

PREVENTION WORKS!

The recent National Cross-Site Evaluation of High-Risk Youth Programs reveals the “how” and “why” of prevention

CSAP's National Cross-Site Evaluation found that, even within the challenging and varied circumstances of the prevention programs studied, the entire pool of participants across all programs decreased their use of alcohol and marijuana relative to the comparison group.



by Elizabeth Sale, Ph.D. and J. Fred Springer, Ph.D.

Elizabeth Sale is a Senior Research Associate with EMT Associates and the Project Manager of the National Cross-Site Evaluation of High Risk Youth Programs. J. Fred Springer, Research Director at EMT Associates, is the Project Director of the National Cross-Site Evaluation.

prevention *Tactics* 4:3 (2001)

Tactics (tak'tiks) *n.* 1. a plan for promoting a desired end. 2. the art of the possible.

Prevention policymakers and practitioners share the common belief that “prevention works.” However, determining *how* prevention works, *why* it works and what works *best*, is a complex matter. Practitioners often observe first-hand the effectiveness of various programs and approaches. The job of researchers is to evaluate these observations along with other data to establish science-based findings so that the same results can be replicated by other communities and programs.

The Center for Substance Abuse Prevention (CSAP) recently conducted the National Cross-Site Evaluation of High Risk Youth Programs to examine the effectiveness of prevention programs at 48 participating sites. For prevention policymakers, this rigorous study of a broad range of programs implemented in actual communities demonstrates that prevention is effective for at-risk youth. For prevention practitioners, the study provides lessons on how prevention programming can be refined and strengthened in several areas.

The findings of the National Cross-Site Evaluation have important implications in prevention design and implementation. By improving our understanding of the factors that prevent or reduce substance abuse in youth, and by producing science-based lessons about effective strategies, this major research effort holds the promise of a better future for America's youth.

This issue of *Prevention Tactics* will highlight the study's key findings to illustrate how and why prevention works, and what practitioners and policy makers can do to make prevention work better.



A FIVE-YEAR NATIONWIDE STUDY

PREVENTION WORKS is the strong message of this landmark public health study conducted from 1995 to 2000 by EMT Associates, Inc., and ORC Macro for CSAP. Using a 48-site evaluation design of unprecedented scope, detail and rigor, the National Cross-Site Evaluation of High Risk Youth Programs assessed and documented a broad range of prevention programs funded by CSAP in 1994 and 1995 to determine substance use, as well as risk and protective outcomes.

The Population Studied

Implemented over five years, the study included more than 10,500 at-risk 9- to 18-year-olds from a wide variety of cultural and ethnic backgrounds. Of that number, about 6,000 participated in CSAP prevention programs within the 48 sites;

about 4,500 similar youth who did *not* participate in these CSAP prevention programs served as the comparison group. The map above shows the location of these programs across the nation.

Participating Prevention Program Types

The participating sites represent a wide array of prevention programs, with different settings, length and intensity of service, participant characteristics, and program content. Programs were located in school, community, public housing, and juvenile treatment facilities. Two-thirds of participating programs were offered after school, and the remainder were delivered during normal classroom hours. Programs ranged in duration from eight weeks

to three years; and weekly intensity ranged from 1 to 15 hours per week. Most programs were offered in impoverished urban areas, although around 15 percent of programs were situated in rural areas.

Definition of “High Risk”

The target population for this study, “high risk” youth, included youth living in economically disadvantaged areas. In addition, some programs targeted youth with multiple issues placing them at risk, including females with histories of physical and sexual abuse, youth living in foster care, youth in incarcerated settings, pregnant or parenting teens, youth on juvenile probation, emotionally and/or learning disabled youth, and physically disabled youth.

Evidence That Prevention Works...

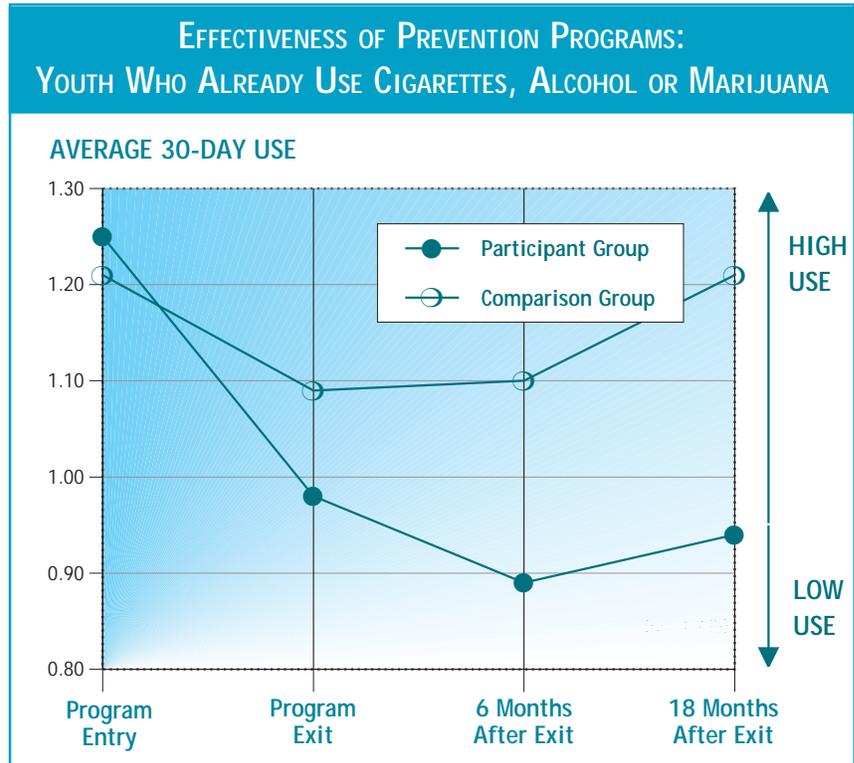
The National Cross-Site Evaluation of High Risk Youth Programs provides strong evidence that substance use prevention programs in communities where youth face multiple risk factors produce lasting reductions in substance use and have important positive effects on the lives of youth at risk. These results are not hypothetical. They represent real accomplishments by real programs operating in these communities.

■ In REAL Settings

The programs studied represent all the difficult realities of implementing demonstration programs in communities at high risk. Start-up, design, and administrative problems are inevitable in this context and inject a large dose of practical reality into the prevention ideal. For example, approximately one-third of the participant youth in the study attended less than 10 hours of prevention programming. Marginal participation by a significant portion of the target population is a reality of demonstration programming in high-risk communities. Thus, rather than representing the potential achievements of ideal programs, the findings from this study indicate actual achievements by a large number of typical programs implemented in the diverse and challenging realities of communities in which youth who are at high risk for substance use live.

■ In REAL Programs

About two-thirds of participating programs had positive effects on participants' substance use or on factors that make youth less likely to use. In addition reducing alcohol, cigarette, and marijuana use relative to comparison youth, programs were effective in strengthening school connectedness, family connectedness, and non-accepting attitudes toward use.



This sample included all youth who reported any substance use in the 30 days prior to program entry.

Youth who had already started to use cigarettes, alcohol, and marijuana before entering a prevention program reduced their use after joining.

■ With REAL Youth

Programming must prove effective with youth who have *already* begun to use substances, not just deter those who have not yet started. As the above figure illustrates, participating youth who were using substances when they entered the program reported 4 percent higher usage of cigarette, alcohol and/or marijuana than non-participating youth who were using

substances at the beginning of the study (baseline). By program exit, reported substance use by participants had dropped to 10 percent less than comparison youth. Eighteen months later, participant use levels were 22 percent below those of comparison youth. This finding is based on 23 sites in which comparison youth did not have significant opportunities to participate in other prevention programming.

What Works *BEST* With High Risk Youth...

✓ Wide Availability of Prevention Opportunities

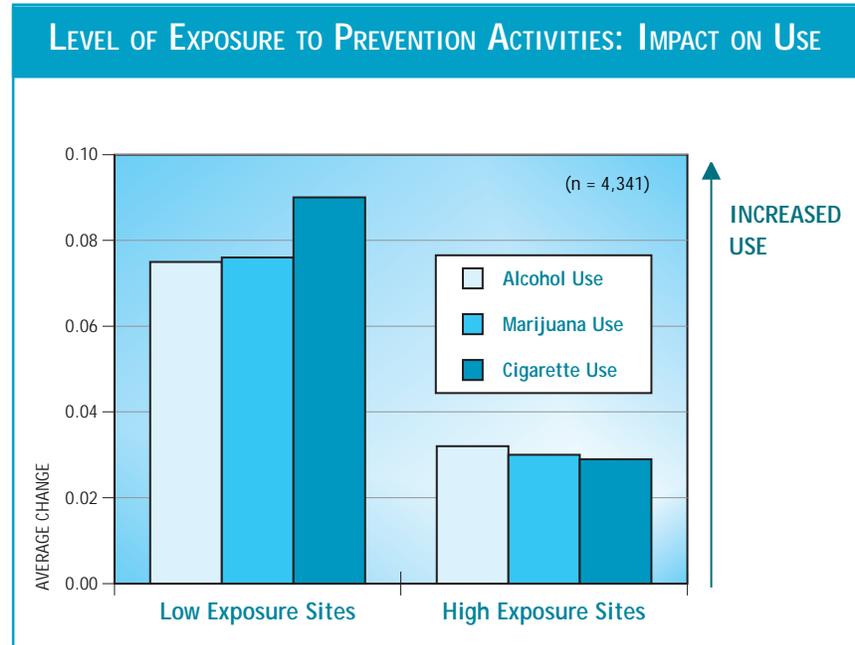
FINDING: *The more communities gave young people opportunities to take part in prevention activities, the greater the reductions in substance use rates among these youth.*

Youth in communities with higher availability of preventive programs and activities report significant reductions in use rates relative to comparison youth in communities with fewer prevention opportunities.

More specifically, the average increase in 30-day substance use from baseline to exit for comparison group youth who had high opportunities to take part in prevention programming was 57 to 68 percent *lower* than comparable increases for comparison youth with low oppor-

tunities for prevention participation. This finding indicates that widely available prevention activ-

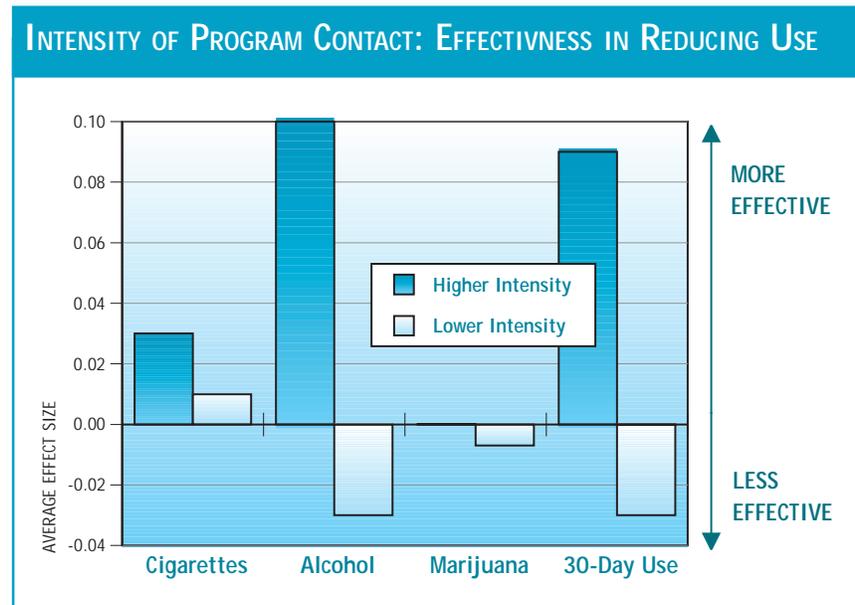
ity reduces the degree to which youth begin and increase substance use in the critical adolescent years.



✓ Four-Plus Hours Per Week

FINDING: *Prevention programs with more intense services (i.e., more than 4 hours per week) were more effective in achieving intended substance use outcomes than programs with less intense services.*

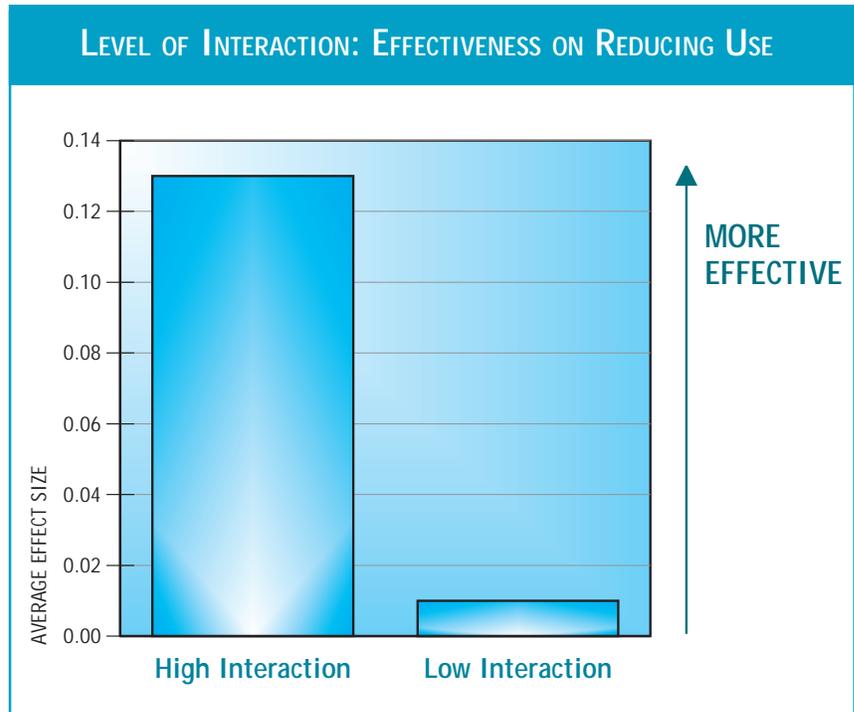
Program contact, or “dosage,” data collected for participant youth showed that more intense programs were more effective.



✓ Interactive Programming

FINDING: *Prevention programs that involved participants interactively were more effective in reducing substance use than programs that were less interactive.*

Interactive programming engages youth in thought-provoking participatory exercises and activities, often requiring team work and group involvement. This figure displays the differences in effect sizes between programs with higher and lower levels of interactive program participation. Effect sizes for interactive programs were significantly higher than effect sizes for less interactive programs. Analyses also illustrated the importance of actively engage youth in thought-provoking and meaningful activities that encourage team-building, as these activities are more likely to produce positive effects.

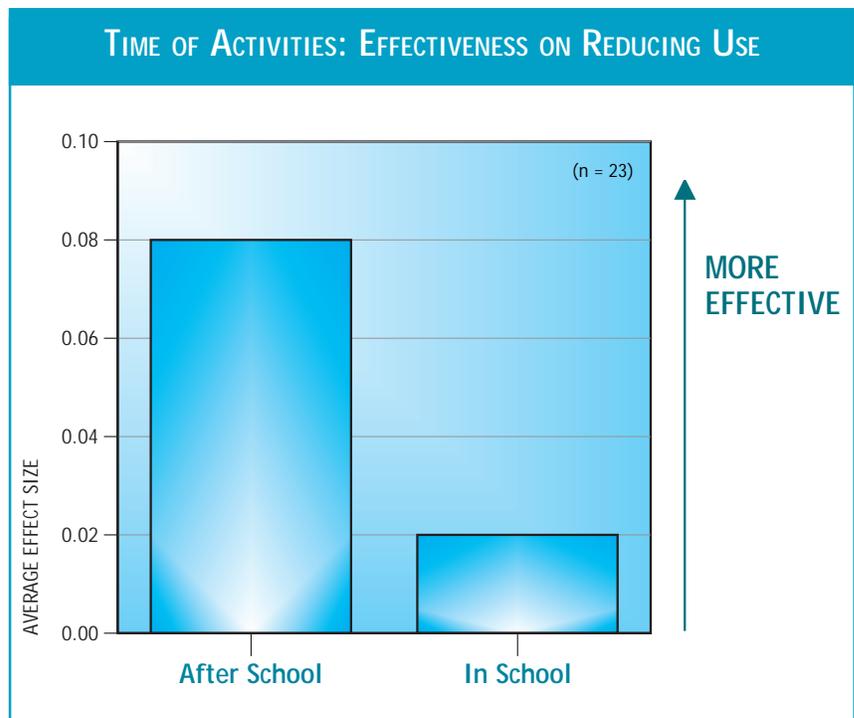


* Statistically significant at the 0.05 level (one-tailed, Wilcoxon test)

✓ Activities Provided After School

FINDING: *CSAP-funded prevention programs that operated after school were more effective in reducing substance use for high-risk youth than those delivered during school hours.*

The National Cross-Site Evaluation is the first large-scale cross-site study to include a large number of after-school prevention programs. After-school programs were more effective than in-school programs in reducing substance use. This difference in effectiveness is largely attributable to the ability of after-school programs to provide more hours of contact per week to youth and to use more interactive methods of participation.

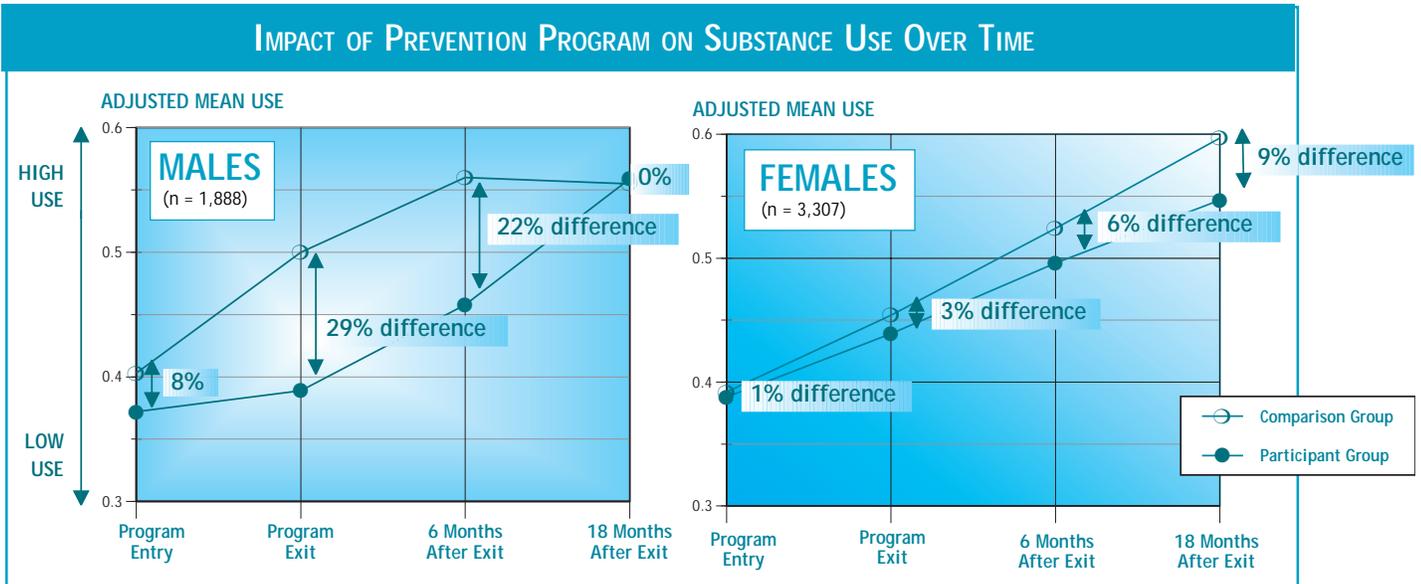


✓ Gender Differences

FINDING: *Prevention program results differed for males and females: Substance use outcomes were more positive for males than for females at program's end but, positive outcomes emerged later and lasted longer for females.*

Positive outcomes for male participants were most significant at program exit—29 percent lower substance use rates than comparison males. These positive outcomes for males decreased over time. For females, the difference between participant and comparison group use

was only 3 percent at program completion. However, female participants did *significantly better* than comparison females with respect to substance use at 6 and 18 months after program exit, with a 9 percent gap between participant and comparison group females.



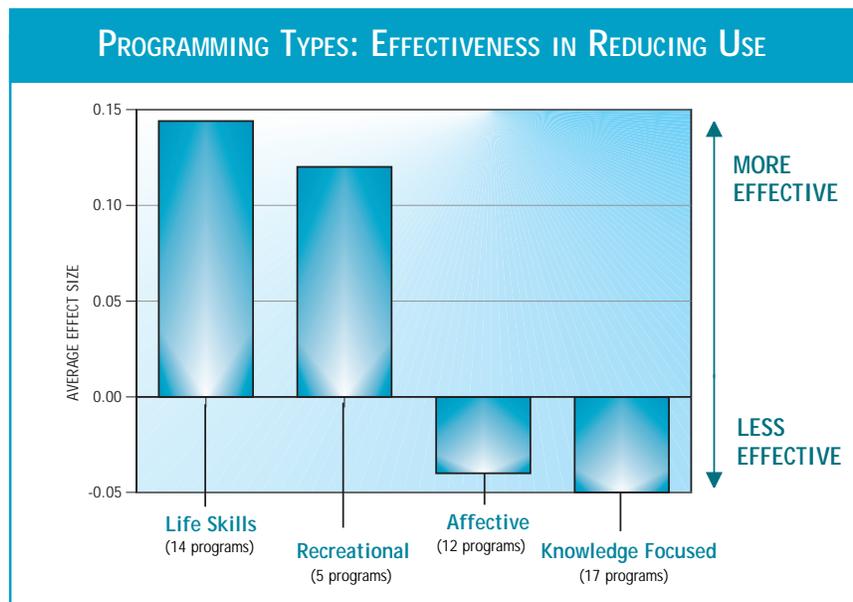
✓ Life Skills

FINDING: *Prevention programs that focused on developing life skills, including refusal skill building, anger management, conflict resolution, social skills development and academics were more effective in reducing substance use for high-risk youth than programs that emphasized other program content.*

Programs providing life skills programming were most effective in reducing substance use among high-risk youth, and programs focusing primarily on knowledge and information concerning alcohol, drugs, and other attendant issues

were least effective. Those recreational programs that were rela-

tively effective mixed strong skills development into their programs.



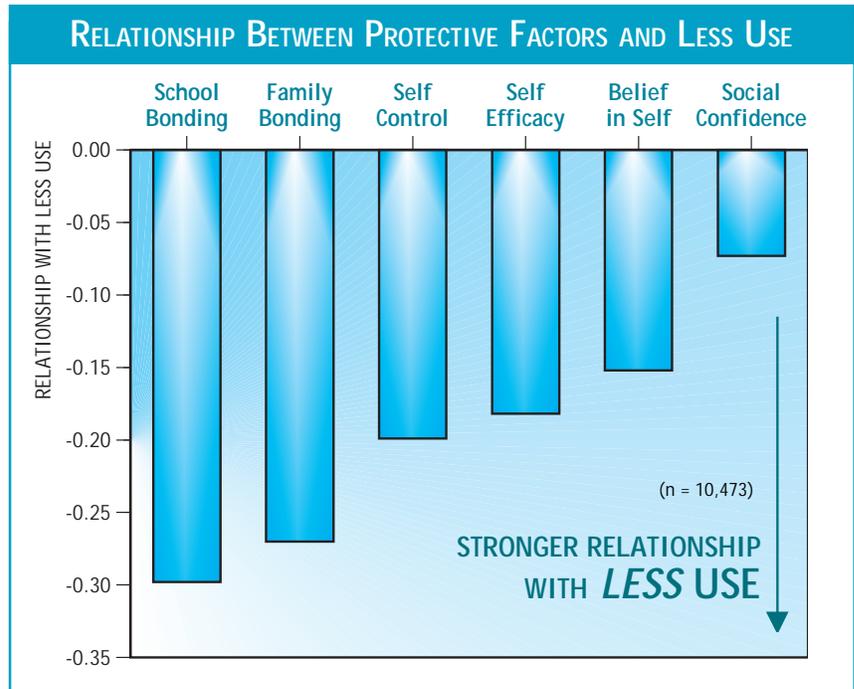
*Contrasts with other categories statistically significant at the .05 level (one-tailed, Wilcoxon test). Averages are median values.

✓ School and Family Connectedness

FINDING: *High-risk youth who were connected to positive social environments (such as school and family) used substances less than those who lacked such connections. For youth at risk, connectedness plays an important role in effective prevention efforts.*

The bars in the graph summarize the degree to which each protective factor is related to *less* substance use. Strong bonding with school and family show the greatest associations with reduced substance use for these youth at risk.

School connectedness represents youths' perceptions that school is



* Numbers along Y axis are Pearson's Correlation coefficients.



SELF-ASSESSMENT TOOL

Can you improve your prevention outcomes?

IF YOU WORK with high-risk youth, the following questions may help you strengthen your program based on the findings of the CSAP National Cross-Site Evaluation of High Risk Youth Programs.

- Are you collaborating with other organizations and agencies to increase prevention opportunities in your community?
- Does your program provide at least 4 hours of contact per week?
- Does your program actively involve youth in exercises and activities that require team work, group participation, and relationship development?
- Does your program provide activities after school?
- Does your program continue to support males and keep them connected to prevention activities after program exit?
- Does your program help youth develop life skills, such as conflict resolution, academic ability, anger management, stress release, social development, and problem solving?
- Does your program facilitate the development of positive bonds with school, family and/or the community?

a positive and rewarding environment in which they can succeed. Family bonding represents youth's perception that the family is a positive and rewarding environment in which they are heard and supported.

This analysis suggests that individual protective factors that are *catalysts and facilitators* for building connectedness with positive external environments (e.g., family bonding and school connectedness) are more strongly linked to lower levels of substance use than are individual protective factors that are primarily "inoculations" against negative environmental influences (e.g., belief-in-self and social confidence). To learn more about prevention and school connectedness, please see *Prevention Tactics* 3:3, 1999.



HRY: CROSS-SITE EVALUATION**ABOUT THE STUDY**

A "Points of Prevention" monograph series published by CSAP highlights and elaborates upon many of the findings summarized here. For further information about this study, please contact J. Fred Springer, Ph.D., Project Director (fred@emt.org) or Elizabeth Sale, Ph.D., Project Manager (esale@emt.org) at EMT Associates, Inc., 408 North Euclid, 2nd Floor, St. Louis, MO, 63108 (314-367-1300).

RESOURCES

The National Cross-Site Evaluation was conducted under the direction of Soledad Sambrano, Ph.D. at the Center for Substance Abuse Prevention, U.S. Department of Health and Human Services, under Contract #277-95-5002 with EMT Associates, Inc. and ORC Macro. The content of this article is the sole responsibility of the authors and does not necessarily represent the official views of the funding agency.

NOTES AND DEFINITIONS

ANALYSES LIMITED TO 23 (OF 46) PROGRAMS: Some analyses are limited to data from the 23 sites where comparison group youth had low opportunities for prevention participation because these sites more accurately reflect the effect of prevention activities on participant and comparison youth. For this reason, much of the evidence presented is based on the 23 sites with low-comparison group exposure to prevention activities.

ADJUSTED MEAN USE: This score is based on hierarchical linear modeling analysis adjusting for age, gender, ethnic background, risk and protective factors and baseline 30-day substance use. Specific wording of question about 30-day use is "On how many days in the LAST MONTH did you (smoke a cigarette/have an alcoholic drink/use any marijuana)?" Response categories included (0) "none"; (1) "1-2 days"; (2) "3-5 days"; (3) "6-9 days" (4) "10-19 days"; (5) "20-31 days" in the last month.

EFFECT SIZE: The measure of meaningful positive impact is the commonly accepted standard of an effect size greater than .20 ($ES > .20$). The effect size is the difference between the mean baseline-to-exit change in an outcome score for the participant group minus the mean change for the comparison group standardized to make it comparable across sites.

The National Cross-Site Evaluation of High-Risk Youth Programs shows that programs designed to prevent substance abuse produce lasting reductions in substance use and have important positive effects on the lives of youth at risk.

**LET'S HEAR FROM YOU!**

We welcome readers' comments on topics presented.

Call us at 916.983.9506,
fax us at 916.983.5738,
or send an email to cmkord@emt.org

prevention
Tactics

is published periodically by The EMT Group, Inc., under its Community Alcohol and Other Drug Prevention contract with DADP. The purpose of this publication is to help practitioners in the prevention field stay abreast of best practices emerging from current research and to provide practical tools and resources for implementing proven strategies.

The information or strategies highlighted in Prevention Tactics do not constitute an endorsement by DADP, nor are the ideas and opinions expressed herein those of DADP or its staff.

© 2001 by The EMT Group, Inc.
Permission to reproduce is granted, provided credit is given.

Editor Erica Fogle and Chrissy Kord

Authors Elizabeth Sale, Ph.D. and J. Fred Springer, Ph.D.

Copy Editor/Graphic Design Jacqueline Kramm