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## JOURNAL ARTICLE

# How effective is drug abuse resistance education? A meta-analysis of Project DARE outcome evaluations

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**OBJECTIVES.** Project DARE (Drug Abuse Resistance Education) is the most widely used school-based drug use prevention program in the United States, but the findings of rigorous evaluations of its effectiveness have not been considered collectively.

**METHODS.** We used meta-analytic techniques to review eight methodologically rigorous DARE evaluations. Weighted effect size means for several short-term outcomes also were compared with means reported for other drug use prevention programs.

**RESULTS.** The DARE effect size for drug use behavior ranged from .00 to .11 across the eight studies; the weighted mean for drug use across studies was .06. For all outcomes considered, the DARE effect size means were substantially smaller than those of programs emphasizing social and general competencies and using interactive teaching strategies.

**CONCLUSIONS.** DARE's short-term effectiveness for reducing or preventing drug use behavior is small and is less than for interactive prevention programs.

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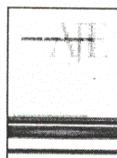
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R. Boruch, H. May, H. Turner, J. Lavenberg, A. Petrosino, D. de Moya, J. Grimshaw, and E. Foley

### Estimating the Effects of Interventions That are Deployed in Many Places: Place-Randomized Trials

# ASSESSING THE EFFECTS OF SCHOOL-BASED DRUG EDUCATION: A SIX-YEAR MULTI-LEVEL ANALYSIS OF PROJECT D.A.R.E.

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April 6, 1998

*[News story on the release of this report.](#) [Comments from the author.](#)*

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## ABSTRACT

A randomized longitudinal field experiment was conducted to estimate the short- and long-term effects of the Drug Abuse Resistance Education program (D.A.R.E.) on students' attitudes, beliefs, social skills, and drug use behaviors. Students from urban, suburban, and rural schools (N=1798) were followed for more than six years, with surveys administered each year from 6th through 12th grades. Teachers were also surveyed annually to measure students' cumulative exposure to supplemental (post-D.A.R.E.) drug education. Multi-level analyses (random-effects ordinal regression) were conducted on seven waves of post-treatment data. The results indicate that D.A.R.E. had no long-term effects on a wide range of drug use measures, nor did it show a lasting impact on hypothesized mediating variables, with one exception. Previously documented short-term effects had dissipated by the conclusion of the study. D.A.R.E., although ineffective by itself over the long haul, appears to inoculate students against the apparent negative aspects of supplemental drug education. Some D.A.R.E.-by-Community interactions were observed: urban and rural communities showed some benefits, while suburban areas experienced small adverse effects from participation.

Drug Abuse Resistance Education (D.A.R.E.) is the nation's most popular school-

based drug education program it is administered in approximately 70% of the nation's school districts, reaching 25 million students in 1996, and has been adopted in 44 foreign countries (Law Enforcement News 1996). Its effectiveness in combating drug usage, however, has been a matter of bitter controversy, and this debate is taking place in the context of rising drug use among our nation's youth. After experiencing large declines in drug use in the 1980s, the national trend began to reverse in the early 1990s: the percentage of high school seniors who reported using illegal drugs "during the past year" increased from 22 percent in 1992 to 35 percent in 1995 – a 59 percent increase (Johnston et al. 1996). Marijuana is one drug where dramatic increases were observed. The number of eighth graders who reported using marijuana during their lifetime jumped from 10.2 percent in 1991 to 19.9 percent in 1995 – a 92 percent increase. Reports from the Office of National Drug Control Policy (1997) reflect a growing concern about recent trends in drug-use attitudes and behaviors among America's youth, and call upon the nation to act swiftly to prevent a future drug epidemic.

This growing drug problem has caused a flurry of media coverage and political finger pointing, all leading to closer scrutiny of our nation's efforts to control and prevent drug abuse. The spotlight has been especially strong on America's most popular and visible program-D.A.R.E. Whether or not D.A.R.E. has been an effective preventive program has been the subject of considerable debate and research. The publication of a national study that questioned the effectiveness of D.A.R.E. in preventing drug use (Ringwalt et al. 1994) opened the door to an avalanche of criticism in the popular press. A Washington Times article in 1996 declared that "D.A.R.E.'s success...is a political illusion. based on massive publicity efforts and a contempt for results" (Bovard 1996).<sup>1</sup> A prominent police chief characterized D.A.R.E. as "enormously popular" yet an "enormous failure," and hence, decided to drop the program because "it does not work" (NBC Dateline 1997). Of course, the problem of demonstrating effectiveness in drug prevention is not unique to D.A.R.E. Several literature reviews and meta-analyses of school-based drug prevention programs have concluded that most are ineffective in preventing drug use (see Battjes 1985; Bangert-Drowns 1988; Botvin 1990; Bruvold and Rundall 1988; Ennett et al. 1994; Hansen 1990; Ringwalt et al 1994; Tobler 1986).

The latest pressure on school-based drug education programs comes from federal legislation. Congress enacted the Drug-Free Schools and Communities Act in 1987 (and many subsequent amendments) to beef-up our nation's drug education and prevention programs. Effective July 1, 1998, local school districts will be expected, for the first time, to provide evidence of program effectiveness in order to receive federal Title IV funds. Funding is widely available for "research-based" strategies that are consistent with the new "Principles of Effectiveness." One of the core principals is that "...grant recipients shall...select and implement programs that have demonstrated that they can be effective in preventing or reducing drug use, violence, or disruptive behavior."<sup>2</sup> The new SDFSCA language will force many states, school districts, and schools to give more attention to drug education goals, processes, and evaluation results. If proposed school-based programs are taken at face value, their main goal is clear – to prevent drug use among the target population. Whether programs can achieve this goal is an empirical question that should be answered, in part, through rigorous evaluation research.