EXECUTIVE SUMMARY

Community-based interventions for the reduction of substance misuse among vulnerable and disadvantaged young people

Background

Young people aged between 16 and 24 years show the highest prevalence of drug use in the UK. Within this group, those vulnerable groups of young people report higher levels of drug use than their non-vulnerable peers and account for a disproportionate percentage of drug users. Government policy has set targets to reduce use of all Class A drugs and the frequency of use of any illicit drugs among all young people under the age of 25, especially by the most vulnerable. The National Institute for Health and Clinical Excellence (NICE) has been asked by the Department of Health to develop public health intervention guidance on the most effective and cost-effective community-based interventions for the reduction of substance misuse in vulnerable and disadvantaged young people.

Objectives

- To review the evidence of effectiveness of community-based interventions at reducing substance misuse among vulnerable and disadvantaged young people.
- To review the evidence of effectiveness of community-based interventions at reducing the risk factors among vulnerable and disadvantaged young people that may affect their propensity to misuse substances.

Methods

Selection criteria
Literature included systematic reviews, randomised controlled trials, controlled non-randomised trials, controlled before and after studies and before and after studies of
selective or indicated community-based interventions that aimed to prevent or delay the initiation of substance use among vulnerable and disadvantaged young people, or which aimed to reduce or stop their substance use. These included such intervention approaches as programmed and infused school curricula, school and community environmental change, individual and group counselling, peer support, inclusionary/diversionary activities, skills training, motivational interviewing, community mobilisation, and case management. Primary outcomes extracted from studies were changes in the number of participants who use substances, changes in the use or frequency of substance misuse or changes in the time before initiation of substance use. In addition a range of secondary outcomes were also extracted, such as substance-related knowledge and attitudes (including skills); family functioning and parenting outcomes; educational achievement and engagement; psychopathology and behavioural outcomes.

**Data sources**

The following databases were searched; ASSIA, CINAHL, Cochrane CENTRAL, Cochrane database of systematic reviews, DARE, EMBASE, ERIC, Medline, PsychINFO, and Sociological abstracts. Studies considered for inclusion had to be published between 1990 and April 2006, and editorials, non-systematic reviews, and letters were excluded.

**Data extraction and quality assessment**

Two reviewers independently screened electronic records, extracted data and assessed study quality using specially designed forms. Study quality was assessed using the NICE quality assessment checklists and each study was assigned a quality rating of ++ (best quality), + or – (poorest quality). See NICE (2006). Methods for development of NICE public health guidance. Version 1.

**Data synthesis**

Owing to the wide scope of the overarching research question, and the heterogeneity in interventions, target populations, follow up, and outcomes, an overall meta-

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1 Defined as: those micro-interventions or small-scale programmes delivered in community settings that seek to elicit changes in the risk behaviour of the targeted population. Universal interventions or programmes targeting the entire population were excluded, as were studies that were focused on preventing or reducing adverse physiological and psychological affects of substance use. See: Potvin L, Richard L (2001). Evaluating community health promotion programmes. In: Evaluation in health promotion: principles and perspectives. WHO regional publications. European Series 92:214

analysis was not considered to be appropriate. Full data for each study is presented in detailed evidence tables (see Appendix 4) and summary tables within the findings sections. Results are presented by vulnerable or disadvantaged population group: general at risk (young people with multiple risk factors), black and minority ethnic populations, young people in families with substance using members, young substance users, young people with behavioural and aggressive problems, young offenders, school dropouts, truants and underachievers and other populations (including high sensation seekers, the homeless, children of divorce, institutionalised youth, abused females and latchkey students). As the majority of studies were conducted outside the UK, evidence statements were assigned an Applicability Rating in order to provide an indication of the relevance of the finding for UK settings: A, Likely to be applicable across a broad range of settings and populations; B, Likely to be applicable across a broad range of settings and populations, assuming appropriately adapted; C, Applicable only to populations or settings included in the studies, and broader applicability is uncertain; D, Applicable only to settings or populations included in the studies.

Results

A total of 222 studies met the inclusion criteria. Of these, 14 were systematic reviews (SRs), 103 were randomised controlled trials (RCT), 52 were controlled non-randomised trials (CNRT), 18 were controlled before and after studies (CBA) and 35 were before and after studies (BA).

Young people with multiple risk factors (general at risk)

A total of 4 systematic reviews and 96 primary studies evaluated community-based interventions (defined as those interventions that provided support based within a community setting) which targeted a range of risk factors for the reduction of substance misuse in young people with multiple risk factors. A wide range of community-based interventions (including agency based (non) statutory services) were identified including: youth programmes; case management interventions; employment skills programmes; counselling and therapy-based programmes; community mobilisation programmes; family therapy-based interventions (including parental and whole family approaches); multicomponent interventions and school-
based interventions (comprising both educational/skills-based interventions and counselling and therapy-based interventions).

**Comparison of interventions delivered in different settings**

One systematic review and five primary studies compared the effectiveness of interventions for preventing, delaying, or reducing substance use in vulnerable or disadvantaged young people across different settings.

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<th>Evidence Statement 1</th>
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<tr>
<td>There is evidence from one SR ++ to suggest that multicomponent community-based approaches are more effective for high-risk youth at preventing, delaying, or reducing drug use than school and community projects alone. Compared with low risk youth, this population may respond more favourably to comprehensive interventions targeting alcohol, cannabis, tobacco, and generic substance use (Streke, 2004). Applicability Rating B.</td>
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<th>Evidence Statement 2</th>
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<td>There is evidence from five CNRT - of large multi-site evaluations of community based interventions targeting high-risk youth (comprising behavioural skills programmes, informational focused programmes, recreational focused programmes, and affective programmes) conducted in either Switzerland or the USA to suggest that there are no overall effects of these programmes on use of illicit drugs, tobacco or alcohol in the immediate to long term (Hermann et al., 2002; Hulser et al., 2005; Sambrano et al., 2005; Springer et al., 2002a; Springer et al., 2002b). Applicability Rating B.</td>
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<th>Evidence Statement 3</th>
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<td>There is evidence from two CNRT – of a multi-site evaluation of community-based interventions targeting high-risk youth (comprising behavioural skills programmes, informational focused programmes, recreational focused programmes, and affective programmes) conducted in Switzerland (2 CNRT -) to suggest that these types of programmes have no overall effects on mental health outcomes in the short to long term (Hulser et al., 2005a; Hulser et al., 2005b). Applicability Rating B.</td>
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Community-based interventions
Community based interventions were defined by one systematic review as programmes delivered outside of schools that worked with young people in their own social, familial, and healthcare environments.

Evidence Statement 4
There is insufficient evidence from one SR ++ to determine whether family, educational or multi-component community interventions \textit{per se} are effective in reducing drug use behaviour in vulnerable or disadvantaged young people (Gates et al., 2006).

Youth programmes
Community-based youth programmes were defined as programmes delivered outside of school that sought to engage young people at-risk of substance use in alternative activities. A total of 10 primary studies were identified.

Evidence Statement 5
There is inconsistent evidence from 4 CNRT – about the effectiveness of community-based youth programmes for young people at-risk of substance use in reducing substance use outcomes:

5.1 There is evidence from three CNRT – to suggest that community-based youth programmes for young people at-risk of substance use can reduce the use of illicit drugs, cannabis, and tobacco in the short to long term (Baker et al., 1995; Beamer et al., 1991; St Pierre et al., 1992). However 1 CNRT – suggested that a community-based youth programme increased last month use of a variety of substances, particularly amongst girls. Applicability Rating C.

Evidence Statement 6
There is evidence from two CNRT – to suggest that educational and skills focused interventions delivered in out of school youth work settings may produce short to long-term increases in drug related knowledge and attitudes (Lam et al., 2005; St Pierre et al). Applicability Rating C.
Evidence Statement 7.1
There is evidence from one CNRT – to suggest that after school programmes for high-risk youth can produce long-term reductions in serious and minor delinquent behaviours (Baker et al., 1995). Applicability Rating C.

Evidence statement 7.2
There is evidence from one CBA + to suggest that skills training delivered through residential summer camps has little effect on behavioural indicators of resilience (Grayson, 2001). Applicability Rating C.

Case management interventions
Case management interventions were defined as interventions that involved case workers or other specialist health professionals working individually with young people and/or their families in order to reduce risk factors related to substance use. Three RCTs were identified.

Evidence Statement 8
There is evidence from three RCTs (1 + and 2 -) to suggest that a community based case management approach (Creating Lasting Connections) has no medium- to long-term effects on substance use (Halmi & Golik-Gruber, 2002; Johnson et al., 1996; Johnson et al., 1998). Applicability Rating C.

Evidence Statement 9
There is evidence from three RCTs (1 + and 2 -) to suggest that a community-based, case management intervention (Creating Lasting Connections) can produce a short to medium term increase in substance use knowledge but have little effect on family management relating to substance use (Halmi & Golik-Gruber, 2002; Johnson et al., 1996; Johnson et al., 1998). Applicability Rating C.

Evidence Statement 10.1
There is evidence from two RCTs (1 + and 1 -) to suggest that a community-based, case management intervention for youth and their parents (Creating Lasting Connections) has no effect on family functioning (Halmi & Golik-Gruber, 2002; Johnson et al., 1998). Applicability Rating C.
Evidence statement 10.2
There is evidence from one RCT + to suggest that a community-based, family case management intervention can increase positive parenting skills in families with young children considered at risk (Baydar et al., 2003). Applicability Rating B.

Employment skills programmes
Community-based employment skills programmes included interventions that targeted factors related to employment and training, such as those that provided access to employment and vocational training. One RCT was identified.

Evidence Statement 11
There is evidence from one RCT + to suggest that a comprehensive employment programme (comprising outreach and admissions; basic education; vocational training; residential living; health care and education; counselling; and job placement assistance) is not effective in reducing substance use in the long term (Schochet et al 2001). Applicability Rating B.

Evidence Statement 12
There is evidence from one RCT + to suggest that a comprehensive employment programme can have long-term positive effects on participation in employment and training, arrest and conviction rates, and reduce the amount of time spent in jail (Schochet et al., 2004). Applicability Rating B

Community-based counselling and therapy
Three primary studies (one RCT, one CNRT and one BA) assessed the effectiveness of community-based counselling and therapy interventions.

Evidence Statement 13
There is insufficient evidence to determine whether individual counselling is effective in reducing substance use in the long term in young people with multiple vulnerabilities.
Evidence Statement 14.1
There is evidence from one RCT + to suggest that motivational interviewing with video feedback has no effect upon delinquent, home or school behaviours and decreased perception of control over the consequences of individual actions (Knopes et al., 2004). Applicability Rating B.

Evidence Statement 14.2
There is evidence from one CNRT – to suggest that individual counselling can produce a significant medium term reduction in delinquent and criminal behaviour (Hanlon et al., 2002). Applicability Rating C.

Community mobilisation programmes
Community mobilisation programmes were defined as programmes that consisted of a locally organised and planned, community wide intervention and included collaboration between individual stakeholders and relevant agencies such as the police, health services, drug agencies and local businesses. One RCT was identified.

Evidence Statement 15
There is evidence from one RCT – to suggest that a community mobilisation and youth development programme has no effect on neighbourhood co-operation or pride, indicators of community mobilisation, or generic youth risk behaviours (Cheadle et al., 2001). Applicability Rating C.

Family-based interventions
Family-based interventions were defined as those interventions that targeted the families of children judged to be at risk of future substance use either because of external factors (e.g. families with a low income) or because the child had exhibited risk behaviours linked to later substance use (e.g. behavioural problems). Interventions could include parent and child components, or target families as a whole. Fifteen primary studies (10 RCT, 2 CNRT and 3 BA) were identified.
**Evidence Statement 16**

There is evidence from four RCT +, one CNRT + and one BA – to suggest that family based interventions may be effective in producing long term reductions in substance use, except for tobacco and alcohol:

16.1 There is evidence from two RCT + and one CNRT + to suggest that the Adolescent Transitions Programme can produce long-term increases in overall substance use abstention (although tobacco smoking may increase) (Dishion et al. 2002; Dishion and Andrews, 1995; Poulin et al., 2001). Applicability rating B.

16.2 There is evidence from one RCT + to suggest that the Family Check Up intervention can produce long-term reductions in substance use (Dishion et al. 2003). Applicability rating B.

16.3 There is evidence from one RCT + to suggest that the Preparing for the Drug Free Years programme may result in a long-term trend towards a reduction in alcohol and cannabis initiation, but an increase in tobacco smoking and alcohol consumption (although the rise in alcohol may be less in pre-existing alcohol users) (Park et al., 2000). Applicability Rating B.

**Evidence Statement 17**

There is evidence from seven RCT + to suggest that family based interventions can be effective in producing long term improvements in parenting skills:

17.1 There is evidence from one RCT + to suggest that the early intervention HSP has no effects on child developmental status, perceived parental competence, parents’ stress levels or mother-child interaction in the medium term, or on use of physical assault as discipline and child developmental status in the long-term, but that the intervention can produce improvements in non-violent discipline in the long term (Duggan, 1999). Applicability Rating B.

17.2 There is evidence from four RCT + to suggest that PDFY may lead to long term improvements in parenting skills and family responses to substance use but not family conflict or adolescent refusal skills compared with no intervention or information leaflets alone (Kosterman et al., 1997; 2001; Spoth et al., 1998; Park et al., 2000). Applicability Rating B.
17.3 There is evidence from one RCT + to suggest that a non-programmed multicomponent family based approach, may increase some parenting skills, and parental self-efficacy and self-esteem in the long term, compared to no intervention, but have no effects on parenting stress (Miller-Heyl, 1998). Applicability Rating B.

17.4 There is evidence from one RCT + to suggest that a programmed multicomponent family based approach, the Family Check Up, can produce long term increases in parental monitoring of child activities (Dishion et al., 2003). Applicability Rating B.

Evidence Statement 18

There is inconsistent evidence from two RCTs + about the long term effectiveness of family based interventions on child development:

18.1 There is evidence from one RCT + to suggest that a comprehensive early intervention in at risk families does not lead to long-term changes in ratings of child development (Duggan, 1999). Applicability Rating B.

18.2 There is evidence from one RCT + to suggest that non programmed multicomponent interventions may be effective at producing improvements in child development and oppositional behaviours in the long term and problem behaviours in the medium term (Miller-Heyl, 1998). Applicability Rating B.

18.3 There is evidence from one CNRT + to suggest that participation in the peer support component of ATP produces a long-term increase in ratings of delinquency. This appears to be greatest in those participants expressing low levels of baseline delinquency (Poulin et al., 2001). Applicability Rating B

Multicomponent interventions

Multicomponent interventions were defined as those interventions that comprised multiple components (eg case management, educational services and support) often delivered in more than one setting. For example, programmes including an intervention component delivered in school (e.g. drug education lessons) combined with community components (e.g. counselling service) were included in this category. One systematic review and seven primary studies (5 RCTs and 2 BA) were identified.
Evidence Statement 19

There is evidence from one RCT + to suggest that multicomponent interventions can be effective in reducing substance use in the short term (LoSciuto et al., 1999), however there is inconsistent evidence from one SR + and two RCTs (1 + and 1 -) about their effectiveness in the long-term, with studies either indicating no change, or a reduction in patterns of alcohol use (Roe and Becker, 2005; Harmon, 1995; Eddy, 2003). Applicability Rating B.

Evidence Statement 20

There is inconsistent evidence about the effectiveness of multicomponent interventions in affecting different secondary outcomes relating to substance misuse in vulnerable or disadvantaged young people:

20.1 There is evidence from one RCT + to suggest that a multicomponent intervention involving school and families activities is not effective in producing long-term changes in willingness or intent to use substances, has no effects on family functioning or absences and suspensions from school, and increases negative behaviours (Hostetler and Fisher, 1997). Applicability Rating B.

20.2 There is evidence from 1 RCT – and 1 CNRT – to suggest that adding family advocacy or additional youth activities to an existing community-based prevention programme can produce long term increases in substance knowledge but not refusal skills or attitudes to substance use (St Pierre et al., 1997; St Pierre et al., 2001). Applicability Rating C.

20.3 There is inconsistent evidence about the effectiveness of multicomponent interventions on school and education related outcomes. There is evidence from one RCT + to suggest an immediate positive intervention effect on school attendance (LoSciuto et al., 1999), whilst evidence from another RCT + suggests no long-term effects of intervention on educational attainment or aspirations (Harmon, 1995). Applicability Rating B.

20.4 There is evidence from two RCT – to suggest that a multicomponent intervention offered in addition to usual school prevention services may produce an immediate decrease in problem behaviours and a long term decrease in association with deviant peers and involvement in criminal activity (Eddy et al., 2000; 2003). Applicability Rating B.
There is evidence from one RCT – to suggest that multicomponent interventions delivered across several communities do not have an effect on wider health outcomes such as diet, accidental injury, and teenage pregnancy (Wagner, 2000) Applicability Rating D.

School-based interventions
A range of school based interventions were broadly categorised into either educational and skills-based interventions or counselling and therapy interventions.

a) Educational and skills-based school interventions
School-based educational and skills-based interventions were defined as interventions that were implemented in the classroom or a setting associated with the school (e.g. after school club). A total of 31 studies were identified; six studies specifically referred to life skills or Life Skills Training (LST).

Evidence Statement 21
There is evidence to suggest that schools-based LST or generic life skills, on their own or in combination with other approaches, are not effective in reducing substance misuse in the long term:

21.1 There is evidence from three RCT + to suggest that when delivered as a stand alone intervention, LST or generic life skills may produce medium, but not short or long term, reductions in substance use (Griffin et al., 2003; Smith et al., 2004; Vicary et al., 2004). There is evidence from one RCT + to suggest that this effect on substance use may be strongest in girls (Smith et al., 2004). Applicability Rating B.

21.2 There is evidence from one RCT +, four RCT –, one CNRT +, and one CNRT – to suggest that school-based LST or generic life skills in combination with other approaches, including parent workshops, staff training or mentoring, has no effects on substance use outcomes in the short, medium or long term compared to no intervention (Brown et al., 2005; Demers, 2000; Forman et al., 1990; Loscuito et al., 1996; Palinkas et al., 1996; Rentschler, 1997; Richards-Colocino, 1996). However, there is evidence from two CNRT – to suggest that delivering generic life skills with family components can produce both immediate and medium term reductions in alcohol use and frequency, but only immediate effects on the frequency of cannabis use (DeWit et al., 1998; 2000). Applicability Rating B.
21.3 There is evidence from one RCT + to suggest that female-targeted peer support can be effective at producing medium term reductions in substance use in younger participants, but not older students (Weiss and Nicholson, 1998). Applicability Rating C.

21.4 There is evidence from one RCT + and one CNRT – to suggest that curricula addressing other risky behaviours (e.g. violence, sexual activity) have no indirect immediate or medium term effects on substance use outcomes (Farrell et al., 2003; Donelly et al., 2001). Applicability Rating B.

**Evidence Statement 22**

There is inconsistent evidence about the effectiveness of life skills approaches at changing attitudes and knowledge relating to substance abuse:

22.1 There is evidence from one RCT - and one CBA – to suggest an immediate improvement in reactions to situations involving drug use with an intervention comprising community service, parent workshops and mentoring (LoSciuto et al., 1996; Gilham et al., 1997). There is evidence from one RCT + that suggests both positive and negative medium term effects of the Friendly PEERsuasion intervention (Weiss and Nicholson, 1998), and a further RCT + that suggests long term effects of LST when delivered either as a discreet stand alone intervention or throughout the school year infused within the regular curriculum compared with no intervention (Vicary et al., 2004). Applicability Rating C.

22.2 There was evidence from one RCT – to suggest that LST can produce long term decreases in young people’s association with substance using peers (Gottfredson et al., 1996). Applicability Rating B

22.3 There was evidence from one RCT – to suggest no long term effects of generic life skills with family and diversionary components on intentions to use substances, although evidence from two CNRT – suggested that with the addition of either mentoring or outreach with generic skills training may produce short and medium term decreases in favourable attitudes towards substance use (DeWit et al., 1998; DeWit 2000; Rentschler, 1997). Applicability Rating B.
22.4 There is evidence from one CNRT – to suggest that specialised teacher training, in the context of a skills development approach, has no long term effects on substance use norms (O'Donnell et al., 1995). Applicability Rating B

Evidence Statement 23

There is evidence to suggest that some school based educational/skills interventions can improve young peoples’ educational skills and positive behaviours, and parents’ family based care giving.

23.1 There is evidence from two CNRT + to suggest that early, pre-school intervention, delivered by specially trained teachers can produce immediate and long term effects (up to 6 years) on behaviours promoting education, risk reduction, and social inclusion (Dubas et al., 1998; Hawkins et al., 1999). Applicability Rating C.

23.2 There is evidence from one RCT + to suggest that a tiered classroom based intervention with parental training (Project STAR) can produce improvements in family based care giving and school bonding when compared with no intervention or the classroom intervention alone in the medium and long term (Kaminski et al., 2002) Applicability Rating C.

23.3 There is evidence from one CNRT – to suggest that specialised teacher training, in the context of a cognitive skills development approach, may be associated with long term improvements in educational skills and other classroom behaviours (O'Donnell et al., 1995). Applicability Rating B.

23.4 There is evidence from one RCT +, one CNRT + and one CBA + to suggest that cognitive problem solving skills sessions or a violence prevention curriculum (with substance use components) can produce immediate and medium term improvements in social behaviours (DeMar, 1997; Farrell et al., 2003; Gainer et al., 1993). Applicability Rating C.

23.5 There is evidence from 2 RCT - and 2 CNRT – to suggest that life skills curricula with parental, mentoring and/or social support components can produce both short and long term increases in mood, anxiety, community engagement, positive school based outcomes, and family bonding (De Wit et al., 1998; De Wit et al., 2000; Forman et al., 1990; LoSciuto et al., 1996). However, there is evidence
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from one CNRT – to suggest that a weakly implemented LST programme may be associated with long-term iatrogenic effects, and decreases in positive, school-based outcomes (Gottfredson et al., 1996). Applicability Rating B.

b) School-based counselling and therapy

School-based counselling or therapy interventions were examined in 11 studies.

**Evidence Statement 24.1**

There is evidence from one RCT ++ to suggest that brief, single substance interventions can be more effective at producing short term reductions in alcohol use, than interventions targeting multiple substances (including alcohol) (Werch et al., 2005). Applicability Rating A.

**Evidence Statement 24.2**

There is evidence from one CNRT – to suggest that in younger children, a group counselling approach can reduce alcohol use. However, in older children a group counselling approach may be associated with an increase in use of both cannabis and alcohol (Valentine et al., 1998). Applicability Rating C.

**Evidence Statement 25**

There is evidence from one RCT ++ to suggest that a brief, alcohol specific intervention can more effective at changing attitudes to alcohol, than interventions targeting multiple substances (including alcohol). Applicability Rating A.

**Evidence Statement 26**

There is inconsistent evidence about the effectiveness of school based counselling and therapy on behavioural and social functioning in young people. Some evidence suggests that these interventions can lead to potentially harmful outcomes in young people.

26.1 There is evidence from one RCT – to suggest that a combination of individual and group counselling sessions can produce short and medium term improvements in a range of social behaviours (Reynolds and Cooper, 1995). However, there is
evidence from one CNRT – to suggest that over the course of a 3-year programme such an approach may be associated with an increase in antisocial behaviour and poor educational outcomes in older children (Valentine et al., 1998). Applicability Rating C.

26.2 There is evidence from one CNRT – to suggest that although school based diversionary schemes may produce long term increases in mathematical achievement, participation may also be associated with a decrease in self esteem and school attendance when compared with an academic assistance programme (Flores-Fahs et al., 1997). Applicability Rating C.

26.3 There is evidence from one CBA – to suggest that a multidimensional school wide improvement programme has no long-term effects upon engagement with a wide range of (external) health services (Britto, 2001). Applicability Rating C.

26.4 There is evidence from one CNRT – to suggest that school based social work schemes may produce long term decreases in reported thefts and truanting (Bagley and Pritchard, 1998). Applicability Rating A.

Black and Minority Ethnic populations

A total of 5 systematic reviews and 41 primary studies were identified, all from the USA, which examined interventions targeting populations of specific ethnicities or mixed ethnicities. Interventions were categorised according to whether they were: school-based; community-based; family-based or multicomponent programmes. Four studies examined interventions that not fit within these categories and included interventions delivered across multiple settings, early intervention programmes; brief preventive interventions and mentoring programmes.

School-based interventions

A total of 3 systematic reviews and 11 primary studies (9 RCT, 1 CBA and 1 BA) examining school-based interventions for vulnerable or disadvantaged BME groups were identified.
Evidence Statement 27

There is evidence to suggest that school-based programmes for minority youth can have positive effects on alcohol and cigarette use, however there is inconsistent evidence about their effectiveness in reducing cannabis and other drug use:

27.1 There is evidence from one SR ++ to suggest that school-based interactive programmes (i.e. those involving discussion) can be more effective than non-interactive programmes (e.g. a lecture) in reducing substance use in populations of minority students (Tobler et al., 2000). Applicability Rating C

27.2 There is evidence from four RCT + to suggest that school-based life skills training (LST)/resistance skills interventions may reduce tobacco and alcohol use compared to no intervention in populations of mixed ethnicity in the short, medium and long term (Botvin et al., 1995; Botvin et al., 1997; Botvin et al., 2001; Hecht et al., 2003). Applicability Rating C

27.3 There is inconsistent evidence from four RCT + about the effectiveness of school-based life skills training/resistance skills interventions in reducing cannabis use in populations of mixed ethnicity in the short and long term (Botvin et al., 1995; Botvin 1997; Botvin et al., 2001; Hecht et al., 2003). Applicability Rating C

Evidence Statement 28

There is inconsistent evidence about the effectiveness of school-based programmes for minority youth on risk and protective factors related to substance use:

28.1 There is evidence from two RCT + to suggest that school-based interventions can produce long term increases in smoking and drinking-related knowledge and reduce intentions to use alcohol and tobacco in populations of mixed ethnicity, but did not impact on knowledge or intentions related to cannabis and other drugs (Botvin et al., 1995; Botvin et al., 2001). Applicability Rating C.

28.2 There is inconsistent evidence from three RCT + about the effectiveness of life skills training/resistance skills interventions in improving substance refusal skills in populations of mixed ethnicity in the long term (Botvin et al., 1995; Botvin et al., 2001; Hecht et al., 2003). Applicability Rating C.
28.3 There is evidence from one RCT + that a school-based, peer leadership intervention has no effects on outcomes related to risk and protective factors for drug use in those trained to be peer leaders in the short term (Colnes et al., 2000). Applicability Rating C.

28.4 There is evidence from one RCT – to suggest that video prevention interventions may have no effect on risk and protective factors related to substance use in groups of Latino/Hispanic students (Polansky et al., 1999). Applicability Rating D.

Community-based interventions

A total of 12 primary studies (3 RCT, 5 CNRT and 4 BA) examining community-based interventions in vulnerable or disadvantaged BME groups were identified.

Evidence Statement 29

29.1 There is evidence from 1 RCT + to suggest that a CD-ROM intervention targeting mixed populations of minority youth can reduce monthly substance use in the long term compared to no intervention. Delivering the intervention in combination with parent workshops does not appear to increase effectiveness with regard to cigarettes and cannabis use; however an additional decrease in monthly alcohol use may be observed (Schinke et al., 2004a). Applicability Rating C.

29.2 There is evidence from one RCT – to suggest that culturally-tailored skills training can produce long term reductions in substance use in a Native American community. Delivering skills training alone appears more effective than delivering the intervention in combination with community mobilisation. Furthermore, evidence from one CNRT – suggests that community activities have no effect on substance use, with the exception of smokeless tobacco use (Schinke et al., 2000; Cheadle et al., 1995). Applicability Rating D.

29.3 There is insufficient and inconsistent evidence from 1 CNRT – and 4 BA studies (2 CBA -; 2 BA -) to determine whether youth group activities are effective in reducing substance use in primarily African American populations and populations of mixed ethnicity (Marcus et al., 2004; Gottfredson et al., 2004; Sutherland et al., 1997; Harrington and Donohew, 1997; Zane et al., 1998). Applicability Rating C.
**Evidence Statement 30**

There is insufficient and inconsistent evidence to determine whether community-based interventions have effects on risk and protective factors related to substance use in minority populations:

30.1 There is evidence from one RCT – to suggest that substance use prevention messages delivered by role play or by a computer programme produce some positive effects on attitudes to substance use, but not intentions, immediately following intervention, in populations of mixed ethnicity compared to no intervention. There is evidence to suggest that role-play interventions may have more impact on refusal skills than a computer-delivered intervention (Schinke et al., 2004b). Applicability Rating C.

30.2 There is evidence from one RCT – to suggest that a risk and resilience interventions targeting Hispanic females are not effective in increasing substance-related knowledge, attitudes and intentions or self-efficacy and resilience (Lindenberg et al., 2002). Applicability Rating D.

30.3 There is evidence from one RCT + to suggest that a CD-ROM intervention with the addition of parenting workshops is more than the CD-ROM intervention alone or no intervention in improving long-term family involvement. There is evidence that the CD-ROM intervention with and without parent workshops is more effective than no intervention in improving peer influence (Schinke et al., 2004a). Applicability Rating C.

30.4 There is evidence from one CNRT – to suggest that after school programmes delivered to populations of mixed ethnicities have few positive effects on risk factors related to substance in the medium term (Gottfredson et al., 2004). Applicability Rating C.

**Family-based interventions**

A total 9 primary studies (4 RCT, 1 CBA, 3 BA) examining family-based interventions in vulnerable or disadvantaged BME groups were identified.

**Evidence Statement 31**

There is inconsistent evidence from one RCT +, one CBA – and one BA – about the effectiveness of family-based interventions in changing substance use behaviours in populations of mixed ethnicities:
31.1 There is evidence from one RCT + to suggest that family-based interventions targeting Hispanic populations are no more effective than programmes targeting other health behaviours in reducing abstinence from or initiation of substance use in the long term (Prado, 2005). Applicability Rating D.

31.2 There is evidence from two BA studies (1 CBA - and 1 BA -) to suggest that family-based interventions can have positive impacts on substance use in the immediate term (Prado, 2005; Aktan et al., 1996; Bruce and Emshoff, 1992). Applicability Rating C.

Evidence Statement 32
There is evidence from three RCT + to suggest that family based interventions can positively impact on some secondary outcomes, including child participation in family meetings, bonding to school, and regulated communication parenting, but not others (number of family meetings and parental monitoring) in predominantly African American families in the immediate short term (Aktan et al., 1996; Brody et al., 2004; 2005; Bruce and Emshoff, 1992; Emshoff et al., 1996; Houge et al., 2002; Spoth et al., 2003; Applicability Rating C.

Multicomponent programmes
A total of 5 primary studies (1 CNRT, 1 CBA, 3 BA) examining multicomponent interventions in vulnerable or disadvantaged BME groups were identified.

Evidence Statement 33
There is insufficient evidence to determine whether multicomponent programmes targeting young minority populations are effective in reducing substance use.

33.1 There is evidence from two BA studies (1 CBA + and 1 BA -) to suggest that multicomponent programmes may not reduce substance use immediately following intervention (Godley and Velasquez, 1998; Stevenson et al., 1998). Applicability Rating C.
Evidence Statement 34

There is inconsistent evidence from one CNRT + and four BA studies (1 CBA + and 3 BA –) to determine whether multicomponent interventions are effective in reducing risk factors related to substance use:

34.1 There is evidence from one CNRT + to suggest that multicomponent interventions targeting populations of young African Americans may be no more effective than no intervention in improving substance-related knowledge and attitudes, family functioning and self-esteem (Cherry et al., 1998). Applicability Rating C.

Other interventions

Of those studies examining ‘other’ interventions delivered to vulnerable or disadvantaged BME groups, two systematic reviews examined interventions delivered across more than one setting; one RCT examined an early intervention programme delivered to preschool children; two RCTs examined mentoring programmes and one RCT examined a brief preventive intervention.

Evidence Statement 35.1

There is evidence from one SR ++ and one SR + to suggest that interventions incorporating cultural values are no more effective in reducing substance misuse than interventions that do not (Bledsoe 2002; Yuen 2004). Applicability Rating B.

Evidence Statement 35.2

There is also evidence from one SR + that drug prevention programmes targeting populations of mixed ethnicities which incorporate refusal skills training are more effective in reducing substance misuse than programmes that do not (Bledsoe 2002). Applicability Rating B.

Evidence Statement 36

There is evidence from 1 RCT + to suggest that specialised, early educational interventions that include participation in a pre-school curriculum may be effective in reducing cannabis use in the long-term but not other substance use behaviours, in a predominantly African American population, (Campbell et al., 2002). Applicability Rating C.
**Evidence Statement 37**  
There is evidence from one RCT – to suggest that mentoring for longer than 12 months may have long term, beneficial impacts on substance use among African American and minority ethnic populations (Rhodes et al., 2005). Applicability Rating C.

**Evidence Statement 38**  
There is evidence from one SR + to suggest that interventions including refusal skills training can have a greater effect on behavioural outcomes related to substance use than interventions not incorporating this approach (Bledsoe, 2002). Applicability Rating B.

**Evidence Statement 39**  
There is evidence from one RCT + to suggest that specialised, early educational interventions, which include a pre-school curriculum, can positively impact on years of education and engagement in skilled labour in a predominantly African American population in the long term. There is evidence that the intervention may not impact on criminal behaviours (Campbell et al., 2002). Applicability Rating C.

**Evidence Statement 40**  
There is evidence from one RCT + to suggest that a universal intervention can be less effective in improving social skills in a young BME population with a diagnosis of conduct disorder compared to those without the diagnosis (Fishbein et al., 2006). Applicability Rating C.

**Evidence Statement 41.1**  
There is evidence from two RCT – to suggest that mentoring has no immediate effects on attitudes to substance use, self-esteem, grades or school absences and no long term effects on self-worth, peer relations or parental relationships (Rhodes et al., 2005; Royse, 1998). Applicability Rating C.
Evidence Statement 41.2
There is evidence from one RCT – to suggest that mentoring for longer than 12 months can produce long term improvements in parental relationships (Rhodes et al., 2005). Applicability Rating C.

Evidence Statement 41.3
There was evidence from one RCT – to suggest that mentoring may reduce conservative attitudes to substance use in the long term (Royse et al., 1998). Applicability Rating C.

Young people in families with substance using members

A total of 17 studies were identified which examined interventions targeted towards or involving young people with a substance using family member (i.e. parent, sibling or carer). Interventions were categorised according to whether they were: multicomponent programmes; home visitation interventions or behavioural or skills based interventions. Three studies examined interventions that did not fit within these categories and included a child outreach programme; a multicomponent intervention for pregnant or parenting adolescents and an education programme for pregnant adolescents.

Multicomponent interventions
A total of 5 primary studies (two RCT +, one CNRT -, two BA -) were identified that examined multicomponent interventions for young people in families with substance using members.

Evidence Statement 42
There is evidence from two RCT + to suggest that multicomponent interventions targeting parental drug use and parenting practices in combination with drug treatment have no effect on children’s drug use in the short, medium or long term compared to treatment only (Catalano et al., 1999; Catalano et al., 2002). Applicability Rating B.

Evidence Statement 43
There is evidence from two RCT + to suggest that multicomponent interventions targeting parental drug use and parenting practices in combination with drug
treatment have no effects on children’s behavioural outcomes or school and family factors in short, medium or long term compared to treatment only (Catalano et al., 1999; Catalano et al., 2002). Applicability Rating B.

**Evidence Statement 44.1** There is evidence from two RCT + and one CRNT + to suggest that parenting programmes combined with drug treatment can improve parental outcomes in terms of problem-solving, parenting practices and depression although there are few intervention effects on family factors such as bonding and conflict (Catalano et al., 1999; Catalano et al., 2002; Whiteside-Mansell, 1999). Applicability Rating B.

**Evidence Statement 44.2**
There is evidence from one RCT +, one CNRT – and one BA – which also suggest that parenting programmes may help drug-using parents to stabilise or reduce their own use in the short to medium term (Catalano et al., 1999; Magura et al., 1999; Whiteside-Mansell, 1999). Applicability Rating B.

**Home visitation**
One SR and four primary studies (3 RCT and 1 CBA) were identified that examined home visitation interventions for families with substance using members.

**Evidence Statement 45**
There is evidence from one RCT + to suggest that in the long-term there is no difference in substance use between children with drug-using mothers who receive home visitation at birth and those who do not (Olds et al., 1998). Applicability Rating B.

**Evidence Statement 46.1**
There is evidence from one RCT + to suggest that adolescents who receive home visitation as infants do not have improved outcomes of dysfunctional behaviours. In addition, there is evidence to suggest that although stops by police may be higher, there are fewer arrests and convictions in the long term among children who receive home visitation at birth compared to those who do not (Olds et al., 1998). Applicability Rating B.
**Evidence Statement 46.2**
There is insufficient evidence from two RCTs (1 + and 1 -) to determine whether home visitation may produce positive effects on children’s developmental progress (Black et al., 1994; Nair et al., 2003). Applicability Rating B.

**Evidence Statement 47**
There is insufficient evidence to determine the effects of home visitation on parental drug use:

47.1 There is evidence from one RCT + to suggest that home visitation does not produce long term increases in the number of mothers who are drug free compared to no visits and from two RCTs (1 +, 1 -) to suggest that there are no effects of home visitation on parenting stress or child abuse potential compared to no visits (Black et al., 1994; Nair et al., 2003). Applicability Rating B.

**Behavioural/skills-based interventions**
Four primary studies (two RCT, one CNRT, and one BA) were identified that examined behavioural or skills interventions for families with substance using members.

**Evidence Statement 48**
There is insufficient evidence to determine whether behavioural and skills training interventions for young people with substance using parents or other family members are effective in reducing substance use.

**Evidence Statement 49**
There is inconsistent evidence to determine whether behavioural and skills training interventions, delivered to young people with substance-using parents or other family members, are effective at reducing or improving risk and protective factors related to substance use:

49.1 There is evidence from one RCT – to suggest that support groups combined with peer mentor training can increase negative attitudes to substance use and from two RCT – to suggest that support group programmes can be effective at improving

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3 Please see Section 6 for a discussion of the limitations of the review.
intervention-targeted outcomes such as emotion-focused coping and self-esteem in the short to medium term. (Horn, 1998; Short et al., 1995). Applicability Rating B.

**Other interventions**

Of those studies examining ‘other’ interventions delivered to families with substance using members, one RCT examined a child outreach programme; one CNRT examined a multicomponent intervention for pregnant or parenting adolescents and one CNRT examined an education programme for pregnant adolescents.

<table>
<thead>
<tr>
<th>Evidence Statement 50</th>
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<tbody>
<tr>
<td>There is insufficient evidence to determine whether interventions targeting young pregnant or parenting adolescents are effectiveness in reducing drug use behaviour:</td>
</tr>
<tr>
<td><strong>50.1</strong> There is evidence from one CNRT + to suggest that self-administered drug education programmes for pregnant adolescents do not impact on substance use behaviours in the medium term (Sarvela and Ford, 1993). Applicability Rating B.</td>
</tr>
<tr>
<td><strong>50.2</strong> There is evidence from one CNRT + to suggest that multicomponent interventions targeting adolescent mothers, which include drug rehabilitation, may reduce drug use in the medium term compared to no intervention (Field et al., 1998). Applicability Rating C.</td>
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</tbody>
</table>

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<tr>
<th>Evidence Statement 51.1</th>
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<tr>
<td>There is evidence from one RCT – to suggest that high levels of engagement of mothers in outreach programmes may be linked to improved prosocial behaviour in their children (Nye et al., 1995). Applicability Rating C.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Evidence Statement 51.2</th>
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<tbody>
<tr>
<td>There is insufficient evidence to determine whether interventions targeting young pregnant or parenting adolescents are effectiveness in reducing a range of secondary outcomes related to substance use:</td>
</tr>
<tr>
<td><strong>51.2.1</strong> There is evidence from one CNRT + to suggest that self-directed learning improved substance-related knowledge but no effect on attitudes to substance use, immediately following intervention (Sarvela and Ford, 1993). Applicability Rating B.</td>
</tr>
<tr>
<td><strong>51.2.2</strong> There is evidence from one CNRT + to suggest that multicomponent interventions including drug rehabilitation and vocational training can decrease self-</td>
</tr>
</tbody>
</table>
reported psychopathology (including stress and depression) and improve educational and employment outcomes. Applicability Rating C.

Young substance users

A total of 4 SRs and 18 primary studies were identified that examined interventions targeted specifically at young people who reported substance use but not substance dependence. Interventions were categorised according to whether they comprised: a brief intervention or motivational interviewing; family therapy, or counselling/therapy sessions for adolescents. Four studies examined interventions that did not fit within these categories and included a US-based Midwestern Prevention Programme; a contingency-management based intervention, and a parenting programme.

Brief intervention or motivational interviewing

A total of two SRs and 6 primary studies (4 RCT, 1 CNRT and 1 BA) were identified that examined brief interventions or motivational interviewing for young people who reported substance use but not substance dependence.

**Evidence Statement 52.1**

There is evidence from one SR +, two RCTs (1 + and 1 -) and one CNRT – to suggest that motivational interviewing and brief intervention can have short term effects on the use of cigarettes, alcohol and cannabis (Tait and Hulse, 2003; McCambridge and Strang 2004; Oliansky et al., 1997; Aubrey, 1998). Applicability Rating A.

**Evidence Statement 52.2**

There is evidence from one RCT + to suggest that motivational interviewing does not have a medium term impact on the use of cigarettes, alcohol or cannabis (McCambridge and Strang, 2005). Applicability Rating A.

**Evidence Statement 53.1**

There is evidence from one RCT + to suggest that a single session of motivational interviewing can have a positive impact on attitudes, intentions and behavioural outcomes related to substance use in the short term (McCambridge and Strang, 2004). However, there is evidence from one RCT + to suggest that these positive
effects do not last in the medium term (McCambridge and Strang, 2005). Applicability Rating A.

**Evidence Statement 53.2**
There is evidence from one RCT + to suggest that brief intervention enhanced with additional support has a positive impact on attendance at community treatment agencies and psychological well being compared to usual hospital treatment (Tait et al., 2004). Applicability Rating B.

**Family therapy**
A total of two SRs and 5 primary studies (5 RCT), were identified that examined family therapy interventions for young people who reported substance use but not substance dependence.

**Evidence Statement 54.1**
There is evidence from one SR + and three RCTs (2++ and 1+) to suggest that family therapy is more effective at reducing substance use than other types of group therapy interventions immediately following treatment (Austin et al., 2005; Liddle et al., 2001; Liddle et al., 2004; Joanning et al., 1997). Applicability Rating B.

**Evidence Statement 54.2**
There is evidence from one SR + and one RCT ++ to suggest that multidimensional family therapy is more effective at reducing substance use than other approaches to treatment in the short to medium term (Austin et al., 2005; Liddle et al., 2001). Applicability Rating B.

**Evidence Statement 54.3**
There is evidence from two RCT – to suggest that brief family therapy interventions are more effective than group therapy in producing immediate reductions in cannabis use (Santisteban et al., 2003) and overall substance use (Lewis et al., 1990). Applicability Rating B.

**Evidence Statement 55.1**
There is evidence from one SR + and two RCTs (1 ++ and 1 -) to suggest that family therapy interventions may have more positive impacts on social behaviours than group therapy or individual therapy, immediately following treatment (Elliott et al.,
Evidence Statement 55.2
There is evidence from three RCTs (2 ++ and 1 +) to suggest that family therapy interventions are no more effective in improving school or family-related factors compared to educational or group therapy approaches in the immediate or medium term (Liddle et al., 2001; Liddle et al., 2004; Joanning et al., 1997). Applicability Rating B.

Counselling or therapy sessions for adolescents
A total of four primary studies (1 RCT, 1 CNRT, 1 CBA and 1 BA), were identified that examined counselling or therapy sessions for young people who reported substance use but not substance dependence.

Evidence Statement 56.1
There is evidence from one RCT + to suggest that motivational enhanced treatment combined with cognitive behavioural therapy is no more effective than other types of approaches in reducing cannabis, alcohol or other drug use in the medium term (Dennis et al., 2004). Applicability Rating C.

Evidence Statement 56.2
There is insufficient evidence from one CBA + and one BA - to determine whether other types of counselling and behaviour therapy interventions targeting young substance users are effective in reducing substance use.

Evidence Statement 57
There is insufficient evidence from one CNRT – and one CBA + to determine whether counselling and behavioural therapy interventions targeting young substance users are effective in reducing risk behaviours related to substance use.

Other Interventions
Of those studies examining ‘other’ interventions delivered to young people who reported substance use but not substance dependence, one RCT examined a US Midwestern Prevention Programme, one BA study examined a contingency-management based intervention, and one CNRT examined a parenting programme.
Evidence Statement 58
There is evidence from one RCT – to suggest that universal, community-based programmes delivered to existing substance users may produce short and long term decreases in alcohol use, short term decreases in cigarette use but no change in cannabis use (Chou et al., 1998). Applicability Rating C.

Evidence Statement 59
There is preliminary evidence from one RCT + to suggest that skills training for parents of young substance users is effective in producing immediate reductions in cannabis use among young substance users compared to no intervention (McGillcuddy et al., 2001). Applicability Rating B.

Evidence Statement 60
There is insufficient evidence from one BA - to determine whether contingency-based management programmes with parent and child components are effective at reducing substance use in young users.

Evidence Statement 61
There is evidence from one RCT + to suggest that skills training programmes for parents of young substance users can produce an immediate improvement in parent coping but not other measures of parent and family functioning (McGillicuddy et al., 2001). Applicability Rating B.

Evidence Statement 62
There is insufficient evidence from one BA - to determine whether contingency-based management programmes with parent and child components had positive effects on risk factors related to substance use in young users.

Young people with behavioural and aggressive problems

A total of 7 primary studies were identified that targeted young people exhibiting disruptive, defiant, aggressive or disobedient behaviour, or more severe behavioural problems symptomatic of a conduct disorder. Interventions were categorised according to whether they comprised multicomponent or single component programmes.
Multicomponent programmes

A total of 6 primary studies (6 RCT) were identified that examined multicomponent programmes for young people with behavioural and aggressive problems.

Evidence Statement 63

There is evidence from two RCT + to suggest that a multicomponent parent and child programme, the Coping Power programme, has an immediate and medium term impact on reducing use of alcohol, tobacco and cannabis compared to no intervention in children with aggressive and behavioural problems (Lochman and Wells, 2003; Lochman and Wells, 2004). Applicability Rating C.

Evidence Statement 64.1

There is evidence from six RCTs (1 ++, 4 + and 1 -) to suggest that multicomponent programmes (including child and parent components) targeting children with behavioural and aggressive problem behaviours can have a positive impact in reducing some problem behaviours compared to no intervention (August et al., 2002; Barrera et al., 2002; CPPRG, 2002; Lochman and Wells, 2002; Lochman and Wells 2003; Lochman and Wells 2004). Applicability Rating C.

Evidence Statement 64.2

There is evidence from one RCT ++ to suggest that a multicomponent programme (Early Risers programme) can produce long-term improvements in social skills, academic achievement and parental discipline, but not self-regulation problems, compared to no intervention (August et al., 2002). Applicability Rating C.

Single component programmes

One primary study (RCT) was identified that examined a single component programme for young people with behavioural and aggressive problems.

Evidence Statement 65

There is evidence from one RCT – to suggest that a modified version of LST may be no more effective than no intervention at reducing cigarette and alcohol use in young people (aged 11 to 12 years) with behavioural and aggressive disorders, immediately following intervention (Vitaro and Dobkin, 2001). Applicability Rating C.

Evidence Statement 66
There is evidence from one RCT – to suggest that a modified version of LST is more effective than no intervention in increasing knowledge and negative attitudes to cigarettes, but not alcohol or cannabis in young people (aged 11 to 12 years) with behavioural and aggressive disorders, immediately following intervention (Vitaro and Dobkin, 2001). Applicability Rating C

**Young offenders**

A total of ten primary studies were identified which examined drug prevention interventions in populations of young offenders. Interventions were categorised according to whether they comprised: counselling or behavioural therapy, or educational or skills based programmes. Two studies examined interventions that did not fit within these categories and included a multicomponent intervention and a juvenile drug court.

**Counselling or behavioural therapy**

A total of two primary studies (2 RCT) were identified that examined counselling or behavioural therapy for young offenders.

**Evidence Statement 67**

There is evidence from one RCT + to suggest that multisystemic therapy may be more effective than “usual services” at reducing “soft” drug use by young offenders in the immediate term (Hengeller et al., 1991). Applicability Rating C.

**Evidence Statement 68**

There is evidence from one RCT + to suggest that multisystemic therapy may be more effective than individual focused counselling in tackling recidivism in young offenders in the immediate term (Hengeller et al., 1991). Applicability Rating C.
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Educational or skills based programmes
A total of six primary studies (3 RCT, 1 CNRT and 2 BA) were identified that examined counselling or behavioural therapy for young offenders.

**Evidence Statement 69.1**
There is evidence from one RCT – to suggest that neither a modified version of LST or a combined anti-violence and values clarification programme are effective in reducing substance use among young offenders in the short term (Friedman and Utada, 1992). Applicability Rating C.

**Evidence Statement 69.2**
However, there is evidence from one RCT – to suggest that a combined programme of LST, anti-violence and values clarification can produce short-term reductions in substance use by young offenders compared to no intervention (Friedman et al., 2002). Applicability Rating C.

**Evidence Statement 70.1**
There is evidence from two RCTs (1 + and 1 -) to suggest that educational and skills based interventions are effective in improving knowledge, attitudes, skills and behaviours related to substance use in young offenders in the immediate to short term (Friedman and Utada, 1992; Hawkins et al., 1991). Applicability Rating C.

**Evidence Statement 70.2**
There is evidence from one RCT – to suggest that a combined programme of LST and anti-violence and values clarification may not have an impact on illegal and violent offences or school problems in a population of young offenders, compared to no intervention (Friedman et al., 2002). Applicability Rating C.

Other
Of those two studies examining ‘other’ interventions delivered to young offenders, one BA examined a multicomponent intervention, and one CBA examined a juvenile drug court.

**Evidence Statement 71**
There is insufficient evidence from one BA - to determine whether multicomponent interventions for young offenders are effective in reducing substance use.
Evidence Statement 72
There is insufficient evidence from one BA - to determine whether multicomponent interventions are effective in reducing risk factors related to substance use in young offenders.

Evidence Statement 73
There is insufficient evidence from one CBA - to determine whether drug courts for young people have positive effects on risk factors related to substance in young offenders.

73.1 There is evidence from one CBA – to suggest that juvenile drug court programmes are no more effective than drug education and treatment in reducing the long-term frequency of being arrested (Sloan et al., 2004). Applicability Rating C.

School dropouts, truants and underachievers

A total of 12 primary studies were identified which examined drug prevention interventions for school dropouts, truants and underachievers. Interventions were categorised according to whether they comprised: educational or skills based programmes or multicomponent interventions.

Educational/skills-based interventions
A total of 10 primary studies (7 RCT and 3 CNRT) were identified that examined educational or skills-based interventions for school dropouts, truants and underachievers.

Evidence Statement 74.1
There is evidence from two RCT + to suggest that a classroom-based social influence intervention (Project TND) has inconsistent long-term effects but positive medium-term effects on “hard drug use” amongst youth in alternative education provision. Medium- and long-term intervention effects on use of other substances (alcohol, tobacco and cannabis) are inconsistent. (Sussman et al., 1998; Sun et al., 2006; Sussman et al., 2002b; Sussman et al., 2003). Applicability Rating D.
### Evidence Statement 74.2
There is evidence from two RCT + to suggest that the addition of a community-based component to Project TND does not increase programme effectiveness (Sussman et al., 1998; Sun et al., 2006) and that health-educator delivered interventions are more effective than a self-instruction programme in reducing subsyance use (Sussman et al., 2002b; Sussman et al., 2003). Applicability Rating D.

### Evidence Statement 74.3
There is inconsistent evidence from one RCT + and two CNRT – about the effectiveness of skills based interventions in preventing or reducing substance use in students identified as at risk of school dropout (Cho et al., 2005; Eggert et al., 1994; Thompson et al., 1997). Applicability Rating C.

### Evidence Statement 75.1
There is evidence from two RCT - to suggest that a social influence intervention (Project TND) is effective in producing very short-term improvements in substance-related attitudes and knowledge within youth in alternative education provision (Sussman et al., 1995; Sussman et al., 2002a). There is evidence to suggest that the programme is more effective when delivered actively rather than passively (Sussman et al., 1995). Applicability Rating D.

### Evidence Statement 75.2
There is evidence from two CNRT – to suggest that skills based interventions are effective at improving grades in the immediate and short term in students identified as at risk of school dropout, although effects on school absences are less clear (Eggert et al., 1990; Eggert et al., 1994). Applicability Rating C.

### Evidence Statement 75.3
There is evidence from one RCT + to suggest that a programmed intervention approach (Reconnecting Youth) has no effects on grades, school connectedness or anger. In addition, there is evidence to suggest that intervention may decrease conventional peer bonding and increase peer high-risk behaviours in the short term (Cho et al., 2005). Applicability Rating C.
**Multicomponent interventions**

A total of two primary studies (2 BA) were identified that examined educational or skills-based interventions for school dropouts, truants and underachievers.

**Evidence Statement 76**

There is insufficient evidence from one BA - to determine whether multicomponent interventions are effective in preventing or reducing substance use in students identified as at risk of school dropout, truants or students in alternative education provision.

**Evidence Statement 77**

There is insufficient evidence from two BA - to determine whether multicomponent interventions have positive effects on risk factors related to substance use in young people identified as at risk of school dropout, truants or students in alternative education provision.

**Other populations**

Nine studies were identified which covered specific vulnerable or disadvantaged populations of young people at risk of substance misuse not captured by the preceding population groups. These include: high sensation seekers; homeless young people; children of divorce; institutionalised youth; abused females and latchkey⁴ students.

**High sensation seekers**

Two primary studies (2 CNRT) were identified that examined the SENTAR (Sensation Seeking Targeting) intervention, which consisted of an anti-cannabis television campaign targeted at high sensation seeking individuals.

**Evidence Statement 78**

There is insufficient evidence from one CNRT - to determine whether television campaigns targeting high sensation seeking adolescents are effective at reducing self-reported cannabis use (Palmgreen et al., 2001). Applicability Rating C.

⁴ Young people who lack parental supervision (e.g. parent is out at work) when they return home from school.
Evidence Statement 79
There is insufficient evidence from one CNRT - to determine whether television campaigns targeting high sensation seekers have effects on substance use knowledge, attitudes, and intentions to use (Stephenson et al., 1999). Applicability Rating C.

Homeless young people
Two primary studies (2 CNRT) were identified that examined peer led interventions for substance use prevention in young runaway and homeless people.

Evidence Statement 80
There is insufficient evidence from one CNRT - to determine whether substance use prevention interventions targeting young homeless people are effective in reducing their substance use.

80.1 There is evidence from one CNRT – to suggest that peer led interventions targeting young runaways and homeless people do not significantly impact on drug use (heroin and cocaine) in the short term (Booth et al., 1999). Applicability Rating C.

Evidence Statement 81
There is insufficient evidence from two CNRT - to determine whether substance use prevention interventions targeting young homeless people have any effect on risk and protective factors related to substance use.

81.1 There is evidence from one CNRT to suggest that peer led interventions are more effective than no intervention in increasing knowledge related to HIV but not high risk sex in the short term (Booth et al., 1999). Applicability Rating C.

81.2 There is evidence from two CNRT – to suggest that peer led interventions may encourage young runaways and young homeless people to reduce some risk-taking behaviours related to HIV and drug use in the short term (Booth et al., 1999; Fors and Jarvis, 1995). Applicability Rating C.
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**Children of divorce**
Two primary studies (1 RCT and 1 CNRT) were identified that examined classroom-based interventions that targeted children of divorced parents.

<table>
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<tr>
<th>Evidence Statement 82</th>
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<tr>
<td>There is evidence from one RCT + and one CNRT – to suggest that classroom-based interventions for children of divorced parents can have positive effects on some measures of psychological wellbeing (e.g. anxiety, self-esteem, composite mental health) at immediate post-test (Wolchik et al., 1993; Short, 1998). Applicability Rating C.</td>
</tr>
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</table>

**Institutionalised youth**
One CBA was identified that examined a multi-component intervention for institutionalised youth.

<table>
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<th>Evidence Statement 83</th>
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<tbody>
<tr>
<td>There is insufficient evidence from one CBA - to determine whether multicomponent interventions targeting institutionalised youth are effective in preventing or reducing substance use Morehouse &amp; Tobler (2000). Applicability Rating C.</td>
</tr>
</tbody>
</table>

**Abused females**
One RCT was identified that examined ‘Project Chrysalis’, a multicomponent school based intervention for youth identified as a victim of sexual, physical or emotional abuse.

<table>
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<th>Evidence Statement 84</th>
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| There is inconsistent evidence from one RCT – about the effectiveness of multicomponent programmes in reducing substance use among abused females.  
84.1 There is evidence from one RCT – to suggest that multicomponent school based intervention (comprising support groups, case management services, skill-building workshops and knowledge acquisition sessions) for young women identified as victims of sexual, physical or emotional abuse may be effective at reducing cannabis use in the long term but no have no effects on the initiation of alcohol or cigarette use (Brown and Block 2001). Applicability Rating C. |
Evidence Statement 85
There is inconsistent evidence from one RCT – about the effectiveness of multicomponent programmes on secondary outcomes related to substance use in abused females.

85.1 There is evidence from one RCT – to suggest that multicomponent school based interventions (comprising support groups, case management services, skill-building workshops and knowledge acquisition sessions) for young women identified as victims of sexual, physical or emotional abuse may be effective at reducing suicide risk behaviour. (Brown and Block 2001). Applicability Rating C

Latchkey students
One CNRT was identified that examined the ADEPT Drug and Alcohol Community Prevention Project (ADACPP), a skills based programme for children between kindergarten and sixth grade.

Evidence Statement 86
There is insufficient evidence from one CNRT - to determine whether interventions targeting latchkey students have positive effects on risk factors related to substance use.

Conclusions

Despite a wide variety of approaches producing improvements in substance use knowledge and attitudes, regardless of the type of population targeted, few interventions resulted in a reduction of use behaviours that lasted beyond the immediate post-intervention assessment phase. It is therefore difficult to draw conclusions from the studies reviewed. Those approaches that demonstrated success tended address a wide variety of risk factors and problem behaviours rather than having an exclusive substance use focus. However, even for these types of approaches there was not a broad evidence base.

In general, for young people exhibiting multiple risk factors, family focused work showed most potential for success. Many parent and family focused interventions also produced significant improvements in some secondary outcomes of family
functioning (including positive parenting styles and child behaviour). This type of approach was also considered to have high applicability, after suitable adaptation, to UK settings. School based interventions were the most popular type of intervention, and skills training the most frequently evaluated model (whether programmed or generic). There was mixed evidence with regards to the success of this type of approach, with the balance of evidence suggesting that life skills approaches were associated with immediate and medium term reductions in substance use. However, a note of caution is warranted, as across relevant studies there was a heterogeneous population, and a high rate of attrition. Furthermore, there was often inconsistent effects of school-based skills training on substance use attitudes and norms, meaning more work is needed to identify underlying determinants of success (e.g. was success due to the attention paid, and support given, to vulnerable young people rather than to the content of the programme delivered?).

In BME populations there was evidence to suggest that school based interactive programmes could produce long term reductions in alcohol and tobacco use, but there was a general lack of effect upon cannabis and other illegal drugs. Cultural tailoring of interventions did not seem to be a pre-requisite for success. No studies addressed engagement of BME populations with interventions, something which has been highlighted to be a problem in the UK.\(^5\)

In children of substance users, the evidence suggested that whilst a range of family based programmes (e.g. home visitations, drug treatment) could have a significant impact upon parental outcomes, there was little evidence for effects upon the drug use or behaviour of the child.

In young substance users themselves, brief intervention and motivational interviewing only produced a short term reduction in the use of alcohol, cigarettes, and cannabis, although the longevity of effect was greater for community and family based work. Family based interventions were also associated with immediate improvements in family function.

In young people with aggressive and behavioural disorders one two year multicomponent family based programme, Coping Power (targeted at 9-11 year

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olds), was effective in reducing use of alcohol, tobacco, and cannabis and this was associated with a reduction in problem behaviours. In contrast, a single component approach, LST, had no effect on substance use behaviours.

Despite extensive statutory services in most western countries, there was little research identified that examined drug use in young offenders. Multisystemic Family Therapy, a programme that targets the interaction of individual, family, peer, school, and environmental factors was more effective than usual criminal justice services at reducing both immediate drug use and criminal behaviour.

In individuals at risk of school dropout or exclusion there was research investigating substance use prevention, but the results of this was generally inconsistent. Furthermore, no studies were identified that attempted to intervene with substance use in non educational settings. Unless in contact with pupil referral units, school excludees and truants in the UK are unlikely to be in contact with specialist drug services.

Limitations of the review and evidence

Due to the rapid nature of this review it was not possible to fully explore the data and produce summaries such as effect sizes, confidence intervals, forest plots, odds ratios, and risk ratios. This would have been helpful in providing more general overall assessments of the data obtained. There was also great heterogeneity in some of the populations studied. The largest group of studies identified concerned young people with multiple risk factors. However, author definitions of ‘risk’ and ‘vulnerability’ were not consistent, and whilst some interventions targeted young people by using strict criteria (e.g. validated assessment scale), others relied on self report or the observations of (non-professional) observers such as teachers or carers. This means that findings from this population reported in this review should be considered very carefully in order to determine appropriateness for a supposed similar population group.

Evidence statements were generated on the basis of statistically significant outcomes (p < 0.05). This criterion was used in order to maintain consistency across studies. However, intervention approaches that were associated with outcomes that approached significance, perhaps indicating a trend towards success, would have been reported in the review as having no effect. Lack of statistical significance may
therefore have been due to the nature of the study design (e.g. insufficient power), and promising programme approaches would have been obscured.

The reader should also bear in mind that it is the nature of rapid reviews such as this that some sources of evidence will be overlooked. Whereas the literature search strategy used provided confidence that all interventions with substance-related foci were included, relevant approaches that may not have been documented with explicit reference to substance use will have been overlooked. Examples of this might include home visitation for young families or specialist psychological interventions for children with mental health concerns. Such interventions will be indirectly relevant to the populations studied here, even though addressing substance use was not a primary objective of the work. This is because of the complex interaction between a range of risk behaviours, including substance use.

This review identified a number of weaknesses in the evidence base, and these are discussed fully in the relevant sections of the main report. The most pertinent of these was the lack of good quality prevention initiatives originating from the UK. Only four such studies were identified (1.8% of the total number reviewed). The unprecedented increase in Government spending on initiatives addressing substance use since the introduction of the National Drugs Strategy in 1998 has not apparently been matched by research examining the effectiveness of interventions for vulnerable young people. As such, process, rather than outcome evaluation predominates. This may provide an overview of mechanisms of working in the UK, but nothing about whether the work has any impact upon the lives of the young people concerned.

**Barriers to implementation**

Because of the lack of UK research, evidence based drug prevention practice in the UK must therefore be drawn from the findings of international literature, predominantly the USA. Although this would pose less of a problem if the interventions described were standardised and clinically based, or concerned pharmacological, technological, or (manualised) psychotherapeutic interventions, public health interventions require additional considerations. Although both the USA and UK adhere to international protocol (e.g. United Nations International Drug Control Programme), responses to drug use are led by national policy and objectives (e.g. Stopping Use Before It Starts element of the National Drug control Strategy in
the USA, Be Healthy element of Every Child Matters in the UK) and are tailored accordingly. Hence USA based interventions primarily focussed on substance abstention and cessation of use. Whilst these are still important objectives they may not necessarily reflect the focus on wider risks and vulnerabilities in UK practice.

There are also more practical barriers to implementation. Although several individual, population, community and societal factors that modify risk and protection for substance use are shared between members of different countries and cultures, many others are not. Evidence indicating the success of an intervention targeting a particular factor, or adhering to a particular model therefore needs to be tested in local contexts.

Although school based interventions are the most popular type of prevention approach, the requirements of the UK National Curriculum means that specially programmed curricula, which are common in the USA, will not be implemented if they fall outside the objectives of PHSE.

Structural and political barriers to implementation have been discussed in an earlier document written by the review team and published by NICE\(^6\). These discussions are relevant to the current review and the reader is referred to this earlier work. They include:

- National and local strategy
- Current evidence
- Examples of ‘best practice’ and conflict/agreement with the evidence base
- Gaps in service provision
- Local strategies
- Local partner organisations
- Local champions
- Resources
- Cultural, organisational, and individual barriers to change
- Workforce issues
- Implications of other services if new evidence is put into practice

**Recommendations for future research**

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There is a clear need for more research into prevention approaches in the UK. Perhaps a major difference between the UK and the USA is in the existence of national bodies dedicated to substance use research. The National Institute on Drug Abuse, and Center for Substance Abuse Prevention have no precedents in the UK. Whilst initiatives such as the Young People Substance Misuse Partnership Grant supports local delivery of the young people aims of the UK National Drug Strategy, funding provision is not dependent upon the evaluation of outcomes. Initial work could focus on prevention research into key vulnerable groups (e.g. school excludees). As prevention practice is often determined by local needs, there will be great variation in ways of working and outcomes. A multisite evaluation of projects engaging with a particular population in different ways may therefore be useful.

The review identified major gaps in research for most of the groups identified. In particular; Young people who are (or have been) looked after by local authorities or in foster care; Young people who are (or have been) homeless or who move frequently; School excludees and truants; Young people involved in commercial sex work; Young people with behavioural conduct disorders; Young people with mental health problems. For some of these populations there is adequate substance use service provision, and research is therefore needed into the effectiveness of existing approaches. However, for most populations, basic levels of specialist substance use service are required before evaluation research can proceed.

Additional work is also needed to address the gaps in evidence for the majority of secondary outcomes. In particular; identification of characteristics of effective intervention facilitator; engagement of young people in interventions; implementation of interventions; wider health inequalities; stigmatisation of substance users; and community cohesion.
References to included studies


Substance misuse: Review of effectiveness (LJM) – Executive Summary


Substance misuse: Review of effectiveness (LJM) – Executive Summary


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