Helping Urban Teenagers Avoid High-Risk Behavior: What We've Learned From Prevention Research

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Compared with the children of the 1950s, today's' youth are much more likely to suffer poverty and economic hardship and to live in households where only one parent is available to meet their emotional and physical needs. As teenagers, they are more likely to engage in high-risk activities like these:

- **Drug use.** Cigarettes and alcohol are the most popular drugs among teenagers. They also cause more deaths than all other drugs combined (Office on Smoking and Health, 1990). One high school senior in five smokes daily. About 30 percent engage in binge drinking, contributing to the high rate of alcohol-related traffic accidents. Sixteen percent have used illegal drugs (National Center for Statistics and Analysis, 1989; NIDA, 1992).
- **Violence.** Drug use often contributes to violent behavior. Increasing numbers of teenagers are either perpetrators or victims of violence. (Centers for Disease Control, 1991). Violence can happen anywhere, but it is particularly serious in the urban core, where homicide is the second leading cause of death among young African-American males and the third leading cause among all adolescents (Fingerhut, Ingram, & Feldman, 1992; Office of Technology Assessment, 1991).
- **Sexual activity.** More than half of American high school students have had sexual intercourse. They are beginning to have sex at a younger age (Centers for Disease Control, 1992; Office of Technology Assessment, 1991). Most do not use condoms consistently, putting them at risk for AIDS, other diseases, and pregnancy. A million teenagers become pregnant every year. More of those who give birth are not married (U.S. Congress, 1989). About 20 percent of all AIDS cases were probably contracted during or just after high school (Hingson, Strunin, Berline et al., 1990).

These high-risk behaviors—not disease in the traditional sense—are the greatest threats to adolescent health and well-being (Vanderpool & Richmond, 1990). These behaviors afflict all kids, but they pose the most severe threats to poor children. Poor children have fewer educational and employment opportunities. This makes them particularly vulnerable to the attractions of sex, drugs, and violence and to their consequences—teenage parenthood, job and marital instability, emotional distress, accidental injury, disease, and death.

What do we know about how to keep kids from going off track? Researchers at RAND and elsewhere have assessed the effects of programs designed to prevent high-risk behavior among young teens. Most of these programs have been

based in schools, targeting adolescents in middle or junior high school. Most try to delay or prevent kids from beginning a specific problem behavior or to keep them from progressing to frequent involvement. The programs typically focus on changing the child by helping him or her develop the motivation to avoid high risk behavior and learn skills for resisting.

From these studies, we have learned a lot about what works. We also have learned about the limits of programs that focus solely on changing children's behavior without altering their social and economic circumstances. This paper summarizes the results of recent prevention research, discusses policy implications, and suggests strategies for improving our success rate.

What we've learned from prevention research

Two approaches that were popular in the past have had little success. They are:

- The information approach, which stresses the negative consequences of high risk behaviors, and
- The general skills approach, which helps children acquire a more positive self-image by improving their skills in decision-making, communication, and problem-solving (Ellickson & Robyn, 1987).

These programs failed because they were based on faulty assumptions. The first assumed that knowledge alone is enough to change behavior. The second assumed that a general sense of competence and self-esteem can help kids reject specific risky behaviors (Goodstadt, 1986). They also failed because they did not work on the central reason why kids begin problem behaviors—because their friends or other important people are doing it and because they think it will get them something they want.

The social influence model is the core of the most promising programs.

The next generation of programs grew out of a better understanding of why and how kids choose to engage in dangerous or deviant behavior. These programs zeroed in on teens' belief that "everyone's doing it" and helped them develop strategies for resisting social pressure. The social influence model is the core of the most promising programs. A few researchers have used it to postpone sexual activity, but most of our information about the model's effectiveness comes from evaluating its effect on drug use.

How the social influence model works

Adolescents are especially vulnerable to social pressures. They tend to copy adult behavior, including drinking, smoking, and using other drugs. Drug prevention programs based on the social influence model try to help adolescents recognize these pressures, develop arguments against them, and learn techniques for saying "no."

The model also recognizes that children must be motivated to resist (Ellickson & Robyn, 1987; Evans, Rozelle, Mittelmark, Hansen, Bane, & Havis, 1978). Social influence programs try to instill motivation to resist by helping kids understand the consequences of drug use, by undermining the belief that "everyone uses," and

by developing and reinforcing group norms against use. Adolescents tend to be unconcerned about consequences that lie in the future, so these programs emphasize how drugs can affect them now.

The original versions of the model were applied to smoking prevention and focused on external influences such as family, peers, and the media (Evans et al., 1978). Newer versions also stress internal pressures such as the desire to be accepted or to look cool (Ellickson, 1984).

Results from programs based on the social influence model

Smoking prevention programs report modest success. The reductions in smoking, usually measured at between 20 and 50 percent, typically last one to two years after the program. Follow-up lessons extend the effects (Best, Thomson, Santi, Smith, & Brown, 1988), but many early programs did not have boosters. Follow-up lessons are rare in high school, and, not surprisingly, program effects usually disappear during high school (Flay, Koepke, Thomson, Santi, Best, & Brown, 1989; Murray, Pirie, Luepker, & Pallonen, 1989). About 5 to 10 percent of students who participate in anti-smoking programs are helped—they are less likely to start smoking or to be current or frequent smokers (Cleary, Hitchcock, Semmer, Flinchbaugh, & Pinney, 1988).

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Smoking prevention programs have been most effective in delaying the onset of tobacco use and less successful in targeting high-risk and minority youth (Glynn, 1989). Most of these programs have been tested in communities that are white and middle class. However, two recent studies reported significant reductions in smoking among urban African-American and Hispanic students (Botvin, Batson, Witts-Vitale, Bess, Baker, & Dusenbury, 1989; Botvin, Dusenbury, Baker, James-Ortiz, & Kerner, 1989). Several reported "boomerang" or negative effects for previous smokers.

Programs focused on other substances have mixed results.

RAND's Project ALERT was designed to equip students with motivation and skills to resist pressures to use alcohol, cigarettes, and marijuana. It included eight lessons for seventh graders and three "booster" lessons for eighth graders. After three, twelve, and fifteen months, Project ALERT reduced both marijuana and cigarette use. It was effective for both low- and high-risk students and with minorities as well as whites. It delayed first use of marijuana and held down regular (weekly) use among prior users. It reduced cigarette smoking by a third and curbed frequent heavy smoking by students who had experimented with cigarettes by 50 to 60 percent. It was less successful against alcohol—the early effects disappeared by eighth grade (Ellickson & Bell, 1990).

Another program, Project STAR (University of Southern California's Midwestern Prevention Project) added several community components to a school-based program. Data from this program have been analyzed several times with different

results. The most recent analysis reported modest reduction in cigarette and marijuana use, but not in alcohol use (Johnson, Pentz, Weber, Dwyer, Baer, MacKinnon, & Hansen, 1990).

Similar programs, including Michigan's Alcohol Misuse Prevention Study and Cornell's Life Skills Training, also showed mixed results.

Project DARE, the police-led program that originated in Los Angeles, has shown little effect on behavior (Ringwalt, Ennett, & Holt, 1990).

Assessment of the research

The research shows that school-based programs can work. They are more likely to be effective against use of cigarettes and marijuana than alcohol. In addition, they are more likely to be effective with people who have never used or who have only experimented than with committed users. When the model is applied to sexual involvement, it is likely to have a higher success rate among those who are not yet sexually active (Howard & McCabe, 1990).

Although critics have suggested that the social influence model works only for middle class white kids, Project ALERT was successful in urban, suburban, and rural environments and in middle- and low-income communities with homogeneous or diverse populations. It worked in high-minority and low-minority schools. Similarly, the Life Skills Training approach has shown promise with both Hispanic and African-American kids, and the Atlanta program for postponing sexual involvement was tested in low-income schools with predominantly African-American students.

The social influence approach is most effective with kids who have not already committed themselves to a risky or deviant lifestyle. However, it has been shown to help both high- and low-risk kids. In fact, Project ALERT was more effective with cigarette experimenters than with nonsmokers. It also curbed regular marijuana use among the high-risk kids who had already tried it.

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Some authors think these programs are most effective when taught by older teens or same-age peers rather than adults. We think this verdict is premature. Project ALERT did not yield conclusive evidence favoring one mode of delivery over another.

Essential ingredients of school-based programs

We can use the outcomes of these program tests to determine which features of the programs are likely to work.

1. The prevention process should start before or shortly after the onset of high-risk behavior.

The age at which kids begin a risky behavior varies, so the appropriate age for prevention will vary, too. In communities where children have already started smoking or drinking by the end of elementary school, it is more effective to target sixth graders rather than junior high school students. In other communities where the age of first experimentation is later, it is better to start social influ-

ence programs in junior high, when teens are particularly vulnerable to peer pressure. If the goal is to delay sexual activity, similar considerations apply. Usually these programs are most appropriate for eighth or ninth graders.

2. Prevention programs should plan for the possibility that some adolescents may rebel against the message.

Social influence programs typically stress that high-risk behaviors can have negative effects on social relationships—they can get you in trouble, make you act silly, or give you ashtray breath. Messages like this may bolster the resolve of the uncommitted, but they may have a boomerang effect on those who are already committed to risky behavior.

Project ALERT, for example, had a negative effect on committed cigarette smokers. Cigarette smoking tends to be public, while early marijuana use is not. The public setting for cigarette smoking makes this behavior harder to back away from. Public use seems to lock behaviors in place. It is not surprising that the more visible early smokers reacted negatively to the Project ALERT curriculum, while the less public marijuana users did not.

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To minimize rebellious reactions, program developers should acknowledge that some teens may already be involved with drugs, sex, or other high-risk activities. They should explain that the program can help those teens change if they choose to do so. The goal should be to keep these kids in the program and ward off boomerang effects.

3. Prevention programs should stress both motivation and skill building.

If children want to use drugs or be sexually active, it is not likely that simply learning a set of resistance skills will stop them. On the other hand, kids who don't want to engage in risky behaviors but who are not able to identify and resist them, are not likely to avoid temptation.

With alcohol, the principal stumbling block often is weak motivation. Several studies showed that social influence programs have little or no effect on drinking, although they have produced significant effects on cigarette smoking and marijuana use. We think the difference lies in how society views these three substances. Most adults do not smoke or use pot, but they do drink. In light of that powerful message, convincing teenagers not to drink becomes a daunting task.

4. The most successful programs build on social norms that foster the objectives of the program.

Evidence of the success of anti-smoking programs came on the heels of a radical decline in the popularity of cigarette smoking. After the 1964 Surgeon General's report and the anti-smoking campaigns of the late 1960s, cigarette consumption dropped dramatically (Warner, 1977). Big declines in marijuana use also came before the evidence that prevention programs could work. These changes in social norms created a climate in which cigarettes and marijuana became less desirable.

This kind of social climate does not exist for alcohol use. For that reason, it is less likely that prevention programs targeting alcohol use will succeed. The social norm against driving after drinking is stronger, and programs that target such alcohol-related problems and misuse of alcohol have been more successful.

5. **One intervention experience is not enough. Sustaining early gains requires multiple experiences over time.**

   Programs that included booster lessons had effects that lasted longer than one-time lessons. Most programs failed to continue this kind of reinforcement through high school, and the programs' effects wore off during the high school years. Programs that continue to offer booster lessons though high school would have a better chance of lasting effects.

Limitations of child-focused programs

Even the best programs will have only limited success if they aim at the child alone. Trying to "fix the kid" without changing the environmental factors that shape adolescent behavior appears to work for only 5 to 10 percent of teenagers. To make more substantial inroads, we need to deal with the many influences on children's behavior—families, schools, neighborhoods, and the broader society.

Peers play an important role in introducing kids to drugs, sex, and delinquency. But family and school experiences can increase or decrease a child's vulnerability to these influences. When their family situation is stressful and there is trouble at school, children are more likely to know and emulate peers and adults who engage in deviant behaviors (Ellickson & Hays, in press). But, a caring adult and success at school can protect kids from trouble (Rutter, 1985; Werner & Smith, 1982). Similarly, community and social norms can either promote or discourage problem behaviors.

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At the family level, parental support and discipline, and the connection between parent and child are particularly important (Baumrind, 1965). Disrupted families are not the problem. The problems arise from the consequences of disruption—loss of income, lack of time for the child, limited access to child care and health services, and hostility between the parents. These stresses strain the relationship between parent and child and make it hard to maintain consistent discipline. These stresses have risen dramatically for three reasons. One, there are more single-parent families. Two, the bottom fifth of American households are worse off economically. The third cause is a consequence of the other two—there are more children who are poor.

At the school level, children are affected by both their actual performance and by the expectations for their future academic achievement. Children who are doing well in school and who have plans for college or a career are less likely to get involved with drugs, to become teenage parents, or to be serious delinquents (Ellickson, & Hays, 1991; Ellickson & Hays, in press; Elliot, Huizinga, & Ageton, 1985).

Efforts to help families cope with stress and to make schools more positive environments for success should start in elementary school or before. They should provide extra assistance to kids who already show signs of trouble—disorderly conduct, poor attendance, or failing grades.

Policy implications

No single program or policy will fix the problems urban kids face. Efforts aimed solely at the child will delay or deter problem behavior for only 5 to 10 percent of teenagers. If that group includes the 20 percent at highest risk, these prevention programs may reach between one-quarter and one-half of high risk kids.

Social influence model programs have a low per-child cost.

Most experts agree that protecting kids from high risk behavior during adolescence has big payoffs. The earlier kids start high-risk activities, the more likely they are to continue them and the more likely they are to experience serious consequences (National Academy of Sciences, 1985; Robins & Pryzbeck, 1985). For this reason, delaying the onset of high-risk behaviors may result in less harm.

Are the benefits of programs that help only a small proportion of the total adolescent population worth the cost? We do not have the careful analysis that would answer this question with certainty. The greatest benefits come when the cost of failure is extremely high—programs that prevent AIDS and teen pregnancy, for example. There is also a relative benefit-to-cost advantage when the cost per child is low, and social influence model programs have a low per-child cost.

In principle, targeting programs at the most vulnerable kids appears to be the most cost-effective. But we know very little about how to identify the high-risk child before serious problems occur. And we know that programs designed for kids who are already in trouble, or who we think might get into trouble, can increase their risk by lumping them together with other kids in trouble and labeling them as "problems." We need careful evaluation of programs targeted at high-risk kids.

We also need a long-term commitment to deal with the social and economic forces that make our children vulnerable to harm as adolescents and adults. Specifically, we should examine the following promising ideas.

1. Develop and test sequential programs for curbing high-risk behavior during middle, junior, and high school.
2. Implement and evaluate new policies and programs for younger children. These programs should help families and schools provide environments in which children can flourish.
3. Recognize that some government policies make the problem worse instead of better. Then fix these policies.

America can no longer afford to stand by while millions of teenagers jeopardize their futures. We must invest in our children. We must build the foundation for them to become successful and productive adults. We must help them avoid risky choices that threaten their well-being. This investment should begin in childhood and be sustained through adolescence.

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