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SUMMARY

**EFFECTIVE
PREVENTION
PRINCIPLES
AND PROGRAMS**

This conference-edition document was prepared by CSAP's National Center for the Advancement of Prevention (NCAP). It reviews the current state of science-based substance abuse prevention principles and reports on effective substance abuse prevention programs systematically reviewed in 1999 from among those nominated for inclusion in CSAP's National Registry of Effective Prevention Programs (NREPP) database. NCAP welcomes comment, critique and suggestions.

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INTRODUCTION

The Center for Substance Abuse Prevention (CSAP) is the leading Federal source of policies, programs, and services to prevent and reduce the negative effects of substance abuse. CSAP develops and makes available prevention knowledge, identifies and promotes effective prevention programs, and builds the capacity of states and communities to apply prevention knowledge.

As a national leader, CSAP is committed to giving the prevention field timely, useful materials that help practitioners and policy makers do their jobs. This *Annual Summary of Prevention Principles & Programs* is part of that commitment. For 2000, the *Summary* reviews seven areas:

1. Science-based knowledge;
2. National Registry of Effective Prevention Programs;
3. Risk and protective factors conceptual model;
4. Current state of knowledge on risk and protective factors by domain;
5. Effective prevention principles arranged by domain;
6. Emerging issues in prevention research; and
7. Effective substance abuse prevention programs identified in 1999.

SCIENCE-BASED KNOWLEDGE

The foundation of CSAP's efforts to develop and disseminate substance abuse prevention programs rests on the scientific knowledge base. That knowledge base, commonly referred to as science-based knowledge, includes the body of research produced by universities and other academic institutions studying the nature of substance abuse problems and their reduction. CSAP considers something to be based on science if it has been studied, tested, or researched in a standardized way. Results of studies, tests, and research build the knowledge base.

When enough research has been done on a particular facet of substance abuse and its prevention, scientists can agree on an accepted interpretation of that problem, issue, or strategy. For example, sufficient research has been conducted for certain prevention programs to allow conclusions on a scientific basis. Other programs, although widely used and popular, may still lack the necessary scientific data to be declared science-based. The table below defines frequently used terms and concepts that draw from the scientific base of prevention.

PREVENTION PROGRAM TERMS AND DEFINITIONS

Science-Based Programs have been reviewed by experts in the field according to predetermined standards of empirical research. Science-based programs are theory-based, have sound research methodology, and can prove that effects are clearly linked to the program itself and not to extraneous events. Results from science-based programs may be positive, neutral, or negative.

Effective Programs are science-based programs that produce a consistently *positive* pattern of results. Only programs positively affecting the majority of intended recipients or targets are considered effective.

Model Programs are effective programs whose developers have agreed to participate in CSAP's dissemination efforts and to provide training and technical assistance to practitioners who wish to adopt their programs. Ensuring that programs are carefully implemented maximizes the probability for repeated effectiveness.

Risk Factors are attitudes, behaviors, beliefs, situations, or actions that may put a group, organization, individual, or community at risk for alcohol and drug problems.

Protective Factors are attitudes, behaviors, beliefs, situations, or actions that build resilience in a group, organization, individual, or community.

Domains are spheres of activity or outcome (i.e., individual, family, and community) within which risk and protective factors are played out.

NATIONAL REGISTRY OF EFFECTIVE PREVENTION PROGRAMS

CSAP created a National Registry of Effective Prevention Programs (NREPP) to assist its practice and policy-making constituents in learning more about science-based prevention programs. The missions of NREPP are to identify, review, and disseminate effective prevention programs. NREPP seeks candidate prevention programs from the practice community and from the archival scientific literature. NREPP's review function is carried out by teams of experts who analyze candidate prevention programs according to specific criteria.

SUMMARY OF NREPP REVIEW CRITERIA

Theory is the degree to which programs reflect clear and well-articulated principles about substance abuse behavior and how it can be changed.

Intervention fidelity is measured by how the program ensures its consistent delivery.

Process evaluation measures determine whether program implementation was measured.

Sampling strategy and implementation reflects how well the program selected its participants and how well they received it.

Attrition measures whether the program retained participants during its evaluation.

Outcome measures determine the relevance and quality of measures for the evaluation.

Missing data pertain to how the developers addressed incomplete measurements.

Data collection assesses the manner in which data were gathered.

Analysis involves the appropriateness and technical adequacy of data analyses.

Other plausible threats to validity affect the degree to which the evaluators consider other explanations for program results.

Integrity is determined by the level of confidence in whether program findings are rigorous.

Utility measures overall usefulness of program findings to inform prevention theory and practice.

Replications are the number of times the program has been used in the field.

Dissemination capability determines whether program materials are ready for implementation by others in the field.

Cultural- and age-appropriateness reflect the degree to which the program addresses different ethnic-racial and age groups.

NREPP REVIEW CRITERIA

The NREPP process is important for moving the field toward greater adoption of science-based programs. Each of the 15 criteria for evaluating candidate programs is discussed in detail in the following paragraphs.

Theory refers to the principles that underlie a prevention program. For substance abuse prevention, theory explains substance abuse and how it can be changed. Understanding the determinants of substance abuse behavior is the first step in tailoring a successful intervention to reduce or eliminate the behavior. For example, social-learning theory argues that substance abuse is a learned behavior, resulting from modeling, influence, and reinforcement. Mindful of that theory, a program developer can build an intervention aimed at positively affecting social influence. Such an intervention might focus on building personal skills, such as assertion and problem solving, to counter negative social influences.

Intervention fidelity is the quality of program delivery. Fidelity of a program is essential to determining whether the program caused measured outcome effects. If practitioners differed in the number of program sessions they delivered, the length of time they provided for each session, or the number of curriculum objectives addressed, the program would lack fidelity. Some delivery agents may choose to skip certain sessions of a prevention curricula altogether, others may reorder sessions, and still others may deliver the program exactly as written. Not surprisingly, research suggests that when field agents are faithful to the details of a program, its recipients benefit more (Battistich, Schaps, Watson, & Solomon, 1996; Ialongo, Werthamer, Kellam, Brown, Wang, & Lin, 1999; National Institute on Drug Abuse, 1997; Rohrbach, Graham, & Hansen, 1993).

Process evaluation measures assess program implementation. These measures include attendance data, participant feedback, and whether program delivery adhered to implementation guidelines. As such, process data can reveal how a program was implemented. These data in turn may explain the success or failure of the program. If a program is designed to be delivered sequentially and with peer leaders, for example, but process data reveal that the program was delivered out of sequence and with other leaders, researchers gain a better understanding of why the program may have failed to achieve the desired effect.

Sampling strategy and implementation concern the selection and handling of program recipients. For this criterion category, prevention program reviewers focus on the size and type of test sample, on the adequacy of controls over who received the program and who did not, and on the way program developers determined how the program was tested. For example, the greatest weight is placed on programs tested with large, representative samples and employing control or comparison groups and random assignment to them. Any compromises in these standards result in a lower assessment of the rigor of program evaluation procedures.

Attrition refers to the number of participants lost over the course of a program evaluation. Although some loss is inevitable because of transitions among program recipients, attrition rates that exceed 30 percent generally do not bode well for the confidence that reviewers place in outcome findings.

Outcome measures should assess actual behavior change (e.g., whether program recipients use substances) as well as other variables associated with substance use. Outcome measures also should quantify what they allegedly assess (i.e., they should be valid) and they must show consistent results (i.e., they must be reliable).

Missing data are not the same as attrition. Whereas the latter refers to the rate at which participants prematurely leave a prevention research study, missing data are information unavailable from participants who remain involved. If a large amount of data is missing, the implication is that flawed measurement procedures were used or faulty assumptions about study participants were made. Missing data can threaten the integrity of an evaluation.

Data collection, as a criterion in rating prevention programs, focuses on the quality of measurement procedures. Strong prevention studies collect data using unbiased procedures. Participant subject data are anonymous or at least confidential, and researchers ensure that data are coded and stored in a manner that protects individual identities.

Analysis means the appropriateness of data analytic techniques for determining the success of a prevention program. Effective substance abuse prevention programs employ state-of-the-art data analytic techniques, and analyze by participant subgroup. Researchers should use the most suitable and current methods for measuring outcome change. Subgroup analyses allow researchers to find outcomes by participants' gender, age, and ethnicity, for example.

Other plausible threats to validity are those factors that permit alternative explanations of prevention program outcomes. To satisfy this criterion, a study design must establish a causal link between the program and its alleged outcomes. If, for example, researchers claim that their prevention program caused lower use rates, the researchers must be able to rule out other factors that could explain reductions in use such as competing programs, concurrent media campaigns, and the effects of maturation among study participants.

Integrity reflects the overall confidence reviewers can place in the findings of a prevention program's evaluation. Confidence is derived from positive assessments of the intervention implementation quality, the design of the evaluation study, and how well the evaluation was carried out. This criterion requires the reviewers to generate an overall rating of the merits of the science and credibility of the resulting findings.

Utility parallels integrity as a summative rating and is an overall assessment of the pattern of data and effectiveness of program findings which can be used to guide subsequent prevention programs. Simply put, the criterion of utility describes whether and to what degree a program is appropriate for widespread application and dissemination.

Replications are the number of instances in which a program has been evaluated. Even when a program shows effectiveness in one study, other independent evaluations can prove that the study findings were not unique to a single investigation.

Dissemination capability concerns the readiness of program materials for use by others. For example, a program with strong dissemination capability would offer such services and materials as training, technical assistance, standardized curricula, manuals, fidelity instrumentation, videos, recruitment forms, and any other program resources to facilitate dissemination.

Cultural- and age-appropriateness is a hallmark of programs that have been tested with diverse groups of participants. Culturally appropriate prevention programs mirror the cultural values of the target group, and they include intervention strategies and components that reflect cultural characteristics, behavioral preferences, and expectations of the targeted group (Marin, 1993). Similarly, developmentally appropriate substance abuse prevention programs are tailored for the cognitive and emotional proclivity associated with different age ranges.

CSAP DISSEMINATION OF MODEL PREVENTION PROGRAMS

Once reviewed and found effective, model programs are disseminated through a Web site that CSAP has dedicated to this task: www.samhsa.gov/csap/modelprograms/default.htm. Practitioners and organizations wishing to adopt model programs may receive additional technical assistance from CSAP. Model program developers are committed to assisting the field in implementing their programs under conditions optimal to achieving positive effects. Model programs (as well as information on promising practices) are disseminated via CSAP's Decision Support System.

CONCEPTUAL FRAMEWORK: RISK AND PROTECTIVE FACTORS

Among the most important developments in substance abuse prevention theory and programming in recent years has been the focus on risk and protective factors as a unifying descriptive and predictive framework. A *risk factor* is an attitude, behavior, belief, situation, or action that may put a group, organization, individual, or community at risk for alcohol and drug problems. A *protective factor* is an attitude, behavior, belief, situation, or action that builds resilience in a group, organization, individual, or community.

Research shows that the more risk factors young people experience, the more likely they are to use substances and experience related problems in adolescence or young adulthood (Bry & Krinsley, 1990; Newcomb & Felix-Ortiz, 1992). Risk factors include such biological, psychological, behavioral, social, and environmental characteristics as a family history of substance use, depression, antisocial personality disorder, or residence in neighborhoods where substance use is tolerated. Research finds that if the risks in a child's life can be reduced, the child may be less vulnerable to health and social problems (Hawkins, Catalano, & Miller, 1992).

Protective factors, such as solid family bonds and the capacity to succeed in school, also help safeguard youth from substance use. Research shows that exposure to even a substantial number of risk factors does not necessarily mean that substance use or other problem behaviors will follow (Hawkins, Catalano, & Miller, 1992; Mrazek & Haggerty, 1994). The reason, according to research, is the presence of protective factors.

KNOWLEDGE ON RISK AND PROTECTIVE FACTORS FOR SUBSTANCE ABUSE

Risk and protective factors exist at every level of social life. Clearly, individuals bring a set of qualities or characteristics to each interaction, and these factors color the nature and tone of these interactions. One useful way to look at this interplay is to organize interactions by life domains in which they chiefly occur. These domains are individual, family, peers, school, community, environment, and workplace. The following sections briefly highlight what is known about the relationship between each of these life domains and substance abuse risk and protective factors.

INDIVIDUAL

- Research indicates that youth who believe that cigarettes or drugs will cause them physical harm are less likely to use them (Johnston, O'Malley, & Bachman, 1991). Young people tend to be more concerned about the immediate effects of smoking rather than the long-term effects, according to the latest data (Flay & Sobel, 1983; Flynn, Worden, Secker-Walker, Pirie, Badger, & Carpenter, 1997; Paglia & Room, 1998).
- Sensation seeking, a personality trait involving preferences for novel, unusual, or risky situations (Arnett, 1996; Stephenson, Palmgreen, Hoyle, & Donohew, 1999; Zuckerman, 1994), has consistently been linked with drug and alcohol use among youth (Bates, White, & Labouvie, 1994; Donohew, Hoyle, Clayton, & Skinner, 1999; Earleywine & Finn, 1991; Everett & Palmgreen, 1995).
- Studies reveal that inappropriate expressions of anger increase the chances of forming deviant peer associations and of developing deviant norms (Oetting & Lynch, in press). Conduct disorders, anxiety, and aggression have been found to be stable precursors of later drug use (Hinshaw, Lahey, & Hart, 1993; Loeber, 1990). Youth rated by teachers as aggressive were more likely than nonaggressive youth to use substances (Farrington, 1991). Likewise, arrests for assault correlate with youthful substance abuse (Weisz, Martin, Walter, & Fernandez, 1991).
- Particularly among boys, aggressive and disruptive classroom behavior predicts substance abuse, according to the available research (Kellam & Anthony, 1998).
- Studies show that youth who have conventional values are less likely to abuse substances (Newcomb & Felix-Ortiz, 1992). Youth who value academic achievement are less likely to use substances than youth who value independence (Wynn, Schulenberg, Kloska, & Laetz, 1997).
- Research has found that youth who possess various social competencies or life skills are more resistant to substance abuse (Botvin, Schinke, Epstein, Diaz, & Botvin, 1995).
- Youth who engage in problem behaviors, according to research findings, are at increased risk for using and abusing tobacco, alcohol, and drugs (Baron, 1999).

FAMILY

- Empirical data on the family domain indicate that poor parenting practices exacerbate antisocial behavior in childhood and adolescence (Dishion, Capaldi, Spracklen, & Li, 1995). Other research confirms that negative parenting behavior can predict adolescent substance abuse (Jackson, Henricksen, Dickinson, & Levine, 1997; Jones & Houts, 1992). Children's substance use can also be predicted by

parental discipline that is nonexistent or inconsistent (Kumpfer & Alvarado, 1995; Yoshikawa, 1994); whereas disciplinary techniques that include clear limit setting and consistent rewards for positive behavior are associated with reduced substance use (Brook, Brook, Gordon, Whiteman, & Cohen, 1990; Fletcher & Jefferies, 1999).

- Low bonding between parents and children is consistently associated in empirical research studies with risk for substance use (Brook, Whiteman, Finch, & Cohen, 2000).
- Bonding is of particular consequence for migrant families (Szapocznik, Santisteban, Rio, Perez-Vidal, & Santisteban, 1989). Prevention interventions that acknowledge and address differential family acculturation have produced positive effects (Kumpfer & Alvarado, 1995).
- Studies find that positive family dynamics are associated with better bonding among family members (Hawkins, Catalano, & Miller, 1992).
- Close, mutually reinforcing parent-child relationships are associated with less substance abuse, according to data from several sources (Brook et al., 1990; Catalano et al., 1993; Werner & Smith, 1992).
- Research has established that strong parent-child attachment leads to children's internalization of traditional norms and behavior, which is in turn associated with nonuse (Brook et al., 1990).
- Data from many research studies indicate that parental monitoring and supervision of children's activities and relationships protects against substance abuse (Catalano, Morrison, Wells, Gillmore, Iritani, & Hawkins, 1992; Chilcoat, Dishion, & Anthony, 1995; Fletcher, Darling, & Steinberg, 1995).

SCHOOL

- Studies of factors related to the school domain reveal that a high-risk profile of low school performance, absenteeism, prior drop-out status, and referrals from school personnel of youth at risk for drop-out consistently predicted future truancy, drop-out, and drug involvement (Herting, 1990). In contrast, one study showed that outstanding school performance reduced the likelihood of frequent drug use among ninth-graders (Hundleby & Mercer, 1987).
- Poor educational performance is often the outcome of a process of disengagement between the child and school, according to several studies (Eggert, Thompson, Herting, Nicholas, & Dicker, 1994; Maguin & Loeber, 1996; Reiff, 1998; Shannon, James, & Gansneder, 1993). Results of a large national survey of high school seniors indicate that the use of various drugs is significantly lower among students who plan to go to college than among those without such plans. Degree of attachment to school predicts later variety and frequency of substance use for white and black girls and boys (Gottfredson & Gottfredson, 1992; Gottfredson & Koper, 1996). Truancy is also associated with drug use, according to other data (Gottfredson, 1988).
- Investigators find that school bonding protects against substance abuse and other problem behaviors (Resnick et al., 1997).
- At least one study reported that a negative, disorderly, and unsafe school climate can contribute to problematic developmental outcomes among students (Hawkins, Catalano, Morrison, O'Donnell, Abbott, & Day, 1992).
- Teacher and student perceptions of firm and clear rule enforcement are associated with reduced school disorder, an outcome associated with substance-abuse rates, according to research in this area (Gottfredson & Gottfredson, 1985).

- Data show that severe lag between chronological age and school grade places youths at risk for substance abuse (Dembo, Schmeidler, Nini-Gough, & Manning, 1998). Youth in alternative high schools (i.e., high schools for students with interpersonal problems) use all substances more than regular high school students, according to data from one study (Grunbaum et al., 1999). The data also show that private school students report higher rates of alcohol use, drunk driving, binge drinking, smoking, marijuana use, and drug-impaired sexual activity than public school students (Valois, Thatcher, Drane, & Reininger, 1997).

PEERS

- Peer substance use has been found to be among the strongest predictors of an individual's substance use (Barnes & Welte, 1986; Brook et al., 1990; Butcher, Williams, Graham, Tellegen, & Ben-Porah, 1992). Several studies confirm this relationship across ethnic-racial groups (Brook, Whiteman, Balka, Win, & Gursen, 1998; Byram & Fly, 1984; Harford, 1985). Other scientists have found peer influences to be weaker for black youth than they are for Latino or white youth (Brannock, Schandler, & Oncley, 1990; Newcomb & Bentler, 1986).
- Several studies have shown a correlation between sustained involvement in structured peer activities (such as extracurricular programs) and low levels of drug use (Buckhalt, Halpin, Noel, & Meadows, 1992; Richardson et al., 1989; Selnow & Crano, 1986; Voydanoff & Donnelly, 1999).
- Data from multiple studies indicate that young people overestimate actual prevalence of all forms of substance use (Hansen, 1989; Chassin, Presson, Sherman, Corty, & Olshavsky, 1984; Graham, Marks, & Hansen, 1991; Sussman, Dent, Mestel-Rauch, Johnson, Hansen, & Flay, 1988).
- Associating with deviant peers strongly predicts early substance use, according to the research (Dishion et al., 1995; Swisher, 1992). Low acceptance by peers seems to place youth at risk for school problems and criminality, which are in turn risk factors for substance abuse (Coie, 1990; Kupersmidt, Coie, & Dodge, 1990). Other research has found that, among youth who are strongly peer oriented and who have a strong external locus of control are more vulnerable to substance use and other problem behaviors than youth who are less peer oriented and who have a strong internal locus of control (Swisher, 1992).
- Empirical studies find that peer involvement in intervention implementation and normative education seems especially critical to prevention-program success (Bell, Ellickson, & Harrison, 1993; Botvin, Baker, Filazzola, & Botvin, 1990; Dielman, Kloska, Leech, Schulenberg, & Shope, 1992; Dryfoos, 1993).

COMMUNITY

- Ready access to tobacco, alcohol, and drugs increases the likelihood that youth will use substances. Throughout the country, for example, studies report that minors can purchase cigarettes more than 70 percent of the time (Altman, Foster, Rasenick-Douss, & Tye, 1989; Forster, Hourigan, & McGovern, 1992; Radecki & Zdunich, 1993). Alcohol was sold to underage purchasers at 97 percent of stores in Washington, D.C.; 80 percent of stores in Westchester County, New York; and 44 percent of stores in Albany, New York (Preusser & Williams, 1992).
- Research has discovered that communities lacking resources are particularly vulnerable to high rates of adolescent substance abuse (Dusenbury, Kerner, Baker, Botvin, James-Ortiz, & Zauber, 1992; Johnston, O'Malley, & Bachman, 1999; Hechinger, 1992; Oetting & Beauvais, 1990; Schinke, Orlandi, & Cole, 1992).

ENVIRONMENT

- The ability to purchase alcohol is significantly related to consumption and problem rates both in the general population and among younger people (Adrian & Ferguson, 1987; Clements & Johnson, 1983; Coate & Grossman, 1988; Gruenewald, Ponicki, & Holder, 1993; Levy & Sheflin, 1985; Saffer & Grossman, 1987; Selvanathan, 1998).
- One 1990 study estimated illegal sales of tobacco products to minors to be over \$1 billion annually (DiFranza & Tye, 1990). Research shows that age and gender affect youths' access to tobacco and alcohol products. According to some studies, girls have less difficulty buying tobacco than do boys (Forster et al., 1992; Wakefield, Carrangis, Wilson, & Reynolds, 1992). Other studies have not found such gender disparities (Centers for Disease Control, 1993; Skretny, Cummings, Sciandra, & Marshall, 1990). Studies find that merchants are more willing to sell to older minors (Altman et al., 1989; Jason, Billows, Schnopp-Wyatt, & King, 1996; Landrine, Klonoff, & Fritz, 1994; Wakefield et al., 1992). Fortunately, there has been some improvement recently in merchant compliance (DiFranza, Savageau, & Aisquith, 1996), but regardless, youths of all ages still have easy access to tobacco. For cities that enforced their tobacco legislation on a quarterly basis, lower purchase rates were found (Radecki, 1994).
- With respect to illicit drugs, neighborhood antidrug strategies, such as citizen surveillance and civil remedies—particularly nuisance-abatement programs—can be effective within small geographical areas in dislocating dealers and reducing the number and density of retail drug markets. These strategies can also help reduce other crimes and signs of physical disorder (Davis, Smith, Lurigio, & Skogan, 1991; Eck & Wartell, in press; Green-Mazarolle, Roehl, & Kadleck, 1997; Lurigio et al., 1993; Rosenbaum & Lavrakas, 1993; Smith, Davis, Hillenbrand, & Goretzky, 1992).
- Many studies have reported that increasing the price of alcohol and tobacco through excise taxes is an effective strategy for reducing consumption—both prevalence of use and amount consumed by users (Chaloupka & Grossman, 1996; Edwards et al., 1994; Evans & Farrelly, 1997; National Cancer Institute, 1993; U.S. Department of Health and Human Services, 1992).
- Increasing the minimum purchase age for alcohol to age 21 has been effective in decreasing alcohol use among youth (O'Malley & Wagenaar, 1991; Wagenaar, 1993), particularly beer consumption (Berger & Snortum, 1985), and in reducing alcohol-related traffic accidents (National Highway Traffic Safety Administration, 1995; Toomey, Rosenfeld, & Waggoner, 1996).
- Community awareness and media efforts can improve perceptions about the likelihood of apprehension and reduce noncompliance (Forster et al., 1992). Counter advertising that disseminates information about the hazards of a harmful product may help reduce cigarette sales (Calfee, 1997; Schneider, Klein, & Murphy, 1981) and tobacco consumption (Chaloupka & Grossman, 1996; Ho, 1998; Wallack & DeJong, 1995). Studies suggest that conspicuous labels could influence awareness and behavior (Barlow & Wogalter, 1993; Laughery, Young, Vaubel, & Brelsford, 1993; Malouff, Schutte, Wiener, Brancazio, & Fish, 1993).

WORKPLACE

- One study reported that adolescents who work more than 15 hours a week are at an increased risk for substance abuse (Valois, Dunham, Jackson, & Waller, 1999).
- A 1997 national survey indicates that 7.6 percent of the full-time employed workforce are heavy drinkers, and 7.7 percent are illicit drug users (Zhang, Huang, & Brittingham, 1999).

- Numerous studies reveal significant but relatively low associations between stress in the workplace and elevated levels of alcohol consumption (Bennett & Lehman, 1998; Lehman, Farabee, Holcom, & Simpson, 1995; Martin & Roman, 1996).
- Two studies reported strong associations between alienation from work and employees' drinking behavior (Lehman & Simpson, 1992; Rosenbaum, Lehman, Olson, & Holcom, 1992), although the methodology of that research has been challenged by others (Parker & Farmer, 1990; Rosenberg, 1999). Other researchers found an association with employee drug use and estrangement or alienation from the job (Lehman et al., 1995).
- Occupations have widely varied drinking norms associated with their cultures, and workers are socialized into drinking according to their occupation (National Opinion Research Center, 1996). This research is supported by the notion that heavy-drinking occupations attract job-seekers prone to these behaviors, suggested for example by the high rates of heavy drinking among bartenders and restaurant workers (Hoffman, Larison, & Sanderson, 1997).
- Research suggests that when employers communicate company policy disapproving of substance use or abuse, workplace norms are likely to change (Ames & Janes, 1992; Cook, Back, & Trudeau, 1996). According to one study, lunchtime drinking in the workplace remains far more common than many assume (Mangione et al., 1999).
- Urine-based testing has been validated as a method of identifying job applicants who have used illegal drugs in the recent past (Macdonald & Roman, 1995). According to national survey data, 25 percent of employees' worksites had random drug testing in place in 1997, up from 20 percent of worksites in 1994 (Zhang et al., 1999). National surveys of representative samples of employed persons show that there is substantial public support for drug testing, based on the assumption that the presence of drug users at work is dangerous and undesirable (Roman & Blum, 1999).
- Research confirms common sense that hangovers impact cognitive and motor functions, creating risks of bad judgment, interpersonal conflict, and injuries (Moore, 1998). At least two studies show that hangovers are a significant yet neglected contributor to job performance problems (Ames, Grube, & Moore, 1997; Mangione et al., 1999).

EFFECTIVE PREVENTION PRINCIPLES

Clearly relevant to the effectiveness of substance abuse prevention programs are research-based, domain-specific prevention principles. Effective interventions share certain principles that help structure client services. The principles listed in the following sections have been identified by experts or through peer-consensus efforts; many have also been published in peer-reviewed journals. Appropriate use of these principles can assist prevention providers in designing services that are both innovative and effective, and in modifying proven models to respond to the specialized needs of targeted groups.

Although research-based and theory-driven programs prove to be more effective overall, below are specific prevention principles identified for interventions within the individual, family, school, peer, community, and environment domains. Workplace principles have not been formulated yet because of insufficient research in this area.

INDIVIDUAL

The following programs and principles are effective when applied within the *individual* domain:

- Attitudes against use are necessary, but alone are insufficient
- Social and personal skills
- Interactive approaches
- Adequate coverage and follow-up
- Peer role models
- Media awareness is necessary, but alone is insufficient
- Responding to relevant motives for substance use
- Respond to race, ethnicity, age, and gender

FAMILY

The following programs and principles are effective when applied within the *family* domain:

- Targeting the family or complementing youth-focused curricula with parent-focused curricula
- Acknowledging and addressing differential family acculturation
- Targeting families of substance-abusing parents
- Including a parent or caregiver component
- Including both parents and children
- Emphasizing family bonding

- Providing training in communication
- Teaching parenting techniques
- Employing interactive techniques
- Increasing parental involvement
- Facilitating bonds among participating parents
- Remaining culturally sensitive

COMMUNITY

The following programs and principles are effective when applied within the *community* domain:

- Targeting youth directly and indirectly
- Targeting norms condoning use
- Limiting access to substances through legislation
- Involving multiple community agencies
- Involving mentors is effective
- Reinforcing efforts in other domains

SCHOOL

The following programs and principles are effective when applied within the *school* domain:

- Targeting school failure
- Increasing fidelity and program exposure
- Enhancing teacher-training
- Generalizing across ethnic groups
- Establishing mentoring programs
- Gauging school climate
- Promoting school commitment to prevention

PEER

The following programs and principles are effective when applied within the *peer* domain:

- Involving peers
- Targeting norms favorable to use
- Increasing positive alternative activities
- Building peer-resistance skills
- Bonding with pro-social peers

ENVIRONMENT

The following programs and principles are effective when applied within the *environment* domain:

- Increasing excise taxes on alcohol and tobacco
- Increasing the minimum purchase age for tobacco and alcohol
- Enforcing minimum purchase-age laws for tobacco and alcohol
- Imposing “use and lose” laws
- Restricting tobacco use in public and private workplaces
- Enforcing minimum purchase-age laws
- Dislocating drug dealers to reduce the number and density of retail drug markets
- Establishing training programs with enforcement of server practices
- Changing environmental norms

EMERGING ISSUES IN IMPLEMENTATION OF PREVENTION PROGRAMS

The new emphasis on performance in prevention research has prompted welcome developments in the field. Research scientists engaged in prevention planning, implementation, and evaluation, for example, are increasingly obliged to stay current regarding methodological criteria, standards, and expectations. As a result of this collective revitalization, several issues in substance abuse prevention research have emerged. These issues include fidelity, dose-response relationships, adaptation, and core-component analysis.

FIDELITY

Aside from theoretical issues regarding which factors are associated with which outcomes, science-based research must document fidelity. Measuring fidelity reveals whether the program was delivered as intended. In evaluations of the Life Skills Training program, a model program in this *Annual Summary*, the strongest prevention effects were shown for students 6 years after receiving at least 60 percent of the prevention program (Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995). Among adolescents who received this more complete version of the intervention, there were up to 44 percent fewer drug users and 66 percent fewer polydrug (tobacco, alcohol, and marijuana) users. Other research suggests that additions to substance abuse prevention programs may improve program effectiveness. When material is added to a prevention program, effectiveness may improve (Blakely et al., 1987). Clearly, more research is needed to determine exactly how adherence to implementation protocol affects program results.

ADAPTATION

Even in the demonstration stages, a prevention program may be subject to adaptation by the target community. Some argue that adapting prevention programs is acceptable up to a “zone of drastic mutation,” after which further modification will detract from the program’s integrity and effectiveness (Hall & Loucks, 1978). Clearly, the challenge for social scientists is to develop substance abuse prevention programs that are flexible yet robust. Programs need to anticipate and allow for modifications. Such modifications can facilitate a sense of ownership, which in turn may contribute to the success and durability of a prevention program.

CORE-COMPONENT ANALYSIS

Even a cursory glance at model prevention programs reveals similarities in program emphasis, targeting, and techniques. Because they draw from the same body of knowledge, including theory, scientifically grounded principles, and proven strategies, most effective prevention programs have much in common. Practitioners and researchers alike, therefore, are increasingly interested in ascertaining the core, active ingredients that account for prevention program success. The search for these ingredients is often termed core-component analysis.

If we can learn why a program had the impact it did, we are better positioned to emphasize those components that exert the greatest influence on prevention outcomes. Likewise, knowing what works best in a program will decrease the chances of our eliminating a crucial component from a program for the sake of expediency, time, or economy; therefore, core-component analysis can serve multiple ends in substance abuse prevention practice and research.

Performing a core-component analysis, however, presents challenges such as determining the elements in a program that were responsible for positive change. Given that most programs have several elements, that task is difficult. When programs vary by domain, setting, target population, and substance-use foci, aggregation of their common ingredients is not easily achieved. Yet the rewards for finding and isolating those parts of a program responsible for improved outcome rates are too significant to ignore. Consequently, the search for common core components continues with the promise of positive developments for the field and for advancing the field of prevention.

DOSE-RESPONSE RELATIONSHIPS

When patients visit the doctor's office for an illness, they often leave with prescriptions and sets of instructions for using the medicine and any other regimen the doctor orders. If they do not use the medicine correctly, or if they fail to follow the doctor's regimen, they may not recover quickly. For example, two people may receive the same diagnosis of pneumonia. For each patient, the doctor prescribes antibiotics for 10 days and bed rest. One patient gets better, the other does not. Is it correct to assume that the antibiotics failed in the one case? Or did one of the patients not take the full course of medicine?

This issue in science is termed "dose-response" and refers to the necessity of documenting how much of a medicine or substance-use-prevention program is taken or received. According to research (Resnicow & Botvin, 1993), prevention effects that do not endure are explained by either the brevity of the program (low dose) or insufficient or nonexistent booster sessions. Low-dose prevention programs are similar to an individual receiving an insufficient dose of a drug to combat an illness; the drug might have some initial impact but not enough to last.

Likewise, booster sessions of a prevention program help reduce drug use over the long term, just as a booster shot helps prevent future illness. The dose of prevention received by study participants is critical to determining the success of an intervention. Without this information, it would be easy to assume that a lack of change postintervention was due to a weakness in the intervention content, when in fact it might be due to incomplete implementation.

MODEL PROGRAMS

In the matrices on the following pages are model programs rated by prevention experts according to the criteria listed in NREPP Review Criteria (see p. 4). A short description of each program follows the matrix.

CSAP's National Registry of Effective Prevention Programs; 1999 Model Programs Key Descriptors

Name	Domain	Risk and Protective Factors	Age	IOM	Strategy	Dosage	Outcomes
Across Ages	Individual School	Values	Less than 13 years	Selective	Information Dissemination	26 skills-training lessons twice a week for an hour	Improved attitude toward older people
		Predisposition (self-confidence is protective)			Education & Skill Building		Fewer days absent, and improved attitude toward the future, school, and others
		Bonding			Alternatives		Increased sense of well-being, increased knowledge of community service, and more positive attitude toward people and the future
Athletes Training and Learning to Avoid Steroids (ATLAS)	Individual	Knowledge and attitudes	13–17 years; Males	Universal	Information Dissemination	Seven 45-minute sessions	Less desire to use anabolic steroids
	Family	Family Climate			Education and Skill Building		More certainty that parents and coaches are intolerant of drug use
Child Development Project	School	Bonding	Less than 13 years	Universal	Information Dissemination	1 hour of class time per week or per month	Increased enthusiasm about school; motivation to learn
		Values			Education and Skill Building		Improved teacher practices led to positive changes in classroom behaviors, which were related to students' sense of community
		Family Climate			Community-Based Process		Parent-involvement activities completed at home once or twice per month
					Environmental Approach		

Name	Domain	Risk and Protective Factors	Age	IOM	Strategy	Dosage	Outcomes
Communities Mobilizing for Change on Alcohol	Community	Restrict Access to alcohol	13–17 years	Universal	Community-Based Process	N/A	Less likely to purchase alcohol, frequent bars, drink, and provide alcohol to other teens
	Environmental	Community Mobilization			Environmental Approach		Increased age-identification checking, reduced sales to minors
							Decreased arrests for driving under the influence of alcohol
Creating Lasting Connections	Individual Skills	Skills	13–17 years	Selective	Information Dissemination	15–18 weekly parent- and youth-training sessions	Increased honest communication with family members and delayed onset of alcohol and drug use
	Family	Social Competence			Prevention Education		
		Bonding Cohesion			Problem Identification and Referral		Improved bonding with mother, father and siblings
DARE To Be You	Family	Skills Communication	Less than 13 years	Selective	Prevention Education	12-week initial workshop Semiannual reinforcing workshops	Increased parental self-esteem and appropriate control techniques

Name	Domain	Risk and Protective Factors	Age	IOM	Strategy	Dosage	Outcomes
Family Advocacy Network (FAN Club)	Individual	Alcohol, tobacco, and drugs	13–17 years	Selective	Information Dissemination	10 hours per week	Less perceived social benefits from using marijuana
	Family	Skills			Prevention Education		Increased ability to refuse alcohol, tobacco, and marijuana
		Social Competence					
Family Effectiveness Training	Family	Bonding Cohesion	Less than 13 years	Selective	Information Dissemination	13 weekly sessions	Improved school performance and behavioral outcomes
					Prevention Education		
Keep a Clear Mine	Family	Skills Communication	Grades 4–6	Universal	Information Dissemination	4 weekly lessons	More realistic views of the consequences of drug use, increased recognition of tobacco's harmful effects, increased perception of parents' negative views of drug use
					Prevention Education		Increased parents' awareness that their child might try substances
Life Skills Training	Individual	Alcohol, tobacco, & drugs	13–17 years	Universal	Information Dissemination	8 sessions per year	Decreased use of alcohol, tobacco, and marijuana
		Skills			Prevention Education		
		Social Competence					

Name	Domain	Risk and Protective Factors	Age	IOM	Strategy	Dosage	Outcomes
Project ALERT	Individual	Knowledge and Attitudes	11–14 years	Universal	Information Dissemination Prevention Education	14-lesson curriculum	Decreased use of alcohol, tobacco, and marijuana
Project Northland	Community	Mobilization	11–14 years	Universal	Prevention Education Community-Based Process	Four-session curriculum for grade 6 Eight-session curriculum for grades 7 and 8	Reduced use of alcohol and tobacco; reduced amount of tobacco and marijuana; changed understanding about how many youth drink
Project STAR	Family Community Environmental	Bonding/ Cohesion Access Mobilization	13–17 years	Universal	Information Dissemination Community-Based Process Environmental Approach	13-lesson program plus a five-lesson booster program	Decreased use of marijuana, cigarettes, and alcohol Reduced initiation of marijuana, cigarettes, and alcohol in youth who never used, and increased perceptions of friends' intolerance of drug use
Project Towards No Drug Use	Individual	Skills Social Competence	Grades 9–12	Indicated	Information Dissemination Prevention Education	Nine sessions	Reduce higher levels of alcohol use, reduced all levels of hard-drug use

Name	Domain	Risk and Protective Factors	Age	IOM	Strategy	Dosage	Outcomes
Project Towards No Tobacco Use	Individual	Problem Behaviors	Grade 7 students	Universal	Information Dissemination	10 sessions	Reduced initiation of cigarettes, reduced initiation of smokeless tobacco, reduced weekly or more-frequent cigarette smoking, eliminated weekly or more-frequent smokeless tobacco use
	Individual	Skills Social Competence			Prevention Education		
Reconnecting Youth Program	School	Performance	13–17 years	Indicated	Prevention Education	80 lessons	Improved school performance, increased school bonding and social support, reduced severity of drug problems
					Problem Identification and Referral		
Residential Student Assistance Program	Individual	Problem Behaviors	13–17 years	Indicated	Information Dissemination	6–8 weeks of education discussion groups	Decreased use of alcohol, tobacco, and marijuana and decreased quantity and variety of drugs used
					Prevention Education		
					Problem Identification and Referral	Weekly individual and group counseling	
SMART Leaders	Individual	Alcohol, tobacco, and drugs	13–17 years	Selective	Information Dissemination	Two 90-minute programs lasting 4 months each, followed by weekly activities	Increased knowledge of the risks and harm of alcohol, drugs, and sexual activity
	Peer				Prevention Education		
					Bonding		

Name	Domain	Risk and Protective Factors	Age	IOM	Strategy	Dosage	Outcomes
SMART Team	Individual	Skills Social Competence	Grades 5–9	Universal	Prevention Education	Interactive computer- based program; completion time varies	Increase in knowledge of conflict- management strategies and how behaviors may contribute to conflict escalation Increase in prosocial behaviors Increase in students' intention to use nonviolent strategies
Strengthening Families	Family	Skills Communication Family Climate	Less 13 years	Selective	Information Dissemination Prevention Education Problem Identification Referral	14 sessions	Increased parental self-efficacy, parent discipline, and monitoring Improved behavioral outcomes among children of recovering substance abusers, decreased tobacco and alcohol use, decreased family conflict, and increased family communication
Youth Access to Tobacco	Environmental	Access	Com- munity Based agencies	Universal	Community- Based Process	N/A	Improvement in merchant/vendor compliance of law requiring lockout devices on cigarette vending machines

MODEL PROGRAM DESCRIPTIONS

ACROSS AGES

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Across Ages is a school- and community-based prevention program coordinated by Temple University's Center for Intergenerational Learning in Philadelphia, Pennsylvania. The unique feature of Across Ages is mobilizing older adults (ages 60 and up) and matching them as mentors for youth (ages 10–13) to provide positive, nurturing role models. The program's theoretical foundation integrates positive youth development, youth identity development, social problem solving, and the social development model.

PROGRAM STRATEGIES

Across Ages is designed to improve school attendance and increase academic competence; increase knowledge about negative attitudes toward alcohol and tobacco use; boost adolescents' self-esteem, problem-solving skills, and social support networks; generate parental involvement in classroom and project activities; and foster collaboration among the service, aging, and educational systems for youth.

Across Ages provides the following services:

- **Mentoring.** Mentors are carefully screened and trained to understand the issues facing at-risk young people.
- **Life Skills Training.** Students participate in weekly life skills training that teaches resistance, problem solving, and stress management skills.
- **Community Service.** Students visit residents in nursing homes and provide service to nursing home patients. For example, students receive training in aging and life span development, thereby enabling them to better understand the issues affecting the elderly.
- **Parent and Family Workshops.** Workshops and activities for parents and family members provide information about community resources, address adolescent sexuality, and raise awareness about the dangers of substance abuse.

POPULATION FOCUS

Across Ages targets students who are 10 to 13 years old. Across Ages youth live in economically depressed communities where few opportunities for constructive activities are available.

SUITABLE SETTINGS

Across Ages can be implemented by a school or school district or by other organizations serving youth and their families.

REQUIRED RESOURCES

The following materials are available from the Center for Intergenerational Learning: *Across Ages Program Development and Training Manual*; *Across Ages Handbook for Parents, Youth, and Teachers*; *Across Ages Video*; *Elder Mentor Handbook*; and *Elders as Mentors Training Video with Facilitator's Guide*.

The Positive Youth Development Curriculum is available for purchase from Dr. Roger Weissberg, University of Illinois at Chicago, (312) 413-1008.

IMPLEMENTATION TIMELINE

The initial startup time to implement *Across Ages* is 6 months. During this period, tasks include obtaining school support and developing agreements with community organizations; identifying targeted youth and contacting their families; recruiting, screening, and training mentors; and gathering materials and addressing liability and insurance issues.

The minimum time commitment during implementation is 12 months. The implementation timeline is as follows:

- Training for mentors and youth, prior to matching: 8 hours during a 4-week period
- Matching mentors and youth: 10 hours per 30 youth
- Monitoring mentor-youth matches: 2 hours in-service per month; bimonthly phone contact with mentors, 2 hours per 15 mentors
- Planning activities for mentor-youth pairs: 5 hours per month
- Training youth for community service activity: 1 hour per week
- Conducting site visits and followup discussion: 2 hours per week
- Training teachers to use life skills curriculum: 6 hours minimum
- Providing technical assistance/support to teachers: 1 to 2 hours per month
- Preparing monthly family activities: 4 to 6 hours per month
- Advertising family activities and ensuring attendance: 5 hours per month
- Conducting family activities: 6 hours per month

OUTCOMES

Evaluations of *Across Ages* participants show decreases in school suspensions and improvements in academic achievement. In addition, youth involved in the *Across Ages* program show fewer days absent from school; improvement in attitudes toward the future, school, and elders; gains in knowledge and perceived ability to respond appropriately to situations involving drug use; decreases in substance use; and gains in awareness of community issues.

ATHLETES TRAINING AND LEARNING TO AVOID STEROIDS (ATLAS)

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ATLAS is a multicomponent universal program for male high school athletes, designed to reduce risk factors for use of anabolic steroids and other drugs, while providing healthy sports nutrition and strength-training alternatives to illicit athletics-enhancing substances.

PROGRAM STRATEGIES

Coaches and peer teammates facilitate curriculum delivery with scripted manuals in small cooperative learning groups, taking advantage of an influential coaching staff and a team atmosphere where peers share common goals. The ATLAS program features interactive educational activities on anabolic steroids and illicit drugs; skills to resist drug offers; team ethics and drug-free commitment; drug-use norms; personal vulnerability to drug effects; debunking media images that promote substance abuse; parent, coach, and team intolerance of drugs; and goal setting for sports nutrition and exercise.

POPULATION FOCUS

The ATLAS program is designed for male athletes in a high-school team setting.

SUITABLE SETTINGS

A school or school district can implement the ATLAS program.

REQUIRED RESOURCES

The ATLAS curriculum package can be purchased at Sunburst Communications, Inc., (800) 338-3457.

IMPLEMENTATION TIMELINE

ATLAS consists of 10 weekly, 50-minute classes and weight-room training sessions.

OUTCOMES

ATLAS youth had a 50 percent reduction in new use of anabolic steroids; lower use of alcohol, illicit drugs, and sport supplements; and reduced drinking and driving occurrences 1 year after the intervention. Student athletes who participated in ATLAS reported a better understanding of the effects of anabolic steroids and illicit drugs, greater beliefs in personal vulnerability to the adverse effects of anabolic steroids, and more certainty that their coaches and parents are intolerant of drug use. Students developed improved drug-refusal skills, reduced belief in steroid-promoting media images, more confidence in their ability to build muscle and strength without steroids, and greater self-esteem.

Teams in the ATLAS program also improved their winning percentages. Athletes became stronger and leaner and developed more muscle than their counterparts in control groups. One year after the intervention, these athletes continue to resist the temptation to use anabolic steroids and maintain better nutrition and exercise behaviors. Overall, the ATLAS program develops drug-resistant, healthier athletes.

CHILD DEVELOPMENT PROJECT (CDP)

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CDP is a school-improvement initiative designed by the Developmental Studies Center of Oakland, California. By transforming elementary schools into “caring communities of learners,” CDP significantly reduces children’s use of alcohol and illicit drugs and dramatically increases children’s resistance to substance use. The intervention is designed to become part of the children’s overall school experience. The theoretical foundation of the program is based on social learning theory, learning and motivation theory, prosocial development theory, and bonding and attachment theory.

PROGRAM STRATEGIES

The CDP model involves building warm, stable, supportive relationships among all members of the school community, attending to the intellectual, social, and ethical dimensions of learning in an integrated manner. CDP teaches methods that promote students’ understanding, increase their depth of learning, and galvanize students’ intrinsic motivation to learn.

CDP is delivered in two phases, using a cross-age/cross-grade “buddies” program, class meetings, parent-child homework projects, and special family events.

POPULATION FOCUS

CDP serves elementary school students of all grade levels and their families, teachers, and school administrators.

SUITABLE SETTINGS

CDP can be implemented in almost any rural, suburban, or urban elementary school.

REQUIRED RESOURCES

The following materials are available from the Developmental Studies Center:

School set

- *Building the Whole School Community*—included free in staff development handout
- *Making Connections: An Introduction for Families to the Child Development Project*
- *At Home in Our Schools*
- *That's My Buddy*
- *Homeside Activities*

Staff materials

- *At Home in Our Schools*
- *That's My Buddy*, book
- *Homeside Activities*, book

IMPLEMENTATION TIMELINE

A 2-day training-of-trainers institute, conducted by the Developmental Studies Center, is offered for school and district office teams to introduce the program to school faculty. Collegial study is also required: five 2-hour sessions for each of three components. The first is for organization and planning, and the rest are spread throughout the year (30 hours total).

Implementation of each Phase 1 component requires the following time commitments:

- Schoolwide activities: about the same amount of time as activities such as science fairs and parent nights
- Cross-age Buddies activities: 1 hour of class time per week or per month
- Homeside parent-involvement activities: completed at home once or twice a month

OUTCOMES

Previous studies examining the effects of implementing both Phase 1 and Phase 2 have found that the CDP Program has a wide range of significant effects:

- Prevalence of alcohol use declined by an average of 11 percent over 4 years in CDP schools, compared with an increase of 2 percent in comparison schools.
- Prevalence of marijuana use by CDP students declined by 2 percent, compared with a 2 percent increase in use by comparison-school students. Prevalence of cigarette use by CDP students declined by 8 percent, compared with a 2% increase in use by comparison-school students.

COMMUNITIES MOBILIZING FOR CHANGE ON ALCOHOL (CMCA)

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CMCA is a community-organizing effort developed by the University of Minnesota School of Public Health. CMCA encourages community members to seek changes in local public policies and in the practices of major community institutions that would reflect increases in alcohol consumption. The object of these efforts is to reduce the flow of alcohol to young people from illegal sales by retail establishments and to prohibit the provision of alcohol to youth by adults in the community. CMCA is dedicated to the idea that effectively limiting the accessibility of alcohol to adolescents reduces teen drinking and communicates a clear no-use message to the community.

PROGRAM STRATEGIES

The CMCA intervention is based on established theory and research showing the importance of the social and policy environment in facilitating or impeding youth drinking. CMCA community-organizing methods draw on a range of traditions across social and health issues. Community-organizing methods differ from common coalition-building methods. Coalitions are typically made up of professional leaders of organizations seeking agreement on common actions; however, community organizing involves activating a diverse citizenry to achieve institutional and policy change. Although participants may have leadership positions in community organizations and institutions, it is usually necessary in community organizing to develop a group independent from the existing power structure.

POPULATION FOCUS AND SUITABLE SETTING

CMCA is a community-organizing effort that targets law enforcement, licensing departments, civic groups, faith communities, schools, local media outlets, and vendors.

REQUIRED RESOURCES

The CMCA project has produced numerous resources that are available free to all communities. They are available through www.epi.umn.edu/alcohol—the University of Minnesota Alcohol Epidemiology Program Web site.

IMPLEMENTATION TIMELINE

Please contact Alexander Wagenaar or visit the Web site at www.epi.umn.edu/alcohol for more information.

OUTCOMES

CMCA was evaluated in a fully randomized trial across 15 communities. Data collection included in-school pre- and postsurveys of 12th graders, telephone surveys of 18- to 20-year-olds and alcohol merchants, direct testing of the propensity of alcohol retailers to sell to young buyers, and monitoring changes in relevant practices of community institutions. Results show that CMCA significantly and favorably affected the behavior of 18- to 20-year-olds and the alcohol sales of bars and restaurants. Alcohol retailers increased age-identification checking and reduced sales to minors. Young adults ages 18 to 20 were less likely to try to purchase alcohol, less likely to frequent bars, less likely to drink, and less likely to provide alcohol to other teens. Arrests for driving under the influence of alcohol also declined significantly among 18- to 20-year-olds. Younger adolescents were not significantly affected by CMCA.

CREATING LASTING CONNECTIONS (CLC)

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CLC of Louisville, Kentucky, is designed for implementation in community, school, and faith-based systems for youth ages 9 to 17 and their parents or guardians. The program mobilizes communities to increase individual, family, and community resiliency factors related to youth substance abuse and other problem behaviors.

PROGRAM STRATEGIES

CLC offers 15 to 18 weekly parent- and youth-training sessions that incorporate the four basic prevention program models—information, effective education, social competency, and alternatives. Training sessions help children and their parents or guardians develop social skills, refusal skills, and appropriate alcohol and illicit drug knowledge, which in turn provide a strong defense against environmental risk factors. Training sessions also serve to promote participants' development through increased self-awareness, expression of feelings, interpersonal communication, and self-disclosure. Other CLC services include assisting parents and youth to access community services more effectively.

POPULATION FOCUS

CLC is designed for families with youth ages 9 to 17.

SUITABLE SETTINGS

CLC can be implemented through such community systems as churches, schools, recreation centers, and court-referred settings. CLC settings must have existing social-outreach programs and links with other human-service providers.

REQUIRED RESOURCES

The total program package includes five curriculum manuals for trainers, five poster sets, and a set of 25 participant notebooks for each module.

IMPLEMENTATION TIMELINE

CLC is best implemented as a five-stage community mobilization process, as follows:

Stage 1 – Recruitment and selection of a Community Advocate Team (CAT) and the selection of a sponsoring organization. This is perhaps the most critical component of the CLC program, as the members of the CAT will play a major role in the rest of the program implementation. Trainers or facilitators should spend approximately 20 hours per week for 1 to 3 months of recruitment.

Stage 2 – Community Advocate Training. All team members receive a condensed version of the parent-training program.

Stage 3 – Family Recruitment. The CAT members use culturally appropriate recruitment strategies for the targeted population.

Stage 4 – Family retention. This stage consists of youth and parent training (Each youth- and parent-training module is 5 to 6 weeks, 2¹/₂ hours per week), early intervention and case management services, and the evaluation of the program.

Stage 5 – Community-capacity enhancement. This stage involves the successful empowerment of the sponsor organization and the CAT to continue the prevention program in the community through service networks and funding supports.

OUTCOMES

Results from the outcome evaluation indicate the following achievements:

- Parents significantly increased their level of alcohol and illicit drug knowledge and the involvement of their children in setting alcohol and illicit drug rules, improved the use of community services, and reported satisfaction with community services. In the African-American population, parents also reduced their own alcohol use.
- Program youth demonstrated greater bonding with their mothers and increased use of community services than did comparison youth. Under specific conditions, youth also increased bonding with fathers and siblings, developed open and honest communication, and increased their community involvement.

- The program revealed statistically significant delays in the onset of alcohol and illicit drug use and decreases in the frequency of alcohol and illicit drug use. These outcomes occurred under certain conditions, namely, changes in parent-level and youth-level resiliency factors targeted by the program.
- In addition, the CLC evaluation reported increases in the following risk or resiliency factors: knowledge and healthy beliefs about alcohol and illicit drugs, youth involvement in setting and following family rules regarding alcohol and illicit drugs, use of needed community services by families, bonding with parents, honest and meaningful communication, and use of community services by youth.

DARE TO BE YOU

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Dare To Be You is a primary prevention program designed for parents and extended family members to increase personal and parental efficacy, knowledge of child development, and knowledge and use of appropriate child-rearing practices. Parents and children engage in social and educational activities to enhance personal responsibility, communication skills, problem solving, and decision making.

PROGRAM STRATEGIES

The Dare To Be You model involves education and social activities for parents, children, and families. Training and support is necessary for community members, child care providers, and Head Start personnel who provide ongoing support to the target children and their families.

Dare To Be You consists of the following program components:

- The family component offers parent, youth, and family training and activities for teaching self-responsibility, personal and parenting efficacy, communication and social skills, and problem-solving and decision-making skills.
- The school component trains and supports child-care providers.
- The community component trains community members who interact with target families.

POPULATION FOCUS

Dare To Be You is designed for children ages 2 to 5 and their families.

SUITABLE SETTINGS

Dare To Be You can be implemented in Head Start programs, day care centers, and other community agencies.

REQUIRED RESOURCES

The following materials are available for purchase:

- Community Training Manual
- K-12 School Curriculum. Individual volumes are available.
- Parent and Preschool Training Set. A Spanish version is also available.

IMPLEMENTATION TIMELINE

The total time commitment for implementing Dare To Be You is 12 weeks. The specific program strategies require the following time commitments:

- 12-week initial workshop series for families: 30 hours, plus preparation time
- Semiannual reinforcing workshops for families: 12 hours each, plus promotion and preparation time
- 15-hour teacher/caregiver training: 80 hours to prepare, promote, and implement
- 15-hour community-member training: 80 hours to prepare, promote, and implement
- Teen teacher training: minimum 6 hours
- 4-week reinforcing series: 10 hours, plus preparation and travel time
- Monthly After-Dare (6 months minimum): 15 hours plus preparation and travel time

OUTCOMES

- Significant and enduring increases in parental self-esteem were observed in both parental competence and satisfaction of the parent-role indicators
- Increases in positive attitudes toward parenting
- Decreases in use of punishment and increases in appropriate control techniques
- Higher scores among children in the intervention group on the Minnesota Development Inventory
- Higher retention than expected, with more than 95 percent completing all program components in the first year and more than 75 percent completing at least yearly follow-up surveys

FAMILY ADVOCACY NETWORK (FAN CLUB)

Family Advocacy Network (FAN Club)
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The FAN Club is a parent-involvement component of SMART Moves, the national prevention program of Boys & Girls Clubs of America. Developed by The Pennsylvania State University, the FAN Club is designed to strengthen families by creating a bond between youth and their parents, reducing parental isolation, providing opportunities for families to do things together, helping parents influence their children to lead drug-free lives, and providing social and instrumental support for families.

PROGRAM STRATEGIES

The FAN Club is facilitated by an adult who also leads the SMART Moves (with SMART Leaders) program sessions for youth. FAN Club activities fall broadly into four categories:

- Individual basic support to help families deal with stress and to encourage involvement in family activities
- Regularly scheduled group social activities
- Educational and enrichment activities
- Parental leadership activities

POPULATION FOCUS

The FAN Club is designed for parents of youth ages 10 to 17 years who are participating in the SMART Moves drug-use prevention program, which includes the SMART Leaders program.

SUITABLE SETTINGS

The FAN Club and SMART Moves (with SMART Leaders) program can be implemented in community-based youth organizations, recreation centers, religious institutions, and schools.

REQUIRED RESOURCES

Training is available from the National Office of Boys and Girls Clubs of America; sessions can accommodate 20 to 40 people trained in teams of four.

IMPLEMENTATION TIMELINE

The startup time commitment for FAN Club is approximately 4 months. Because the FAN Club is implemented with parents and families of youth participating in the sequential prevention program, parents are recruited after youth are recruited for the prevention program. This allows FAN Club coordinators to train for the FAN Club program and the SMART Moves programs, including SMART Leaders.

The minimum time commitment during implementation is 9 months per year for 3 years. The amount of time committed by the FAN Club coordinator to provide basic support for families and FAN Club activities will vary by site. Basic support will require approximately 20 hours per week and FAN Club activities will take another 10 hours per week. The remaining time is spent on prevention-program activities for youth.

OUTCOMES

In a multiyear evaluation of the FAN Club in combination with the SMART Moves program, youth showed greater ability to refuse alcohol, marijuana, and cigarettes and increased their knowledge of the health consequences and prevalence of alcohol, tobacco, and illicit drug use.

FAMILY EFFECTIVENESS TRAINING (FET)

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FET is a preventive intervention for use with Hispanic families with preadolescents who are “at risk” for future drug abuse. FET targets a constellation of factors that put families at risk for developing a drug-abusing adolescent. The FET modality uses a Strategic Structural Systems approach to prevention that views the adolescent’s problems within the context of the family.

PROGRAM STRATEGIES

Intervention strategies target existing maladaptive family interactions, and prevention strategies target two common stressors in Hispanic families: intergenerational and intercultural conflicts. Families are strengthened by increasing their ability to adapt to new situations and in particular to developmental and cultural challenges the family will confront. The intervention strategies include family development, bicultural effectiveness training, and brief strategic family therapy.

POPULATION FOCUS

FET is designed for Hispanic parents of children exhibiting problem behaviors.

SUITABLE SETTINGS

FET can be implemented in community-based settings.

REQUIRED RESOURCES

For more information about training and materials, contact Carleen Robinson at the above address.

IMPLEMENTATION TIMELINE

The material is presented in a classroom-like atmosphere to the entire family in a series of 13-week sessions. The sessions are approximately 90 minutes to 2 hours long.

OUTCOMES

Families in FET showed significantly greater improvement than did control families on independent measures of structural family functioning, problem behaviors as reported by parents, and on a self-administered measure of child self-concept. The impact of FET was generally maintained at the 6-month followup.

KEEP A CLEAR MIND (KACM)

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KACM is a substance abuse prevention program for families with children in grades 4 through 6. This home-based program developed by the University of Arkansas uses a correspondence format and consists of four weekly lessons on alcohol, tobacco, and marijuana, and on tools to avoid drugs. KACM's overall goal is to increase parent-child communication regarding drug prevention and to develop youths' skills to refuse and avoid "gateway" drug use.

PROGRAM STRATEGIES

The KACM program uses classroom lessons, incentives, and newsletters. Each of these services is described below.

- **Classroom Lessons.** Each of the lessons provides a brief introduction to the weekly topic, followed by a sequence of five activities to be completed at home with a parent. The activities include answering simple questions about the harms of drug use and the prevalence of peer drug use, listing reasons not to use drugs, writing "No" statements to resist pro-drug-use social pressures, selecting the best ways to refuse and avoid drugs from a list of alternatives, and completing contracts to refuse and avoid drugs.
- **Incentives.** Incentives are provided for students returning completed lessons within an indicated time period. Some incentives have included tickets to sports events, bookmarks, folders, stickers, and pens.
- **Newsletters.** Parent newsletters are sent home biweekly over a 10-week period, following the initial four lessons. Newsletters prompt parents to provide encouragement to their children and to reinforce the importance of "saying no to drugs." The newsletters also provide parents with specific tips for communicating with their children.

POPULATION FOCUS

The target population includes students in grades 4 through 6 and youth in nonschool settings of the same age and their parents.

SUITABLE SETTINGS

KACM can be implemented in school and nonschool settings.

REQUIRED RESOURCES

All materials necessary to implement KACM can be purchased at the following address:

Health Education Projects Office
HP 326A
University of Arkansas
Fayetteville, AR 72701
Phone: (505) 575-5639

IMPLEMENTATION TIMELINE

The KACM curriculum consists of four lessons, distributed to children usually once a week.

OUTCOMES

Students in the KACM groups were more likely to move toward a no-use position and to develop a more realistic view of the consequences of drug use compared to students in the control group. They were also more likely to recognize that tobacco has harmful effects on young people and to perceive their parents as having a negative view of marijuana use.

When compared to parents in the control group, parents in the KACM group were more likely to have decreased expectations that their child would try these substances, have a more realistic view of drug use among young people, and have a greater understanding of the harmful effects of drug use.

LIFE SKILLS TRAINING (LST)

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LST is a classroom-based substance abuse prevention program for grade- and middle-school children. LST teaches personal skills and social skills to promote individual competence and aims to decrease young people's vulnerability to pro-substance use-social influences from peers and the media.

PROGRAM STRATEGIES

LST consists of three major components:

- The drug-resistance component provides students with the information and skills needed to resist prodrug influences, and promotes antidrug norms.
- The self-management component teaches skills for making independent decisions, managing stress and anxiety, goal setting, self-appraisal, self-monitoring, and self-reinforcement.
- The social-skills component teaches strategies for communicating effectively, building healthy relationships, overcoming shyness, and being assertive.

POPULATION FOCUS

LST targets students ages 10 to 14.

SUITABLE SETTINGS

LST can be implemented in school settings.

REQUIRED RESOURCES

A *Teacher's Manual* and *Student Guide* for each year can be purchased from the Princeton Health Press at the above address.

IMPLEMENTATION TIMELINE

The program length is eight sessions for each of the three program years.

OUTCOMES

Extensive evaluation of the LST program has shown that LST students have dramatically lower levels of alcohol, tobacco, and illicit drug use, compared to study participants who did not receive the LST program. Effectiveness studies show that it can reduce prevalence of alcohol, tobacco, and illicit drug use by as much as 87 percent. It can also reduce multiple drug use by up to 66 percent.

PROJECT ALERT

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RAND

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Developed by the Rand Corporation of Santa Monica, California, Project ALERT teaches middle-school children to avoid establishing drug use norms, find reasons not to use drugs, and resist prodrug pressures. Toward that end, Project ALERT focuses on the substances that adolescents use first and most widely: alcohol, tobacco, marijuana, and inhalants.

PROGRAM STRATEGIES

Project ALERT uses a 14-lesson curriculum, participatory activities, and videos. Guided classroom discussions and small group activities stimulate peer interaction and challenge students, while intensive role playing encourages students to practice and master resistance skills. Parent-involved homework assignments extend the learning process.

Project ALERT provides the following services:

- **Teacher Training.** A 1-day training workshop helps educators gain confidence in their ability to present Project ALERT.
- **Normative Education and Resistance Skills Training.** Students participate in weekly lessons that help build norms against using drugs, develop reasons not to use, recognize the benefits of no use, and resist prodrug pressures. Older teens reinforce the lessons through videos that model appropriate behavior.
- **Parent Involvement.** Home-learning opportunities facilitate parent and child discussion of drugs and how to resist them.

POPULATION FOCUS

The target population is middle-school youth ages 11 to 14.

SUITABLE SETTINGS

Project ALERT can be implemented in any middle-school setting (i.e., urban, rural, or suburban) and with populations that vary on socioeconomic and ethnic levels.

REQUIRED RESOURCES

A 1-day training workshop and a comprehensive curriculum package are available. After the workshop, trained Project ALERT teachers will continue to receive free video and print curriculum updates, free subscriptions to a teacher-support newsletter, and a toll-free phone number for support and technical assistance.

IMPLEMENTATION TIMELINE

Project ALERT includes a 10-session program in grade 7 and a three-session booster program in grade 8.

OUTCOMES

Research results for participants compared with control groups showed a reduction of marijuana use initiation by 30 percent and a decrease in current and heavy smoking by 25 to 50 percent.

PROJECT NORTHLAND

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Project Northland is a community-based alcohol use prevention program for middle-school students. This program, developed by the University of Minnesota's School of Public Health, seeks to delay the age when young people begin drinking, reduce alcohol use among young people who have already tried drinking, and limit the number of alcohol-related problems of young people.

PROGRAM STRATEGIES

Project Northland provides the following services:

- Peer-led groups. Peer leaders are selected in grades 7 and 8 to lead classroom discussions. They also create alternative after-school activities for their peers.
- Individual behavioral and environmental change. Students are taught about environmental, interpersonal, and behavioral factors that can influence their decision not to use alcohol.
- Parent involvement. This component encourages parents to discuss prevention content with their children. Students in grade 6, for example, bring home a comic book every week for 4 weeks to complete with a parent or another responsible adult.
- Community Involvement. Project Northland encourages involvement with community members and provides teachers and coordinators with the tools to get the community involved. Students are given research assignments that require obtaining information from community members.

POPULATION FOCUS

Project Northland targets students in grades 6, 7, and 8. Programs and activities are also offered to parents and community members.

SUITABLE SETTINGS

Project Northland can be implemented in school- or community-based settings that serve middle-school students.

REQUIRED RESOURCES

The full curriculum package is available.

IMPLEMENTATION TIMELINE

Project Northland offers a 2½ day training workshop for leaders. Project Northland includes a four-session program in grade 6, and an eight-session program in grades 7 and 8.

OUTCOMES

The original evaluation was conducted in a six-county area of northeastern Minnesota, serving a total of 2,400 students. After 3 years of Project Northland, students involved with the project showed a lower monthly drinking rate of 20 percent and a lower weekly drinking rate of 30 percent than students from control communities. Students in the intervention group who did not drink at the beginning of grade 6 not only drank significantly less than students in the control group, but also smoked fewer cigarettes and used less marijuana at the end of grade 8; cigarette smoking was 37 percent lower and marijuana use was 50 percent lower.

PROJECT STAR

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Project STAR, also known as the Midwestern Prevention Project (MPP), is a comprehensive, community-based drug abuse intervention program that uses school, mass media, parent education, community organization, and health policy programming to prevent and reduce adolescent substance use. Developed by the University of Southern California, the project offers a series of classroom-based sessions middle school. School sessions are subsequently enhanced by parent, media, community, and policy components.

PROGRAM STRATEGIES

By using multiple program channels (including schools, parents, community organizations, mass media, and policy), skills that are learned initially in the school program are reinforced by a consistent antidrug social norm. Greater message consistency is likely to lead to more rapid formulation of no-drug use attitudes, intentions, and behaviors. The use of multiple program channels offers the advantage of access to a

larger pool of prevention activities and resources, increased community support of prevention programming, and the ability to reach a larger target audience.

Project STAR components include:

- **School Program.** This central program component is initiated in grade 6 or 7, and is delivered by trained teachers and facilitated by peer leaders.
- **Mass Media.** Initiated with the school program during the first year and continued for almost 5 years, this piece consists of approximately 31 television, radio, and print broadcasts per year. Simple messages introduce and explain to the community the school-based program and each new program component as it unfolds.
- **Parent Program.** Initiated in the second year, the parent program develops family support and modeling for no-drug use norms within the family and school neighborhood. This component includes parent education and organization throughout middle school.
- **Community Organization.** During the third year, community and government leaders are enlisted and trained to form a community organization to plan and implement drug abuse prevention services and activities that complement the other program components. Organizing the community involves agency networking and facilitating referrals for services across agencies.
- **Health Policy.** In the fourth and fifth years, a health policy is implemented by a government subcommittee that is formed from local community and government leaders (i.e., from the community organization component), to actively implement policy-change initiatives that reduce substance demand and limit supply (e.g., local ordinances restricting cigarette smoking in public settings, increased alcohol pricing and limited availability, drug policies mandating drug-free zones, financial support for prevention programming, and law enforcement efforts).

POPULATION FOCUS

Project STAR targets the entire community.

SUITABLE SETTINGS

Project STAR can be implemented in community-based settings.

REQUIRED RESOURCES

For information about training and materials, please contact Angela Lapin at the above address.

IMPLEMENTATION TIMELINE

Project STAR is implemented over a 5-year period. The core of the school-based program is a social-influence curriculum that is integrated into classroom instruction by trained teachers over a 2-year period. During the first year, a 13-lesson core curriculum is taught, followed by a five-lesson booster curriculum in the second year. Each of the lessons consumes approximately 45 minutes of class time. Classroom work is supplemented by homework that is completed by both students and parents. Teachers are given an

intensive 3 days of training (2 days for the basic curriculum and 1 day for the booster curriculum) during which they learn the Project STAR teaching methods and strategies to encourage homework participation.

OUTCOMES

Project STAR has resulted in net reductions of 40 to 70 percent in drug use, including up to 40 percent in daily smoking, which have been maintained thus far up to early adulthood. Also, by early adulthood (age 23), program participants demonstrated less need for drug abuse treatment.

PROJECT TOWARDS NO DRUG USE (TND)

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Project TND is a drug abuse prevention program aimed at high-school youth who are at high risk for drug abuse. Project TND is designed to address the primary causes of drug abuse among adolescents. The curriculum provides detailed information about the social and health consequences of drug use and addresses topics such as active listening, effective communication, stress management, and self-control to enhance self-confidence. The program seeks to counteract myths and stereotypes to change the norms of decision making and public commitment.

PROGRAM STRATEGIES

Project TND uses various highly interactive teaching methods, including group discussion, games, role playing, videos, student worksheets, questioning, and analyses of social influences and consequences of drug use. The curriculum consists of motivational activities, social-skills training, and decision-making training.

POPULATION FOCUS

Project TND targets students in grades 9 to 12.

SUITABLE SETTINGS

Project TND can be implemented in high schools or alternative high school settings.

REQUIRED RESOURCES

The curriculum package includes one video, a teacher's guide, and a student workbook.

IMPLEMENTATION TIMELINE

The Project TND program includes nine sessions over 3 weeks. The total implementation time is approximately 4 to 5 weeks.

OUTCOMES

Changes in use of cigarettes, alcohol, marijuana, and hard drugs were assessed in a time interval spanning pretest to a 1-year follow-up.

- Project TND reduced higher levels of alcohol use by at least 20 percent and reduced all levels of hard-drug use by an average of 60 percent.
- Most effects were maintained at a 2-year follow-up.

PROJECT TOWARDS NO TOBACCO USE (TNT)

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Project TNT of the University of Southern California is a school-based prevention project designed to delay and reduce the use of tobacco in middle-school children. This comprehensive approach is well suited to various youth who may differ in risk factors that influence their tobacco use.

PROGRAM STRATEGIES

The theory underlying Project TNT is that young people will best be able to resist using tobacco products if they become aware of misleading social information, develop skills that counteract social pressure to use tobacco, and learn about the physical consequences of tobacco use.

At the completion of this program, students will be able to

- Describe the course of tobacco addiction and disease, the consequences of using tobacco, and the prevalence of tobacco use among peers.
- Demonstrate effective communication, refusal, and cognitive coping skills.
- Identify how the media and advertisers influence teens to use tobacco products.
- Identify methods for building their own self-esteem.
- Describe strategies for advocating no tobacco use.

POPULATION FOCUS

Project TNT targets students in grades 5 and 6.

SUITABLE SETTINGS

Project TNT is suitable for grade school and community settings that provide classlike structures.

REQUIRED RESOURCES

The curriculum package includes two videos, a teacher's guide, and a student workbook.

IMPLEMENTATION TIMELINE

Project TNT is conducted over a 2- to 4-week period and delivered in 10 core lessons that last 40 to 50 minutes apiece. A year after the completion of the 10 core lessons, a two-lesson booster is provided in a 1- or 2-day sequence.

OUTCOMES

- Students in Project TNT reduced initiation of cigarettes by approximately 26 percent over the control group, when 1-year and 2-year follow-up outcomes were averaged together.
- Students in Project TNT reduced initiation of smokeless tobacco use by approximately 30 percent.
- Weekly or more frequent cigarette smoking by students in the Project TNT group was reduced by approximately 60 percent.
- For students in the Project TNT group, weekly or more frequent smokeless tobacco use was eliminated.

RECONNECTING YOUTH PROGRAM (RY)

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RY is a school-based program that targets youth at high risk for dropping out of school and who may demonstrate multiple problem behaviors, such as substance abuse, aggression, and depression. The RY program emphasizes three primary goals—increasing school performance, decreasing drug involvement, and improving mood management. The program incorporates social support and life skills. In addition,

program staff monitor participants' class attendance, school achievement, moods, drug involvement, and social interactions and help establish drug-free social activities and friendships.

PROGRAM STRATEGIES

RY is delivered to 10 to 12 students per class. Schools typically offer one or two sections of RY each semester as part of their regular curriculum offerings. The program involves a regular high-school teacher as the RY group leader and teacher. The RY class is divided into four major units: self-esteem, decision making, personal control, and interpersonal communication.

RY provides the following services:

- Mentoring and advocacy. RY teachers are selected based on established criteria and are then carefully trained in implementing the RY model as designed. They are responsible for teaching the daily high school class and serving as an advocate for the high-risk students.
- Social support. RY students receive social support in achieving the program goals from the RY teacher and their RY classmates and peers.
- Social-skills training. RY students receive daily skills training in self-esteem, decision making, personal control (stress, anger, and depression management) and interpersonal communication skills.
- School bonding and social activities. Students are encouraged to develop improved relationships with their other high school teachers and to engage in healthy activities as alternatives to drug involvement.
- School system crisis-response plan for addressing suicide prevention.

POPULATION FOCUS

RY is designed to serve regular high school students in grades 9 through 12 who are at high risk for dropping out of school and who are not already receiving services through special-education programs. In addition, target students are identified as needing the program if they have fewer than the average number of credits earned for their grade level, have high absenteeism, show a significant drop in grades, or have a record of school dropout.

SUITABLE SETTINGS

The RY program is suitable for school settings.

REQUIRED RESOURCES

The curriculum package is available from the National Educational Service.

IMPLEMENTATION TIMELINE

The RY program contains 80 lessons that can be presented in sequence, selectively, or infused into other curricula.

OUTCOMES

Research shows that the RY program helps students

- Improve school performance in all their classes
- Reduce drug involvement
- Decrease deviant peer bonding
- Increase self-esteem, personal control, school bonding, and social support
- Decrease depression, anger and aggression, stress, hopelessness, and suicidal behaviors

Further analysis indicates that the social support and mentoring provided by the RY leaders contribute to decreases in drug involvement, depression, and suicide-risk behaviors overall, as well as increases in school achievement.

RESIDENTIAL STUDENT ASSISTANCE PROGRAM (RSAP)

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Student Assistance Services
660 White Plains Road
Tarrytown, NY 10591
Phone: (914) 332-1300
Fax: (914) 336-8826

The RSAP in Westchester County, New York, is largely based on successful employee-assistance programs that identify and aid employees whose performance and lives had been adversely affected by substance abuse. RSAP adapted the EAP model for institutionalized adolescents at very high risk for substance abuse.

PROGRAM STRATEGIES

A highly trained, professional student-assistance counselor provides the following culturally sensitive substance abuse prevention and intervention services:

- Substance-abuse assessment of all new residents entering the facility
- The Prevention Education Series curriculum for youth to help identify adolescent substance users and children of substance abusers, encourage self- and peer-referrals, and provide primary prevention activities for nonusers
- Individual educational and motivational counseling for residents whose parents are substance abusers
- Group counseling for adolescent substance abusers and residents whose parents are substance abusers

POPULATION FOCUS

RSAP is designed to address the needs of seriously troubled youths ages 14 to 17.

SUITABLE SETTINGS

RSAP can be implemented in residential facilities for adolescents.

REQUIRED RESOURCES

The following materials are available from Student Assistance Services: Informational Video and Implementation Manual.

IMPLEMENTATION TIMELINE

The start-up time commitment is approximately 8 weeks. Implementers should allow enough time to hire top-quality Student Assistant Counselors (SACs) and take advantage of RSAP's training program. The next step is to identify and orient the supervisor at the residential facility who will serve as the liaison between the facility and the SAC's agency. Finally, SACs should set up an office in the facility, meet staff, learn the policies and procedures of the facility, familiarize all levels of staff with the program, and identify available treatment resources for the residents.

The minimum time commitment during implementation is 12 weeks. The specific program strategies require the following time commitments:

- Training residential facility staff: 2 to 35 hours, depending on staff interest and availability
- Individual assessments: 20 to 90 minutes each, depending on the resident's willingness to provide information
- Outreach activities: average 60 minutes per week
- Prevention education discussion groups: 45 minutes per week, for 6 to 8 weeks
- Individual counseling: 45 minutes each (frequency and number determined by the SAC)
- Group counseling: 45 minutes per week, for 8 to 12 weeks, for each group
- Adolescent residential task force: 30 to 45 minutes per week
- Residential facility staff task force: 45 to 60 minutes every week or every other week
- Advising residential facility staff: average 1 to 2 hours per week

OUTCOMES

Adolescents in the treatment group showed dramatic reductions in the use of alcohol, tobacco, and marijuana from pretest to posttest measures, while in-house comparison youth showed relatively unchanged rates of use. The following outcomes were observed at the 30-day posttest:

- 81.8 percent of those who did not report alcohol use at pretest remained nonusers.
- Of the users at pretest, 72.2 percent no longer reported use at posttest.
- 83.3 percent of those who did not report marijuana use at pretest remained nonusers.

- Of the users at pretest, 58.8 percent no longer reported use at posttest.
- 78.4 percent of those who did not report tobacco use at pretest remained nonusers.
- Of the users at pretest, 26.9 percent no longer reported use at posttest.

SMART LEADERS

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SMART Leaders teaches youth to help their peers resist pressures to use substances. This 2-year peer-leader program for youths ages 14 to 17 reinforces the skills and knowledge acquired in Stay SMART, a prevention program for youths ages 13 to 15 run by the National Program of Boys & Girls Clubs of America (B&GCA). SMART Leaders reinforces Stay SMART skills and knowledge by developing social, interpersonal, and problem-solving skills, bonding with positive adult role models, and creating positive peer groups and no-drug-use norms.

PROGRAM STRATEGIES

SMART Leaders sessions are conducted by an adult leader in small groups of approximately 8 to 15 youth. The first year of SMART Leaders consists of sessions on improving self-perception, coping with stress, resisting media pressures, and assertiveness in pressure situations. The second year of SMART Leaders includes several educational discussion modules on alcohol, tobacco, and illicit drugs.

After completing small group sessions, SMART Leaders youth participate in prevention activities, such as recruiting other youth for SMART Moves, assisting with prevention program sessions offered to younger children, and helping with prevention activities and events.

POPULATION FOCUS

SMART Leaders is designed for adolescents ages 14 to 17 who have completed the Stay SMART program.

SUITABLE SETTINGS

SMART Leaders can be implemented in community-based youth organizations, recreation centers, and schools.

REQUIRED RESOURCES

Training is available from the National Office of Boys and Girls Clubs of America. The 2-day training sessions can accommodate 20 to 40 people trained in teams of four.

IMPLEMENTATION TIMELINE

The minimum startup time for Stay SMART and SMART Leaders is 3 months and 1 month, respectively. Because SMART Leaders is a booster program for Stay SMART, youth need to complete Stay SMART before they participate in SMART Leaders.

Allow 3 months to

- Complete B&GCA's preservice training for the Stay SMART and SMART Leaders programs and recruit youth for Stay SMART
- Allow approximately 1 month to attract youth who complete Stay SMART to participate in SMART Leaders.

The total time commitment during implementation is a minimum of 4 months per year for 3 years. Implementing SMART Leaders requires the following time commitments:

- Smart Leaders I: about 5 to 7 hours per week for 5 weeks of 90-minute program and any make-up sessions
- Smart Leaders I: about 3 to 4 hours per week for prevention activities following small-group sessions
- Smart Leaders II: about 5 to 7 hours per week for 4 weeks of 90-minute program and any make-up sessions
- Smart Leaders II: about 3 to 4 hours per week for prevention activities following small-group sessions

OUTCOMES

In a multiyear evaluation of the SMART Leaders program, youth showed decreased use of alcohol, tobacco, marijuana, and other illicit drugs; fewer perceived benefits of alcohol and marijuana use; and increased knowledge of the health consequences and prevalence of alcohol, tobacco, and illicit drug use.

Through a collaboration among CSAP, The Pennsylvania State University, and B&GCA, SMART Leaders has become a component of SMART Moves, the National Prevention Program of B&GCA.

STUDENTS MANAGING ANGER AND RESOLUTION TOGETHER (SMART TEAM)

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SMART Team is a computer-based, multimedia violence-prevention intervention that uses games, simulations, graphics, cartoons, and interactive interviews to engage adolescents in learning new skills to resolve conflicts peacefully. Although not a substance abuse prevention program, the SMART Team program addresses many of the same risk and protective factors for substance abuse. Eight modules cover anger management, dispute resolution, perspective taking, and mediation. SMART Team demonstrates that it

can increase student awareness of how certain behaviors may increase or reduce violence and help student participants become conscious of the need to establish rules of negotiation, rather than resort to violence as a final solution.

PROGRAM STRATEGIES

The computer program module descriptions are as follows:

- **What is Anger?** Learn about what makes you angry—and when. Find out about expressing anger without acting violently and getting into trouble.
- **Triggers and Fuses.** Identify situations and locations that are most likely to trigger anger. Do you react without thinking? Try to “lengthen your fuse.”
- **Anger Busters.** You have the power to find tips and specific strategies to use when you are angry. Play a game to find out general guidelines for confronting an angry person or situation.
- **Channel Surfin’.** Act in haste or think through a problem. Select a channel on the simulated TV, play the game, and find out the consequences. Compare your score to others.
- **What’s On Their Minds?** Play against the clock. Look at scenes of conflict situations and decide what the characters are thinking. Find out if other teens agree with you.
- **Celebrity Interviews.** Ask celebrities how they handle anger and conflict and how they feel about some of their life experiences as adolescents.
- **Teen Interviews.** Key in as teenage role models discuss conflict resolution and mediation strategies, as well as their own experiences as mediators.
- **Talking It Out.** Take some easy steps to find out how to problem solve by talking out a problem with another person. In an interactive interview, you walk through a problem-solving process.

POPULATION FOCUS

SMART Team targets students in grades 5 through 9.

SUITABLE SETTINGS

SMART Team can be implemented in community-based settings.

REQUIRED RESOURCES

The curriculum package is available at Learning Multi-Systems, Inc., (800) 362-7323.

IMPLEMENTATION TIMELINE

The total time commitment varies.

OUTCOMES

- Declarative knowledge about conflict-management terms and principles increased among program participants after computer use.
- Students' knowledge increased significantly regarding how certain behaviors may contribute to conflict escalation. More students recognized that fighting would escalate conflict from pretest to posttest. Students who believed that talking with the other person would de-escalate conflict also increased after participation.
- A significant increase was found in students' self-reported frequency of prosocial behavior. Students who reported helping another student solve a problem doubled from pretest to posttest. A decrease in name calling was also observed.
- A significant increase was found in students' intention to use nonviolent strategies. When presented with a hypothetical situation in which a student was a trained mediator and two disputing students requested assistance with a conflict, more students (at posttest) intended to have the pair establish rules for the negotiation process.

STRENGTHENING FAMILIES PROGRAM (SFP)

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Since 1982, the SFP has provided guidance and support to several thousand families, both nationally and internationally. In addition to parent training, SFP consists of comprehensive community-based social- and life-skills training curriculums for elementary-age children and their families, and offers basic needs support for child care, transportation, and meals, as well as incentives (e.g., tickets to cultural and sporting events).

PROGRAM STRATEGIES

The SFP program focuses on family attachment and bonding; family supervision; family communication of values; and no-drug-use expectations. The SFP program components include

- **Parent Training.** Parents learn to increase desired child behaviors by using attention and rewards, limit-setting, clear communication, effective discipline, substance-use education, and problem solving.
- **Children's Skills Training.** Children learn communication, social skills, how to understand feelings, problem solving, how to resist peer pressure, the consequences of substance use, and compliance with rules.
- **Family Skills Training.** Families practice therapeutic child play, communication skills, and effective discipline.

- Supportive Services. SFP uses creative retention strategies such as special incentives, family meals, childcare, and transportation.

POPULATION FOCUS

SFP targets high-risk children ages 6 to 11. Although originally developed for high-risk children of substance abusers, SFP is widely used among children of non-substance-abusing parents. SFP has been modified for African-American families, Asian/Pacific Islanders in Utah and Hawaii, rural families, early teens in the Midwest, and Spanish-speaking Hispanic families.

SUITABLE SETTINGS

SFP can be implemented in community centers, schools, mental-health centers, inpatient and outpatient drug treatment clinics, housing communities, faith-based organizations, homeless shelters, prerelease centers, tribal community centers, and cooperative extension services.

REQUIRED RESOURCES

The SFP program has a 2- or 3-day training period. A set of six training manuals can be purchased.

IMPLEMENTATION TIMELINE

The program contains 14 sessions, generally once a week. SFP is a 2¹/₂-hour group session implemented by two teams of co-trainers, for a total of four trainers, with one part-time recruiter and a staff supervisor. The curriculum includes three 14-week courses.

OUTCOMES

Evaluations of the SFP indicate that it is an effective, family-focused, selective prevention strategy for enhancing family relationships. The SFP has been proven effective in reducing family conflict, improving family communication and organization, and improving the behavior of the children by reducing conduct disorders, aggressiveness, and emotional problems. In addition, SFP significantly decreases drug use, stress, depression, and use of corporal punishment, while increasing parental efficacy. Parents improve their ability to plan family-oriented activities, increase their clarity of rules, and decrease their social isolation. Furthermore, family relationships improve because of increased time spent together, more effective communication, shared feelings, recognition of others' accomplishments, and shared expectation of no underage use of tobacco and alcohol, nor use of illicit drugs. At 5-year follow-up, 68 percent of participating families were still holding family meetings.

YOUTH ACCESS TO TOBACCO

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The Youth Access to Tobacco initiative is an environmental campaign to enforce laws against tobacco use by minors and to stimulate communities to implement other prevention strategies such as banning vending machines or installing lockout devices on vending machines. Where traditional youth smoking prevention initiatives have focused on reducing the demand or desire for tobacco among youth, the Youth Access to Tobacco effort focuses on cutting off the supply of tobacco to minors. The town of Woodridge, Illinois, was the first in the nation to put a tough enforcement program in place.

PROGRAM STRATEGIES

Youth Access to Tobacco focuses on cutting off the supply of tobacco to minors by enforcing laws that prohibit the sale of tobacco to this underage group. A key strategy to improving enforcement is conducting compliance tests:

- Underage youth enter a place of business to purchase tobacco while an adult supervisor waits outside. Youth involved in compliance testing are instructed to be honest when asked their age and not to carry proof of identification.
- Youth involved in compliance testing must have parental consent and must sign a statement outlining their responsibilities. In addition, they receive 1 to 2 hours of group training to prepare for the compliance tests.
- The adult supervisor waits in the car while the youth enters the store. When the youth returns, he or she reports on what transpired. Any purchased tobacco is immediately labeled with the date of sale; name of the adult supervisor; and the name, address, and permit number of the vendor.
- Violation notices are written up for violators. These notices are delivered either by mail or in person at the end of the day, but never at the time of the inspection. To do so might prompt merchants to warn other merchants in the vicinity, reducing the number of effective compliance inspections possible that day.
- In cases of vending machines without locking devices, youth are instructed to approach the vending machine and attempt to make a purchase. If the vending machine is locked, the youth are instructed to ask an employee to unlock the machine.

- Violators are reinspected frequently to determine whether the penalty has had the desired effect of eliminating a source of illegal sales.

POPULATION FOCUS

Youth Access to Tobacco is an effort targeting law enforcement, vendors, and other community groups associated with minors' access to tobacco.

SUITABLE SETTINGS

Youth Access to Tobacco is a community-based campaign to implement local and state laws.

REQUIRED RESOURCES AND IMPLEMENTATION TIMELINE

For more information, contact Joseph DiFranza at the above address.

OUTCOMES

Evaluation results show a measurable improvement in merchant compliance in study sites. Each of the intervention communities reached 90 percent (or above) vendor compliance rates.

After a local law requiring lockout devices on cigarette machines went into effect, a minor was able to purchase tobacco from 19 percent of vending machines equipped with locks in comparison to 65 percent of machines without locks. However, because lockout devices involve human interaction, they are not fool-proof. Because lockout devices do not render vending machines inaccessible to youths, enforcement of the law is still necessary to minimize illegal sales from locked vending machines.

GLOSSARY

Antisocial and Other Problem Behaviors: Describes a behavior-related problem (e.g., poor conduct and impulsiveness), behavior-related disorder (e.g., attention deficit hyperactivity disorder), or both

Approach: A set of prevention strategies that typify a program and can be employed in an intervention setting without adopting the program *in toto*

Assignment: The process by which researchers place study participants in an intervention, control, or comparison group. Experimental design studies randomly assign study participants to both intervention and control conditions. In quasi-experimental studies, study participants are selectively assigned to intervention and comparison conditions. Random assignment increases the likelihood that the intervention and control groups are equal or comparable and have similar characteristics.

Attrition: An unplanned loss of participants over the course of a study due to participants' dropping out of the evaluation (e.g., they moved away from the study location)

Behavior-Related Disorder: A specific behavioral problem that occurs in persistent patterns and characteristic clusters and causes clinically significant impairment

Behavior-Related Problem: A behavioral problem that is isolated or intermittent and is not part of a persistent behavior pattern; varies in severity and seriousness of its consequences

Community: A group of individuals who share cultural and social experiences within a common geographic or political jurisdiction

Community-Based Approach: A prevention approach that focuses on the problems or needs of an entire community, be it a large city, small town, school, worksite, or public place

Community Readiness: The degree of support for or resistance to identifying substance use and abuse as significant social problems in a community. Stages of community readiness for prevention provide an appropriate framework for understanding prevention readiness at the community and state levels.

Community Tolerance: Community norms that view problematic behavior as socially acceptable or actively encourage it

Conduct Disorder: A behavior-related disorder that has a repetitive and persistent pattern of violating the basic rights of others or major age-appropriate societal norms or rules. The disorder can include aggression to people and animals, destruction of property, deceitfulness or theft, and serious violation of rules.

Construct: An attribute, usually unobservable (such as educational attainment or socioeconomic status) that is represented by an observable measure

Control Group: In experimental evaluation design, a group of participants that is essentially similar to the intervention group but is not exposed to the intervention. Participants are designated to be part of either a control or an intervention group through random assignment.

Credibility of Findings: Derives from the quality of intervention implementation plus the methodological rigor of the research. When both are high, findings are attributable to the intervention and therefore have high credibility.

Data: Information collected according to a methodology using specific research methods and instruments

Data Analysis: The process of examining systematically collected information

Design: An outline or plan of the procedures to be followed in scientific experimentation and research studies to reach valid conclusions

Documentation: Entails keeping records, collecting data, and making observations to obtain specific kinds of information, such as the rates of alcohol-related problems, consumption, and sales

Domain: CSAP's conceptual framework of substance abuse prevention consists of six life domains: individual, family, peer, school, community, and society. These domains interact with the individual at the core of the framework, primarily through an individual's risk and protective factors. Thus, the individual domain refers to those risk and protective factors that *individuals* bring to a given situation.

Effect: A result, impact, or outcome. In evaluation research, attributing an effect to a program or intervention requires establishing, through comparison, a logical relationship between conditions with and without the program or intervention.

Effective: Preponderance of research or program findings is consistent, positive, and clearly related to the intervention.

Environmental Factors: External or perceived external factors that may nonetheless affect an individual behavior. At a narrow level, these factors relate to an individual's family setting and relationships. At the broader level, these refer to social norms and expectations as well as policies and their implementation.

Evaluation: The analysis of data obtained through documentation to assess the operation or impact of a policy, program, intervention, or procedure

Evaluation Research: A set of procedures to determine the effectiveness of an intervention program

Experimental Design: A research design involving random selection of study participants, random assignment of them to control or intervention groups, and measurements of both groups. Measurements are typically conducted before and, always, after the intervention. The results obtained from such studies typically yield the most definitive and defensible evidence of an intervention's effectiveness.

External Validity: The extent to which outcomes and findings apply (or can be generalized) to persons, objects, settings, or times other than those that were the subject of the study

Family: Parents (or persons serving as parents) and children who are related either through biology or through assignment of guardianship—whether formally (by law) or informally—who are actively involved in family life, sharing a social network, material and emotional resources, and sources of support

Family In-Home Support: A prevention approach that addresses risk and protective factors by focusing on preserving families through intervention in their home environments

Family Therapy: A prevention approach that provides professionally led counseling services to a family for the purpose of decreasing maladaptive family functioning and negative behaviors and increasing skills for healthy family interaction

Fidelity: Agreement (concordance) of a replicated program model or strategy with the specifications of the original

Framework: A general structure supporting the development of theory

Generalizability: The extent to which program findings, principles, and models apply to other populations and/or settings

Impact: The net effect observed within an outcome domain

Incidence: The number of new cases of a disease or occurrences of an event in a particular period of time, usually expressed as a rate, with the number of cases as the numerator and the population at risk as the denominator. Incidence rates are often presented in standard terms, such as the number of new cases per 100,000 population.

Indicated Prevention Measure: A preventive measure directed to specific individuals with known, identified risk factors

Individual-Centered Approach: A prevention approach that focuses on the problems and needs of the individual

Initiation: The stage at which a prevention program is under way but still “on trial.” Community members often have great enthusiasm for the effort at this stage because obstacles have not yet been encountered.

Instrument: A device researchers use to collect data in an organized fashion, such as a standardized survey or interview protocol

Integrity: The credibility level of study findings based on peer consensus quality ratings of implementation and evaluation methods

Intended Measurable Outcome: The overall expected consequences and results of the interventions within each prevention approach

Intervention: An activity or set of activities to which a group is exposed to change the group’s behavior. In substance-abuse prevention, interventions may be used to prevent or lower the rate of substance abuse or substance-abuse-related problems

Methodology: A procedure for controlling a study and collecting data

Multicomponent Program: A prevention program that simultaneously uses multiple interventions that target one or more substance abuse problems. Programs that involve coordinated multiple interventions are likely to be more effective in achieving the desired goals than single-component programs and programs that involve multiple but uncoordinated interventions.

Nonexperimental Design: A type of research design that does not include random assignment or a control group. In nonexperimental research designs, the attribution of an observed effect to the intervention is compromised.

Outcome: Changes observed on targeted measures

Outcome Evaluation: An analysis that focuses research questions on assessing the effects of interventions on intended outcomes

Parent and Family Skills Training: A prevention approach in which parents are trained to develop new parenting skills and children are trained to develop prosocial skills

Pretests and Posttests: In research designs, the collection of measurements before and after an intervention to assess its effects

Prevalence: The number of new and old cases of a disease or occurrences of an event during a particular time period, usually expressed as a rate, with the number of cases or events as the numerator and the population at risk as the denominator. Prevalence rates are often presented in standard terms, such as the number of cases per 100,000 population.

Prevention Principle: A principle is prescriptive and can provide implementation directions and define effective practices. A principle can be derived from science-based program evaluations, either across multiple program implementations of the same type or of programs of different types through meta-analyses.

Program: The sum of all program modules implemented by an administering agent

Program Activity: A specified set of behaviors that constitute a portion of an intervention strategy (e.g., lecture, field trip)

Program Component: The module/component is one of several parts that are grouped together to form a complete program.

Program Evaluation: The application of scientific research methods to assess a program's concepts, implementation, and effectiveness

Program Model: A program taken as a whole. All of the program activities/interventions and administrative structure comprise the model.

Program Module: An intervention activity affecting a target population

Protective Factor: An attitude, behavior, belief, situation, or action that builds resilience in a group, organization, individual, or community

Qualitative Data: In evaluation studies, contextual information that usually describes participants and interventions. These data are often presented as text. The strength of qualitative data is their ability to illuminate evaluation findings derived from quantitative methods.

Quantitative Data: In evaluation studies, measures that capture changes in targeted outcomes (e.g., substance use) and intervening variables (e.g., attitudes toward substance use). The strength of quantitative data is their use in testing hypotheses and determining the strength and direction of effects.

Quasi-experimental Design: A research design that includes intervention and comparison groups and measurements of both groups, but in which assignments to the intervention or comparison groups are not done randomly. In such research designs, attribution of an observed effect to the intervention is less certain than in experimental designs.

Random Assignment: The process through which members of a pool of eligible study participants are assigned to either an intervention group or a control group on a random basis, such as through the use of a table of random numbers

Reliability: The extent to which a measure produces the same result time after time, across venues and/or raters

Representative Sample: A segment of a larger body or population that mirrors in composition the characteristics of the larger body or population

Research: The systematic effort to discover or confirm facts by scientific methods of observation and experimentation

Resilience: Either the capacity to recover from traumatically adverse life events (e.g., the death of a parent, divorce, sexual abuse, homelessness, or a catastrophic event) and other types of adversity so as to achieve eventual restoration or improvement of competent functioning, or the capability to withstand chronic stress

(e.g., extreme poverty, alcoholic parents, chronic illness, or ongoing domestic or neighborhood violence) and to sustain competent functioning despite ongoing stressful and adverse life conditions

Risk Factor: An attitude, behavior, belief, situation, or action that may put a group, organization, individual, or community at risk for alcohol and drug problems

Sample: A segment of a larger body or population

Science-Based: Reviewed by experts in the field according to predetermined standards of empirical research. The review is based on theory, the research methodology is sound, and effects are proven to be linked to the program itself and not to extraneous events.

Selective Prevention Measure: A preventive measure directed to subgroups of populations that have higher-than-average risk for developing a problem or disorder

Simple Random Sample: In experimental research design, a sample derived by indiscriminate selection from a pool of eligible participants, such that each member of the population has an equal chance of being selected for the sample

Single-Component Program: A prevention strategy using a single intervention to target one or more problems

Sociodemographic Factors: Social trends, influences, or population characteristics that affect substance-abuse-related risks, attitudes, or behaviors. Such factors can have an indirect but powerful influence.

Social Development Model: A model that seeks to explain behaviors, which are themselves risk factors for substance abuse, by specifying the socialization processes (i.e., the interaction of developmental mechanisms carried out through relationships with family, school, and peers) that predict such behavior

Social Ecology Model: A model that posits that an adolescent's interactions with social, school, and family environments ultimately influences substance abuse and other antisocial behaviors. The model also emphasizes the importance of increasing opportunities within the social environment for youth to develop social competencies and self-efficacy.

Statistical Significance: The strength of a particular relationship between variables. A relationship is said to be statistically significant when it occurs so frequently in the data that the relationship's existence is probably not attributable to chance.

Strategy: An individual component of a program intervention (e.g., life skills training or mentoring). CSAP promulgates six specific strategies: information dissemination, prevention education, alternatives, problem identification and referral, community-based process, and environmental strategies.

Substance Abuse: Refers to the consumption of psychoactive drugs in such a way to significantly impair an individual's functioning in terms of physical, psychological, or emotional health, or interpersonal interactions or functioning in work, school, or social settings. The use of psychoactive drugs by minors is considered substance abuse.

Theory: A plausible or scientifically acceptable general principle or body of principles offered to explain phenomena

Universal Preventive Measure: A preventive measure directed to a general population or a general subsection of the population not yet identified on the basis of risk factors, but for whom prevention activity could reduce the likelihood of problems developing

Utility: Usefulness. Any science-based finding or principle has utility if it can be used to guide program development or implementation.

Validity: The extent to which a measure of a particular construct truly reflects that construct

Variable: A factor or characteristic of an intervention, participant, or context that may influence or be related to the possibility of achieving intermediate or long-term outcomes

NOTE: This glossary is based partially on work performed by Birch & Davis Associates, Silver Spring, Maryland; Westover Consultants, Silver Spring, Maryland; the Pacific Institute for Research and Evaluation, Bethesda, Maryland; The CDM Group, Chevy Chase, Maryland (under contract to CSAP); and Paul Brounstein, Ph.D., and Stephen Gardner, D.S.W., CSAP.

OFFICE OF NATIONAL DRUG CONTROL POLICY EVIDENCE-BASED PRINCIPLES FOR SUBSTANCE ABUSE PREVENTION

ADDRESS APPROPRIATE RISK AND PROTECTIVE FACTORS FOR SUBSTANCE ABUSE IN A DEFINED POPULATION.

1. Define a population.

A population can be defined by age, sex, race, geography (e.g., neighborhood, town, or region), and institution (e.g., school or workplace).

2. Assess levels of risk, protection, and substance abuse for that population.

Risk factors increase the risk of substance abuse, and protective factors inhibit substance abuse in the presence of risk. Risk and protective factors can be grouped in domains for research purposes (i.e., genetic, biological, social, psychological, contextual, economic, and cultural) and characterized as to their relevance to individuals, the family, peer, school, workplace, and community. Substance abuse can involve marijuana, cocaine, heroin, inhalants, methamphetamines, alcohol, and tobacco (especially among youth) as well as sequences, substitutions, and combinations of those and other psychoactive substances.

3. Focus on all levels of risk, with special attention to those exposed to high risk and low protection.

Prevention programs and policies should focus on all levels of risk, but special attention must be given to the most important risk factors, protective factors, psychoactive substances, individuals, and groups exposed to high risk and low protection in a defined population.

Population assessment can help sharpen the focus of prevention.

USE APPROACHES THAT HAVE BEEN SHOWN TO BE EFFECTIVE.

1. Reduce the availability of illicit drugs and of alcohol and tobacco for the underaged.

Communitywide laws, policies, and programs can reduce the availability and marketing of illicit drugs.

Communitywide laws, policies, and programs can also reduce the availability and appeal of alcohol and

tobacco to the underaged.

2. Strengthen antidrug use attitudes and norms.

Strengthen environmental support for antidrug use attitudes by sharing accurate information about substance abuse, encouraging drug-free activities, and enforcing laws and policies related to illicit substances.

3. Strengthen life skills and drug-refusal techniques.

Teach life skills and drug-refusal skills, using interactive techniques that focus on critical thinking, communication, and social competency.

4. Reduce risk and enhance protection in families.

Strengthen family skills by setting rules, clarifying expectations, monitoring behavior, communicating regularly, providing social support, and modeling positive behaviors.

5. Strengthen social bonding.

Strengthen social bonding and caring relationships with people holding strong standards against substance abuse in families, schools, peer groups, mentoring programs, religious and spiritual contexts, and structured recreational activities.

Ensure that interventions are appropriate for the populations being addressed.

Make sure that prevention interventions, including programs and policies, are acceptable to and appropriate for the needs and motivations of the populations and cultures being addressed.

INTERVENE EARLY AT IMPORTANT STAGES AND TRANSITIONS.

1. Intervene early and at developmental stages and life transitions that predict later substance abuse.

Such developmental stages and life transitions can involve biological, psychological, or social circumstances that can increase the risk of substance abuse. Whether the stages or transitions are expected (e.g., puberty, adolescence, or graduation from school) or unexpected (e.g., the sudden death of a loved one), they should be addressed by preventive interventions as soon as possible—even before each stage or transition, whenever feasible.

2. Reinforce interventions over time.

Repeated exposure to scientifically accurate and age-appropriate anti-drug-use messages and other interventions—especially in later developmental stages and life transitions that may increase the risk of substance abuse—can ensure that skills, norms, expectations, and behaviors learned earlier are reinforced over time.

INTERVENE IN THE APPROPRIATE SETTINGS AND DOMAINS.

1. Intervene in appropriate settings and domains.

Intervene in settings and domains that most affect risk and protection for substance abuse, including homes, social services, schools, peer groups, workplaces, recreational settings, religious and spiritual settings, and communities.

MANAGE PROGRAMS EFFECTIVELY.

1. Ensure consistency and coverage of programs and policies.

Implementation of prevention programs, policies, and messages for different parts of the community should be consistent, compatible, and appropriate.

2. Train staff and volunteers.

To ensure that prevention programs and messages are continually delivered as intended, training should be provided regularly to staff and volunteers.

3. Monitor and evaluate programs.

To verify that goals and objectives are being achieved, program monitoring and evaluation should be a regular part of program implementation. When goals are not reached, adjustments should be made to increase effectiveness.

This document may be downloaded from www.whitehousedrugpolicy.gov.

NREPP APPLICATION FORM

Developers of programs may want to submit their program for review to NREPP by mail or through www.samhsa.gov/csap/modelprograms/nominatenew.htm.

All programs are reviewed using the criteria listing.

Center for Substance Abuse Prevention

* = required entries

*Project name: _____

Organization name: _____

*Contact person: _____

Contact title: _____

Contact address 1: _____

Contact address 2: _____

Contact address 3: _____

Contact city: _____ Contact state: _____ Contact zip: _____

Contact country: _____

Contact phone: _____ Contact fax: _____

*Contact e-mail: _____

Funding org.: _____ Year started: _____

Domains targeted for intervention (check all that apply): _____

- Individual
- Peer
- Family
- School
- Institutional
- Workplace
- Community
- Media

Number of individuals directly served: (check only one)

- Less than 25
- 25–99
- 100–499
- 500–5000
- Greater than 5000
- Don't know/blank/NA

Age range of participants (check all that apply):

- Early childhood
- School age
- Early adolescent
- Teenagers
- Young adults
- Adults
- Seniors

Race/ethnicity of group project participants includes (check all that apply):

- American Indian/Native Alaskan
- Asian
- Native Hawaiian/Pacific Islander
- Black
- Hispanic
- White
- Other Race

Gender of participants (check all that apply):

- Female
- Male

Geographic setting or population density setting (check all that apply):

- Urban
- Suburban
- Rural
- Tribal Reservation

Intervention project activities or categories (check all that apply):

- Information material development
- Media publicity campaigns
- Educational services for youth
- Educational services for parents, caregivers
- Prevention-related skills development
- Professional/community activist skills development
- Access to drug-free activities
- Recruitment of youth for community service
- Youth/adult leadership functions
- Problem identification, referral
- Counseling/therapy/advice (individual, group)
- Family-strengthening activities
- Enforcement, including drug testing
- Advocacy of substance abuse policy changes
- Other

Dosage, in Sessions (minimum number of sessions required for intervention): _____

Dosage, in Hours (minimum number of hours required for intervention): _____

*Initial sample size (number of participants tested initially): _____

*Final sample size (number of participants at final test): _____

Standardized instrumentation (check one):

- Yes, standardized
- Not standardized
- Don't know

Evaluator (individual/organization evaluating the project): _____

*Evaluation design (design category for the evaluation) (check one):

- Posttest only with comparison group
- Pre/posttest with no comparison group
- Pre/posttest with comparison group
- Don't know

Random assignment to treatment and comparison groups (check one):

- Yes, random assignment
- Not random
- Don't know/blank

*Brief abstract (Project overview and findings; 300-word limit):

Open comments (questions and suggestions; 300-word limit):

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