); it is possible that women who become pregnant are different in a number of respects from those that do not, and that the intervention may have had a different effect on those women that did or did not become pregnant." "We carried out a sensitivity for the dichotomous pregnancy outcomes reported in the Lumley (2006) study. We included all women that were available to follow up in the study denominators so that both women that did and did not become pregnant were included. Findings were very similar to those in the analysis, which included only those women who became pregnant." **Limitations identified by review authors:** Lack of data on outcomes of interest, questions concerning generalisability of results, losses to follow-up.	Only one of the included studies followed women through pregnancy and reported on pregnancy outcome (Lumley 2006). "Births where babies were small-for-gestational age (< 10th percentile) were not significantly different between groups (risk ratio (RR) 1.30, 95% confidence interval (CI) 0.83 to 2.04). There were four extremely preterm births (babies born at less than 28 weeks' gestation) in the intervention group compared with none in the control group, but the difference between groups was not statistically significance (RR 9.02, 95% CI 0.49 to 167.03). No data were available by randomisation group for the primary outcomes of perinatal or maternal death". "The rate of preterm births (less than 37 weeks) was lower in the control than in the intervention group, but results were not significant (RR 1.42, 95% CI 0.77 to 2.59). There were no significant differences in rates of congenital anomalies or birth weight less than 2500 g. Babies in the intervention group were, on average, 97 g lighter than those in the control group and this difference was significant (mean difference -97.00, 95% CI -168.05 to -25.95), but may be partly explained by the non-significant increase in preterm births in the intervention group". "This finding needs to be interpreted with caution as pregnancy outcome data were available for only half of the women randomised." "It is not clear why the intervention seemed to be associated with negative outcomes in the Australian study (Lumley 2006). The authors propose a number of possible explanations: the intervention may have increased stress in mothers which led to increased preterm birth, or the intervention meant that more babies with anomalies or with poor placentation were sustained longer in utero, leading to fewer miscarriages but more very preterm births in the intervention arm (although data on spontaneous miscarriages before 20 weeks were not reported). On the other hand, it is possible that the differences in outcomes between groups relating to prematurity and birth weight (which are likely to be related) occurred by chance or were due to some other explanation not considered by the authors."

Review details	Review search parameters	Included studies	Results
Williams (2007) **Study design:** Systematic review **Author objectives:** "To systematically review evidence of the effectiveness of counselling people of any age in primary care settings about occupant restraints or alcohol-related driving to prevent injuries". **Funding source:** Agency for Healthcare Research and Quality (AHRQ)	**Years searched:** Several different searches - 2002 to September 2005 (database search conducted to update existing reviews); another search reported as 1966 - Sept 2005 **Language restrictions:** English language only **Inclusion criteria (according to PICOS):** P - Patients of any age, conducted in the United States or other similarly developed countries (note - unselected primary care patients, see exclusion criteria). I - Behavioral counselling interventions targeting restraint use (including safety seats, booster seats, seat belts, correct use, and seat location) or alcohol-impaired driving or riding. Evaluated interventions needed to be feasible to conduct in primary care or referral from primary care. C - NR O - Correct use of age and weight appropriate restraints, driving or riding when driver is under the influence of alcohol, morbidity and/or mortality from motor vehicle occupant injuries, adverse effects. S - Randomized, controlled trials (RCTs); controlled clinical trials (CCTs); or comparative observational research studies **Exclusion criteria:** P - Selective population not normally seen in primary care (e.g., patients recruited from emergency department or other specialty setting who are injured or intoxicated and do not represent a general patient population). I - Study does not evaluate a behavioral counselling intervention targeting restraint use or alcohol-impaired driving or riding with alcohol-impaired drivers. Intervention not done in primary care, not feasible for primary care, or not widely available for primary care referral. C – NR O - Does not report designated outcomes S - Does not meet U.S. Preventive Services Task Force criteria for quality (i.e., studies rated as having poor quality were excluded). Editorials, letters, non–systematic reviews, non–comparative studies, case–control studies. Country: Study not conducted in a country with United Nations human development index similar to U.S. population	**Number of included studies (total):** 17 **Study designs:** 9 RCTs and 8 CCTs **Country:** NR **Included studies relevant to our review:** 0 **Study designs:** NA **Country:** NA **Sample sizes and follow-up:** NA **Quality of included studies as assessed by review authors:** NA **Limitations identified by review authors:** NR	"We found no research addressing the effect of behavioral counselling interventions delivered to unselected patients in primary care to reduce alcohol-related driving or riding with an impaired driver". "Key question 1: Do primary care behavioral counselling interventions for children, adolescents, and adults to increase the correct use of age- and weight-appropriate restraints or reduce driving/riding with drivers under the influence of alcohol reduce morbidity and/or mortality from motor vehicle occupant injuries?" - "We found no study that reported health outcomes of counselling interventions targeting the use of booster seats or safety belts for older children, adolescents, or adults or of interventions targeting alcohol-related driving for any age group". "Key question 2: Do primary care behavioral counselling interventions for children, adolescents, and adults lead to increased correct use of age- and weight-appropriate restraints?" - Question not relevant to this review. "Key question 3: Do primary care behavioral counselling interventions for children, adolescents, and adults reduce driving/riding with drivers under the influence of alcohol?" - "Our searches found no studies of primary care interventions evaluating behavioral counselling in general populations to reduce driving while under the influence of alcohol or riding with drivers who are under the influence of alcohol". "Key question 4: What are the adverse effects of counselling children, adolescents, and adults to correctly use age- and weight-appropriate restraints and reduce driving/riding with drivers under the influence of alcohol?" - "Our searches found no studies of adverse effects of counselling to use age- and weight-appropriate restraints or reduced driving while under the influence of alcohol or riding with drivers who are under the influence of alcohol".

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