Community-based interventions to reduce substance misuse among vulnerable and disadvantaged young people: Evidence and implications for public health


Review Focus

- **P**: Vulnerable and disadvantaged young people (ages 16-24)
- **I**: Community-based interventions that aimed to prevent or delay initiation of substance use, or to reduce or stop substance use
- **C**: No intervention or other intervention
- **O**: 
  - **Primary Outcomes**: change in the number of participants who used substances, change in use or frequency of substance misuse or change in time before initiation of substance use
  - **Secondary Outcomes**: substance-related knowledge, attitudes, and skills, family functioning and parenting outcomes; educational achievement and engagement; psychopathology and behavioural outcomes.

Review Quality Rating: 8 (strong) Details on the methodological quality are available here.

Considerations for Public Health Practice

<table>
<thead>
<tr>
<th>Conclusions from Health Evidence</th>
<th>General Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of the evidence: The evidence in this review is based on systematic reviews N=14 (SRs) and individual studies N=208. While SRs were of good quality the quality of studies included in those reviews was not reported. In addition, the quality of the individual studies included in this review (N=208) was generally poor. The vast majority of individual studies included in this review were too small to detect an important change. In light of this, the evidence should be interpreted cautiously. The following interventions were found to be effective (more detail, including effect size, follows in the evidence table, below). Interventions for which there was inconsistent or insufficient evidence are not included here in overall conclusions, but appear in the main evidence table, below.</td>
<td>The overall findings suggest that public health should implement and/ or support and advocate for, depending on local scope of practice, the following interventions to reduce substance misuse and related risks (more detail, including outcomes assessed for each intervention, follows in the implications for practice and policy section, below): For young people with multiple risk factors: multi-component community based approaches across different settings, community based case management interventions, comprehensive employment programs, community based individual counseling, family based interventions, and school based educational and skills programs (early pre school interventions, tiered classroom based interventions with parental training, specialized teacher training, cognitive</td>
</tr>
<tr>
<td>For young people with multiple risk factors:</td>
<td>problem solving skills sessions or a violence prevention curriculum, life skills curricula with parental, mentoring for longer than 12 months, and /or social support), and school based counseling and therapy such as brief single substance interventions, group counseling and brief alcohol specific interventions.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>• Multi-component community based approaches with high-risk youth in preventing, delaying, or reducing drug use compared to school and community projects alone;</td>
<td>For black and minority ethnic populations: In the school: interactive programs involving discussion, life skills training / resistance skills interventions. In the community: CD-ROM interventions, culturally tailored skills training alone rather than in combination with community mobilisation. Family based interventions, prevention programs that incorporate refusal skills training, specialised early education interventions that include participation in a preschool curriculum, mentoring for longer than 12 months, specialised early education interventions that include participation in a preschool curriculum.</td>
</tr>
<tr>
<td>• Community based case management interventions increase substance use knowledge;</td>
<td>For young people in families with substance using members: multi component interventions including parenting programs combined with drug treatment, parenting programs alone, home visitation for infants, and programs that include high levels of engagement of mothers in outreach programs.</td>
</tr>
<tr>
<td>• A community based family case management intervention increases positive parenting skills</td>
<td>For young substance users: motivational interviewing and brief intervention, brief intervention enhanced with additional support, family therapy including multidimensional family therapy, brief family interventions, universal, community-based programs to existing substance users, skills training for parents of young substance users.</td>
</tr>
<tr>
<td>• A comprehensive employment program produced long term positive effects on participation in employment and training, arrest and conviction rates and reduced time spent in jail</td>
<td>For young people with behavioural and aggressive problems: multi-component parent and child programs, and modified versions of life skills training.</td>
</tr>
<tr>
<td>• Individual counselling produced significant reduction in delinquent and criminal behaviour in the medium term</td>
<td>For young offenders: counselling or behavioural therapy; multi-systemic therapy; combined life skills training, anti-violence and values clarification programs, and educational and skills based interventions.</td>
</tr>
<tr>
<td>• Family based interventions in reducing substance use, except for tobacco and alcohol, and at improving parenting skills in the long term</td>
<td></td>
</tr>
</tbody>
</table>
substance use; culturally tailored skills training at reducing substance use

- Family based interventions positively impact on secondary outcomes including child participation in family meetings, bonding to school, and regulated communication parenting
- Drug prevention programs that incorporate refusal skills training are more effective in reducing substance misuse compared to programs that do not
- Specialised early education interventions that include participation in a preschool curriculum at reducing cannabis use
- Mentoring for longer than 12 months has long term beneficial impact on substance use and on parental relationships
- Interventions including refusal skills on behavioural outcomes related to substance use
- Specialised early education interventions that include participation in a preschool curriculum on years of education and engagement in skilled labour in the long term.

For young people in families with substance using members:
- Multi component interventions such as parenting programs combined with drug treatment at improving parental problem solving, parenting practices and depression
- Parenting programs at stabilizing or reducing parents drug use
- Home visitation as infants reduced adolescents arrests and convictions
- High levels of engagement of mothers in outreach programs at improving prosocial behaviour in their children

For young substance users:
- Brief intervention or motivational interviewing on the use of cigarettes, alcohol and cannabis
- A single session of motivational interviewing on attitudes, intentions and behavioural outcomes related to substance use
- Brief intervention enhanced with additional support on attendance at community treatment agencies and psychological well being
- Family therapy at reducing substance use including Multidimensional family therapy, Brief family interventions

For young substance users:
- Family therapy interventions, or motivational enhanced treatment combined with cognitive

For school dropouts truants and underachievers: classroom based social influence interventions, health educator led interventions rather than self-instruction programs, social influence interventions, and skills based interventions.

For other populations: classroom based interventions for children of divorce, and multi component school based interventions for abused females.

Additional note: though evidence supports the use of CD Rom technology, more recent technological advances may render the approach obsolete.

Public health should NOT implement the following interventions to reduce substance misuse and related risks (more detail, including outcomes assessed for each intervention, follows in the implications for practice and policy section):

For young people with multiple risk factors:
- Behavioural skills programs, informational focused programs, recreational focused programs or affective programs, skills training programs in residential camps, community based case management interventions, comprehensive employment programs, motivational interviewing with video feedback, community mobilization programs, and school based life skills training or generic life skills.

For black and minority ethnic populations:
- Community activities on substance use, interventions incorporating cultural values, mentoring or universal interventions.

For young people in families with substance using members:
- Multi component interventions targeting parental drug use and parenting practices in combination with drug treatment, home visitation at birth home visitation as infants, or home visitation in general.

For young substance users:
- Family therapy interventions, or motivational enhanced treatment combined with cognitive
• Universal, community-based programs delivered to existing substance users at decreasing alcohol use, and cigarette use
• Skills training for parents of young substance users at reducing cannabis use (preliminary evidence)
• Skills training programs for parents at producing improvement in parent coping

For young people with behavioural and aggressive problems:
• Multi-component parent and child program at reducing use of alcohol, tobacco and cannabis
• Multi-component programs at reducing some problem behaviours and improving social skills, academic achievement and parental discipline
• Single component programs such as modified version of life skills training at increasing knowledge and negative attitudes to cigarettes

For young offenders:
• Counselling or behavioural therapy including multisystemic therapy may reduce ‘soft’ drug use and reduce recidivism
• A combined life skills training, anti-violence and values clarification program at reducing substance use
• Educational and skills based interventions at improving knowledge, attitudes, skills and behaviours related to substance use

For school dropouts truants and underachievers:
Educational skills based interventions such as classroom based social influence interventions at reducing ‘hard’ drug use among youth in alternative education provision; health educator led interventions at reducing substance use; a social influence intervention at reducing substance-related attitudes and knowledge among youth in alternative education provision; and skills based interventions at improving grades

For other populations: classroom based interventions on psychological wellbeing among children of divorce, and multi component school based interventions at reducing cannabis use among abused females.

The following interventions were found to be ineffective (more detail, including outcomes
assessed for each intervention, follows in the evidence table, below):

For young people with multiple risk factors:
Behavioural skills programs, informational focused programs, recreational focused programs or affective programs, skills training programs in residential camps, community based case management approach, community based case management intervention for youth and parents, comprehensive employment program, motivational interviewing with video feedback, community mobilization and youth development program, or school based life skills training or generic life skills training

For black and minority ethnic populations:
Community activities on substance use, interventions incorporating cultural values, mentoring or universal interventions

For young people in families with substance using members:
Multi component interventions targeting parental drug use and parenting practices in combination with drug treatment, home visitation at birth, home visitation as infants, or home visitation in general

For young substance users:
Family therapy interventions, or motivational enhanced treatment combined with cognitive behavioural therapy

For young people with behavioural and aggressive problems:
Modified version of life skills training

For young offenders:
Modified version of life skills training or a combined anti-violence and values clarification program, a combined program of life skills training and anti-violence and values clarification program, or for juvenile drug courts.

For school dropouts truants and underachievers:
A programmed intervention approach.

For other populations:
For homeless young people no effect was found for peer led interventions
### Evidence and Implications

<table>
<thead>
<tr>
<th>What’s the evidence?</th>
<th>Implications for practice and policy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General notes on the presentation of evidence in this summary:</strong></td>
<td></td>
</tr>
<tr>
<td>a) The presentation of evidence follows the conventions used to synthesize evidence in this narrative review. Evidence statements were derived for each intervention on the basis of significant effects on primary or secondary outcomes.</td>
<td></td>
</tr>
<tr>
<td>b) Statements take into account the strength of the evidence (reflecting the appropriateness of the study design to answer the question, the quality and quantity of evidence). ++ indicates that most quality criteria were met; + indicates that some quality criteria were met, and – indicates few or no criteria were met.</td>
<td></td>
</tr>
<tr>
<td>c) Statements adhere to a prescribed format for each population and type of intervention:</td>
<td></td>
</tr>
<tr>
<td>i) There is evidence from [n studies of type/ quality] to suggest an effect on outcome z in the short/ medium/ long term.</td>
<td></td>
</tr>
<tr>
<td>ii) There is evidence to suggest no effect on outcome z in the short/ medium/ long term.</td>
<td></td>
</tr>
<tr>
<td>iii) There is inconsistent evidence from about an effect on outcome z in the short/ medium/ long term.</td>
<td></td>
</tr>
<tr>
<td>iv) There is insufficient (ie in terms of quality and/or quantity) /no evidence to determine an effect on outcome z in the short/ medium/ long term.</td>
<td></td>
</tr>
<tr>
<td>d) Where an effect was found, and where data are available, data are presented showing magnitude of effect; where p values alone are presented, these are not shown).</td>
<td></td>
</tr>
<tr>
<td>e) SR = systematic review; RCT = Randomized Controlled Trial; CNRT = Non-Randomized Controlled Trial; CBA = Controlled before and after studies; BA = before and after studies</td>
<td></td>
</tr>
<tr>
<td>f) Outcomes are reported for the following time frames: immediate term (≤ 7 days); very short term (≥ 8 days &lt; 1 month); short term (&gt; 1 month ≤ 6 months); medium term (&gt; 6 months ≤ 1 year); and long term (&gt; 1 year).</td>
<td></td>
</tr>
</tbody>
</table>

#### Among young people with multiple risk factors:

**Across different settings (1 SR, 6 CNRT)**

- **Multicomponent community based approaches** (1 SR ++) with high-risk youth are more effective in preventing, delaying, or reducing drug use compared to school and community projects alone (d = 0.074, p< 0.001)
- No effects were found for **behavioural skills programs, informational focused programs, recreational focused programs, or affective programs** on use of illicit drugs, tobacco or alcohol in the immediate to long term or on mental health in the short to long term

**Community based interventions (3 SR)**

- There is insufficient evidence to determine whether **family, educational or multi-component community interventions** are effective in reducing drug use behaviour

**Youth programs (12 studies: 1 RCT, 5 CNRT, 2 CBA, 4 BA)**

- There is inconsistent evidence about the

#### Among young people with multiple risk factors

1. **Community based interventions**
   - Multicomponent community based approaches across different settings:
     - Should be implemented (rather than school and community projects alone) to prevent delay or reduce drug use
   - Public health should not implement:
     - **behavioural skills programs, informational focused programs, recreational focused programs, or affective programs** to reduce use of illicit drugs, tobacco or alcohol or improve mental health
     - **skills training programs in residential camps** to improve resilience

- Research should be conducted to determine the effectiveness of **family, educational or multi-component community interventions**
The effectiveness of community-based youth programs to reduce substance use:

- **Educational and skills focused interventions** (2 CNRT -) delivered in out of school youth settings are effective in increasing drug related knowledge and attitudes in the short to long term.
- **After school programs** (1 CNRT -) are effective at reducing serious and minor delinquent behaviours in the long-term.
- No effect was found for **skills training programs in residential camps** on resilience.

### Case management interventions (3 RCT)
- No effect was found for a **community based case management approach** to reduce substance use.
- **Community based case management interventions** (3 RCTs, 1 + and 2 -) increase substance use knowledge but have no effect on family management relating to substance use.
- No effect was found for a **community based case management intervention for youth and parents** on family functioning.
- A **community based family case management intervention** (1 RCT +) increases positive parenting skills.

### Employment skills programs (1 RCT)
- No effect was found for a **comprehensive employment program** to reduce substance use.
- A **comprehensive employment program** (1 RCT +) produced long term positive effects on participation in employment and training, arrest and conviction rates and reduced time spent in jail.

### Community based counseling and therapy (4 studies: 1 RCT, 1 CNRT, 1 BA)
- There is insufficient evidence to determine whether **individual counselling** is effective in reducing substance use.
- No effect was found for **motivational interviewing with video feedback** on delinquent, home or school behaviours and perception of control decreased.
- **Individual counselling** (1 CNRT -) produced significant reduction in delinquent and criminal

The effectiveness of community based youth educational and skills focused interventions and after school programs to increase drug related knowledge and attitudes and reduce serious and minor delinquent behaviours:

2. **Case Management interventions**
- **Community based case management interventions** should be implemented to increase substance use knowledge and increase positive parenting skills.
- They should **not** be implemented to reduce substance use; improve family management relating to substance use; or improve family functioning.

3. **Employment skills programs**
- Public health should implement **comprehensive employment programs** to increase participation in employment and training and reduce arrest and conviction rates and time spent in jail (limited evidence).
- They should **not** be implemented to reduce substance use.

4. **Community based counseling and therapy**
- Public health should promote **individual counseling** to reduce delinquent and criminal behaviour (limited evidence).
- Public health should **not** promote motivational interviewing with video feedback to improve delinquent, home or school behaviour; it may result in decreased perception of control.
- Research should be conducted to determine whether **individual counselling** is effective in reducing substance use.

5. **Community mobilization programs**:
- Should **not** be implemented to improve neighbourhood cooperation or pride in one’s neighbourhood, indicators of community mobilization, or generic youth risk behaviours.

6. **Family based interventions**:
- Should be implemented to reduce substance use except for tobacco and alcohol.
- Should be implemented to improve parenting skills.
behaviour in the medium term

Community mobilization programs (1 RCT)
- No effect was found for a community mobilization and youth development program on neighbourhood cooperation or pride in one’s neighbourhood, indicators of community mobilization, or generic youth risk behaviours

Family based interventions (15 studies: 10 RCT, 2 CNRT, 3 BA)
- Family based interventions (4 RCT +, 1 CNRT +, and 1 BA -) are effective in reducing substance use, except for tobacco and alcohol, in the long term
- Family based interventions (7 RCT +) are effective in improving parenting skills in the long term
- There is inconsistent evidence about the effectiveness of family based interventions on child development

Multi component interventions (7 studies: 5 RCT, 2 BA)
- Multi component interventions (1 RCT +) are effective in reducing substance use in the short term; there is inconsistent evidence about effectiveness in the long term
- There is inconsistent evidence about the effectiveness of multi component interventions on secondary outcomes including willingness or intent to use substances, family functioning, absences and suspensions from school, substance knowledge; refusal skills or attitudes to substance use; school attendance; educational attainment or aspirations; problem behaviours; association with deviant peers and involvement in criminal activity; diet, accidental injury and teenage pregnancy; and they increase negative behaviours among vulnerable of disadvantaged young people

School based educational and skills programs (33 studies: 14 RCT, 15 CNRT, 3 CBA, 1 BA)
- No effects were found for school based life skills training or generic life skills in reducing substance misuse in the long term
- There is inconsistent evidence about the

- Research should be conducted to determine the effectiveness of family based interventions on child development

7. Multi component interventions:
- Should be implemented to reduce substance use in the short term (limited evidence)
- Multi component interventions should not be implemented as they may increase negative behaviours
- Research should be conducted to determine the effectiveness of multi component interventions to reduce substance use in the longer term
- Research should be conducted to determine the effectiveness of multi component interventions on willingness or intent to use substances, family functioning, absences and suspensions from school, substance knowledge; refusal skills or attitudes to substance use; school attendance; educational attainment or aspirations; problem behaviours; association with deviant peers and involvement in criminal activity; diet, accidental injury and teenage pregnancy

8. School based educational and skills programs:
- Should be implemented to improve educational skills and positive behaviours and parents' family based caring, including
  - Early pre school interventions to improve behaviours promoting education, risk reduction and social inclusion
  - Tiered classroom based interventions with parental training to improve family based care giving and school bonding (limited evidence)
  - Specialized teacher training to improve educational skills and other classroom behaviours (limited evidence)
  - Cognitive problem solving skills sessions or a violence prevention curriculum to improve social behaviours
  - Life skills curricula with parental, mentoring, and /or social support to increase mood, anxiety, community engagement, positive school based outcomes and family bonding; however
effectiveness of **life skills approaches** in changing attitudes and knowledge relating to substance abuse

- **School based educational / skills interventions** improve educational skills and positive behaviours and parents' family based caring:
  - **Early pre school interventions** (2 CNRT +) produced positive effects on behaviours promoting education, risk reduction and social inclusion in the immediate and long term
  - **Tiered classroom based interventions with parental training** (1 RCT +) improves family based care giving and school bonding compared with no intervention or classroom intervention alone in the medium and long term
  - **Specialized teacher training** (1 CNRT -) may be associated with improvements in educational skills and other classroom behaviours in the long term
  - **Cognitive problem solving skills sessions or a violence prevention curriculum** (1 RCT +, 1 CNRT +, 1 CBA +) are effective in improving social behaviours in the immediate and medium term
  - **Life skills curricula with parental, mentoring, and /or social support** (2 RCT -, 2 CNRT -) can increase mood, anxiety, community engagement, positive school based outcomes and family bonding in the short and long term, however if weakly implemented, they may produce long term iatrogenic effects and decreases in positive school based outcomes

---

<table>
<thead>
<tr>
<th>School based counselling and therapy (11 studies: 2 RCT, 3 CNRT, 2 CBA, 4 BA)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brief single substance interventions</strong> (1 RCT ++) are more effective at producing reductions in alcohol use in the short term compared to interventions targeting multiple substances</td>
</tr>
<tr>
<td><strong>A group counselling approach</strong> (1 CNRT +) can reduce alcohol use in younger children, but in older children may increase use of cannabis and alcohol</td>
</tr>
<tr>
<td><strong>A brief alcohol specific intervention</strong> (1 RCT ++) is more effective in changing attitudes to alcohol compared to interventions targeting multiple substances</td>
</tr>
<tr>
<td>There is inconsistent evidence about the effectiveness of <strong>school based counselling</strong> with caution, as if weakly implemented, they may produce long term iatrogenic effects and decreases in positive school based outcomes</td>
</tr>
<tr>
<td><strong>School based life skills training or generic life skills</strong> should <strong>not</strong> be implemented to in reduce substance misuse</td>
</tr>
<tr>
<td>Research should be conducted to determine the effectiveness of <strong>life skills approaches</strong> in changing attitudes and knowledge relating to substance abuse</td>
</tr>
</tbody>
</table>

9. **School based counselling and therapy**

- Public health should implement **brief single substance interventions** to reduce alcohol use in the short term (limited evidence)
- Public health should implement **group counselling** to reduce alcohol use in younger children; however it may increase use of cannabis and alcohol in older children (limited evidence)
- Public health should implement a **brief alcohol specific** intervention rather than intervention targeting multiple substances to change attitudes to alcohol (limited evidence)
- Public health should **not** implement **school based counselling and therapy** as these interventions may lead to harmful outcomes; research should be conducted to determine their effectiveness on behavioural and social functioning
and therapy on behavioural and social functioning and these interventions may lead to harmful outcomes

<table>
<thead>
<tr>
<th>Among black and minority ethnic populations</th>
<th>Among black and minority ethnic populations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School based interventions (3 SR and 11 studies: 9 RCT, 1 CBA, 1 BA)</strong></td>
<td><strong>10. School based interventions:</strong></td>
</tr>
<tr>
<td>• School based interactive programs involving discussion (1 SR ++) are more effective than non-interactive programs in reducing substance use</td>
<td>• School based interactive programs involving discussion should be implemented rather than non-interactive programs to reduce substance use</td>
</tr>
<tr>
<td>• School based life skills training / resistance skills interventions (4 RCT +) reduce tobacco and alcohol use compared to no interventions in the short, medium and long term</td>
<td>• School based life skills training / resistance skills interventions should be implemented to reduce tobacco and alcohol use</td>
</tr>
<tr>
<td>• There is inconsistent evidence about the effectiveness of school based life skills training/ resistance skills interventions in reducing cannabis in the short and long term</td>
<td>• Research should be conducted to determine the effectiveness of school based life skills training/ resistance skills interventions to reduce cannabis use; and of school based programs to improve risk and protective factors related to substance use</td>
</tr>
<tr>
<td>• There is inconsistent evidence about the effectiveness of school based programs on risk and protective factors related to substance use</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community based interventions (12 studies: 3 RCT, 5 CNRT, 4 BA)</th>
<th>11. Community based interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A CD-ROM intervention (1 RCT +) reduces monthly substance use in the long term compared to no intervention; the intervention in combination with parent workshops does not increase effectiveness with regard to cigarettes and cannabis, but decreases alcohol use</td>
<td>• Public health should implement a CD-ROM intervention to reduce monthly substance use in combination with parent workshops to reduce alcohol use; however, not to decrease cigarette and cannabis use (limited evidence).</td>
</tr>
<tr>
<td>• Culturally tailored skills training (1 RCT -) reduced substance use in the long term. Skills training alone is more effective than in combination with community mobilisation.</td>
<td>• Public health should implement culturally tailored skills training to reduce substance use; and it should be implemented alone rather than in combination with community mobilisation (limited evidence)</td>
</tr>
<tr>
<td>• No effects were found for Community activities on substance use with the exception of smokeless tobacco use</td>
<td>• Public health should implement community activities to reduce smokeless tobacco use but not to reduce substance use</td>
</tr>
<tr>
<td>• There is insufficient and inconsistent evidence to determine whether youth group activities reduce substance use</td>
<td>• Research should be conducted to determine the effectiveness of youth group activities to reduce substance use</td>
</tr>
<tr>
<td>• There is insufficient and inconsistent evidence to determine whether community based interventions have effects on risk and protective factors related to substance use</td>
<td>• Research should be conducted to determine the effectiveness of community based interventions to improve risk and protective factors related to substance use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family based interventions (9 studies: 4 RCT, 1 CBA, 3 BA)</th>
<th>12. Family based interventions</th>
</tr>
</thead>
</table>

Family based interventions:  
• Public health should implement family based interventions to improve child participation in family meetings, bonding to school, and regulated communication parenting; these should not be implemented to improve the
- There is inconsistent evidence about the effectiveness of **family based interventions** in changing substance use behaviours
- **Family based interventions** (3 RCT +) positively impact on secondary outcomes including child participation in family meetings, bonding to school, and regulated communication parenting, but not on number of family meetings and parental monitoring

### Multi component programs (5 studies: 1 CNRT, 1 CBA, 3 BA)
- There is insufficient evidence to determine whether **multi component programs** are effective in reducing substance use
- There is inconsistent evidence to determine whether **multi component interventions** are effective in reducing risk factors related to substance use

### Other interventions (2 SR and 4 RCT)
- **Interventions incorporating cultural values** are no more effective in reducing substance misuse than those that do not
- **Drug prevention programs that incorporate refusal skills training** (1 SR +) are more effective in reducing substance misuse compared to programs that do not
- **Specialised early education interventions that include participation in a preschool curriculum** (1 RCT +) reduce cannabis use in the long term but not other substance use behaviours
- **Mentoring for longer than 12 months** (1 RCT -) have long term beneficial impact on substance use
- **Interventions including refusal skills** (1 SR +) have a greater effect on behavioural outcomes related to substance use than those not incorporating this approach
- **Specialised early education interventions that include participation in a preschool curriculum** (1 RCT +) positively impact on years of education and engagement in skilled labour in the long term. The intervention does not impact on criminal behaviours
- **Universal interventions** are less effective in improving social skills in a young black and minority populations with a diagnosis of number of family meetings or parental monitoring

### 13. Multi component programs
- Research should be conducted to determine the effectiveness of **multi component programs** to reduce substance use or improve risk factors related to substance use

### 14. Other interventions
- Public health should implement and/or support and advocate for:
  - **Drug prevention programs that incorporate refusal skills training** to reduce substance misuse
  - **Specialised early education interventions that include participation in a preschool curriculum** to reduce cannabis use in the long term but **not** to reduce other substance use behaviours (limited evidence)
  - **Mentoring for longer than 12 months** to reduce substance use and to improve parental relationships (limited evidence)
  - **Interventions including refusal skills** rather than those not incorporating this approach to improve behavioural outcomes related to substance use
  - **Specialised early education interventions that include participation in a preschool curriculum** to have a positive impact on years of education and engagement in skilled labour but not to impact on criminal behaviours (limited evidence)
- **Public health should not:**
  - **Implement interventions incorporating cultural values** to reduce substance misuse
  - **Implement mentoring** to improve attitudes to substance use, self esteem grades, school absences, self worth, peer relations, or parental relationship in the long term substance use and it may reduce conservative attitudes regarding substance use
  - **Universal interventions** to improve social skills in a young BME population with a diagnosis of conduct disorder
conduct disorder compared to those without the diagnosis
- No immediate effect was found for mentoring on attitude to substance use, self esteem grades or school absences or on self worth, peer relations, or parental relationship in the long term
- **Mentoring for longer than 12 months (1 RCT -)** improves parental relationships in the long term
- **Mentoring (1 RCT -)** may reduce conservative attitudes to substance use in the long term

### Among young people in families with substance using members

#### Multi component interventions (5 studies: 2 RCT, 1 CNRT, 2 BA)
- Parenting programs combined with drug treatment (2 RCT + and 1 CRNT +) improve parental problem solving, parenting practices and depression; few effects were found for family factors including bonding and conflict
- **Parenting programs** (1 RCT +, 1 CNRT -, one BA -) stabilize or reduce parents drug use in the short to medium term
- No effects were found for **multi component interventions targeting parental drug use and parenting practices in combination with drug treatment** on children’s drug use in the short medium or long term; or on children’s behavioural outcomes or school and family factors in the short, medium or long term

#### Home Visitation (1 SR and 4 studies: 2 RCT, 1 RCT, 1 CBA)
- No effects were found for drug using mothers receiving **home visitation at birth** compared to those who did not receive home visitation on substance use
- No effects were found for adolescents receiving **home visitation as infants** on dysfunctional behaviours; stops by police may be higher
- Adolescents receiving **home visitation as infants** (1 RCT +) had fewer arrests and convictions in the long term compared to those who did not
- There is insufficient evidence to determine whether **home visitation** produces positive effects on children’s developmental progress

### Among young people in families with substance using members

#### 15. Multi component interventions
- Public health should implement parenting programs combined with drug treatment to improve parental problem solving, parenting practices and depression; but not to improve family factors including bonding and conflict
- Public health should implement parenting programs to stabilise or reduce parents drug use
- Public health should **not**: implement multi component interventions targeting parental drug use and parenting practices in combination with drug treatment to improve children’s drug use, children’s behavioural outcomes or school and family factors

#### 16. Home Visitation
- Public health should implement and/ or support and advocate for home visitation for infants to reduce adolescents’ arrests and convictions (limited evidence)
- Public health should **not** implement home visitation at birth for drug using mothers to reduce substance use, reduce dysfunctional behaviours; and this may increase stops by police
- Public health should **not** implement home visitation to reduce the number of drug free mothers, parenting stress or child abuse potential
- Research should be conducted to determine whether **home visitation** produces positive effects on children’s developmental progress
- No effects were found for **home visitation** compared to no home visitation on the number of drug free mothers, parenting stress or child abuse potential

**Behaviour / skills based interventions (4 studies: 2 RCT, 1 CNRT, 1 BA)**
- There is insufficient evidence to determine whether **behavioural and skills training** reduces substance use
- There is inconsistent evidence to determine whether **behavioural and skills training** reduces or improves risk and protective factors related to substance use

**Other interventions (3 studies: 1 RCT, 2 CNRT)**
- There is insufficient evidence to determine whether **education programs or multi component programs including drug rehabilitation targeting young pregnant or parenting adolescents** are effective in reducing drug use behaviour
- **High levels of engagement of mothers in outreach programs** (1 RCT -) improve prosocial behaviour in their children (limited evidence)
- There is insufficient evidence to determine whether **self directed learning or multi component interventions including drug rehabilitation and vocational training** are effective on secondary outcomes including substance related knowledge, attitudes to substance use, self reported psychopathology (stress and depression) and educational and employment outcomes

### Among young substance users

**Brief intervention or motivational interviewing (2 SR and 6 studies: 4 RCT, 1 CNRT, 1 BA)**
- **Motivational interviewing** and **brief intervention** (1 SR +, 2 RCT + and 1 -, 1 CNRT -) have effects on the use of cigarettes, alcohol and cannabis in the short term; motivational interviewing has no effect in the medium term
- **A single session of motivational interviewing** (1 RCT +) has a positive impact on attitudes, intentions and behavioural outcomes related to substance use in the short term; the effect does not last in the medium term

### Among young substance users

**17. Behaviour / skills based interventions**
- Research should be conducted to determine whether **behavioural and skills training** reduce substance use and reduce or improves risk and protective factors related to substance use

**18. Other interventions**
- Public health should implement and/ or support and advocate for programs that include **high levels of engagement of mothers in outreach programs** to improve prosocial behaviour in their children (limited evidence)
- Research should be conducted to determine whether **education programs or multi component programs including drug rehabilitation targeting young pregnant or parenting adolescents** are effective in reducing drug use behaviour
- Research should be conducted to determine whether **self directed learning or multi component interventions including drug rehabilitation and vocational training** are effective on secondary outcomes including substance related knowledge, attitudes to substance use, self reported psychopathology (stress and depression) and educational and employment outcomes

**19. Brief intervention or motivational interviewing**
- Public health should implement and/ or support and advocate for **motivational interviewing and brief intervention** to reduce cigarette, alcohol and cannabis use; but only in the short term
- Public health should consider that **a single session of motivational interviewing** has a positive impact on attitudes, intentions and behavioural outcomes related to substance use in the short term; but not in the medium term (limited evidence)
• **Brief intervention enhanced with additional support** (1 RCT +) has a positive impact on attendance at community treatment agencies and psychological well being compared to usual treatment

**Family Therapy (2 SR and 5 RCT)**

• **Family therapy** (1 SR +, 3 RCTs 2 ++ and 1+) is more effective at reducing substance use than other types of group therapy immediately following treatment

• **Multidimensional family therapy** (1SR +, 1 RCT ++) is more effective at reducing substance use than other approaches in the short to medium term

• **Brief family interventions** (2 RCT -) produce more reductions in cannabis use and overall substance use in the short term compared to group therapy

• **Family therapy** (1 SR +, 2 RCTs 1 ++ and 1 -) has more positive impact on social behaviours compared to group therapy or individual therapy immediately following treatment

• No effects were found for **family therapy interventions** on school or family related factors compared to educational or group therapy approaches in the immediate or medium term

**Counselling or therapy sessions for adolescents (4 studies: 1 RCT, 1 CNRT, 1 CBA, 1 BA)**

• No effect was found for **motivational enhanced treatment combined with cognitive behavioural therapy** compared to other approaches in reducing cannabis, alcohol or other drug use in the medium term

• There is insufficient evidence to determine whether **other types of counselling and behaviour therapy** reduce substance use or reduce risk behaviour related to substance use

**Other interventions (3 studies: 1 RCT, 1 BA, 1 CNRT)**

• **Universal, community-based programs** (1 RCT -) delivered to existing substance users may decrease alcohol use in the short and long term, and cigarette use in the short term; but do not change cannabis use

• Preliminary evidence suggests that **skills**

---

• Public health should implement **brief intervention enhanced with additional support** to improve attendance at community treatment agencies and psychological well being (limited evidence)

**20. Family therapy**

• Public health should implement and/ or support and advocate for **family therapy** to reduce substance use immediately following treatment

• Public health should implement **multidimensional family therapy** to reduce substance use

• Public health should implement **family therapy** to improve social behaviours

• Public health should not implement **family therapy interventions** to improve school or family related factors

**21. Counselling or therapy sessions for adolescents**

• Public health should not: implement **motivational enhanced treatment combined with cognitive behavioural therapy** to reduce cannabis, alcohol or other drug use

• Research should be conducted to determine whether **other types of counselling and behaviour therapy** reduce substance use or reduce risk behaviour related to substance use

**22. Other interventions**

• Public health should implement **universal, community-based programs to existing substance users** to decrease alcohol and cigarette use; but not to reduce cannabis use (limited evidence)

• Public health should consider **skills training for parents of young substance users** as preliminary evidence suggests that it may reduce cannabis use (limited evidence)

• Public health should implement **skills training programs for parents** to improve parent coping; but not to improve other measures of parent and family functioning (limited evidence)
<table>
<thead>
<tr>
<th>Training for parents of young substance users</th>
<th>Research should be conducted to determine the effectiveness of contingency-based management programs with parent and child components to reduce substance use and improve risk factors related to substance use</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1 RCT +) reduces cannabis use compared to no intervention</td>
<td></td>
</tr>
<tr>
<td>• There is insufficient evidence to determine whether contingency-based management programs with parent and child components reduce substance use or have positive effect on risk factors related to substance use</td>
<td></td>
</tr>
<tr>
<td>• <strong>Skills training programs for parents</strong> (1 RCT +) produces improvement in parent coping in the immediate term but does not improve other measures of parent and family functioning</td>
<td></td>
</tr>
</tbody>
</table>

**Among young people with behavioural and aggressive problems**

**Multi-component programs (6 RCT)**
- A **multi-component parent and child program** (1 RCT +) reduces use of alcohol, tobacco and cannabis in the short and medium term compared to no intervention
- **Multi-component programs** (6 RCTs 1 ++, 4 + and 1 -) have a positive impact in reducing some problem behaviours compared to no intervention
- A **multi-component program** (1 RCT ++) improves social skills, academic achievement and parental discipline in the long term compared to no intervention; but does not improve self-regulation problems

**Single component programs (1 RCT)**
- No effects were found for a modified version of life skills training in reducing cigarette and alcohol use
- A **modified version of life skills training** (1 RCT -) increases knowledge and negative attitudes to cigarettes immediately following intervention compared to no intervention; no effect was found for alcohol or cannabis

**Among young offenders**

**Counselling or behavioural therapy (2 RCT)**
- **Multisystemic therapy** (1 RCT +) may reduce ‘soft’ drug use compared to usual services in the immediate term
- **Multisystemic therapy** (1 RCT +) reduces recidivism compared to individual focused counselling in the immediate term

**Among young people with behavioural and aggressive problems**

**23. Multi-component programs**
- Public health should implement multi-component parent and child programs to reduce alcohol, tobacco and cannabis use (limited evidence)
- Public health should implement multi-component programs to reduce some problem behaviours
- Public health should implement multi-component programs to improve social skills, academic achievement and parental discipline; but **not** to improve self-regulation problems (limited evidence)

**24. Single component programs**
- Public health should implement modified versions of life skills training to increase knowledge and negative attitudes to cigarettes; but not to increase knowledge and negative attitudes to alcohol or cannabis (limited evidence)
- Public health should **not** implement modified versions of life skills training to reduce cigarette and alcohol use (limited evidence)

**Among young offenders**

**25. Counselling or behavioural therapy**
- Public health should implement multisystemic therapy to reduce ‘soft’ drug use (limited evidence)
- Public health should implement multisystemic therapy rather than individual focused counselling to reduce recidivism
<table>
<thead>
<tr>
<th>Educational or skills based programs (6 studies: 3 RCT, 1 CNRT and 2 BA)</th>
<th>(limited evidence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No effect was found for a modified version of life skills training or a combined anti-violence and values clarification program in reducing substance use in the short term</td>
<td>26. Educational or skills based programs</td>
</tr>
<tr>
<td>• A combined life skills training, anti-violence and values clarification program (1 RCT -) reduces substance use in the short term compared to no intervention</td>
<td>• Public health should implement combined life skills training, anti-violence and values clarification programs to reduce substance use (limited evidence)</td>
</tr>
<tr>
<td>• Educational and skills based interventions (2 RCTs 1 + and 1 -) improve knowledge, attitudes, skills and behaviours related to substance use in the immediate to short term</td>
<td>• Public health should implement educational and skills based interventions to improve knowledge, attitudes, skills and behaviours related to substance use (limited evidence)</td>
</tr>
<tr>
<td>• No effect was found for a combined program of life skills training and anti-violence and values clarification program compared to no intervention on illegal and violent offences or on school problems</td>
<td>• Public health should not implement a modified version of life skills training or a combined anti-violence and values clarification program to reduce substance use; or a combined program of life skills training and anti-violence and values clarification program to reduce illegal and violent offences or school problems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other interventions (2 studies: 1 CBA, 1 BA)</th>
<th>27. Other interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No effect was found for juvenile drug courts in reducing frequency of being arrested compared to drug education and treatment in the long term</td>
<td>• Public health should not implement or support juvenile drug courts to reduce frequency of being arrested.</td>
</tr>
<tr>
<td>• There is insufficient evidence to determine whether multi-component interventions reduce substance use</td>
<td>• Research should be conducted to determine whether multi-component interventions reduce substance use</td>
</tr>
<tr>
<td>• There is insufficient evidence to determine whether drug courts reduce risk factors related to substance use</td>
<td>• Research should be conducted to determine whether drug courts reduce risk factors related to substance use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Among school dropouts truants and underachievers</th>
<th>Among school dropouts truants and underachievers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational skills based interventions (10 studies: 7 RCT, 3 CNRT)</td>
<td>28. Educational skills based interventions</td>
</tr>
<tr>
<td>• A classroom based social influence intervention (2 RCT +) reduces ‘hard’ drug use among youth in alternative education provision in the medium term; there were inconsistent long term effects; no effect was found on the use of alcohol, tobacco and cannabis. No increase in effectiveness was found with the addition of a community based component</td>
<td>• Public health should implement classroom based social influence interventions to reduce ‘hard’ drug use in the medium term; but not in the long term; and not to reduce use of alcohol, tobacco and cannabis. These interventions should not include a community based component</td>
</tr>
<tr>
<td>• Health educator led interventions (2 RCT +) are more effective in reducing substance use compared to a self-instruction program</td>
<td>• Public health should promote health educator led interventions rather than self-instruction programs to reduce substance use</td>
</tr>
</tbody>
</table>
| • There is inconsistent evidence about the effectiveness of skills based interventions in | • Public health should implement social influence interventions to reduce substance-
### Preventing or Reducing Substance Use

- **A social influence intervention** (2 RCT -) improves substance-related attitudes and knowledge among youth in alternative education provision in the short term; the program is more effective when delivered actively rather than passively
- **Skills based interventions** (2 CNRT -) improve grades in the immediate and short term; effects on school absences are less clear
- No effect was found for a **programmed intervention approach** on grades, school connectedness or anger. The intervention may decrease conventional peer bonding and increase peer high-risk behaviours in the short term

### Multi component interventions (2 BA)
- There is insufficient evidence to determine whether **multi component interventions** prevent or reduce substance use, or have effects risk factors related to substance use in alternative education provision

### Among other populations

#### High sensation seekers (2 CNRT)
- There is insufficient evidence to determine whether **television campaigns** reduce self-reported cannabis use or have effects on substance use knowledge, attitudes, and intentions to use

#### Homeless young people (2 CNRT)
- There is insufficient evidence to determine whether **substance use prevention interventions** reduce substance use
  - No effect was found for **peer led interventions** on drug use (heroin and cocaine) in the short term
- There is insufficient evidence to determine whether **substance use prevention interventions** have effects on risk and protective factors related to substance use
  - **Peer led interventions** (1 CNRT -) increase knowledge related to HIV but not high risk sex in the short term
  - **Peer led interventions** (2 CNRT -) may reduce risk-taking behaviours related to HIV and drug use in the short term

### Among other populations

- Public health should implement **skills based interventions** to improve grades in the immediate and short term; but **not** to reduce school absences
- Public health should **not** implement a **programmed intervention approach** to improve grades, school connectedness or anger; the intervention may decrease conventional peer bonding and increase peer high-risk behaviours in the short term
- Public health should **not** implement **skills based interventions** to prevent or reduce substance use

### Multi component interventions
- Research should be conducted to determine the effectiveness of **multi component interventions** to prevent or reduce substance use or improve risk factors related to substance use among homeless young people

#### Among other populations

- **29.** Research should be conducted to determine the effectiveness of **television campaigns** to reduce self-reported cannabis use knowledge, attitudes intentions to use among high sensation seekers
- **30.** Research should be conducted to determine the effectiveness of **substance use prevention interventions** to reduce substance use and to improve risk and protective factors related to substance use among homeless young people
  - Public health should **not** implement **peer led interventions** to reduce drug use (heroin and cocaine) among homeless young people
- **31.** Public health should promote **classroom based interventions** to improve psychological wellbeing immediately following intervention among children of divorce
- **32.** Research should assess the effects of **classroom based interventions** among...
102. Classroom based interventions have positive effects on psychological wellbeing at immediate post test.

103. There is insufficient evidence to determine whether multi component interventions prevent or reduce substance use.

104. There is inconsistent evidence about the effectiveness of multi component programs to reduce substance use.

104.1 A multi component school based intervention (1 RCT -) may reduce cannabis use in the long term; no effect was found on the initiation of alcohol or cigarette use.

104.2 There is inconsistent evidence about the effectiveness of multi component school based interventions on secondary outcomes (ie risky sexual practices, reported number of depressive symptoms, suicide risk score).

105. Multi component school based interventions (1 RCT -) may reduce suicide risk behaviour at 2 year follow up.

106. There is insufficient evidence to determine whether a skills based program have effects on risk factors related to substance use.

33. Research should be conducted to determine the effectiveness of multi component interventions to reduce substance use among institutionalized youth.

34. Research should be conducted to determine the effectiveness of multi component programs to reduce substance use among abused females.

35. Public health should promote multi component school based interventions to reduce suicide risk behaviour among abused females (limited evidence).

36. Public health should not promote multi component programs to reduce substance use, or reduce risky sexual practice, reported number of depressive symptoms or suicide risk score among abused females (limited evidence).

37. Research should be conducted to determine the effectiveness of a skills based program to reduce risk factors related to substance use among latchkey students.

Legend: P – Population; I – Intervention; C – Comparison group; O – Outcomes; CI – Confidence Interval; OR – Odds Ratio; RR – Relative Risk

**For definitions see the healthEvidence.org glossary http://www.healthEvidence.org/glossary.aspx**

**Why this issue is of interest to public health in Canada**

According to the Canadian Centre on Substance Abuse, “Youth are not only more likely than adults to engage in risky alcohol and drug use, but also disproportionately experience greater harms from that use”. Vulnerable groups of young people in Canada include: runaway and street-involved youth; youth in custody; adolescents with co-occurring disorders; sexually-abused and exploited youth; gay, lesbian, bisexual and questioning teens; and First Nation, Inuit and Métis youth. Experience at a young age with alcohol and drug use and risky patterns of substance-using behaviour during adolescence are serious risk factors for developing long-term issues and health problems that persist into adulthood, including dependence and chronic disease”. The prevalence of past-year alcohol use among Canadians over the age of 15 was 70.8%. In 2011, the prevalence of past-year drug use among the same group was 21.6% for cannabis and 4.8% for one of 5 illicit drugs (cocaine or crack, speed, hallucinogens, ecstasy, and heroin).


Other quality reviews on this topic are available on www.healthevidence.org

Suggested citation

This evidence summary was written to condense the work of the authors of the review referenced on page one. The intent of this summary is to provide an overview of the findings and implications of the full review. For more information on individual studies included in the review, please see the review itself.

The opinion and ideas contained in this document are those of the evidence summary author(s) and healthevidence.org. They do not necessarily reflect or represent the views of the author's employer or other contracting organizations. Links from this site to other sites are presented as a convenience to healthevidence.org internet users. Healthevidence.org does not endorse nor accept any responsibility for the content found at these sites.

Production of this evidence summary has been made possible through a financial contribution from Health Canada to the Canadian Centre on Substance Abuse (CCSA). The views expressed herein do not necessarily represent the views of Health Canada or CCSA.