

School and community social influence programming for preventing tobacco and drug use: Evidence and implications for public health

Review on which this evidence summary is based:

Skara, S. & Sussman, S. (2003). A review of 25 long-term adolescent tobacco and other drug use prevention program evaluations. *Preventive Medicine* (37) 451-474.

Review Focus

- P** Adolescents 12-15 and 16-19, in the transition period between junior high and high school
- I** School or community social influence programming for the prevention of tobacco and drug use
- C** Other intervention or usual care.
- O** **Primary Outcomes:** Long-term tobacco use, smoking initiation; **Secondary Outcomes:** alcohol and marijuana outcomes

Review Quality Rating: 8 (strong) *Details on the methodological quality are available [here](#)*

Considerations for Public Health Practice

Conclusions from Health Evidence

This high-quality review is based on 25 long-term intervention studies of varying levels of methodological quality. Over two-thirds used reliable, objective outcome measures (e.g. biochemical validation, bogus pipeline technique). Nineteen studies evaluated comprehensive social influence programs (addressing both normative and informal influences); 5 evaluated normative social influences, and one evaluated informal influences only. The programs were implemented primarily in schools, but varied widely on number of sessions provided (range 5-384).

- Available evidence indicates **reductions in BOTH tobacco and other drug use (marijuana, alcohol) in the long term (at least 24 months and beyond).**
- Evidence supports **long-term maintenance of program effects via booster sessions or curriculum delivered over a longer time frame.**

All but one prevention project were delivered at a single school site, with one program adapted from a school curriculum delivered to the Boys and Girls Club. Five studies also included a community component and ten studies included peer leaders in program delivery. While training was provided to those delivering programs in all but 4 studies, few details were provided.

General Implications

This review provides relatively consistent findings for the use of social influence programming, mainly delivered in schools, to reduce both tobacco use rates and other drug use (marijuana, alcohol) in adolescents 12-15 and 16-19, in the transition period between junior high and high school in the long term (from 2 to 15 years).

Interventions *either* offering booster sessions *or* delivering programming over longer time frames appeared to enhance the maintenance of program effects at least to the end of study time frames.

Public Health should consider that the school setting offers good potential to address tobacco, marijuana, and alcohol use reduction in development and delivery of programs.

Evidence and Implications

Evidence points are not in order of the strength of the evidence.

What's the evidence?	Implications for practice and policy
<p>1. Tobacco use (25 studies total; 17 studies assessed tobacco use levels by difference in % smoking between intervention group and control group from baseline to follow up)</p> <ul style="list-style-type: none"> • Fifteen studies reported at least one significant positive main effect for long-term (at least 2 years) smoking outcomes (ever, monthly, weekly, or daily smoking among baseline non-smokers). • Eleven of the 17 studies reporting tobacco use levels by difference in percentage smoking between intervention and control group found a significant decrease in long-term smoking, with 11.4% lower smoking rates in intervention group compared to control group (range 9-14.2%) • Of the 14 studies that assessed tobacco use AND specified that booster sessions were part of programming (8 studies) or implied booster sessions by delivering programming over 2 years (6 studies), 57% (8 studies) maintained long-term reductions in use at the end of the study period. 	<p>1. Tobacco use</p> <ul style="list-style-type: none"> • Public Health should support, promote and advocate for school-based tobacco use prevention programs for reducing tobacco use in the long term (minimum of two years). • Public Health should support, promote and advocate for the use of booster sessions, or a curriculum delivered over a longer time frame, to potentially improve chances of maintaining long-term reductions in tobacco use.
<p>2. Other drug use (9 studies that provided long-term data)</p> <ul style="list-style-type: none"> • Eight of 9 studies reported initial or interim positive impact on other drug use (alcohol and marijuana), for follow up periods ranging from 3 months to 5 years. For 6 of the 8 studies reporting interim/initial positive impact, maintenance effects persisted for the project duration. • Studies that calculated percentage reduction in other drug use rates from baseline to follow up for intervention group relative to control group, found a long-term reduction in other drug use ranging from 6.9-11.7% for weekly alcohol use (2 studies) and a reduction of 5.7% for 30-day marijuana use (1 study). • Of 7 studies that assessed alcohol or marijuana use AND specified booster sessions were part of programming, 5 maintained long-term reductions in use at the end of the study period. 	<p>2. Other drug use</p> <ul style="list-style-type: none"> • Public Health should consider social influence programming to reduce other drug use (marijuana, alcohol) both in the short and long term. • Public Health should also consider the use of booster sessions to maintain long-term reductions in other drug use.

Legend: P – Population; I – Intervention; C – Comparison group; O – Outcomes; RR – Relative Risk; BMI – Body Mass Index; MET-m/week – metabolic equivalent of task in minutes per week; *For definitions please see the [healthevidence.org glossary](http://www.healthevidence.org/glossary) www.healthevidence.org/glossary.aspx

Why this issue is of interest to public health in Canada

While the evidence is strong for the short-term effectiveness of social influence programs for adolescent substance use, this review examines the effectiveness of such programs over the long terms (2 years or more). In 2007, about 2/3 of students in grades 7 to 9 had already consumed alcohol and over 40% of 15 to 19 year olds had binged on alcohol in the past year.¹ About 29% of 15 to 19 year olds have used Cannabis in the past year, while 18% were current smokers.¹ Past year illicit drug use among adolescents was less than 10%.¹ 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”² 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.²

1. Herie, M., Godden, T., Shenfeld, J. and Kelly, C. (2010) *Addiction: An Information Guide* Toronto: Centre for Addictions and Mental Health. Retrieved from http://www.camhx.ca/Publications/CAMH_Publications/addiction_infoguide.html
2. Young, M.M., Saewyc, E., Boak, A., Jahrig, J., Anderson, B., Doiron, Y., Taylor, S., Pica, L., Laprise, P., & Clark, H. (Student Drug Use Surveys Working Group) (2011). *Cross Canada Report on Student Alcohol and Drug Use: Technical report*. Ottawa: Canadian Centre on Substance Abuse. Retrieved from: http://www.ccsa.ca/2011%20CCSA%20Documents/2011_CCSA_Student_Alcohol_and_Drug_Use_en.pdf

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

Suggested citation

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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.

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