CAMPAIGN for TOBACCO-FREE Kids®

SCHOOL-BASED PROGRAMS REDUCE TOBACCO USE

Almost ninety percent of adult smokers begin smoking at or before age eighteen, and the initiation of daily smoking most often begins in grades six through nine.[1] Smokers who begin at young ages also find it hardest to quit.[2] A study in the *American Journal of Preventive Medicine* found that 74 percent of occasional teen smokers and 65 percent of daily teen smokers wanted to quit, but a teen survey estimated that only 1.5 percent who have ever smoked have quit successfully.[3]

Schools are in a particularly powerful position to prevent kids from smoking and to help those that already use tobacco to quit. Children spend almost a third of their waking time in school, and much of the peer pressure kids feel regarding whether or not to smoke occurs in school.[4] Accordingly, school-based programs can reach children and teenagers when they are most vulnerable to starting a tobacco habit -- or before their tobacco use has become a strong addiction. At the same time, these programs are most likely to have strong, lasting effects when supplemented by strong anti-smoking policies at the schools and when they serve as just one part of a comprehensive local or state tobacco prevention program.

Research on the Effectiveness of School-Based Programs

In 1994, the Surgeon General's report on preventing tobacco use among young people found that years of research on a wide variety of school-based programs demonstrated consistent success in reducing tobacco use.[5] Since then, a University of Southern California review of more than 30 school programs found that they can reduce existing youth smoking by as much as 20 percent while also effectively curbing the number of young people who ever start.[6]

In December 2000, a study in the *Journal of the National Cancer Institute* suggested that school-based prevention programs that focus solely on social influences may not be effective in curbing smoking among students.[7] Some people wrongly interpreted this study as saying school-based tobacco-prevention courses do not work, but it only confirms that school-based programs must be carefully designed and implemented to work effectively and that they will work best when they are part of broader school, community, and state efforts to reduce youth smoking.[8] Overall, the research evidence that school-based programs can and do work is solid and extensive, as the following additional examples illustrate.

- U.S. Centers for Disease Control and Prevention (CDC) has evaluated two widely used school-based tobacco-prevention curricula that it has found to be effective: Life Skills Training and Towards No Tobacco (TNT).[*] CDC's evaluation of these programs can be found at www.cdc.gov/nccdphp/dash/rtc/tob-curric.htm.

- A 2001 study released by the state of Oregon and the U.S. Centers for Disease Control and Prevention (CDC) found that students in school districts funded to implement CDC's school tobacco use prevention guidelines were about 20 percent less likely to smoke than students in non-funded schools.[9]

- A 1998 *American Journal of Public Health* study of a middle-school program in Kentucky focusing on social influences has shown that school-based programs can lead to lower smoking rates even among adolescents in tobacco-producing regions.[10]

- A 1994 study in the *American Journal of Public Health* found that a school smoking-prevention education program coupled with mass media smoking-prevention messages successfully reduced smoking.[11] The students in this educational intervention began receiving prevention messages in

[*] Two major U.S. cigarette companies, Philip Morris and Brown & Williamson, have been trying to give grants to schools to run the Life Skills program. Such cigarette company sponsorship weakens the effectiveness of the program and gives the companies a counterproductive role in program implementation and evaluation. For more detail, see http://www.tobaccofreekids.org/reports/schools.

grades four through six, and their prevention education lasted for a total of four years. A 1995 follow-up study found that the effects of this program persisted through the 10th, 11th, and 12th grades, with those students receiving the intervention being much less likely to smoke.[12]

- Separate studies in 1989 and 1995 found that the Life Skills Training, a middle school program which teaches students skills to resist pressures to smoke and enhances self esteem, reduced smoking prevalence by 40 to 80 percent initially, with longer term reductions of 20 to 25 percent by the senior year of high school.[13]

- A 1989 *Preventive Medicine* study found that smoking prevalence among students in schools which did not have smoking intervention programs increased 1.5 times as much as smoking prevalence among students in schools which had smoking prevention programs and a community-based component.[14]

- A 1988 evaluation of the Minnesota Smoking Prevention Program, a peer-led social influences intervention, found that after four years, the incidence of daily and weekly smoking was 35 to 50 percent lower than among control groups.[15]

- A 1987 study published in *Health Education Research* found that programs with a high level of parental involvement helped to reduce adolescents' perception of peer approval of smoking. At the two-year follow-up, there was a positive correlation between the number of parent-child activities and adolescents' intention to refuse offers of cigarettes from a group of friends and from a best friend.[16]

Characteristics of Effective School-Based Tobacco Education and Prevention Programs

School tobacco-prevention programs must be comprehensive and address several aspects of tobacco use in order to be effective in preventing use by students. Beyond trying to scare kids, these programs must educate them about the real dangers of smoking and prepare them to resist tobacco offers. According to the U.S. Centers for Disease Control and Prevention (CDC), successful school-based coursework to prevent and reduce tobacco use should include:

- Education about the immediate, as well as the long-term undesirable physiologic, cosmetic, and social consequences of tobacco use.
- Techniques designed to change the social norms about smoking, decrease social acceptability, and help students understand that most of their peers do not smoke.
- Information about the reasons teens begin to smoke, such as a desire for maturity and acceptance, and should offer them more positive means to achieve these same goals.
- Media literacy components which help students recognize and refute tobacco promotion messages in the media, and as well as those messages that come from peers and adults.
- Refusal skills training and development.
- Development of personal skills, such as assertiveness, confidence, and problem-solving skills, that will aid students in avoiding tobacco use as well as other risky behaviors.[17]

To reinforce this educational work, schools should also enforce strong school policies that forbid smoking or other tobacco use by students, staff, or visitors on school property or at school activities, and provide students and staff who smoke with cessation information and assistance.[18] To further ensure that they are sending a strong, clear and consistent anti-smoking message, schools should also adopt firm policies of not displaying any direct or indirect tobacco advertising and not taking any tobacco industry funding or assistance.[19]

Related Campaign Fact Sheets (available at www.tobaccofreekids.org)

- *How Schools Can Help Students Stay Tobacco-Free*
- *Tobacco-Free Funding Sources for School Anti-Smoking Programs*

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[1] National Household Surveys on Drug Abuse., 1998, unpublished data. National Institute on Drug Abuse (NIDA), National survey results on drug use from the Monitoring the Future Study, 1975-1997, 1998.

[2] NIDA, National survey results on drug use from the Monitoring the Future Study, 1998.

[3] Stone SI, Kristeller, JL, "Attitudes of adolescents toward smoking cessation," *American Journal of Preventive Medicine,* 1992 July-Aug, 8(4):221-5. Moss AJ, et al., "Recent trends in adolescent smoking, smoking-uptake correlates, and expectations about the future," National Center for Health Statistics, *Advance Data* No. 221, December 2, 1992, http://www.cdc.gov/nchs/data/ad/ad221.pdf.

[4] See e.g., Jackson C, "Initial and experimental stages of tobacco and alcohol use during late childhood: relation to peer, parent, and personal risk factors," A*ddictive Behaviors* 1997 Sep-Oct; 22(5): 685-98. See, also, Banks M et al., "Adolescent attitudes to smoking: their influence on behavior," *Int'l Jnl of Health Education,* 1981 Jan-March, 24(1).

[5] HHS, *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*, 1994, http://www.cdc.gov/tobacco/sgr/sgr_1994/index.htm.

[6] Sussman, et. al., "Effects of Thirty-four Adolescent Tobacco Use Cessation and Prevention Trials on Regular Users of Tobacco Products," Institute for Health Promotion and Disease Prevention Research and Department of Preventive Medicine, University of Southern California.

[7] Peterson A et al., "Hutchinson Smoking Prevention Project: Long -Term Randomized Trial in School-Based Tobacco Use Prevention – Results on Smoking," *Jnl of the National Cancer Institute,* 92(24), December, 2000.

[8] Peterson A et al., "Hutchinson Smoking Prevention Project," 92(24), December, 2000.

[9] CDC, "Comprehensive School Programs Boost Smoking Prevention Success Among Oregon Eighth Graders," *Morbidity and Mortality Weekly Report (MMWR),* 2001 August 10, 50(31): 663-6, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5031a3.htm.

[10] Noland MP et al., "The Effectiveness of a Tobacco Prevention Program with Adolescents Living in a Tobacco-Producing Region," *American Journal of Public Health*, December 1998, 88(12):1862-65.

[11] Flynn BS, et al., "Mass media and school interventions for cigarette smoking prevention: effects 2 years after completion," *American Journal of Public Health,* 1994 July, 84 (7): 1148-1150.

[12] Flynn BS et al., "Cigarette smoking prevention effects of mass media and school interventions targeted to gender and age groups," *Journal of Health Education,* 1995 March-April, 26(2): S45-S51.

[13] Botvin GJ, Dusenbury L, "Substance abuse prevention and the promotion of competence, in Bond LA, Compass BE, eds., *Primary prevention and promotion in the schools,* 1989. Botvin GJ, et al., "Long-term follow-up Results of a Randomized Durg Abuse Prevention Trial in a White Middle-class Population," *JAMA,* 1995 April, 274(14): 1106-112.

[14] Pentz MA, et al., "Longitudinal effects of the Midwestern Prevention Project on regular and experimental smoking in adolescents," *Preventive Medicine,* 1989 March, 18 (2):304-321.

[15] Murray DM et al., "Four- and five-year follow-up results from four seventh-grade smoking prevention strategies," *Journal of Behavioral Medicine,*1988 August, 11(4): 395-405.

[16] Flay, et al., "Implementing effectiveness trial of a social influences smoking prevention program using schools and television," *Health Education Research*, 1987, 2:385-400.

[17] CDC, *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction*, *MMWR*, 43(RR-2), February 25, 1994, http://www.cdc.gov/mmwr/PDF/rr/rr4302.pdf.

[18] See, e.g., CDC Guidelines, February 25, 1994. Grimes J et al., "Educational factors influencing adolescent decision-making regarding use of alcohol and drugs," *Journal of Alcohol and Drug Education,* 1989 Fall, 35:1-15. Pentz M et al., "The power of policy: the relationship of smoking policy to adolescent smoking," *American Journal of Public Health*, 1989 July, 79: 857-62.

[19] See, e.g., American Heart Association, American Cancer Society, et al., Letter to state boards of education, August 16, 2001, available at http://tobaccofreekids.org/reports/schools.