



Improving the Use of Research Results: The Case of D.A.R.E.

SUMMARY

Carol Hirschon Weiss, Ph.D., and researchers at Harvard University's Graduate School of Education used a case study approach to examine decisions made by middle and high school officials to continue or drop their [D.A.R.E.](#) (Drug Abuse Resistance Education) programs in the face of evidence that D.A.R.E. did not reduce drug use. Researchers also analyzed the extent to which the officials used evaluation findings in making their decisions.

In addition, Weiss and colleagues examined the evidence behind five programs featured on lists developed by federal agencies and policy centers to help communities select evidence-based substance abuse prevention programs.

Key Findings

Weiss and colleagues reported several findings in a number of journal articles. They include:

- Districts that reduced or dropped D.A.R.E. were somewhat influenced by evaluation findings, although most knew of the findings largely through media reports. District officials also were likely to drop D.A.R.E. because of a 2001 federal policy requiring the use of evidence-based programs and the release of lists of such programs. D.A.R.E. did not appear on any of the lists.
- Districts that retained D.A.R.E. were skeptical of the evidence. They thought evaluators held unrealistic expectations of D.A.R.E. and at times were advocating for their own programs. Districts valued D.A.R.E. because it improved relationships between schools and police, a factor that evaluators did not study.
- The evidence behind programs featured on prominent lists of promising practices often was spotty. These lists give a misleading aura of certainty as to the effectiveness of programs included in them.

This project was part of the Robert Wood Johnson Foundation's (RWJF) *Substance Abuse Policy Research Program*. The program funds research that can help reduce the

harm caused by the use of alcohol, tobacco and drugs in the United States. See the [Program Results Report](#) for more information.

Funding

RWJF supported the project with a solicited grant in the amount of \$345,903 between June 2000 and May 2005.

THE PROBLEM

When researchers evaluate social service programs, they assume people should pay attention to their findings, according to researchers at the Harvard Graduate School of Education. Neglecting research findings leads policy-makers to continue ineffective programs, repeat past mistakes and tie up resources that could be used for more sound interventions.

Researchers have suggested various reasons why their findings often are not used. According to Carol Hirschorn Weiss and colleagues at Harvard University's Graduate School of Education, these include:

- Shortcomings among policy-makers and program operators, such as lack of attention to findings, lack of understanding, overcommitment to current programs and unwillingness to hear bad news
- Shortcomings in the research and among researchers, such as untrustworthy evidence, unresponsiveness to decision-makers' needs, excessive responsiveness to funders and inattention to program implementation
- Shortcomings in links among researchers, policy-makers and practitioners, including differences in terminology, styles of communication, time horizons and responsiveness to constituencies

Although a substantial body of work exists on the use of research findings, less is known about how to improve the way research findings are used to inform policies.

CONTEXT

Reducing the harm caused by substance abuse, including tobacco, alcohol and drugs, was one of RWJF's goals in the 1990s through the early years of the 21st century. RWJF supported a number of projects aimed at identifying effective school-based prevention programs. Based on findings from a 1999 Tobler study, starting in 2001, RWJF also supported a series of grants to revamp and evaluate the D.A.R.E. (Drug Abuse Resistance Education) curriculum. See the [Program Results Report](#) on the evaluation for more information.

For more publications and research from RWJF's work in addiction, see the [Popular Topic page](#).

THE PROJECT

This project examined the influence of evaluation evidence on decision-making using the experience of [D.A.R.E.](#) (Drug Abuse Resistance Education) as a case study.

Researchers wanted to understand what factors influenced school district decisions to use or not use D.A.R.E. and what role evaluation played in those decisions. They also wanted to study the extent to which federal and state agencies used evaluation research in making decisions about D.A.R.E.

Carol Hirschon Weiss, Beatrice Whiting Professor of Education Emeritus at Harvard Graduate School of Education, directed the study.

D.A.R.E. Background

In D.A.R.E., specially trained police officers teach drug resistance and education classes to middle school and high school students. The core D.A.R.E. curriculum focuses on themes such as "no use," consequences of use, problem solving, self-management and social resistance skills. D.A.R.E. officials report that by 1998, 25 million students in 300,000 schools in all 50 states attended D.A.R.E. classes.

Early evaluations of D.A.R.E. were encouraging, but later studies found mixed results. Several studies conducted in the 1990s found that by high school, there was no difference in drug use between those who took D.A.R.E. classes and those who did not.

In the late 1990s, the U.S. Department of Education, a major D.A.R.E. funder, decided that if school districts were to receive federal drug prevention grants, they should be required to use evidence-based programs. Weiss coined the term imposed use to describe these situations, in which outside sources press agencies to pay attention to evaluation findings.

By the early 2000s, federal agencies and policy centers developed lists of evidence-based programs to guide states and communities in selecting interventions. See the [Appendix](#) for information regarding lists of these promising practices issued by prominent organizations.

D.A.R.E. did not appear on any list.

Activities

Weiss and colleagues chose to study D.A.R.E. because it appeared to remain popular despite findings that it did not affect drug use among high school students. In a 2005

article published in the *American Journal of Evaluation* (26[1]: 12–30), the researchers stated, "[I]t seemed a strategic example of the neglect of evaluation. ... This seemed an elegant case of nonutilization for us to study. What influences on decisions were winning out in school districts?"

Researchers selected four states that had been the site of a major evaluation of D.A.R.E.: Colorado, Illinois, Kentucky and Massachusetts. (D.A.R.E. has been evaluated many times.) They chose two districts in each state that used D.A.R.E. and two that did not. Researchers shielded the districts involved from the media by disguising the names of the districts and not using names or other identifiers in published papers.

Understanding Factors Influencing Decisions to Use or Not Use D.A.R.E.

To understand factors influencing local decisions, in 2001, researchers interviewed in person:

- School district staff involved in selecting drug prevention programs
- Community members who were influential in decisions about drug prevention
- Police officials involved in drug prevention

In 2003, they conducted brief follow-up telephone interviews with officials from each district to ascertain whether there had been changes in D.A.R.E. or other drug prevention policies since the first interview. In all, researchers conducted 128 interviews of local staff.

To understand factors influencing state decisions, in 2001 and 2002, researchers interviewed 30 current and past officials from state justice, education and health agencies and D.A.R.E. program evaluators. They also analyzed state government reports when available.

Interviewers asked local and state officials about issues such as:

- When and why the district decided to implement or not implement D.A.R.E.
- Who was most involved in the decision to implement or not implement D.A.R.E.
- Whether there was opposition to D.A.R.E.
- Costs of D.A.R.E. and sources of funding for it
- The main advantages and disadvantages of D.A.R.E.
- Whether the respondent was aware of evaluations of D.A.R.E.

To understand factors influencing decisions at the federal level, in 2001, Weiss interviewed in person past and current staff at the U.S. Departments of Education and

Justice and the Substance Abuse and Mental Health Services Administration. Topics included:

- Perceptions of D.A.R.E.'s effectiveness
- The level of interest in continuing D.A.R.E.
- Federal involvement in promulgating the lists of promising or model programs

Researchers produced 21 case studies (16 school districts, four states and one federal), but these were internal documents for researcher use and were not published or distributed publically. Researchers reported local and state findings in journal articles (see [Findings](#)). They did not report federal findings.

Examining Evidence-Based Programs

Weiss anticipated that increased pressure to use evidence-based programs chosen from published lists would affect decisions regarding the use of D.A.R.E. Therefore, she and colleagues also examined the evidence behind five prevention programs that appeared frequently in those lists:

- Life Skills Training
- Midwestern Prevention Program
- Project ALERT
- Project Northland
- CASASTART

FINDINGS

Findings Regarding Local Decisions to Continue or Discontinue Use of D.A.R.E.

Weiss and colleagues reported the following findings in a 2005 article published in the *American Journal of Evaluation*, 26(1): 12–30 (abstract available [online](#)):

- **The 16 districts represented a range of decisions regarding D.A.R.E.:**
 - Two never adopted D.A.R.E.
 - Six had D.A.R.E. at one time but dropped it prior to the first interview in 2001.
 - Two had D.A.R.E. in 2001 but dropped it by the follow-up interview in 2003.
 - Six still had D.A.R.E. in 2003, although two of them at only a small scale.

- **The eight districts that dropped D.A.R.E. and the two that continued it minimally did so for the following reasons:**

- One Colorado district dropped D.A.R.E. almost entirely because of budget cuts and without any consideration of evaluation evidence.
- Five districts—one in Colorado, one in Illinois, two in Kentucky and one in Massachusetts—were influenced somewhat by evaluation findings. Often one or a few individuals were key decision-makers. According to Weiss, "only occasionally did people in the districts read the evaluation reports, but they had heard the gist of the findings."
- Two districts—one in Illinois and one in Kentucky—were influenced by evaluation findings but, in particular, were significantly influenced by the Department of Education's policy requiring the use of evidence-based programs.
- Two districts—one in Colorado and one in Massachusetts—wanted to continue D.A.R.E. despite the findings but were constrained by the changes in the Department of Education policy.

Weiss and colleagues reported the following findings in a 2005 article published in *Evaluation and Program Planning*, 28(3): 247–256 (abstract available [online](#)):

- **The six districts that continued D.A.R.E. gave the following reasons for their decisions:**

- They never expected D.A.R.E. to prevent drug use. Researchers stated, "These school and police officials believed that the evaluations measured unrealistic, inflated goals. They shared a belief that no one intervention is strong enough to counter the drug pressures in society."
- They believed evaluators erred in focusing on drug use. These officials viewed D.A.R.E. as a mechanism for "building relationships that might not otherwise develop. D.A.R.E. fosters good personal relationships between students and their families on one side, and law enforcement officials on the other."
- They placed greater value on personal experience than on scientific evidence. According to researchers, "These school and police officials typically believed that D.A.R.E. was 'working' in their towns, and they were unwilling to allow the evaluations to change their minds."

Respondents from school districts and police departments in all four states described their D.A.R.E. officers as "outstanding, clearly more invested in student success and skilled in delivering the curriculum than D.A.R.E. officers elsewhere in the country."

Findings Regarding State Agency Support for D.A.R.E.

Weiss and colleagues reported the following findings in a 2006 article published in *Evidence and Policy: A Journal of Research, Debate and Practice*, 2(3): 291–319 (abstract available [online](#)):

- **State government agencies originally supported D.A.R.E. in the states because local stakeholders wanted the program.** Police chiefs, police officers, school officials and parents all liked D.A.R.E. State agencies also supported D.A.R.E.'s early expansion by:
 - Establishing training academies for D.A.R.E. officers
 - Administering federal and state funds for D.A.R.E.
- **State agencies did not significantly alter their support for D.A.R.E. when the first negative evaluations appeared during the 1990s.**
 - Officials cited the same reasons for discounting the evaluations as those offered by local districts: unrealistic expectations by evaluators, program popularity and non-drug-related benefits to residents. They did not think the state should stand in the way of localities that believe D.A.R.E. "is working for them."
 - Police officials also challenged the findings and commented about conflicts of interest of researchers "who want their own program to replace D.A.R.E."
- **State support for D.A.R.E. began to drop by the end of the 1990s.** A number of converging factors were responsible for the decline:
 - The U.S. Department of Education instituted its policy of requiring evidence-based practices and D.A.R.E. was not on its list of approved programs.
 - Federal legislation increased pressure on schools to meet new educational standards, requiring more time on core academic subjects.
 - Police came to be seen as inflexible regarding the curriculum and unable to adapt it to changing educational standards.
 - School shootings prompted changes in priorities for use of police in schools.
 - Alternative substance abuse prevention programs increased in prominence.

Findings Regarding the Evidence Behind Evidence-Based Programs

Weiss and colleagues reported the following findings in a 2007 article published in *Evaluation Review*, 31(1): 43–74 (abstract available [online](#)):

- **Several sources cited by the published lists as evidence were not evaluations.** Cited sources included other lists of effective programs, literature reviews or

theoretical papers. These multiple—but inappropriate—citations made it appear that there was more evidence than actually existed.

- **Program developers often served as evaluators of their own programs.** In many cases, there were few independent evaluations to judge the merit of the program.
- **The large number of different outcome measures reported makes comparisons difficult and runs the risk of "capitalizing on chance."** For example, one study examined 100 comparisons between the treatment and control groups. Only two were statistically significant, and one of those showed an increase in cigarette use among participants. The one comparison with a positive program effect (1 percent of all comparisons) might merely be the result of chance.
- **The lists summarize programs at a level of generality that does not specify the conditions under which a program is effective, leaving the impression that the program summarized works for everyone.** In reality, evaluation findings are nuanced, and programs may work in some conditions but not in others. For example, one evaluation found that the program was effective when taught by peers but ineffective when taught by teachers, a distinction not noted in the published lists.
- **Few studies looked at outcomes more than two years after the end of the intervention.** With longer follow-up periods, many positive effects disappear. In addition, positive effects on knowledge and attitudes seem to be more common than on actual substance abuse behavior.

CONCLUSIONS

Weiss and colleagues reported the following conclusions of the study in published articles as indicated:

- **"Evaluation played a key role in the shift away from D.A.R.E.** Often it was not only evaluation at work but evaluation in conjunction with other elements." The fact that districts responded to changes in U.S. Department of Education policies indicates that imposed use of research findings may become more widespread. (*American Journal of Evaluation*, 29[1]: 29–47, 2008)
- **"While D.A.R.E. does not do what it was marketed to do, it does bring real benefits to their communities—benefits they value even in the face of pressure to drop the program....** [T]heir decisions to continue implementing it are based in an assessment of the pros and cons, rather than simple ignorance." (*Evaluation and Program Planning*, 28[3]: 247–256, 2005)
- **"The lists we used ... give a misleading aura of certainty to their recommendations."** School districts look to these lists to identify a "scientifically proven" prevention program and in many cases switched from D.A.R.E. to a program on the lists. "The findings from our review caused us to wonder if the programs cited

across the best practice lists are any more effective than D.A.R.E." (*Evaluation Review*, 31[1]: 43–74, 2007)

LESSONS LEARNED

1. **Take account of stakeholders' concerns, expectations and perspectives when evaluating programs.** "Some programs that cannot prove positive effects on stated goals are valuable to communities for other reasons. When that is the case, community members are likely to ignore evaluation evidence. They may make decisions that look illogical or uninformed, when in fact their logic, and the information on which they are basing decisions, is clear and explicit." (Project Director Weiss and colleagues in an article in *Evaluation and Program Planning*, 28[3]: 247–256, 2005)
2. **Do not accept grandiose goals enunciated by program developers as the full story.** Evaluators should know enough about the program to use realistic measures. Findings that a program has attained more modest goals—although lacking in media attraction—matter to many people. (Project Director Weiss and colleagues in an article in *Evaluation and Program Planning*, 28[3]: 247–256, 2005)
3. **"Conduct smaller exploratory studies to learn the landscape, refine questionnaires and develop good theories about the phenomenon under investigation."** Although this multistate study yielded rich data, it might have been more effective to conduct a thorough case study in one state before undertaking a more ambitious study. (Project Director/Weiss)
4. **Focus evaluations not on single programs but on a class of programs.** For example, funders could evaluate a method of instruction and not a single program of instruction. This allows for pooling resources and could result in more responsible evaluations. (Project /Weiss)

AFTERWARD

This study ended with the conclusion of the RWJF grant. From 1999 until 2009, RWJF funded researchers at the University of Akron, Ohio, to evaluate a new curriculum entitled *Take Charge of Your Life* that was delivered by D.A.R.E. officers to 7th- and 9th-grade students. See the [Program Results Report](#) for information about that study.

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APPENDIX

Lists of Research-Based Drug Prevention Programs in Schools

(Current as of the end date of the program; provided by the program's management; not verified by RWJF.)

Making the Grade

Drug Strategies
Washington, D.C.

Substance Abuse and Mental Health Services
Administration
Rockville, Md.

Blueprints for Violence Prevention

Center for Study of Violence Prevention
University of Colorado
Boulder, Colo.

Guide to Effective Drug Prevention Programs

National Institute of Drug Abuse
Bethesda, Md.

Preventing Crime: What Works, What Doesn't, What's Promising: A Report to the United States Congress

University of Maryland
College Park, Md.

List of Exemplary and Promising Prevention Programs

U.S. Department of Education
Washington, D.C.

National Registry of Effective Prevention Programs

Center for Substance Abuse Prevention

Youth Violence: A Report of the Surgeon General

Rockville, Md.



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