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Preventing Substance Abuse



When speaking about drug prevention, one of the most important questions is rarely asked: What are we trying to prevent? Is our aim to prevent *all* drug use including alcohol use? Or is our aim to prevent drug *abuse* and its associated harms? We would like to make this point absolutely clear; a major goal of this chapter as well as the entire book is to decrease drug *abuse* and related harms. Drugs have always been and will continue to be a part of our society, so we should try to teach people to live in a world that includes them. Our society has taken this approach with tobacco and alcohol, despite the fact that some people are harmed by them. The relative number of people who have alcohol- or tobacco-related problems is small, in part, because prevention efforts are focused primarily on teaching people how to coexist with these substances and to live in such a way that their lives and health are

not impaired by them. Can we do the same for illegal substances? We think so.

Defining Goals and Evaluating Outcomes

Think about the process you are engaged in while reading and studying this book. The text is aimed at teaching its readers about drugs:

Objectives

After you have studied this chapter, you should be able to:

- Distinguish between education and propaganda programs based on their goals and approaches.
- Describe two systems for classifying prevention programs: one based on stages of involvement, the other based on target populations defined by risk for drug use.
- Describe the historical shifts in substance abuse prevention programs from the knowledge-attitudes-behavior model to affective education to antidrug norms.
- Explain how the social influence model for smoking prevention led to the development of DARE and similar programs.
- Describe the outcome of research on DARE's effectiveness and how DARE America has responded.
- List some examples of effective prevention programs that have been adopted as model programs by SAMHSA.
- Give some examples of peer, family, and community approaches to prevention.
- Describe the most consistent feature of workplace prevention programs.

their effects, how they are used, and how they relate to society. The goal of the authors is *education*. A person who understands all this information about all these drugs will perhaps be better prepared to make decisions about personal drug use, more able to understand drug use by others, and better prepared to participate in social decisions about drug use and abuse. We hope that a person who knew all this would be in a position to act more rationally, neither glorifying a drug and expecting miraculous changes from using it nor condemning it as the essence of evil. But our ultimate goal is not to change readers' behavior in a particular direction. For example, the chapter on alcohol, although pointing out the potential dangers of its use and the problems it can cause, does not attempt to influence readers to avoid all alcohol use. The success of this book is measured by how much a person knows about sedatives, hallucinogens, marijuana, opioids, stimulants, and tobacco, not whether he or she is convinced never to use any of these substances.

On the other hand, a tradition exists, going back to the "demon rum" programs of the late 1800s, of presenting negative information about alcohol and other drugs in the public schools with the clear goal of *prevention* of use. Some of these early programs presented information that was so clearly one-sided that they could have been classified as propaganda rather than education. We would not measure the success of such a program by how much objective information the students gained about the pharmacology of cocaine, for example.¹ A more appropriate index might be how many of the students did subsequently experiment with the drugs against which the program was aimed. Until the early 1970s, it was simply assumed that these programs would have the desired effect, and few attempts were made to evaluate them.

Types of Prevention

The goals and methods of a prevention program also depend on the drug-using status of those served by the program. The programs designed

to prevent young people from starting smoking might be different from those used to try to prevent relapse in smokers who have quit, for example. Until recently, drug-abuse prevention programs have been classified according to a public health model:

- **Primary prevention** programs are those aimed mainly at young people who have not yet tried the substances in question or who may have tried tobacco or alcohol a few times. As discussed in the section "Defining Goals and Evaluating Outcomes," such programs might encourage abstinence from specific drugs or might have the broader goal of teaching people how to view drugs and the potential influences of drugs on their lives, emotions, and social relationships. Because those programs are presented to people with little personal experience with drugs, they might be expected to be especially effective. But, there is the danger of introducing large numbers of children to information about drugs that they might otherwise never have heard of, thus arousing their curiosity.
- **Secondary prevention** programs can be thought of as designed for people who have tried the drug in question or a variety of other substances. The goals of such programs are usually the prevention of the use of other, more dangerous substances and the prevention of the development of more dangerous forms of use of the substances they are already experimenting with. We might describe the clientele here as more "sophisticated" substance users who have not suffered seriously from their drug experiences and who are not obvious candidates for treatment. Many college students fall into this category, and programs aimed at encouraging responsible use of alcohol among college students are good examples of this stage of prevention.
- **Tertiary prevention**, in our scheme, is relapse prevention, or follow-up programs. For alcohol- or heroin-dependent



Drugs in the Media

Are Anti-Drug Media Campaigns Effective?

In 1998, Congress created the Office of National Drug Control Policy's National Youth Anti-Drug Media Campaign. The campaign promotes antidrug messages targeting teens and young adults through advertisements, with the goal of preventing and reducing drug use. A major component is the "Above the Influence" campaign, which targets young people ages 12–17. These advertisements are intended to provide listeners and viewers with information about the dangers of drug use and ways to avoid being pressured to use drugs. For the most part, the messaging does not overstate or exaggerate the effects of drug use. A major focus is providing young people with examples of alternatives to drug use.

The current advertisement campaign is quite a departure from previous government-sponsored campaigns. Some may recall that these are folks who, in the late 1980s, brought us the public service announcement: "This is your brain on drugs." During the original spot, a man holds up an egg and says, "This is your brain." Then, he picks up a frying pan and says, "This is drugs." Then, he cracks open the egg, fries the contents, and says, "This is your brain on drugs." Finally, he asks, "Any questions?" While

this is perhaps the most memorable antidrug use advertisement, it is frequently ridiculed because it overstates the potential harmful effects of drugs used by its target audience, namely young people. Indeed, a major concern of drug educators is that these types of embellishments decrease their credibility and may lead some young people to reject all drug-related information from so-called informed sources.

Does the current advertisement campaign avoid past mistakes? More importantly, is it effective? Information from surveys indicate that teens who were aware of or interacted with Above the Influence had significantly stronger antidrug beliefs than teens who were not aware of or did not interact with Above the Influence. While this is important information, it doesn't tell us about the drug-using behavior of these teens. Nor does it provide us with information about whether teens exposed to Above the Influence are better equipped to deal with drug use if and when it occurs. Perhaps the current advertisement campaign is less likely to alienate its target audience, but questions about its effectiveness remain unclear.

individuals, treatment programs are the first order of priority. However, once a person has been treated or has stopped the substance use without assistance, we enter another stage of prevention.

The Institute of Medicine has proposed a classification of the "continuum of care," which includes prevention, treatment, and maintenance.¹ Prevention efforts are categorized according to the intended target population, but the targets are not defined only by prior drug use:

- **Universal prevention** programs are designed for delivery to an entire population—for example, all schoolchildren or an entire community.
- **Selective prevention** strategies are designed for groups within the general population

that are deemed to be at high risk—for example, students who are not doing well academically or the poorest neighborhoods in a community.

- **Indicated prevention** strategies are targeted at individuals who show signs of developing problems, such as a child who began smoking cigarettes at a young age or an adult arrested for a first offense of driving under the influence of alcohol.

Prevention Programs in the Schools

The Knowledge-Attitudes-Behavior Model

After the increase in the use of illicit drugs by young middle-class people in the 1960s, there was a general sense that society was not doing an



Targeting Prevention

Preventing Inhalant Abuse

The abuse by children of spray paints and other products containing solvents appears to have increased somewhat in recent years (see Chapter 7). Several characteristics of this type of abuse make it an interesting problem for prevention workers. First, the variety of available products and their ready availability in stores, the home, and even in schools make preventing access to the inhalants an impossibility. Second, most of the kids who use these substances probably know it's unhealthy and dangerous to do so, so further information of that sort may not add much in the way of preventing their use. Third, this use is very "faddish"—a group of eighth-graders in one school might start inhaling cleaning fluid; a group of sixth-graders in another neighborhood might be into gold paint (in distinct preference to black, yellow, or white).

Given these characteristics, where does a school-based prevention education program begin

to attack the problem? Does it focus on a particular product and try to talk kids out of using gold paint? Does it talk about a whole variety of products and thereby perhaps introduce the kids to new things they hadn't thought of? One videotape (*Inhalants: Kids in Danger, Adults in the Dark*) took the approach of attempting to inform parents and teachers of the varieties of paints, perfumes, solvents, and other spray products used by abusers and to inform them of some of the subterfuges used by some of the kids (carrying a small cologne vial to school, spraying paint into empty soft drink cans, etc.). However, this video is *not* meant to be shown to children, because it describes exactly what to do and how to do it. Probably the best idea in prevention classes is to reinforce to children in general terms the dangers of inhalants without describing a particular substance or method of use.

adequate job of drug education, and most school systems increased their efforts. However, there was confusion over the methods to be used. Traditional antidrug programs had relied heavily on representatives of the local police, who went into schools and told a few horror stories, describing the legal trouble due anyone who got caught with illicit drugs. Sometimes the officers showed what the drugs looked like or demonstrated the smell of burning marijuana, so that the kids would know what to avoid. Sometimes, especially in larger cities, a former user described how easy it was to get "hooked," the horrible life of the junkie, and the horror of withdrawal symptoms. The 1960s saw more of that, plus the production of a large number of scary antidrug films.

Teachers and counselors knew little about these substances, and many teachers attended courses taught by experts. Some of the experts were enforcement-oriented and presented the traditional scare-tactics information, whereas others were pharmacologists who presented the "dry facts" about the classification and effects of various drugs. The teachers then brought

many of these facts into their classrooms. It was later pointed out that the programs of this era were based on an assumed model: that providing information about drugs would increase the students' *knowledge* of drugs and their effects, that this increased knowledge would lead to changes in *attitudes* about drug use, and that these changed attitudes would be reflected in decreased drug-using *behavior*.²

In the early 1970s, this model began to be questioned. A 1971 study indicated that students who had more knowledge about drugs tended to have a more positive attitude toward drug use.³ Of course, it may have been that pro-drug students were more interested in learning about drugs, so this was not an actual assessment of the value of drug education programs. A 1973 report by the same group indicated that four different types of drug education programs were equally effective in producing increased knowledge about drugs and equally ineffective in altering attitudes or behavior.⁴ Nationwide, drug use had increased even with the greater emphasis on drug education. Concern arose

about the possibility that drug education may even have contributed to increased drug use. Before the 1960s, the use of marijuana and LSD was rare among school-age youngsters. Most of them didn't know much about these things, had given them little thought, and had probably never considered using them. Telling them over and over not to use drugs was a bit like telling a young boy not to put beans in his nose. He probably hadn't thought of it before, and your warning gives him the idea. These concerns led the federal government in 1973 to stop supporting the production of drug-abuse films and educational materials until it could determine what kinds of approaches would be effective.

The question of effectiveness depended greatly on the goals of the program. Did we want all students *never to experiment* with cigarettes, alcohol, marijuana, or other drugs? Or did we want students to be prepared to *make rational decisions* about drugs? For example, a 1976 report indicated that students in drug education programs did increase their use of drugs over the two years after the program, but they were less likely to show drastic escalation of the amount or type of drug use over that period, when compared with a control group.⁵ Perhaps by giving the students information about drugs, we make them more likely to try them, but we also make them more aware of the dangers of excessive use. For a time in the 1970s, it seemed as though teaching students to make rational decisions about their own drug use with the goal of reducing the overall harm produced by misuse and abuse could be a possible goal of prevention programs.

Affective Education

Educators have been talking for several years about education as including both a "cognitive domain" and an "affective domain," the domain of emotions and attitudes. One reason that young people might use psychoactive drugs is to produce certain feelings: of excitement, of relaxation, of **power**, of being in control. Or **perhaps** a child **might** not really want to take drugs



Helping young people learn to deal with emotions in healthy ways and giving them successful experiences may reduce their rates of smoking, drinking, and drug use.

but does so after being influenced by others. Helping children know their own feelings and express them, helping them achieve altered emotional states without drugs, and teaching them to feel valued, accepted, and wanted are all presumed to be ways of reducing drug use.

Values Clarification The values clarification approach makes the assumption that what is lacking in drug-using adolescents is not factual information about drugs but, rather, the ability to make appropriate decisions based on that information.⁶ Perhaps drug use should not be "flagged" for the students by having special curricula designed just for drugs but, instead, emphasis should be placed on teaching generic decision-making skills. Teaching students to analyze and clarify their own values in life is accomplished by having them discuss their reactions to various situations that pose moral and ethical dilemmas. Groups of parents or other citizens who are concerned about drug abuse sometimes have great difficulty understanding and accepting these approaches because they do not take a direct antidrug approach. In the 1970s, when these programs were developed, it seemed important that the schools not try to impose a particular set of values but, rather, allow

for differences in religion, family background, and so on. For this reason, the programs were often said to be *value-free*. To many parents, the purpose of **values clarification** training is not immediately clear, and teaching young children to decide moral issues for themselves may run contrary to the particular set of values the parents want their children to learn.

Alternatives to Drugs Along with values clarification, another aspect of affective education involves the teaching of **alternatives** to drug use. Under the assumption that students might take drugs for the experience, for the altered states of consciousness that a drug might produce, students are taught so-called natural highs, or altered states, that can be produced through relaxation exercises, meditation, vigorous exercise, or an exciting sport. Students are encouraged to try these things and to focus on the psychological changes that occur. These alternatives should be discussed with some degree of sensitivity to the audience; for example, it would make little sense to suggest to many inner-city 13-year-olds that expensive activities such as scuba diving and snow skiing would be good alternatives to drugs.

Personal and Social Skills Several studies indicate that adolescents who smoke, drink, or use marijuana also get lower grades and are less involved in organized sports or school clubs. One view of this is that students might take up substance use in response to personal or social failure. Therefore, teaching students how to communicate with others and giving them success experiences is another component of affective education approaches. For example, one exercise that has been used is having the students operate a school store. This is done as a group effort with frequent group meetings. The involved students are expected to develop a sense of social and personal competence without using drugs. Another approach is to have older students tutor younger students, which is designed to give the older students a sense of competence. An experiment carried out in

Napa, California, combined these approaches with a drug education course, small-group discussions led by teachers, and classroom management techniques designed to teach discipline and communication skills and to enhance the students' self-concepts.⁷ Although a small effect on alcohol, marijuana, and cigarette use was found among the girls, the effects were gone by the one-year follow-up.

Antidrug Norms

A 1984 review of prevention studies concluded that

- (1) most substance abuse prevention programs have not contained adequate evaluation components; (2) increased knowledge has virtually no impact on substance abuse or on intentions to smoke, drink, or use drugs; (3) affective education approaches appear to be experiential in their orientation and to place too little emphasis on the acquisition of skills necessary to increase personal and social competence, particularly those skills needed to enable students to resist the various interpersonal pressures to begin using drugs; and (4) few studies have demonstrated any degree of success in terms of actual substance abuse prevention.⁸

This last point is not entirely a criticism of the programs themselves but reflects the difficulty of demonstrating statistically significant changes in behavior over a period of time after the programs.

Refusal Skills In response to the third point, that affective education approaches were too general and experiential, the next efforts at preventing drug use focused on teaching students to recognize peer pressure to use drugs and on teaching specific ways to respond to such pressures without using drugs. This is sometimes referred to as psychological inoculation. In

values clarification: teaching students to recognize and express their own feelings and beliefs.

alternatives: alternative nondrug activities, such as relaxation or dancing.



Taking Sides

Montana Meth Project: Popular but Doesn't Decrease Drug Use

Over the past two decades, methamphetamine abuse has become a major global concern, especially in many rural communities in the western portion of the United States. In an effort to stop young people from experimenting with methamphetamine, in 2005, the state of Montana adopted a graphic advertising campaign called the Montana Meth Project. In general, the advertisements show in horrifying details a young person who uses methamphetamine for the first time, and then ends up engaging in some unthinkable act such as prostitution or assaulting strangers for money to buy methamphetamine. At the end of advertisement, printed on the screen is the message: "Meth, not even once."

A year after its inception, the Montana Meth Project was recognized by the White House for its innovative approach to drug prevention. Indeed, preliminary findings from a report by the Montana Department of Justice suggested that the campaign was successful at decreasing methamphetamine use among teens. This apparent success led seven other states to join the "Meth Project" and adopt identical advertising strategies.

Is it true that negative advertisement campaigns decrease drug use? A recent critical review of

the impact of the Montana Meth Project on methamphetamine use indicated that the advertisement campaign had no effect when preexisting downward trends in methamphetamine use were taken into account.⁹ One potential reason for the lack of success is that the individuals who are most likely to use methamphetamine find the advertisements laughable because they exaggerate methamphetamine-related harmful effects. These individuals most likely know people who have used the drug and the information presented in the advertisements are inconsistent with their own knowledge.

What are the potential negative consequences of presenting exaggerated or misleading information about drugs to young people? Some educators and health care professionals have expressed concern that the types of embellishment used by the Montana Meth Project decrease their credibility and relevance and lead many young people to reject other drug-related information from "official" sources, even when the information is accurate. What are your thoughts? Should drug prevention efforts exaggerate the effects of the targeted drug in order to discourage its use? Or could such misinformation undermine the trust young people have in official sources?

addition to the focus on substance use, "refusal skills" and "pressure resistance" strategies are taught in a broader context of self-assertion and social skills training. The first successful application of this technique was a film in which young actors acted out situations in which one person was being pressured to smoke cigarettes. The film then demonstrated effective ways of responding to the pressure gracefully without smoking. After the film, students discuss alternative strategies and practice the coping techniques presented in the film. This approach has been demonstrated to be successful in reducing cigarette smoking in adolescent populations. It has been adapted for use with groups of various ages and for a wider variety of drugs and other behaviors, and students are

taught from kindergarten on to "just say no" when someone is trying to get them to do something they know is wrong.

Drug-Free Schools In 1986 the federal government launched a massive program to support "drug-free schools and communities." Among other things, the government provided millions of dollars' worth of direct aid to local school districts to implement or enhance drug-prevention activities. Along with this, the Department of Education produced a small book called *What Works: Schools Without Drugs*,¹⁰ which made specific recommendations for schools to follow. This book did not recommend a specific curriculum; its most significant feature was the emphasis on factors other than

curriculum, such as school policies on drug and alcohol use. It suggested policies regarding locker searches, suspension, and expulsion of students. The purpose was not so much to take a punitive approach to alcohol or drug use as to point out through example and official policy that the school and community were opposed to drug and alcohol use by minors. Following this general drug-free lead, schools adopted "tobacco-free" policies, stating that not only the students but also teachers and other staff people were not to use tobacco products at school or on school-sponsored trips or activities.

According to this approach, the curriculum should include teaching about the laws against drugs, as well as about the school policies. In other words, as opposed to the 1970s values clarification approach of teaching students how to make responsible decisions for themselves, this approach wants to make it clear to the students that the society at large, the community in which they live, and the school in which they study have already made the decision not to condone drug use or underage alcohol use. This seems to be part of a more general educational trend away from "value-free" schools toward teaching values that are generally accepted in our society. For schools to be eligible for federal Drug-Free Schools funding, they must certify that their program teaches that "illicit drug use is wrong and harmful."

Development of the Social Influence Model

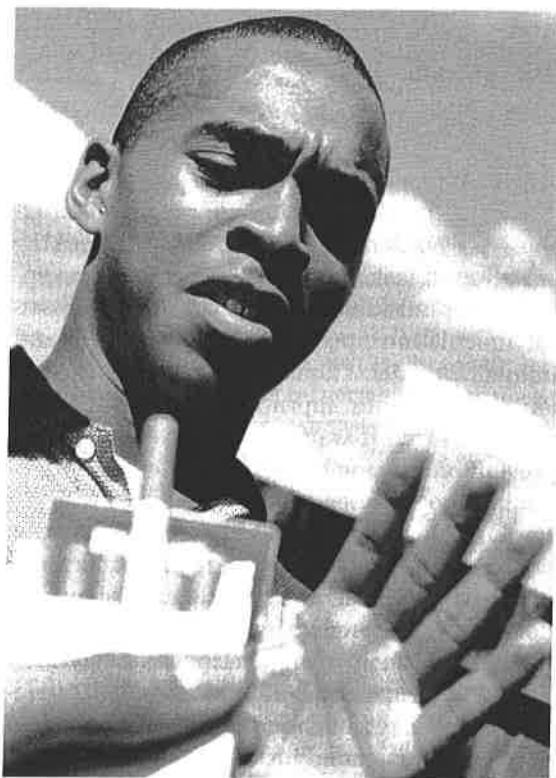
Some of the most sophisticated prevention research in recent years has been focused directly on cigarette smoking in adolescents. This problem has two major advantages over other types of drug use, as far as prevention research is concerned. First, a large enough fraction of adolescents do smoke cigarettes so that measurable behavior change is possible in a group of reasonable size. In contrast, one would have to perform an intervention with tens of thousands of people before significant alterations in the proportion of heroin users would be statistically evident. Second, the health consequences of smoking are so clear with respect to cancer and heart

disease that there is a fairly good consensus over goals: We'd like to prevent adolescents from becoming smokers. One research advantage is the relatively simple verification available for self-reported use of tobacco: Saliva samples can be measured for cotinine, a nicotine metabolite.

Virtually all the various approaches to drug-abuse prevention have been tried with smoking behavior; in fact, Evans's 1976 smoking prevention paper introduced the use of the psychological inoculation approach based on the **social influence model**.¹¹ Out of all this research, certain consistencies appear. The most important of these is that it is possible to design smoking prevention programs that are effective in reducing the number of adolescents who begin smoking. Some practical lessons about the components of those programs have also emerged.¹² For example, presenting information about the delayed consequences of smoking (possible lung cancer many years later) is relatively ineffective. Information about the immediate physiological effects (increased heart rate, shortness of breath) is included instead. Some of the most important key elements that were shown to be effective were the following:

- *Training refusal skills* (for example, eight ways to say no). This was originally based on films demonstrating the kinds of social pressures that peers might use to encourage smoking and modeling a variety of appropriate responses. Then the students engage in role-playing exercises in which they practice these refusal skills. By using such techniques as changing the subject or having a good excuse handy, students learn to refuse to "cooperate" without being negative. When all else fails, however, they are taught to be assertive and insist on their right to refuse.
- *Public commitment*. Researchers found that having each child stand before his or her peers and promise not to start smoking

social influence model: a prevention model adopted from successful smoking programs.



Training in refusal skills, including role-playing exercises, is a key component of the social influence model.

- and sign a pledge not to smoke are effective prevention techniques.
- *Countering advertising.* Students are shown examples of cigarette advertising, and then the “hidden messages” are discussed (young, attractive, healthy, active models are typically used; cigarette smoking might be associated with dating or with sports). Then the logical inconsistencies between these hidden messages and the actual effects of cigarette smoking (e.g., bad breath, yellow teeth, shortness of breath) are pointed out. The purpose of this is to “inoculate” the children against cigarette advertising by teaching them to question its messages.
- *Normative education.* Adolescents tend to overestimate the proportion of their peers who smoke. Presenting factual information

about the smoking practices of adolescents provides students with a more realistic picture of the true social norms regarding smoking and reduces the “everybody is doing it” attitude. When possible, statistics on smoking from the specific school or community should be used in presenting this information.

- *Use of teen leaders.* Presenting dry facts about the actual proportion of smokers should ideally be reinforced by example. If you’re presenting the program to junior high students, it’s one thing to say that fewer than one-fifth of the high school students in that community smoke, but it’s another to bring a few high school students into the room and have them discuss the fact that neither they nor their friends smoke, their attitudes about smokers, and ways they have dealt with others’ attempts to get them to smoke.

Possible improvements to those approaches are offered by the *cognitive developmental* approach to smoking behavior. McCarthy criticized the social influence/social skills training model for assuming that all students should be taught social skills or refusal skills without regard to whether they need such training.¹³ The model “is that of a defenseless teenager who, for lack of general social skills or refusal skills, passively accedes to social pressures to smoke.” Alternative models have been proposed in which the individual makes active, conscious decisions in preparation for trying cigarettes, trying smoking and becoming an occasional or regular user. The decision-making processes, and thus the appropriate prevention strategy, might be different at each of these “stages of cognitive development” as a smoker. Furthermore, smokers who begin smoking very young behave differently than smokers who begin as older adolescents (e.g., those who start young show more unanimity in selecting the most popular brand). Unfortunately, adolescents continue to initiate smoking every year, and the risk and protective factors reviewed in Chapter 1 have more

influence on smoking behavior (and on alcohol and other drug use) than any information or education programs yet devised.¹⁴

DARE

Perhaps the most amazing educational phenomenon in a long time had fairly modest beginnings in 1983 as a joint project of the Los Angeles police department and school district. Those who are familiar with the Drug Abuse Resistance Education (DARE) program will have recognized its components described under the social influence model of smoking cessation. The difference here is that the educational program with DARE is delivered by police officers, originally in fifth- and sixth-grade classrooms. By basing the curriculum on sound educational research, by maintaining strict training standards for the officers who were to present the curriculum, and by encouraging the classroom teacher to participate, some of the old barriers to having nonteachers responsible for curriculum were overcome. The officers are in uniform, and they use interactive techniques as described for the social influence model. Most of the components are there: refusal skills, teen leaders, and a public commitment not to use illicit drugs. In addition, some of the affective education components are included: self-esteem building, alternatives to drug use, and decision making. The component on consequences of drug abuse is, no doubt, enhanced by the presence of a uniformed officer who can serve as an information source and symbol for concerns over gang activity and violence and can discuss arrest and incarceration. The 17-week program is capped by a commencement assembly at which certificates are awarded.

This program happened to be in place at just the right time, both financially and politically. With the assistance of drug-free schools money and with nationwide enthusiasm for new drug-prevention activities in the 1980s, the program spread rapidly across the United States. By the early 1990s, DARE programs were found in every state.



Drugs in Depth

How Much Do You Know about DARE?

1. Almost everyone in the United State has heard of DARE. What do the letters stand for?
2. One component of DARE is practicing how to refuse using drugs. Do you know the origin of DARE's eight ways to say no?
3. DARE has been implemented in more schools than any other substance-abuse prevention program. Does research on its effectiveness show that it's one of the best at preventing drug abuse?
4. Besides school-based programs, what other kinds of substance-abuse prevention programs have been developed?
5. The Institute of Medicine has a relatively new way of categorizing prevention programs into various types. Do you know what factor is used to differentiate among the types?

Answers

1. Drug Abuse Resistance Education
2. This and most components of DARE were adopted from smoking prevention programs developed in the 1970s.
3. Research on the effectiveness of DARE has not demonstrated a strong impact on preventing drug use. Other programs described in this chapter appear to be more effective.
4. Parent, family, and community programs and public media campaigns have also been developed to prevent drug abuse.
5. The target population (the entire population, at-risk populations, and individuals with early signs of problems).

This program was accepted quickly by many schools, and endorsed enthusiastically by educators, students, parents, and police participants, even though its effectiveness in

DARE: Drug Abuse Resistance Education, the most popular prevention program in schools.

preventing drug use was not evaluated extensively until 1994.

In 1994, two important, large-scale studies of the effects of DARE were reported. One was based on a longitudinal study in rural, suburban, and urban schools in Illinois, comparing students exposed to DARE with students who were not.¹⁵ Although the program had some effects on reported self-esteem, there was no evidence for long-term reductions in self-reported use of drugs. The other report was based on a review of eight smaller outcome evaluations of DARE, selected from 18 evaluations based on whether the reports had a control group, a pretest-posttest design, and reliable outcome measures.¹⁶ The overall impact of these eight programs was to increase drug knowledge and knowledge about social skills, but the effects on drug use were marginal at best. There was a very small but statistically significant reduction of tobacco use and no reliable effect on alcohol or marijuana use.

A more recent review of 20 studies on DARE published in peer-reviewed journals found an average effect size that was small and not statistically significant.¹⁷ The repeated failures to demonstrate a significant impact of the DARE program on drug use remain a dilemma in light of its widespread popularity. Communities have not abandoned the program. Instead, DARE America has developed additional programs, including DARE + PLUS (Play and Learn Under Supervision) as an extension to the elementary program, and curriculum for middle school and high school DARE programs designed to follow up with these older adolescents. We cannot yet evaluate the effectiveness of these additional programs.

Programs That Work

Several school-based drug-use prevention programs have been modeled after the successful social influence model and have components similar to those of DARE. A few of these programs have been demonstrated to have beneficial effects on actual drug use:

Project ALERT was first tested in 30 junior high schools in California and Oregon.¹⁸ The



Some school-based drug-use prevention programs have been shown to reduce initiation and levels of drug use.

program targeted cigarette smoking, alcohol use, and marijuana use. Before the program, each student was surveyed and classified as a nonuser, an experimenter, or a user for each of the three substances. The curriculum was taught either by health educators or by educators with the assistance of trained teen leaders. Control schools simply continued whatever health or drug curriculum they had been using. The program was delivered in the seventh grade, and follow-up surveys were done 3, 12, and 15 months later. Three "booster" lessons were given in the eighth grade.

The program surprisingly had no measurable effect on initiation of smoking by nonusers. However, those who were cigarette experimenters before the program began were more likely to quit or to maintain low rates of smoking than the control group. The group with teen leader support showed the largest reduction: 50 percent fewer students were weekly smokers at the 15-month follow-up.

The experimental groups drank less alcohol soon after the program was presented, for previous alcohol nonusers, experimenters, and users. However, this effect diminished over time and disappeared by the end of the study.

The most consistent results were in reducing initiation of marijuana smoking and reducing levels of marijuana smoking. For example, among those who were not marijuana users at the beginning, about 12 percent of the control-group students had begun using marijuana by the 15-month follow-up. In the treatment groups, only 8 percent began using during that time period, representing a one-third decrease in initiation to marijuana use.

Another program, the Life Skills Training program, has been subjected to several tests and has shown long-term positive results. This three-year program is based on the social influence model and teaches resistance skills, normative education, and media influences. Self-management skills and general social skills are also included. One study of this program found significantly lower use of marijuana, alcohol, and tobacco after six years. A subsequent application of this program among ethnic minority youth (Latino and African American) in New York City found reduced use on a two-year follow-up.¹⁹

Peers, Parents, and the Community

Our nation's public schools clearly are the most convenient conduit for attempts to achieve widespread social changes among young people, and that is why most efforts at drug-abuse prevention have been carried out there. However, peers, parents, and the community at large also exert powerful social influences on young people. Because these groups are less accessible than the schools, fewer prevention programs have been based on using parent and community influences. Nevertheless, important efforts have been made in all these areas.

Peer Programs

Most peer programs have occurred in the school setting, but some have used youth-oriented community service programs (such as YMCA, YWCA, and recreation centers) or have focused

on "street" youth by using them in group community service projects.

- *Peer influence* approaches start with the assumption that the opinions of an adolescent's peers are significant influences on the adolescent's behavior. Often using an adult group facilitator/coordinator, the program's emphasis is on open discussion among a group of children or adolescents. These discussions might focus on drugs, with the peer group discussing dangers and alternatives, or they might simply have the more general goal of building positive group cohesiveness, a sense of belonging, and communication skills.
- *Peer participation* programs often focus on groups of youth in high-risk areas. The idea here is that young people participate in making important decisions and in doing significant work, either as "peers" with cooperating adults or in programs managed almost entirely by the youth themselves. Sometimes participants are paid for community service work, in other cases they engage in money-making businesses, and sometimes they provide youth-oriented information services. These groups almost never focus on drug use in any significant way; rather, the idea is to help people become participating members of society.

The benefits of these "extracurricular" peer approaches are measurable in terms of acquired skills, improved academic success, higher self-esteem, and a more positive attitude toward peers and school. As to whether they alter drug use significantly, the data either are not available or are inconclusive for the most part.

Parent and Family Programs

The various programs that have worked with parents have been described as taking at least one of four approaches.²⁰ Most of the programs include more than one of these approaches.

- *Informational* programs provide parents with basic information about alcohol and

drugs, as well as information about their use and effects. Although the parents often want to know simply what to look for, how to tell if their child is using drugs, and what the consequences of drug abuse are, the best programs provide additional information. One important piece of information is the actual extent of the use of various types of drugs among young people. Another goal might be to make parents aware of their own alcohol and drug use to gain a broader perspective of the issue. A basic rationale is that well-informed parents will be able to teach appropriate attitudes about drugs, beginning when their child is young, and will be better able to recognize potential problems relating to drug or alcohol use.

- *Parenting skills* might be taught through practical training programs. Communication with children, decision-making skills, how to set goals and limits, and when and how to say no to your child can be learned in the abstract and then practiced in role-playing exercises. One risk factor for adolescent drug and alcohol use is poor family relationships, and improving family interaction and strengthening communication can help prevent alcohol and drug abuse.
- *Parent support groups* can be important adjuncts to skills training or in planning community efforts. Groups of parents meet regularly to discuss problem solving, parenting skills, their perceptions of the problem, actions to be taken, and so on.
- *Family interaction* approaches call for families to work as a unit to examine, discuss, and confront issues relating to alcohol and drug use. Other exercises might include more general problem solving or response to emergencies. Not only do these programs attempt to improve family communication, but also the parents are placed in the roles of teacher of drug facts and coordinator of family action, thus strengthening their knowledge and skills.

One selective prevention program, called the Strengthening Families program, targets children of parents who are substance abusers. This program has been successfully implemented several times within diverse populations. It has three major goals: improving parenting skills, increasing children's skills (such as communication skills, refusal skills, awareness of feelings, and emotion expression skills), and improving family relationships (decreasing conflict, improving communication, increasing parent-child time together, and increasing the planning and organizational skills of the family). Children and parents attend evening sessions weekly for 14 weeks to learn and practice these skills. Evaluations of this program indicate that it reduces tobacco and alcohol use in the children as well as reduces substance abuse and other problems in the parents.²¹

Community Programs

Two basic reasons exist for organizing prevention programs at the community level. The first



Community-based programs work best when they have widespread community support. This antitobacco mural is tied to the values of a local community and focuses on the traditional sacred origins of tobacco use among Native Americans.



Unintended Consequences

With a Girlfriend Like Her, You Don't Need Enemies

In May 2011, Palm Beach County School District police announced the arrest of 30 students for selling primarily small amounts of marijuana. It was the culmination of "Operation D-minus," during which undercover officers posed as students at three local high schools for an entire school year. They did all the things that students do including taking classes, becoming Facebook friends, and flirting with other students; they also bought drugs from their classmates. At the schools, only the principals knew which "students" were officers.

Justin Laboy, an 18-year-old honor student, was one of people arrested during the sting operation. He fell in love with one of the undercover officers after several weeks of sharing personal information, flirting, and texting multiple times per day. She is an attractive 25-year-old Hispanic woman, who claimed to have moved to Florida from Queens, New York. Justin too is Hispanic and had moved from the Bronx, New York.

After about three months of flirting, one day the officer asked Justin if he could get her some marijuana. After several days of failed attempts, Justin was able to get her marijuana. He brought it to class and slipped it in her purse; she insisted on giving him \$25 for the drug. He said, "No thanks, it's my gift to you." After several minutes of such

discussion, Justin eventually took the money. In Florida, it's a felony to sell marijuana and the penalty is even harsher for selling it on school property.

Justin was arrested and spent more than a week in jail. Ultimately, he accepted a plea deal, which made him a convicted felon and gave him three years of probation. As a result of his conviction, Justin has lost many of his civil rights, including the right to vote or serve as a juror. He is also ineligible for federal or state aid and certain employment; he had planned on joining the U.S. Air Force after high-school graduation. This is no longer an option. He cannot obtain state licenses or hold public office. In other words, he can now be legally discriminated against.

While some argue that this is precisely the type of drug-use deterrence we need in our schools, many concerns have been raised about the fairness and effectiveness of this approach. Inducing a love-struck 18-year-old to purchase and sell a drug that she or he would not otherwise have sold seems unfair. It seems like entrapment. How many public resources are used to get the small amounts of marijuana (or other drugs) confiscated in these operations? Is it worth tarnishing young people's reputations and retarding their ability to make meaningful contributions to the society? We think not.

is that a coordinated approach using schools, parent and peer groups, civic organizations, police, newspapers, radio, and television can have a much greater impact than an isolated program that occurs only in the school, for example. Another reason is that drug-abuse prevention and drug education are controversial and emotional topics. Parents might question the need for or the methods used in drug education programs in the schools. Jealousy and mistrust about approaches can separate schools, police, church, and parent groups. A program that starts by involving all these groups in the planning stages is more likely to receive widespread community support. Clearly, the spread of the DARE

program in the schools is based partly on the fact that it demonstrates and encourages cooperation between the police and the schools, as well as encourages parental involvement.

Community-based programs can bring other resources to bear. For example, the city council and local businesses can be involved in sponsoring alcohol-free parties, developing recreational facilities, and arranging field trips so that, when the school-based program talks about alternatives, the alternatives are available. The public media can be enlisted not only to publicize public meetings and programs but also to present drug- and alcohol-related information that reinforces what is learned in the other programs.

Table 17.1
Effective Prevention Programs

Model Programs

- Across Ages
- Lions Quest Skills for Adolescence
- Alcohol: True Stories Hosted by Matt Damon
- The Michigan Model for Health
- All Stars
- ModerateDrinking.com and Moderation Management
- Athletes Training and Learning to Avoid Steroids (ATLAS)
- Nurse-Family Partnership
- Brief Alcohol Screening and Intervention for College Students (BASICS)
- Project ALERT
- Brief Strategic Family Therapy
- Project EX
- CARE
- Project Northland
- Caring School Community
- Project SUCCESS
- CAST
- Project Towards No Drug Abuse
- Class Action
- Project Towards No Tobacco Use
- Coping with Work and Family Stress
- Protecting You/Protecting Me
- The Curriculum-Based Support Group
- SPORT
- Drugs: True Stories
- Start Taking Alcohol Risks Seriously (STARS) for Families
- Familias Unidas
- Storytelling for Empowerment
- Good Behavior Game
- The Strengthening Families Program: For Parents and Youth 10-14
- Guiding Good Choices
- Strong African American Families
- Healthy Workplace
- Team Awareness
- Hip-Hop 2 Prevent Substance Abuse and HIV
- Too Good for Drugs
- Keep a Clear Mind (KACM)
- Training for Intervention Procedures (TIPS) for the University
- Keepin' It REAL
- Wellness Outreach at Work
- LifeSkills Training (LST)
- Lions Quest Skills for Adolescence

Communities Mobilizing for Change on Alcohol is one of SAMHSA's model prevention programs (see Table 17.1). The program works for change in alcohol ordinances in the community and alcohol policies of schools, universities, and civic organizations. It encourages parents, faith organizations, the police, city government, and all businesses and organizations within the community to promote the idea of limiting alcohol availability for 13- to 18-year-olds. The program was studied in 15 communities over a five-year period and resulted in decreased alcohol sales to minors, decreases in friends providing alcohol to minors, and decreases in self-reported drinking in the targeted age group.

Prevention in the Workplace

As a part of its efforts to reduce the demand for drugs, the federal government has encouraged private employers, especially those who do business with the government, to adopt policies to prevent drug use by their employees. The most consistent feature of these programs is random urine screens. In 1989, rules went into effect requiring all companies and organizations that obtain grants or contracts from the federal government to adopt a "drug-free workplace" plan. The exact nature of the plan is up to the company, but guidelines were produced by the Department of Labor. Modeled after the Education Department's *What Works* book, the Labor Department's is called

*What Works: Workplaces Without Drugs.*²² At a minimum, the Labor Department expects employers to state clearly that drug use on the job is unacceptable and to notify employees of the consequences of violating company policy regarding drug use. The ultimate goal is not to catch drug users and fire them but to prevent drug use by making it clear that it is not condoned.

What Should We Be Doing?

By now you have picked up some ideas for things to do to reduce drug use, as well as some things to avoid doing. But the answer as to what needs to be done in a particular situation depends on the motivations for doing it. Most states require drug- and alcohol-abuse prevention education as part of a health curriculum, for example. If that is the primary motive for doing something, and if there doesn't seem to be a particular problem with substance abuse in the schools, then the best thing would be to adopt one of the modern school-based programs that have been developed for this purpose, to make sure the teachers and other participants are properly trained in it, and to go ahead. In selecting from among the curricula, a sensible, balanced approach that combines some factual information with social skills training, perhaps integrated into the more general themes of health, personal values, and decision making, would be appropriate. The ones mentioned in the section "Programs That Work" fit this general description, and each deserves a careful look. Above all, avoid sensational scare stories, preachy approaches from the teacher to the student, and untrained personnel developing their own curricula. Another good thing to avoid is the inadvertent demonstration of how to do things you don't want students to do.

If, on the other hand, there is a public outcry about the "epidemic" of drugs and alcohol abuse in the community, speakers have inflamed passions, and there is a widespread

fervor to do something about it, this presents both a danger and an opportunity. The danger is that this passionate group might attack and undermine the efforts already being made in the schools, substituting scary, preachy, negative approaches, which can have negative consequences. The opportunity lies in the possibility that this energy can be organized into a community planning effort, out of which could develop cooperation, increased parent understanding, a focus on family communication, interest in the lives of the community's young people, and increased recreational and creative opportunities.

The key to making this happen is convincing the aroused citizenry of the possibly negative consequences of doing what seems obvious and selling them on the idea of studying what needs to be done. A good place to start is by visiting the website of the Center for Substance Abuse Prevention (www.samhsa.gov/csap). This agency produces updated materials for groups interested in developing drug- and alcohol-abuse prevention programs, provides technical assistance and training to communities interested in developing programs, and offers Community Partnership Grants. (A list of CSAP model programs is shown in Table 17.1.)

Summary

- We can distinguish between education programs with the goal of imparting knowledge and prevention programs aimed at modifying drug-using behavior.
- Most of the research over the past 30 years has failed to demonstrate that prevention programs can produce clear, meaningful, long-lasting effects on drug-using behavior.
- The affective education programs of the 1970s have been criticized for being too value-free.
- Based on the success of the social influence model in reducing cigarette smoking,

a variety of school-based prevention programs have used the same techniques with illicit drugs.

- The DARE program has been adopted rapidly and widely, despite research showing limited impact on drug-using behavior.
- Current school-based approaches use refusal skills, countering advertising, public commitments, and teen leaders. Several of these programs have been demonstrated to be effective.
- Other nonschool programs are peer-based through after-school groups or activities, parent-based through parent and family training, or community-based.

Review Questions

1. What is the distinction between secondary and tertiary prevention?
2. What is the knowledge-attitudes-behavior model, and what information first called it into question?
3. Explain what is meant by "value-free" values clarification programs, and why they fell out of favor in the 1980s.
4. When the Drug-Free Schools programs began in 1986, the emphasis shifted away from curriculum to what?
5. What were the five successful components of the social influence model for smoking prevention?
6. In Project ALERT, what was the impact of using teen leaders to assist the instructors?
7. What distinguishes DARE from other similar programs based on the social influence model?
8. What do ALERT and Life Skills Training have in common, besides their effectiveness?
9. What are some of the "parenting" skills that might be taught and practiced in a prevention program?
10. What is the most common component of "drug-free workplace" plans?

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