

Reducing Tobacco Use Initiation: Mass Media Campaigns When Combined with Other Interventions (1999 Archived Review)

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Review Summary

Intervention Definition

Mass media campaigns intended to reduce tobacco initiation use brief, recurring messages to inform and motivate individuals to remain tobacco free. Message content is developed through formative research, and messages may be delivered through paid broadcast time and print space, donated time and space (as public service announcements), or a combination of both. Mass media campaigns can be combined with other interventions.

Summary of Task Force Finding

The Community Preventive Services Task Force recommends mass media campaigns based on strong evidence of their effectiveness in reducing tobacco use among adolescents when implemented in combination with tobacco price increases, school-based education, and other community education programs.

Results from the Systematic Reviews

Twelve studies qualified for the review of this intervention.

- Studies were conducted in the United States, Norway and Finland, and interventions included statewide and regional campaigns.
- In follow-up periods that ranged from 2 to 5 years, self-reported tobacco use was a median 2.4 percentage points lower in groups exposed to a mass media campaign (range: 0.02% to -9.5%; 5 studies).
- All seven studies of mass media campaigns that ran for 2 or more years indicated that they reduced tobacco use.
- Nine studies evaluated interventions focused on youth; three evaluated campaigns that included youth-targeted messages within a larger anti-tobacco campaign.
- In all but one study, the mass media campaign occurred in coordination or concurrently with other interventions including contests, school-based education programs, community education programs, or excise tax increases on tobacco products.
- Studies were conducted in the United States, Norway and Finland, and interventions included statewide and regional campaigns.

These findings were based on a systematic review of all available studies, conducted on behalf of the Task Force by a team of specialists in systematic review methods, and in research, practice and policy related to tobacco use and secondhand smoke exposure.

Publications

Task Force on Community Preventive Services. [Tobacco](http://www.thecommunityguide.org/tobacco/Tobacco.pdf) [www.thecommunityguide.org/tobacco/Tobacco.pdf]. In: Zaza S, Briss PA, Harris KW, eds. *The Guide to Community Preventive Services: What Works to Promote Health?* Atlanta (GA): Oxford University Press;2005:3-79 (Out of Print).

Task Force Finding

Intervention Definition

Mass media campaigns intended to reduce tobacco initiation use brief, recurring messages to inform and motivate individuals to remain tobacco free. Message content is developed through formative research, and messages may be delivered through paid broadcast time and print space, donated time and space (as public service announcements), or a combination of both. Mass media campaigns can be combined with other interventions.

Task Force Finding (October 1999)*

The Task Force recommends mass media campaigns, when combined with additional interventions, on the basis of strong evidence of effectiveness in reducing tobacco use among adolescents. These interventions were effective in decreasing the number of young people who use tobacco products. The findings of this review should be applicable to most adolescents in the United States. Mass media campaigns can produce the additional benefit of a reduction in adult tobacco use.

*From the following publication:

Task Force on Community Preventive Services. [Tobacco](http://www.thecommunityguide.org/tobacco/Tobacco.pdf) [www.thecommunityguide.org/tobacco/Tobacco.pdf]. In: Zaza S, Briss PA, Harris KW, eds. *The Guide to Community Preventive Services: What Works to Promote Health?* Atlanta (GA): Oxford University Press;2005:3-79 (Out of Print).

Supporting Materials

Evidence Gaps

What are Evidence Gaps?

Each Community Preventive Services Task Force (Task Force) review identifies critical evidence gaps—areas where information is lacking. Evidence gaps can exist whether or not a recommendation is made. In cases when the Task Force finds insufficient evidence to determine whether an intervention strategy works, evidence gaps encourage researchers and program evaluators to conduct more effectiveness studies. When the Task Force recommends an intervention, evidence gaps highlight missing information that would help users determine if the intervention could meet their particular needs. For example, evidence may be needed to determine where the intervention will work, with which populations, how much it will cost to implement, whether it will provide adequate return on investment, or how users should structure or deliver the intervention to ensure effectiveness. Finally, evidence may be missing for outcomes different from those on which the Task Force recommendation is based.

Identified Evidence Gaps

Effectiveness

The effectiveness of increasing the unit price for tobacco products and mass media campaigns in reducing tobacco use by adolescents is established. Important questions remain regarding the composition and content of effective campaigns and the effectiveness in different settings and populations. Some issues raised by others overlap with questions generated as a result of this review.

- What interventions are most effective in combination with mass media campaigns? What interventions are least effective?
- What are the relative effects of these interventions on adolescent initiation, consumption, access to tobacco products, and cessation?
- What is the required intensity (frequency of spots and the broadcast exposure) of media messages for an effective campaign?
- What are the independent contributions of particular intervention features (e.g., components, content, intensity, and duration) to overall intervention effectiveness?
- What are the most effective ways to maintain reductions in youth tobacco use into young adulthood?
- Does tobacco use in adults respond to mass media campaigns that are youth-focused?

Applicability

The effectiveness of these interventions should be applicable in most settings and populations. However, there could be differences in the effectiveness of these interventions for specific subgroups of the population. The following questions remain about the applicability of these interventions in various settings and populations:

- Are there differences in the responses of adolescents to tobacco product price increases by age, race, and ethnicity?
- Are the effects of mass media campaigns on adolescents by gender, race, and ethnicity similar to or different from those observed in Florida?

Other Positive or Negative Effects

The studies in these reviews did not provide information on other positive or negative effects. Research questions pertinent to interventions to increase the price of tobacco products are presented in the Evidence Gaps for: Strategies to Increase Tobacco Use Cessation. Some issues generated by the review of mass media campaigns are the following:

- Do mass media campaigns that target children and adolescents result in increases in tobacco initiation among young adults by delaying the age of initiation?
- What are the most effective ways to maintain reductions in youth tobacco use into young adulthood?

Economic Evaluations

Available economic information was limited to a single study of mass media campaigns. Therefore, considerable research is warranted regarding the following questions:

- Are the costs and cost-effectiveness, net cost, or net benefit of mass media campaigns similar to or substantially different from those that have been previously reported?
- How do the costs per tobacco user averted compare with other tobacco prevention strategies?
- How do specific characteristics of mass media campaigns contribute to economic efficiency?
- What combinations of components in multicomponent interventions are most cost-effective?

Barriers

The strategies evaluated in this section require political action and support. Research questions generated in this review include the following:

- What characteristics are effective in successful legislative and referendum campaigns?
- How can adequate funding levels be maintained for mass media campaigns?

Methods of Intervention Research

Evaluations of mass media campaigns should provide information on the costs, scale, duration, and content of the campaign. Researchers should identify concurrent tobacco control efforts, especially excise taxes or changes in the price of tobacco products, and should attempt to control for these changes in their analyses.

Included Studies

Bauman KE, LaPrelle J, Brown JD, Koch GG, Padgett CA. The influence of three mass media campaigns on variables related to adolescent cigarette smoking: results of a field experiment. *Am J Public Health* 1991;81:597–604.

Centers for Disease Control and Prevention. Tobacco use among middle and high school students—Florida, 1998 and 1999. *MMWR* 1999;48:248–53.

Flay BR, Hansen WB, Johnson CA, et al. Implementation effectiveness trial of a social influences smoking prevention program using schools and television. *Health Educ Res* 1987;2:385–400.

Flay BR, Miller TQ, Hedeker D, et al. The television, school, and family smoking prevention and cessation project VIII. Student outcomes and mediating variables. *Prev Med* 1995;24:29–40.

Flynn BS, Worden JK, Secker-Walker RH, Pirie PL, Badger GJ, Carpenter JH. Long-term responses of higher and lower risk youths to smoking prevention interventions. *Prev Med* 1997;26:389–94.

Hafstad A, Straypedersen B, Langmark F. Use of provocative emotional appeals in a mass media campaign designed to prevent smoking among adolescents. *Eur J Public Health* 1997;7:122–7.

Johnson CA, Pentz MA, Weber MD, et al. Relative effectiveness of comprehensive community programming for drug abuse prevention with high-risk and low-risk adolescents. *J Consult Clin Psychol* 1990;58:447–56.

Kaufman JS, Jason LA, Sawlski LM, Halpert JA. A comprehensive multimedia program to prevent smoking among black students. *J Drug Educ* 1994;24:95–108.

Murray DM, Prokhorov AV, Harty KC. Effects of a statewide antismoking campaign on mass media messages and smoking beliefs. *Prev Med* 1994;23:54–60.

Perry CL, Kelder SH, Murray DM, Klepp KI. Communitywide smoking prevention: long-term outcomes of the Minnesota Heart Health Program and the Class of 1989 Study. *Am J Public Health* 1992;82:1210–6.

Siegel M, Biener L. The impact of an antismoking media campaign on progressions to established smoking: results of a longitudinal youth study. *Am J Public Health* 2000;90:1–7.

Vartiainen E, Paavola M, McAlister A, Puska P. Fifteen-year follow-up of smoking prevention effects in the North Karelia youth project. *Am J Public Health* 1998;88:81–5.

Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

Document last updated July 22, 2014