

Guidelines and Benchmarks for Prevention Programming

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration

Center for Substance Abuse Prevention
5600 Fishers Lane, Rockwall 11
Rockville, Maryland 20857

Implementation Guide

This publication was developed by the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Prevention (CSAP), at the National Center for the Advancement of Prevention (NCAP), under contract No. 277-93-1013. NCAP is designed to advance substance abuse prevention practice through the synthesis and application of scientific knowledge.

The primary authors of this document were Allan Cohen, Ph.D., Barry Kibel, Ph.D., and Kathryn Stewart of NCAP. Beverlie Fallik, Ph.D., served as the Government Project Officer. Substantive input was provided by the members of the CSAP/NCAP Expert Panel.

The presentations herein are those of the authors and may not necessarily reflect the opinions, official policy, or position of CSAP, SAMHSA, or the U.S. Department of Health and Human Services. The material appearing in this report, except quoted passages from copyrighted sources, is in the public domain and may be used or reproduced without permission from CSAP. Citation of the source is appreciated.

DHHS Publication No. (SMA) 95-3033

Printed 1997

Foreword

The Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP) is the Federal agency charged with improving the quality and availability of substance abuse prevention services. SAMHSA/CSAP sponsors a wide range of national prevention activities including information dissemination, training and technical assistance, community demonstration programming, and special projects in multiple areas critical to the prevention field. These activities complement other Federal, State, Territorial, tribal, local government, and other community and organizational initiatives to produce a complex set of prevention strategies and programs each directed at tackling one or several of the interconnected societal problems related to substance abuse.

The Need for Prevention Guidelines and Benchmarks

Researchers, policymakers, and concerned citizens agree that substance abuse prevention is critical to the Nation's health. As the momentum shifts toward a public health and preventive approach to addressing these problems, the issue of effectiveness looms ever larger. Over the years, as prevention has matured as a science, a growing body of evaluation and analysis indicates that prevention *can* work. Questions are frequently raised, however, regarding how best to set priorities for the expenditure of scarce prevention resources and maximize the potential for effectiveness of prevention approaches.

To date, there have been few comprehensive sources of information based on scientifically grounded principles to assist prevention planners and practitioners in selecting and implementing strategies that have the greatest likelihood of success. Now research is beginning to provide some guidance, although many unanswered questions remain.

Purpose of This Document

This document is a simple, condensed presentation of guidelines and recommendations associated with promising prevention efforts. It reflects the best knowledge available and affords States, communities, and prevention professionals a framework for assessing present and future efforts.

This document is a tool to help decisionmakers select and implement prevention strategies after problem identification, needs assessments, and resource assessments have already been done. It is designed for decisionmakers and implementers who have already obtained the necessary preliminary information and are faced with deciding what approach to take from the array of prevention strategies that are available to them and suggested by the problem and needs assessment.

The guidelines in this document can help decisionmakers

- Assess the feasibility and potential efficacy of options and then select the most promising approach;
- Analyze the promise of existing prevention efforts;
- Strengthen ongoing prevention efforts;
- Plan and design new prevention efforts;
- Set funding priorities; and
- Rate grant proposals.

These guidelines are not the last word in substance abuse prevention. We fully expect that, based on continuing research and evaluation, we will be able to develop further refinements on these guidelines in the next few years.

Nelba Chavez, Ph.D.
Administrator
Substance Abuse and Mental Health
Services Administration

Stephania J. O'Neill
Acting Director
Center for Substance Abuse Prevention
Substance Abuse and Mental Health
Services Administration

Contents

| | |
|---|-----|
| Foreword..... | iii |
| 1. Substance Abuse Prevention: Need and Definitions..... | 1 |
| Overview..... | 1 |
| A National Problem: Costs and Progress..... | 1 |
| The Emergence of Primary Prevention..... | 2 |
| Working Definitions..... | 3 |
| 2. Prevention Guidelines and Issues of Effectiveness..... | 5 |
| Overview..... | 5 |
| Substance Abuse Prevention: Summary of Guidelines | 5 |
| Selection of Appropriate Strategies..... | 6 |
| Interrelationships and Appropriate Structure..... | 7 |
| Implementation Considerations..... | 8 |
| How To Use These Guidelines..... | 9 |
| 3. Selection of Appropriate Strategies: Keeping the Effort Focused on What Is Possible | 11 |
| Overview..... | 11 |
| Guideline One: Knowledge of the Target Population | 11 |
| Guideline Two: Clarity and Realism of Expected Results | 13 |
| Guideline Three: Corroborative Empirical Evidence of Potential Effectiveness..... | 15 |
| Guideline Four: Conceptual Soundness..... | 16 |
| 4. Interrelationships and Appropriate Structure: Organizing for Effective Action..... | 19 |
| Overview..... | 19 |
| Guideline Five: Inclusive Participation..... | 19 |
| Guideline Six: System Integration..... | 21 |
| Guideline Seven: Appropriate Structuring of the Effort..... | 23 |
| 5. Implementation Considerations: Maximizing Effectiveness..... | 25 |
| Overview..... | 25 |
| Guideline Eight: Appropriateness of Timing, Intensity, and Duration..... | 25 |
| Guideline Nine: Attention to Quality of Delivery..... | 27 |
| Guideline Ten: Commitment to Evaluation and Effort Refinement..... | 28 |
| 6. Maximizing Effectiveness Potential: A Checklist and Summary Profile..... | 31 |
| Checklist of Prevention Guidelines..... | 33 |
| Guidelines for Effectiveness..... | 44 |
| Summary..... | 47 |
| References..... | 49 |
| Selected CSAP Resources..... | 55 |

1. Substance Abuse Prevention: Need and Definitions

Overview

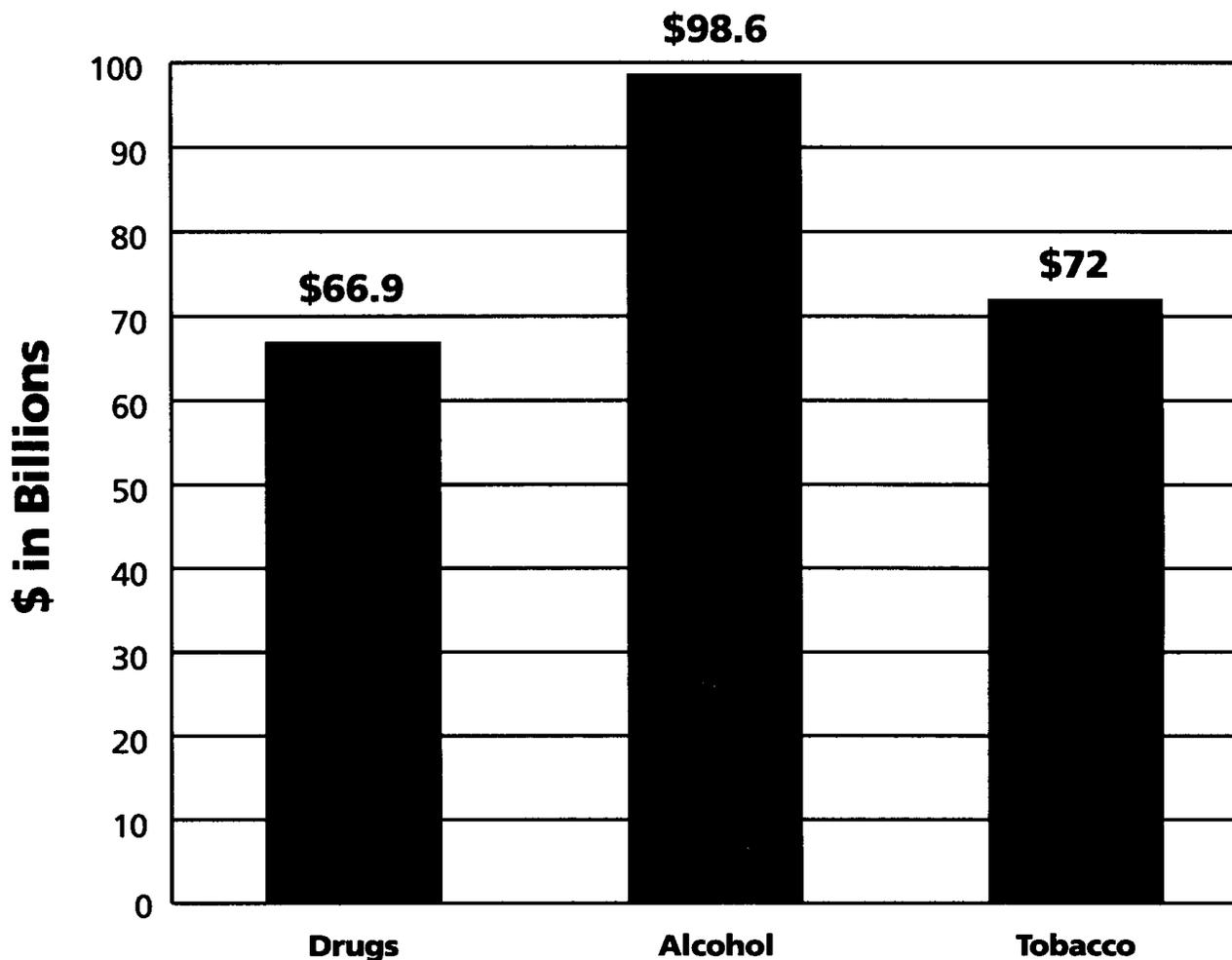
Progress has been made in reducing public health and safety problems linked with substance abuse. Nonetheless, these problems continue to cause extraordinary human suffering and economic burdens. We can all recognize that the greatest promise lies in prevention of these problems rather than in remediation. Diverse strategies for prevention have been developed. The potential benefits of these strategies can be assessed on a number of dimensions.

A National Problem: Costs and Progress

In recent years, governmental agencies, private organizations, and the public have become increasingly aware of the nature of problems related to substance use.

Years of experience in dealing with these problems have brought about the development of theoretical models that increase understanding of these problems. Sound research evidence has become available indicating ways that some of the negative consequences of substance use can be prevented or reduced. As a result, we have made heartening progress in reducing such threats to the Nation's health (U.S. Department of Health and Human Services 1991).

At the same time, substance abuse continues to take an immense toll on our lives, our health, and our economy. Many of the serious problems that concern Americans are intimately related to substance abuse. The problems include addiction and alcoholism; traffic crashes and other unintended traumatic injury; and deliberate injury in the form of domestic violence, assaults, murders, and suicides (all of which often occur under the influence of alcohol or drugs). They include severe diseases such as cancer, cirrhosis, HIV/AIDS, fetal alcohol syndrome and fetal alcohol effects, and respiratory problems related to passive smoking. And there are social costs in the form of crime, unintended pregnancy, neglected children, failure in school, and poor job performance related to substance use. When viewed in economic terms, the costs of substance abuse problems are immense. (See figure 1.)



The Emergence of Primary Prevention

Our understanding of substance use and what can be done to avoid it and its harmful consequences has been greatly expanded. A great deal of the progress can be attributed to our increased understanding in a variety of realms. For example

- We recognize that "drugs" include the legal substances—alcohol and tobacco. In fact, the majority of drug-related health problems arise from the use of these substances.
- We recognize that problems relating to substance use are not the result simply of choices made by individuals; the nature of the environment in which people live (including such factors as price, availability, promotions, policies/laws) can also increase the risk of problems or can help avert problems and enhance the quality of life.
- Perhaps most important, we recognize that progress can be greatest as well as most humane and cost-effective when we apply our efforts to preventing problems, rather than trying to fix them after the fact.

The joint action of government bodies, private organizations, and concerned citizens has led to major social changes that have altered the ways individuals make decisions about the use of alcohol and drugs. These changes have had some positive effects. For example, driving while impaired by alcohol is no longer socially acceptable in most segments of society, and alcohol-related traffic deaths have decreased (Stewart and Voas 1994); "smoke free" zones are becoming the rule, and a smaller proportion of the population smokes (Centers for Disease Control 1993); our young people are much more aware of the potential dangers of using many illicit drugs, and the use of some of these substances is down from a

decade ago. Although there has been a troubling increase in marijuana use in the last few years and the perception of harm has decreased, use is still lower than it was in the 1980s (Johnston et al. 1995).

The benefits of this progress are measurable in lives saved, tragedies averted, and families preserved. In purely economic terms, greater investment in primary prevention efforts will result in savings, even after the program costs are deducted. This document is designed to help maximize the yield from prevention investments.

Working Definitions

Prevention and early intervention. Most of *primary prevention* focuses on individuals or populations before the onset of harmful involvement with alcohol or drugs. However, some prevention strategies (such as laws and policies) are applicable to all persons in an environment, regardless of their level of current use. For example, the rate of excise taxes on tobacco and alcohol can affect consumption and consequent problems among users, as well as prevent initiation among nonusers, especially youth (e.g., Hu et al. 1995; Manley et al. 1994). *Early intervention* usually involves identification of the onset of use or early-stage problems in individuals or groups who do not yet require treatment. For the purposes of this document, "prevention" includes both primary prevention and early intervention.

Prevention efforts or approaches. As used in this document, prevention efforts or approaches are intentional attempts to reduce substance abuse problems before they start, through a variety of strategies. Examples include a national drug policy; a coordinated, communitywide coalition; a school curriculum focusing on substance abuse; a parenting skills manual; a media campaign against smoking; constraints on alcoholic beverage sales to minors; laws regarding access to cigarette vending machines; a "rites of passage" program emphasizing traditional cultural values and practices; and drug testing in the workplace.

Types of Prevention Efforts

Prevention strategies have been categorized in a variety of different ways. SAMHSA/ CSAP promotes the following six strategies!:

Information dissemination. This strategy provides awareness and knowledge of the nature and extent of substance use, abuse, and addiction and their effects on individuals, families, and communities. It also provides knowledge and awareness of available prevention programs and services. Information dissemination is characterized by one-way communication from the source to the audience, with limited contact between the two.

Education. This strategy involves two-way communication and is distinguished from the information dissemination strategy by the fact that interaction between the educator/ facilitator and the participants is the basis of its activities. Activities under this strategy aim to affect critical life and social skills, including decisionmaking, refusal skills, critical analysis (e.g., of media messages), and systematic judgment abilities.

Alternatives. This strategy provides for the participation of target populations in activities that exclude substance use. The assumption is that constructive and healthy activities offset the attraction to—or otherwise meet the needs usually filled by—alcohol and drugs and would, therefore, minimize or obviate resort to the latter.

Problem identification and referral. This strategy aims at identification of those who have indulged in illegal/age-inappropriate use of tobacco or alcohol and those individuals who have indulged in the first use of illicit drugs in order to assess if their behavior can be reversed through education. It should be noted, however, that this strategy does not include any activity designed to determine if a person is in need of treatment.

Community-based process. This strategy aims to enhance the ability of the community to more effectively provide prevention and treatment services for substance abuse disorders. Activities in this strategy include organizing, planning, enhancing efficiency and effectiveness of services implementation, interagency collaboration, coalition building, and networking.

Environmental. This strategy establishes or changes written and unwritten community standards, codes, and attitudes, thereby influencing incidence and prevalence of substance abuse in the general population. This strategy is divided into two subcategories to permit distinction between activities that center on legal and regulatory initiatives and those that relate to the service and action-oriented initiatives.

These definitions are taken from the *Federal Register*, Volume 58, Number 60, March 31, 1993.

2. Prevention Guidelines and Issues of Effectiveness

Overview

Those who select, plan, and carry out prevention efforts are confronted with many choices. In this chapter, 10 guidelines are offered to help assess the potential effectiveness of different prevention approaches and provide methods for planning and implementing effective programs. These guidelines are more fully explained in later chapters.

Substance Abuse Prevention: Summary of Guidelines

We have learned a great deal in past decades about the best ways of preventing substance abuse problems. Available prevention strategies ensure that feasible options are within reach of any person wishing to become involved with prevention—as a parent, friend, concerned citizen, professional, or policymaker. Emergent research and field experience can help guide government agencies, communities, and citizens.

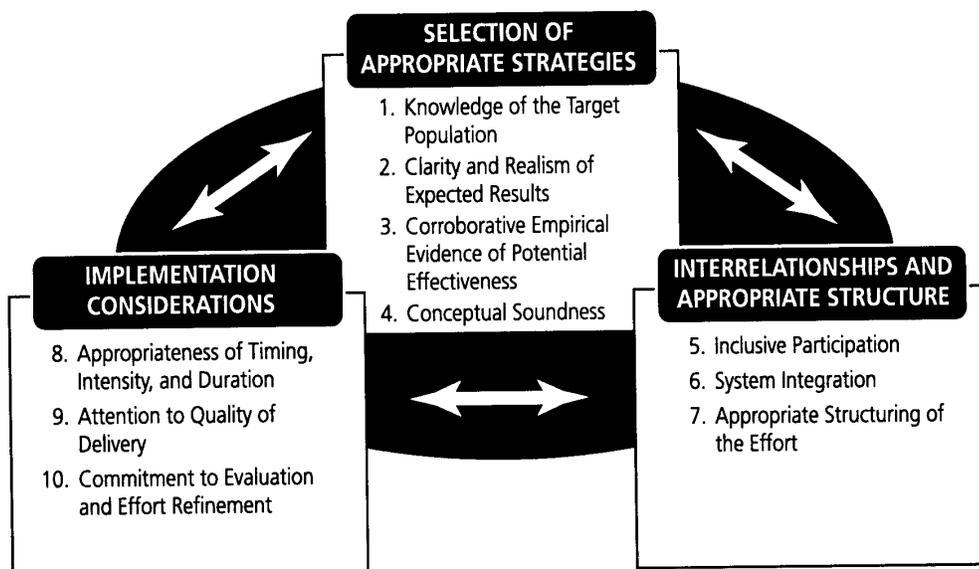
The options should not be accepted uncritically, however. Some strategies have strong evidence of effectiveness; others do not. Some are appropriate for all target groups; others must be changed to reflect the unique values or traditions of specific target groups. Some can be borrowed and used almost intact; others must be customized before use and refined during use to account for local dynamics. Even if a strategy is appropriate, the quality of implementation may contribute to its success or its failure.

This chapter introduces guidelines that can promote effective prevention programming. (The guidelines will be explained more fully in the chapters that follow.) The guidelines can be used to assess the relative promise of existing prevention efforts, to plan and design new prevention efforts, or to identify areas for change or improvement in ongoing prevention efforts.

The guidelines fall into three domains. The first domain includes four guidelines on the *selection of appropriate strategies*. These four guidelines can help assess a strategy's appropriateness for desired goals, target populations, previous record of success, and conceptual soundness. The second domain includes three guidelines that focus on *interrelationships and appropriate structure* and address issues related to getting the right mix of people and organizations involved in the effort in appropriate ways. In the third domain, three guidelines address *implementation considerations*. They emphasize the nature, quality, monitoring, and evaluation of implementation as integral components of the overall effort.

Figure 2 illustrates the 10 guidelines in their three interrelated domains. To the extent that guidelines are neglected, the strength of an effort may be compromised. The sequence of the guidelines reflects the progression from planning to execution. The precise order may vary in practice according to the particular situation. More than one guideline may be relevant at any given point in the development and implementation of a prevention effort. In general, the process proceeds clockwise, but there is also feedback between phases, as indicated by the arrows in the figure.

Figure 2



Selection of Appropriate Strategies

1. Knowledge of the Target Population

KEY QUESTION 1:

"Are there reasons to believe that the target population will be responsive to the prevention effort?"

Recommendation 1.1. Base the prevention effort on a clear understanding and definition of the populations and groups to be influenced and a careful consideration of their patterns of substance use, cultures, value systems, and likelihood of responsiveness to the effort.

2. Clarity and Realism of Expected Results

KEY QUESTION 2:

"Are the intended results of the prevention effort clearly defined, and are they realistic in light of the nature of the effort and experiences with it thus far?"

Recommendation 2.1. Focus the prevention effort on specific, realistic goals.

Recommendation 2.2. Consider the goals of a specific prevention effort in the context of the larger prevention goals of the community, State, or Nation.

3. Corroborative Empirical Evidence of Potential Effectiveness

KEY QUESTION 3:

"Does evidence exist from comparable prevention efforts to support claims that the intended results are achievable through efforts of this type and scope?"

Recommendation 3.1. When available, gather and use reliable empirical evidence of effectiveness from comparable programs to select and guide the current effort.

4. Conceptual Soundness

KEY QUESTION 4:

"Does a plausible explanation exist linking the prevention effort to its intended results?"

Recommendation 4.1. Use a logical conceptual framework to connect the prevention effort with its intended results and ultimately with the overall goal of reducing substance abuse.

Recommendation 4.2. Base the conceptual framework used to explain the prevention effort on existing knowledge, and refine or revise the framework as needed to reflect new learning from public health, behavioral sciences, and other fields.

Interrelationships and Appropriate Structure

5. Inclusive Participation

KEY QUESTION 5:

"Does the prevention effort adequately involve key individuals and organizations in planning and implementation?"

Recommendation 5.1. Include in the prevention effort activities that secure and maintain buy-in of key decisionmakers and leaders as well as of those organizations and individuals who directly or indirectly will be responsible for implementing the effort.

6. System Integration

KEY QUESTION 6:

"Does the design of the prevention effort adequately account for system interdependency?"

Recommendation 6.1. Design and implement the prevention effort to build on and, in turn, support related prevention efforts.

Recommendation 6.2. Design and implement the prevention effort with consideration for the strains that it may place on different parts of the system.

7. Appropriate Structuring of the Effort

KEY QUESTION 7:

"Is the prevention effort scaled in size and complexity to match available resources and possibilities?"

Recommendation 7.1. Carry out the prevention effort through activities consistent with the availability of personnel, resources, and realistic opportunities for implementation.

Recommendation 7.2. Create opportunities for the exercise of leadership across a broad range of participants.

Implementation Considerations

8. Appropriateness of Timing, Intensity, and Duration

KEY QUESTION 8:

"Is the prevention effort being implemented at an appropriate time and with sufficient intensity and duration to be effective?"

Recommendation 8.1. Time the prevention effort so that implementation coincides with a period of peak community concern or the target population's readiness for the change intended.

Recommendation 8.2. Design the prevention effort for delivery with sufficient intensity (in exposure, breadth, and impact) to produce its intended results and be applied over appropriate duration so that these results can be sustained.

9. Attention to Quality of Delivery

KEY QUESTION 9:

"Has adequate attention been paid to the execution of each component of the prevention effort to ensure quality services and products?"

Recommendation 9.1. Design and implement the prevention effort for the highest possible quality in each step of its execution.

10. Commitment to Evaluation and Effort Refinement

KEY QUESTION 10:

"Have provisions been made for continual tracking, documentation, evaluation, and feedback to ensure the effectiveness of the effort?"

Recommendation 10.1. Pay adequate attention to monitoring and process and outcome evaluation.

How To Use These Guidelines

These guidelines demand a great deal from prevention planners and implementers. Experience and research suggest that without this level of attention to the issues raised by the 10 guidelines, programs can fail to meet their goals.

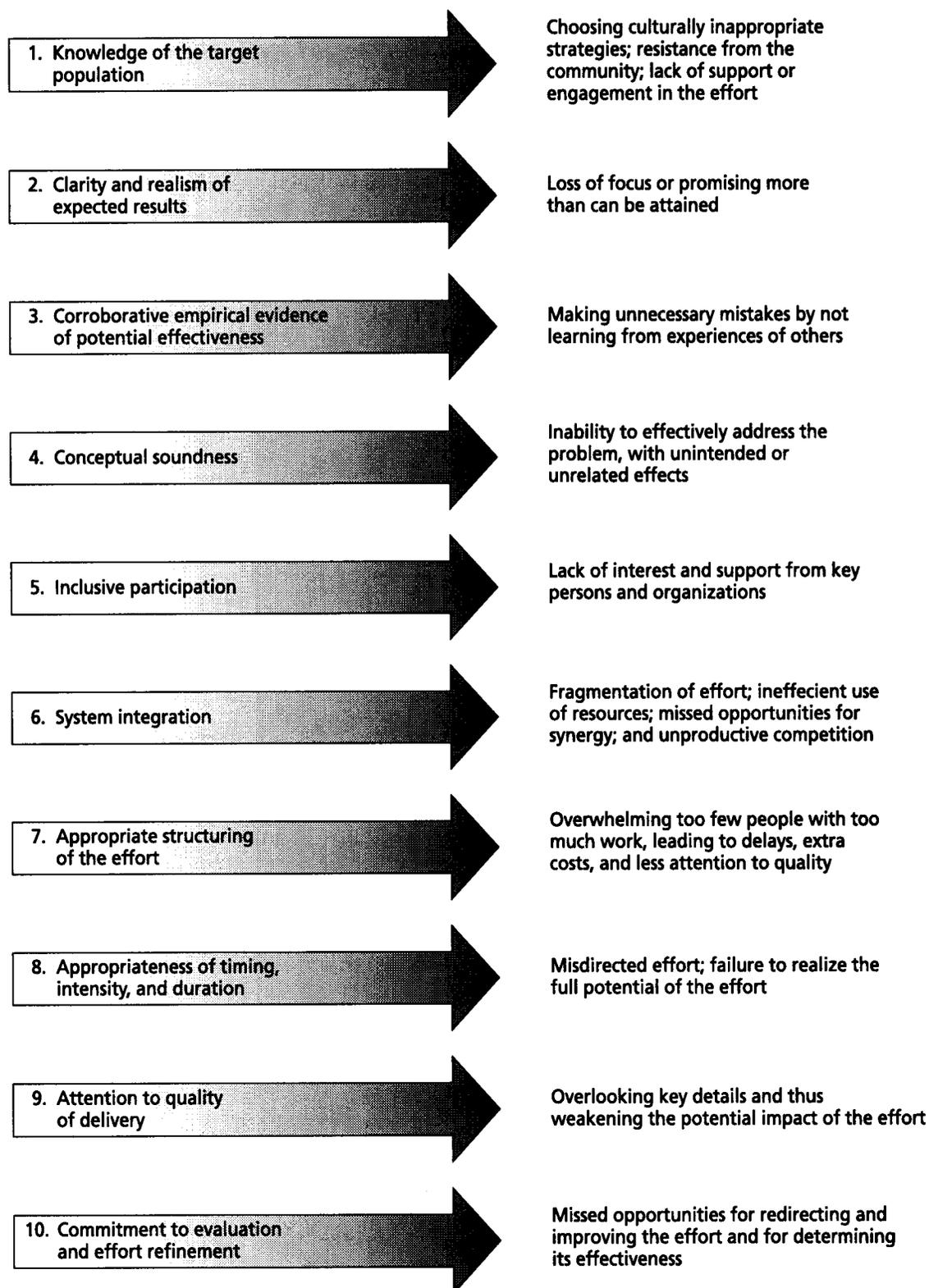
Figure 3 indicates how the failure to follow 1 or more of the 10 guidelines can lead to problems and reduced effectiveness.

The chapters that follow provide more detailed descriptions of the guidelines and associated recommendations. They include examples of successful and unsuccessful application of the guidelines to a wide range of prevention efforts. In the final chapter, an implementation checklist is provided for use in applying the guidelines.

Figure 3

Failure To Meet This Guideline:

Can Result In:



3. Selection of Appropriate Strategies: Keeping the Effort Focused on What Is Possible

Overview

Four general guidelines, which address the domain of Selection of Appropriate Strategies, are considered in this chapter. The first guideline in this domain addresses the question, "Are there reasons to believe that the target population will be responsive to the prevention effort?" The second guideline deals with goal setting: "Are the intended results of the prevention effort clearly defined, and are they realistic in light of the nature of the effort and experiences with it thus far?" The third addresses a related question, "Does evidence exist from comparable prevention efforts to support claims that the intended results are achievable through efforts of this type and scope?" The fourth focuses on a parallel question, "Does a plausible explanation exist linking the prevention effort to its intended results?"

The guidelines are presented in turn. One or two recommendations are briefly explained and illustrated. Examples of applications of the guidelines are provided for a variety of prevention efforts.

Guideline One: Knowledge of the Target Population

Recommendation 1.1. Base the prevention effort on a clear understanding and definition of the populations and groups to be influenced and a careful consideration of their patterns of substance use, cultures, value systems, and likelihood of responsiveness to the effort.

As has been discussed, the guidelines presented here assume that a needs assessment has been carried out in order to determine the true nature of substance abuse problems. It is also assumed that this assessment has provided input into decisions about the type and range of strategies under consideration. In planning and implementing prevention efforts, it is important to keep in mind that populations vary widely. These differences can be significant in determining whether a given effort is likely to succeed or how it might be adapted for the best chance of success (Klitzner 1987).

The target population must be clearly defined. Who is meant to be affected by a given strategy? What is the targeted age group, gender, geographic area, and so forth? Do prevention planners have experience with and understanding of the target group? Lack of attention to these issues can result in a program that does not appeal to the intended target group or is not accessible to them (Cook et al. 1984; Malvin et al. 1985).

Some approaches aim at particular pharmacological agents, such as psychoactive prescription medications, inhalants, chewing tobacco, or fortified wines. Youth, the elderly, or pregnant women may have different use patterns and risks associated with use. Prevention efforts designed to deal with particular substances need to be planned with awareness of these interactions with different target groups.

- Define target population
 - age
 - gender
 - socioeconomic status
 - cultural and religious characteristics
 - geographic characteristics
- Examine patterns of substance use
- Consider knowledge, beliefs, values, and attitudes
- Assess likelihood that target population will respond to prevention effort

Once a target group has been defined, the fit between the prevention effort and the characteristics of the group needs to be examined. For example, prevention efforts targeting youth must be tailored to the particular substance abuse problems of young people in a particular community. For example, impaired driving may not be a major problem for inner-city teens, who often do not have access to cars or need to drive, but youth in rural and suburban areas may frequently drink and drive (Klitzner et al. 1988).

Cultural differences among populations (relating to gender, hierarchy, decisionmaking styles, communication patterns, learning styles, and etiquette) can be critically important in assessing and planning prevention efforts [Office for Substance Abuse Prevention (OSAP) 1991a]. For example, a hierarchical action model based on strong central leadership may not be appropriate in a culture (e.g., some Native American tribes) in which decisions are usually made on the basis of consensus. By contrast, in some communities, a strong, charismatic leader can be very effective. In some situations, age and gender considerations might predominate. For example, an early intervention program that refers young single mothers to local Alcoholics Anonymous and Narcotics Anonymous groups is not likely to be successful if those groups are made up primarily of middle-aged males.

Sometimes information may already be available on the suitability of a prevention effort for a target population. In other instances, data must be collected. For example, a community would want to determine whether inhalant use is a common problem among their youth before embarking on an aggressive campaign against inhalants. Simple surveys or focus groups might provide the needed information. Similarly, a community might want to test the acceptability of an alternatives program for high school students (e.g., using interviews or focus groups) before implementing such a program (see Cook et al. 1984). It may also be appropriate at this point to begin involving key decisionmakers and participants in planning the effort. (See guideline five.)

Even after a program has been implemented, unforeseen changes may occur or problems may emerge. It is important, therefore, to continue to assess the fit. Formal mechanisms may be used such as periodic client satisfaction surveys. Informal methods, such as simple observation or informal discussions with participants and members of the target population who choose not to participate, could indicate the nature of the problem. The location or timing of activities may be inconvenient for the intended participants, the activities may not be appealing, or there may be competing demands on potential participants' time. Informally gathered information can be confirmed with more systematic assessments.

Guideline Two: Clarity and Realism of Expected Results

Recommendation 2.1. Focus the prevention effort on specific, realistic goals.²

Clarity of focus is a necessary condition for success in executing any complex effort (Alinsky 1971). A clear focus allows choices and compromises to be made in a thoughtful manner without placing the integrity of the effort in jeopardy. It leads to a design for implementation that is consistent in spirit and form with the intentions of the effort. In the best of all worlds, the clarity of goals and expected results will precisely define the effort's measurable outcomes (Kibel 1995).

- Maintain clear focus on realistic goals
- Consider potential "reach" of the effort
- Consider potential "strength" of the effort
- If it is clear that prevention goals cannot be achieved, rethink the effort

Reach and strength. In considering the overall goals of prevention efforts, two key characteristics of strategies need to be considered: their potential reach and their potential strength. "Reach" is defined here as the number of people potentially affected by the strategy. Reach is determined by the number of people at risk for whom the strategy may be relevant, as well as the number of people who may be exposed to the strategy. For example, development of a new law or policy can reach thousands or even millions of people (Holder 1993).

² See Senge 1990.

Similarly, a school-based skills-building program, if applied well and consistently across grade levels, can have an effect on many children in a community. Other strategies, which affect only a relatively small number of direct participants in a program, have a narrower reach.

The "strength" of the effects that can be expected from different approaches also varies widely. "Strength" is defined here as the potential impact or change expected as a result of exposure to a strategy. For example, a law or policy may have broad reach but have only a slight impact on individual behavior. Even though individual behavior is changed only slightly, the aggregate effect on society may be quite significant. In contrast, a neighborhood-based parent involvement program may affect only a relatively few people, but the impact on those individuals might be very strong. Thus, in defining goals, these two characteristics of efforts (reach and strength) must be considered in order to maximize the benefits of resources expended. Clearly, the pervasiveness and seriousness of the problem will be important determinants of whether concerns regarding reach or concerns regarding strength predominate. For example, the establishment of 21 as the minimum age for purchasing alcohol had a major impact on fatal automobile crashes among youth, for whom drinking and driving is a widespread problem (National Highway Traffic Safety Administration 1993). For problems that are confined to a small target population, more intensive strategies with narrower reach may be more appropriate than approaches that target many more individuals than are affected by the problem.

Choices and goals. Sometimes prevention efforts are carried out without specifically defining goals. An organization might want to replicate other programs or efforts that sound promising. For example, an organization might decide to distribute bumper stickers or T-shirts bearing alcohol- or drug-related prevention slogans without determining whether the effort is likely to result in any particular outcome. However, this organization's actual intentions might involve increased public awareness and commitment to prevention. In a process consistent with recommendation 2.1, the organization would decide whether it is realistic to expect that bumper stickers and T-shirts can, by themselves, accomplish this goal.

The organization would also consider exactly what it wants the public to be aware of and what might be the best channels to reach the intended audience. It would then select strategies most likely to convey the desired message to the desired audience. A more sophisticated planning process would probably conclude that a diverse media campaign is more likely to be successful, and would include newspaper articles, door-to-door leafleting, and radio and television spots as well as bumper stickers and T-shirts. The clearer the intentions, the more likely the effort will be shaped toward appropriate outcomes.

Recommendation 2.2. Consider the goals of a specific prevention effort in the context of the larger prevention goals of the community, State, or Nation.³

- Define specific goals of the effort
- Define the contribution of the effort to general prevention goals

These guidelines should be applied after an examination of existing resources and efforts has been carried out. Few substance abuse problems can be addressed decisively through a single prevention strategy. Usually, multiple interventions are needed to cause meaningful behavior change. Prevention efforts can then address specific aspects of substance abuse while also contributing to broader solutions when combined with other efforts (Kilmann and Kilmann 1989). Even an intensive public awareness campaign, for example, is not likely to have a long-term effect on health risk behavior unless it is combined with other prevention strategies and with permanent changes in the system (Holder 1992).

Public awareness campaigns have been shown to be effective as an adjunct to other complementary strategies, such as deterrence-based efforts (Ross 1985). For example, a vigorous public awareness campaign was launched along with a new Maryland law banning drivers under 21 from consuming any measurable amount of alcohol. The campaign plus the law resulted in a 50-percent decline in alcohol-related crashes among young drivers (Blomberg 1993).

Similarly, a midnight basketball league might not be expected by itself to reduce the use of alcohol and drugs by inner-city teens. However, if combined with other strategies to provide alternative activities, reduce gang membership and

³ See Kilmann and Kilmann 1989.

violence, teach social skills, and decrease the presence of drug dealers on the street, the cumulative effect could be striking [Office of National Drug Control Policy (ONDCP) 1995].

Guideline Three: Corroborative Empirical Evidence of Potential Effectiveness

Recommendation 3.1. When available, gather and use reliable empirical evidence of effectiveness from comparable programs to select and guide the current effort.

The best indication that a prevention effort will work is that it has worked in the past under comparable circumstances. Many prevention evaluations have been carried out. However, the soundness of these evaluations varies widely.

Results that come from sound studies—whether positive or negative—should be used in assessing the potential effectiveness of a given prevention approach.

Such studies have already demonstrated the ineffectiveness of some previous efforts. For example, early efforts to prevent the use of illegal drugs among youth focused on teaching young people about drugs and their dangers. However, it is now well established that knowledge of the harmful effects of drug use is generally not by itself a sufficiently powerful intervention to guarantee changed behavior (Bangert-Drowns 1988).

Similarly, early efforts to prevent alcohol-impaired driving focused on establishing harsh jail penalties for drunk drivers. It was thought that the threat of these penalties would deter people from driving after drinking. This prediction also proved to be inaccurate. Jail penalties, as a single intervention, had little effect on deterring the general public from impaired driving (Zador et al. 1989).

- Look for previous experience with a similar type of effort
- Look for evaluation evidence of effectiveness
- Assess methodological soundness of previous evaluations
- Emphasize efforts that have evidence of effectiveness whenever possible
- Reject efforts that have clear evidence of ineffectiveness

In its Prevention Enhancement Protocols System (PEPS), SAMHSA/CSAP is developing a series of guidelines for prevention related to specific substances and in specific populations based on empirical evidence. In addition, SAMHSA/CSAP has been carrying out a "National Structured Evaluation," examining hundreds of prevention efforts (ONDCP 1995). Key findings include the following:

- For younger children and adolescents, prevention approaches that emphasize personal skills development and task-oriented skills training were found to be effective in reducing substance use.
- For adolescents at significant risk for problem behaviors, professionally administered individual and family counseling demonstrated effectiveness in influencing long-term factors associated with drug use and alcohol abuse.
- Prevention approaches that change the community environment, often in concert with interventions aimed at specific individuals were shown to be effective in reducing drug and alcohol problem behaviors.
- Programs that are sensitive to and reflect the cultural values of the targeted group can be particularly effective.

These findings underscore the importance of examining evidence that a particular strategy is suitable (and culturally appropriate) for a particular problem and population.

Guideline Four: Conceptual Soundness

Recommendation 4.1. Use a logical conceptual framework to connect the prevention effort with its intended results and ultimately with the overall goal of reducing substance abuse.

Practitioners need to take action based on what works and what does not work. Empirical evidence is the best basis on which to make decisions. Empirical evidence is not always available, however, to provide explicit direction. Even in cases in which empirical evidence of effectiveness is available, the effort is more likely to be successful if there are also logical conceptual connections between the effort and the goals.

The challenge facing this and other fields can be illustrated by a physical analogy. If a stone is dropped in a still pond, one can measure the resulting regular ripple effects. However, as the number of stones increases, the heights of release vary, and some stones are thrown into the pond rather than released gently, the complexity of the ripple-effect patterns in the pond will defy simple measurement. In the same way, it is difficult to measure the effects of the many efforts and influences that simultaneously affect substance abuse in a community.

- Look for logical connection between prevention activities and prevention goals
- Seek support and current knowledge from other well-established theories

A good conceptual framework can guide action and suggest new approaches and applications. Even though empirical evidence may be limited, the conceptual framework needs to be consistent with what is currently known in the field (Gottfredson 1984).

Established theories from other fields can aid in the development of a conceptual framework for a given prevention effort. For example, in the criminal justice field, deterrence theory predicts that the severity of a threatened sanction is not as important as its swiftness and certainty (Ross and LaFree 1986). Therefore, a less-than-credible threat of eventual, long prison terms for involvement with illicit drugs may not be as effective as a milder and more immediate punishment that potential offenders consider quite likely. In a similar vein, political science theory predicts that compliance with the law, independent of the sanction, is enhanced with citizens' concurrence with that law or policy.

Combinations of theory and research can be used to construct a logical model in support of a strategy. For example, substantial data indicate that students doing poorly in school are more likely to be problem users of alcohol and drugs than students who do well (Jessor 1987). Research has also linked success in school by more vulnerable students to bonding with supportive adult mentors (Lengel 1989). Hence, a prevention effort that works with businesses in the area to establish adopt-a-school or adopt-a-neighborhood mentoring programs can argue from a conceptual framework that links such a strategy to a reduction in dropout rates and, in turn, to a reduction in substance abuse problems.

Recommendation 4.2. Base the conceptual framework used to explain the prevention effort on existing knowledge, and refine or revise the framework as needed to reflect new learning from public health, behavioral sciences, and other fields.

- Constantly update the effort based on new information from the field
- Consider issues of causation versus correlation
- Consider the nature of motivation to use alcohol, tobacco, and drugs
- Consider intermediary factors that link prevention with current use

It has been said that there is nothing as practical as a good theory. Fortunately, theory testing in the prevention field is proceeding at a rapid pace. Practical issues about the likelihood of a strategy's effectiveness relate closely to knowledge about the *causes and correlates* of substance abuse problems; awareness of the dynamics of individual *motivation* to use and abuse substances; and the role of *intermediary factors* as legitimate targets for prevention programs.

Causes and correlates. Efforts to prevent substance abuse problems will have an enhanced probability of success if they are based on an understanding of the causes of these problems. Due in part to the complex etiology of the problems, the relative youth of the prevention field, and the expense and timeframes of etiologic studies, relatively little is known about these causes. By contrast, a great deal is known about the correlates of the problems—that is, those factors that

co-occur with substance abuse such as delinquency, dysfunctional families, and low educational aspirations (Hawkins et al. 1992). Although some of these correlates might also be causes, it is also possible that they are caused by alcohol and drug use, or that both alcohol- and drug-related problems and their correlates arise from other factors related to both.

There is a tendency to confuse causes and correlates. For example, some of the risk factors for substance abuse that are cited in the prevention literature have really only been shown to be correlates, not necessarily causes (e.g., Brown and Horowitz 1993). Accordingly, changing some of these factors may not reduce the problems associated with substance abuse. Of course, some factors that are currently known to be correlates may, indeed, be causal or intermediary factors that are part of the causal chain leading to substance abuse. Further research is needed to establish the true relationship between correlates and the problems we are trying to prevent, and guideline four encourages prevention practitioners to be alert to the latest findings.

Motivation. Many recent prevention efforts directed at individuals tend to view the immediate causes of substance abuse as outside the individual (e.g., "peer pressure," media, and advertising). Yet, there are individuals who actively seek out psychoactive substances. Thus, intrinsic motivation must also play a role—perhaps a key role—in use and related problems (Siegel 1989). Some have suggested that individual users be viewed as consumers, balancing costs and benefits in the choices they make regarding alcohol and drugs (Cohen 1991). This perspective provides a useful framework for conceptualizing prevention directed at individuals (e.g., classroom drug education or alternatives programs). It also has implications for the general population and has been used in some econometric studies of "alcohol price sensitivities"—that is, as the price of alcohol goes up, motivation to consume it may decrease, at least in certain groups (Grossman et al. 1987; Levy and Sheflin 1985).

Intermediary factors. In some cases, the presumed link between a given prevention strategy and substance abuse problems is quite direct. For example, raising the price of tobacco can be expected to decrease consumption through simple market forces—people will buy less tobacco as it costs more (e.g., Communities for Tobacco-Free Kids 1996; Reid et al. 1995). In many cases, however, the causal chains that connect prevention strategies and outcomes are much more complex. They may rely on the remediation of presumed risk factors, the enhancement of protective factors, the restructuring of social environments, the operation of social norms, or the alteration of psychological expectancies.

One example of attempting to deal with intermediary factors is programs to restructure schools with the goal of increasing bonding to the school and thus decreasing the likelihood of antisocial behavior, including use of alcohol and drugs. In order to increase bonding, school programs may implement learning activities that encourage collaboration and cooperation among students or incorporate students in the development of school policies (Gottfredson 1986). Prevention planners should articulate how a given strategy is expected to alter such intermediary factors, and how the intermediary factors relate to the problems they are trying to prevent. Evaluators should demonstrate that these intermediary factors have changed as a result of the preventive intervention and that the intended outcomes of substance abuse prevention have been achieved.

4. Interrelationships and Appropriate Structure: Organizing for Effective Action

Overview

We turn our attention now to a second domain of guidelines that involves the relationship of the prevention effort to the system as a whole. Thus, we move from strategic issues to organizational and structural questions. Three guidelines are considered. The first addresses the question of communitywide participation, "Does the prevention effort adequately involve key individuals and organizations in planning and implementation?" The second question deals with the relationship of the prevention effort to the wider system, "Does the design of the prevention effort adequately account for system interdependency?" The third is a critical organizational question, "Is the prevention effort scaled in size and complexity to match available resources and possibilities?"

The guidelines are described and recommendations are suggested for each. Examples of applications of the guidelines are provided for a variety of prevention efforts.

Guideline Five: Inclusive Participation

Recommendation 5.1. Include in the prevention effort activities that secure and maintain buy-in of key decisionmakers and leaders as well as of those organizations and individuals who directly or indirectly will be responsible for implementing the effort.⁴

- Actively involve key decisionmakers in planning and executing the effort
- Actively involve implementers in planning and decisionmaking

Many prevention efforts may seem like excellent ideas and may have ample evidence of previous effectiveness. If, however, not enough of the key players needed for implementation (both formal and informal) have been actively involved in the development of an approach from the beginning, the effort can easily be undermined or weakly implemented (Potapchuk and Polk 1993).

For example, there is evidence that well-designed and well-implemented substance abuse policies in schools may help prevent alcohol and drug problems among students (Moskowitz, undated). Effective implementation requires the leadership of key decisionmakers in the school system, the enthusiastic cooperation of teachers and other school staff, and the endorsement of parents and students. If any of these groups resists the change, the effort can be defeated. Similarly, school-based programs to teach life skills have been found to be more effective when implemented well by teachers (Botvin et al. 1995).

Involvement of key decisionmakers and implementers may begin early in the planning process of an effort. In order to ensure cooperation in every sector, all who have decisionmaking power or who will be involved in implementation need to be actively involved in planning (Wagenaar and Wolfson 1993). Planning needs to include participants at all levels, including both formal and informal leaders. In this way, potential implementation problems can be anticipated by those people most likely to understand how the effort will work in their particular area of responsibility. More important, the buy-in of key players can be obtained through engaging them in the planning process. For example, one school restructuring effort designed to reduce delinquency established an organizational structure to facilitate shared decisionmaking among community agencies, students, teachers, school administrators, and parents in planning for school improvement (Gottfredson 1986).

⁴ See Wheatley 1992; Wickizer et al. 1993.

Issues of engagement. Participation opportunities need to be extended, where appropriate, beginning with planning and including all aspects of implementation (Spencer 1989). For example, engaging parents in the education of their children appears to be correlated with success in school and lower incidence of alcohol and drug use (Hawkins et al. 1987). Involving community members in prevention efforts helps ensure local ownership, appropriate adaptation to local conditions, and credibility for these efforts among those they are designed to influence.

Many existing viable prevention efforts may have been initiated without fully inclusive participation and engagement (Jason 1991). Under guideline five, however, longer term effectiveness may be enhanced significantly to the extent that such efforts encourage inclusive participation and engagement of key players in the refinement of the effort. For example, the decision by the management of a major drugstore chain to put certain abusable types of cough medicine behind the counter rather than on open shelves might significantly decrease problems related to abuse of this substance, at least in the short term. If the impetus for such an action came from citizens in the community and involved other retail outlets as well as parents, schools, and youth groups, longer term changes might result.

Similarly, drug testing rules imposed by employers might have a significant effect on the drug use of workers and on related problems (such as accidents on the job) (Sweedler 1994). If the employees themselves are involved in designing both the rules and counseling and rehabilitative services to reduce alcohol and drug problems, the overall impact may be enhanced.

The guideline of inclusive participation clearly requires a commitment to identifying and involving key leaders from the diverse cultural groups that are part of the community or target group of the prevention program. These key leaders may represent informal and formal roles within the structure of communities and organizations, representing a broad range of cultural differences (e.g., racial and ethnic, physical and mental ability, age, class). These leaders may not always be apparent or accessible to individuals outside the cultural group. Prevention providers may need to build trust within the community to gain the support and involvement of these leaders.

When prevention providers come from outside the target culture, their attitude must be one of respect for cultural differences in values and behavior. Key to this relationship is understanding that traditional norms may serve as important strengths in maintaining the health and resiliency of the group members and the community.

Guideline Six: System Integration

Recommendation 6.1. Design and implement the prevention effort to build on and, in turn, support related prevention efforts.

Planning for each prevention effort needs to take into account the array of other efforts occurring or planned at National, State, and local levels. As discussed in *Prevention Plus II: Tools for Creating and Sustaining Drug-Free Communities* (OSAP 1989), a frequent shortcoming of prevention efforts is a lack of communication and coordination among different sectors of a community. This publication emphasizes the importance of taking a "systems approach" to the community and the environment, viewing them as interconnected parts of the same system. One obvious reason for doing so is to avoid duplication of effort and unnecessary competition for scarce resources. If there is already a community prevention task force focusing on alcohol availability, it may be neither necessary nor wise to establish a second body to deal with a related issue, for example, underage drinking. Unfortunately, such duplication is found frequently and all too often leads to multiple requests for individuals to serve on committees, as well as competition and conflicts among groups.

- Design and carry out the effort in coordination with other prevention efforts
- Look for opportunities to maximize effectiveness by building on other efforts

Planning also needs to take advantage of the synergy that can result from the combined application of several efforts (Alexander et al. 1987). For example, as discussed in chapter 3, a public awareness campaign alone is not likely to have a major effect on impaired driving (Vingilis and Coultres 1990). When used as an adjunct to an enforcement campaign, however, the combined efforts have been shown to be extremely effective. Similarly, training of alcohol servers is far

more effective when the education effort is combined with more vigorous enforcement of laws against serving intoxicated patrons (McKnight and Streff 1994).

A problem-oriented approach to policing that includes a focus on prevention has been shown to be effective in reducing some of the problems in neighborhoods that are related to drug trafficking and use (Goldstein 1990). When this approach is combined with other attempts to improve neighborhood environments, such as enforcement of building codes and zoning ordinances (to eliminate the use of some buildings for drug trafficking) and involvement of citizens in observing and reporting suspicious activity, significant reductions in drug problems can result (Powers 1993; Weingart 1993).

Such coordination requires that diverse agencies and organizations work in partnership. SAMHSA/CSAP's Community Partnership Grant Program and other publicly and privately funded coalitional efforts have generated a kind of "natural experiment" in the opportunities and challenges of such coordination. Certainly, successful cooperation under the banner of prevention can also bring about better relationships that affect other efforts.

Recommendation 6.2. Design and implement the prevention effort with consideration for the strains that it may place on different parts of the system.

- Plan for possible system strains caused by the effort
- Include representatives from other parts of the system in the planning process

The prevention effort needs to be well organized within each relevant sector (public agencies; schools; neighborhoods; businesses; voluntary associations; religious, spiritual, and cultural organizations; and the like) so that each sector uses its particular skills and resources to address the problem. In addition, the prevention effort should be integrated across sectors so that efforts can be combined and applied to complex, multifaceted, interrelated problems (Wittman and Biderman 1993). Changes in one part of the system can change other parts—sometimes causing difficulties.

For example, many States have passed "use-lose" laws calling for young people to lose their driver's licenses if found guilty of any alcohol- or drug-related offenses. The juvenile courts, however, might be unprepared for the influx of new cases; and consequently, the prosecutorial and judicial systems might be impeded. A planning process for implementing the law that included the judiciary could avert or minimize such problems.

In another arena, a school district may implement an otherwise promising student assistance program designed to identify alcohol and drug problems early. The program generates several individual and family referrals to social service agencies. Those agencies have huge caseloads, however, that significantly delay the referred students from receiving critical services—hence, no measurable improvement in alcohol and drug problems. Here again, if the school district included social service agencies in the planning for the student assistance program or arranged for services to be available, the effectiveness of the program could be maximized.

In one more instance, a major program aimed at reducing the influx of marijuana from Mexico into the United States is initiated. While the program is in place, evidence appears to support a decline in marijuana use in States adjacent to the Mexican border. Key informants report, however, that use of barbiturates and stimulants has increased, as have new local marijuana growing areas.

Promising prevention efforts, when pursued without cognizance of wider community systems, can lead to less than promising outcomes. Substance abuse problems are connected to neighborhoods, schools, political governance, health services, the criminal justice system, voluntary agencies, the print and visual media, and other systems. Systemwide planning can only enhance effectiveness (Klitzner 1993).

Guideline Seven: Appropriate Structuring of the Effort

Recommendation 7.1. Carry out the prevention effort through activities consistent with the availability of personnel, resources, and realistic opportunities for implementation.⁵

Guideline seven addresses the issue of scale. Concerns about substance abuse may motivate a community to take on large-scale efforts. But attempts to design and implement a large-scale effort all too frequently result in breakdowns in communication, organizational nightmares, compromises at the end to get the job done, or abandonment of the effort entirely. On the other hand, reliance on small-scale, small-volume prevention efforts is unlikely to catalyze the levels of change required to address serious substance abuse problems.

- Segment effort into manageable components
- Centralize strategic planning, but decentralize budget, staff, and activities

A more attractive solution may be to concentrate on large-volume efforts, but to structure the overall effort as multiple small-scale activities occurring simultaneously or sequentially. Each of these activities has its own goals, design, staffing, and implementation plan; and each provides a unique contribution to the achievement of the overall intentions of the effort. It may be that a small coordinating group assumes responsibility for the integrity and integration of the total effort, but most of the work occurs at the activity level.

Organizational issues are made less overwhelming by breaking the overall effort into smaller components. In addition, funding and resource issues can be made more manageable because each component activity considered individually requires more modest resources, even when the overall effort may remain quite large. Viewing the effort in terms of smaller components can also clarify that, in many cases, existing resources can be redeployed, and underutilized resources such as volunteer time can be used to carry out components. Organizing into distinct activities also creates possibilities for a larger number of people to contribute, identify with the effort, and feel they are making a difference (Weick 1984).

To illustrate, a local law enforcement agency might decide to mount a campaign to reduce underage drinking. Due to other demands made on the agency, severely limited budgets, and restricted personnel resources, the agency might be capable of only a very limited effort—an enforcement "blitz" in which underage police cadets are used as decoys to identify outlets that sell to minors. Such an effort might be manageable and, in fact, have a temporary effect on alcohol sales to minors. The law enforcement agency could, however, bring concerns about alcohol sales to the community and work with concerned citizens and other sectors of the community to plan and implement a comprehensive campaign and thus amplify the potential effectiveness of the effort.

The local newspaper could publish a series of articles on the effects of underage drinking to coincide with the enforcement blitz. Local television stations could carry extensive coverage of the blitz. The alcoholic beverage control agency could send information to retail outlets about the penalties for selling alcohol to minors, along with posters to be hung in outlets discouraging minors from attempting to purchase alcohol. High school clubs could hold assemblies in which the penalties for purchasing alcohol are discussed along with other potential harmful effects of alcohol. Parents in the PTA could receive materials that explain the liability they have for providing minors with alcohol and the possible legal consequences. In addition, they could be asked to sign pledges that state that alcohol will not be served to minors in their homes.

In this way, none of these organizations is unduly burdened by the effort. (It is unlikely that the law enforcement agency alone could have implemented all the components of the campaign.) In addition, the overall effect is likely to be much greater than from any individual action. The broad participation and support for the effort could also result in a longterm commitment to reducing underage drinking, thus helping to ensure that resources for enforcement and awareness will continue to be available in the long run.

⁵ See Weick 1984.

Recommendation 7.2. Create opportunities for the exercise of leadership across a broad range of participants.

The previous discussion on breaking efforts down into manageable components suggests an important corollary: As a large-scale effort is subdivided, more opportunities emerge for active participation in decisionmaking and other leadership functions. In the underage drinking example above, the law enforcement agency could have imposed punitive sanctions on retail sales outlets and on youth, perhaps decreasing underage drinking for a time, but probably not changing the normative environment that makes drinking desirable and acceptable. Broader and more lasting change might occur if a community involves and provides leadership opportunities for retail outlets, parents, youth, and other segments of the community.

- Involve participants as leaders
- Use leadership roles as opportunities to broaden participation and investment in the effort

There has been increased interest in distributing leadership to the targeted individuals and populations, even in the most difficult situations (Green and Kreuter 1991). For example, many Americans are aware of encouraging efforts in a few inner-city public housing projects where residents have been empowered to take more control in governance and in targeted action against guns, drugs, child abuse, and other violence. Similarly, the prevention field has witnessed increased opportunities for youth involvement in prevention efforts through peer-based programming for youth, featuring various peer-leadership programs, cross-age tutoring, cross-age counseling, and mentoring (OSAP 1989).

5. Implementation Considerations: Maximizing Effectiveness

Overview

Three guidelines are considered in this chapter. Each deals with the third domain— Implementation Considerations. Guideline eight addresses the question, "Is the prevention effort being implemented at an appropriate time and with sufficient intensity and duration to be effective?" A second question, associated with the ninth guideline, asks, "Has adequate attention been paid to the execution of each component of the prevention effort to ensure quality services and products?" The last guideline addresses a related question, "Have provisions been made for continual tracking, documentation, evaluation, and feedback to ensure the effectiveness of the effort?"

The guidelines are presented in turn, and illustrations and recommendations are suggested for each.

Guideline Eight: Appropriateness of Timing, Intensity, and Duration

Recommendation 8.1. Time the prevention effort so that implementation coincides with a period of peak community concern or the target population's readiness for the change intended.

- Take advantage of transient opportunities and "teachable moments"
- Capitalize on dramatic current events, but maintain a measured, rational approach
- Carefully assess readiness to address controversial problems or adopt difficult strategies

In planning prevention activities, the appropriate timing of efforts needs to be considered. Timing might be a matter of selecting an opportune moment for the target audience. Particular life events of a target group might offer especially powerful opportunities for prevention—the so-called "teachable moment." For example, some communities create a ceremony for giving driver's licenses to new drivers during which information and persuasive appeals about safe driving are presented. In this way, the community tries to take full advantage of this rite of passage as a time to inculcate attitudes and behaviors that can prevent problems. In some cultural groups there are traditional rites of passage that may be included in prevention programs.

Timing of efforts may also be relevant at the community, State, or National levels. Dramatic events, such as substance abuse-related tragedies, can attract attention to a key prevention issue and motivate people to work on an issue or to change their own behavior. Unfortunately, in some cases, dramatic or tragic events can lead to support for draconian measures or strategies that offer a "quick fix." Public hysteria about a problem may make it difficult to apply reason and science to crafting solutions. Planners must make the most of the opportunities that widespread interest and concern provide while trying to maintain a measured and rational approach to problems (Kibel 1995).

Timing can also be a matter of readiness to address a problem. For example, some communities hesitate to confront alcohol-related problems that are caused in part by local sales outlets. They fear potential negative economic consequences of interfering with business. In some circumstances, it may be wiser to build broad community support by dealing with less controversial problems first, preferably bringing local businesses into the process. Later, dealing with these more controversial issues may be easier and prevention efforts less likely to be challenged.

Recommendation 8.2. Design the prevention effort for delivery with sufficient intensity (in exposure, breadth, and impact) to produce its intended results and be applied over appropriate duration so that these results can be sustained.⁶

⁶ See Sechrest et al. 1979.

- Match intensity of the effort with the intensity of the problem and its causes
- Maintain or repeat the effort over a long enough period to maintain effectiveness
- Look for efficient ways of applying reinforcing, or "booster," interventions

In public health, simple, one-time interventions can sometimes prevent terrible consequences. Inoculations against diseases like smallpox and polio are examples. Unfortunately, substance abuse problems have not yielded to such simple prevention strategies. It is far more likely that intense efforts over long periods of time will be necessary to bring about changes that can prevent problems. Effective prevention strategies must be sufficiently intense to have the desired impact, and they must also be sustained over a long enough period of time to have an enduring impact.

Intensity includes issues of exposure and breadth. For example, it is unreasonable to expect that a few hours of drug education in school can completely counteract the myriad vivid day-to-day experiences that influence children to use alcohol and drugs. It is likely that such efforts can only affect part of the problem and that other interventions or changes in children's lives and environments are needed to significantly reduce risk.

Similarly, as discussed earlier, it is easy to conclude that distributing a few T-shirts and bumper stickers is unlikely to have a very great effect on awareness. The effort needs to be intensified by adding more communication channels to ensure that a large proportion of the target audience is exposed to messages designed specifically to appeal to them.

Duration of the effort is also extremely important. When announced in advance and implemented with intensity, a vigorous enforcement campaign against impaired driving can bring about significant short-term changes in behavior. These changes will not endure, however, if the campaign is not repeated periodically (Ross and LaFree 1986). Another classic example involves drug education curricula presented for a semester or two in junior high school. Although some attitude change might be expected, the forces of ordinary life in adolescence and high school will likely reduce any long-term measurable effects of the brief curricular experience (see, for example, Flay et al. 1989). Sometimes the use of booster interventions (short-term efforts applied to members of a target population to reinforce messages and skills to which they have been exposed previously) may enhance the long-term effectiveness of a strategy.

Guideline Nine: Attention to Quality of Delivery

Recommendation 9.1. Design and implement the prevention effort for the highest possible quality in each step of its execution.

A prevention effort that is well designed, based on empirical evidence, and well planned can still fail if the implementation is weak or flawed. Whether the effort is a parent training program for smoking prevention, a peer-based initiative against crack cocaine, or a media campaign intended to prevent misuse of prescription medications, key features must be included. Training must occur and attention must be paid to important details at each step of implementation. Partial, weak, or haphazard implementation can doom an otherwise promising effort.

- Plan for the highest quality implementation
- Attend to important implementation details
- Reshape the effort if necessary to respond to changing events and opportunities

High-quality implementation is most likely if the key features of the effort are defined in advance and then systematically monitored to ensure that they are being carried out. Procedures for monitoring need to be spelled out clearly. In addition, the conditions for success at each step need to be made explicit. For example, in a parent training program, program implementers need to ensure that the trainer has the necessary qualifications and that attendance of parents is facilitated by providing help and encouragement as needed. Even the best designed program cannot be expected to have the desired outcome if no one attends, if the wrong people attend, if the sessions do not address the parenting needs of the program attendees, or if the parenting strategies proposed by the program are inconsistent with cultural norms.

Similarly, for an enforcement operation using underage decoys to identify sales outlets that sell alcohol to minors, the agency carrying out the operation must be sure that it adheres strictly to the State and local laws that regulate decoy operation. It must employ an appropriate publicity campaign before and after the decoy operation to maximize its effect. It also must make sure that the alcoholic beverage control agency brings appropriate penalties to bear against violators. Each of these issues must be addressed if the investment in the operation is to be worthwhile.

High-quality implementation not only depends on strategic program choices, but also requires well-qualified staff and appropriate attention to general management. The wrong personnel can undermine the best of programs. A teacher extremely unpopular with students is not likely to enhance the effect of a school-based curricular program. Inadequate attention to program organization, public relations, recordkeeping, or financial accounting can seriously reduce chances of measurable success, even program survival.

Attention to the quality of implementation does not necessarily mean that the effort, once designed, should be implemented in strict accordance with the original design. It may be necessary to reshape the effort at several points during its implementation as events change and as new conditions or opportunities emerge. Modifications are not necessarily an indication of a faulty design, but rather a recognition that the environment in which the prevention effort is occurring is dynamic and that implementers are attuned to that changing environment. Careful documentation of modifications needs to be made for purposes of both evaluation and subsequent replication. This issue is addressed further in the discussion of effort refinement below.

Guideline Ten: Commitment to Evaluation and Effort Refinement

Recommendation 10.1. Pay adequate attention to monitoring and process and outcome evaluation.

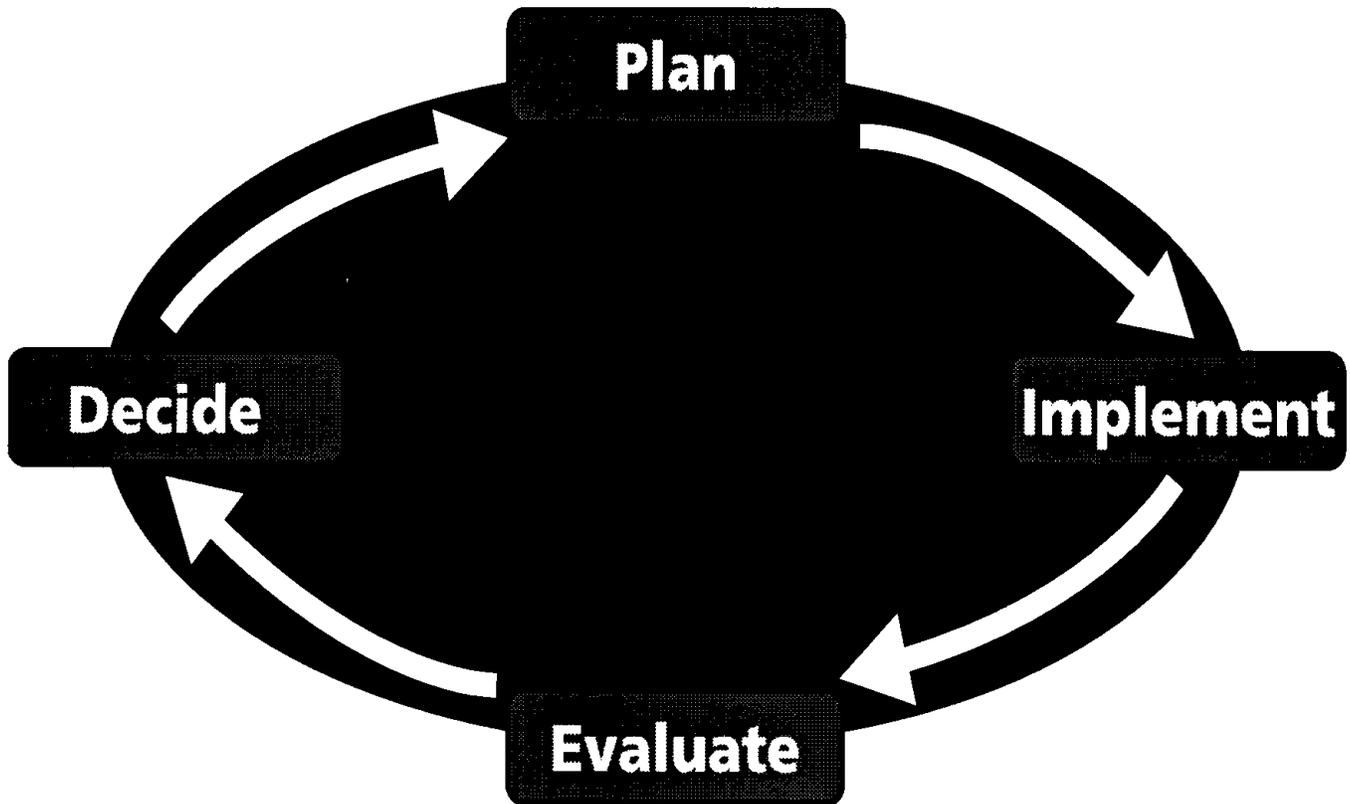
- Plan the effort with monitoring and evaluation in mind
- Carry out continual monitoring of the effort
- Conduct outcome evaluation to measure the success of the effort in producing desired results
- Integrate the evaluation into the effort
- Maintain open communication at every level of the effort
- Keep careful records and use them in assessing the effort
- Feed back information from monitoring and evaluation to improve the effort

Prevention planners and implementers sometimes begrudge the resources required for monitoring and evaluation and believe that these resources would be better devoted to carrying out the effort, rather than to collecting and analyzing data. Evaluations are often not integrated into the overall effort. This reaction to monitoring and evaluation is understandable, but counterproductive.

Evaluation and monitoring can be essential to the success of the effort (OSAP 1991b). Constant monitoring is needed to identify not only problems that require adjustment of the effort, but also serendipitous successes that can be exploited. Since program components contribute differentially to outcomes, process studies are essential for identifying effective and ineffective program components (Lorion et al. 1989). Process data can provide essential information for replicating an effort or adapting it. Outcome data, on the other hand, provide empirical evidence regarding the efficacy of a strategy. Such information regarding the ability of a strategy to produce desired results is critical to subsequent prevention programming and efforts to select effective approaches.

Monitoring and evaluation are sometimes seen as activities that are separate from the effort itself. In such cases, evaluators are viewed as "onlookers" rather than as engaged participants (Patton 1986). Too often, the "evaluation" is a final report, long after the program's design and execution are set in concrete. To maximize the prevention effort, the evaluator needs to be involved in the design of the effort to ensure that progress and outcomes are measurable (Kibel 1995). Evaluation should be part of a management process that includes a continuing cycle of planning, implementation, evaluation, and decisionmaking, as shown in figure 4 (OSAP 1991a).

Figure 4



It is also necessary for the evaluation function to be integrally connected to the effort (Patton 1986). There is a saying associated with the quality movement: "Only what gets measured gets attention. Only what gets attention gets fixed." A primary role of the evaluator in prevention should be to measure as much as feasible so that attention is drawn to shortfalls that can be corrected. In the best case, the evaluator needs to anticipate what might stand between the actions and the results, then provide information, advice, or questions to the planners and project staff aimed at overcoming obstacles, avoiding pitfalls, forming alliances, refining action plans, and so on.

This monitoring-and-feedback role should not be limited to the implementation phase of the effort. Effective planning and evaluation should function in concert for maximum results. Evaluators need to make certain that each key planning and decision task is based on the best available information and subjected to careful deliberation and thoughtful probing. This includes maximal attention to cultural factors, even when innovative evaluation methodologies are required (CSAP 1995b). In short, evaluators must be advocates for all of the guidelines presented in the previous chapters, offering timely feedback to correct processes that are not meeting these guidelines.

Monitoring and evaluation are most effective when they take advantage of the insights and experiences of everyone with a stake in the prevention effort or a specific activity within it (Gottfredson 1984). An atmosphere of open communication with people at every level of the effort is needed. Welcoming input and listening skillfully can ensure the identification of areas that need refinement or that deserve replication. Systematic recordkeeping is also useful. For example, attendance records can identify those program components that are not attracting participants; client tracking forms can indicate whether an early intervention program is successful in making appropriate referrals for service.

The importance of long-term outcome evaluation also needs to be kept in mind, especially since much prevention takes place well in advance of the expected occurrence of problems. Such evaluations may benefit the particular effort, but are most valuable to the prevention field as a whole. As noted above, outcome evaluations are critical to distinguishing effective strategies from those that have no impact on participants' substance use behavior or that produce negative or "boomerang" effects (e.g., higher use rates for program participants as compared to controls). Outcome evaluations provide important information for choosing the most effective strategies and using scarce prevention resources most efficiently.

6. Maximizing Effectiveness Potential: A Checklist and Summary Profile

The guidelines presented in this document are suggested by the scientific literature and the experiences of prevention planners and practitioners. However, no single set of principles, guidelines, or benchmarks can be applied universally and perfectly to every prevention effort in every circumstance.

The SAMHSA Center for Substance Abuse Prevention believes that the 10 guidelines presented here represent the conditions necessary to increase the probability for selecting and implementing successful prevention efforts with measurable outcomes.

Chances of measurable success are enhanced if a prevention effort

- is attentive to the target population;
- has clear and realistic goals;
- is supported by a defensible conceptual framework and empirical evidence;
- encourages inclusive participation and integration with other systems;
- structures the effort appropriately;
- pays attention to timing, intensity, and duration of the intervention;
- attends to quality of delivery; and
- is committed to process and outcome evaluation.

So far, we have been considering each guideline separately. Obviously, however, the guidelines must be used in combination. To accomplish this, we have condensed the guidelines into a checklist and summary profile that can help prevention planners to select, plan, and implement prevention strategies. Before presenting the checklist, two points need to be emphasized.

First, all of the guidelines are multifaceted. Take, for example, Guideline Three—Corroborative Empirical Evidence of Potential Effectiveness. Whether a strategy can be said to adhere to this guideline depends on (1) the strength of the evidence itself (e.g., How many studies have been done? How consistent are the findings? How sound are the methods?); and (2) the relevance of the findings to the strategy and/or target population under consideration (e.g., How similar was the strategy studied to the one planned? How similar was the target population in the study to the one intended for this application?). If an effort has more than one component—for example, the introduction of a school policy on smokeless tobacco and an educational program on the dangers of this form of tobacco use—two or more bodies of empirical evidence will have to be considered. Assessment of corroborative empirical evidence is not necessarily a simple task.

Second, the guidelines are important in different ways. For example, if a strategy lacks conceptual soundness, high ratings on inclusion and quality of implementation may not make an inherently unsound strategy effective. Implementers may need to reconceptualize the effort. On the other hand, a poorly implemented strategy may yield disappointing results no matter how conceptually sound. While fundamental changes in the strategy may not be necessary, improvements in implementation must occur if effectiveness is to be maximized. In addition, some guidelines are more relevant to some strategies than to others. To take just one example, system integration may be crucial to an enforcement strategy: law enforcement agencies, courts, local news media, and others must cooperate and coordinate for maximum effect. By contrast, this type of cooperation may be less relevant to a ban on cigarette advertising, which might conceivably take place as the result of a law.

The simple checklist and the summary profile are not intended to result in reliable and valid ratings of the important aspects of prevention efforts, nor do they preclude the need for careful process and outcome evaluations of the strategy ultimately chosen. Rather, the assessment of an effort serves as a framework for discussion among informed and

interested individuals and as a tool for identifying areas of strength and weakness. For each guideline, the key question is the extent to which the given strategy fulfills the requirements. In this way various nuances such as those suggested above can be explored. Should a new strategy be adopted? Can an existing strategy be improved by modifications and adjustments? Should an ongoing strategy be abandoned? The purpose of the analysis, of course, is to inform a variety of decisions concerning prevention strategies.

A checklist and a summary profile. For each of the 10 guidelines and its accompanying recommendations, a checklist of action steps has been constructed. A planned or existing prevention strategy can be assessed based on whether these action steps have been completed. In some cases, if the strategy has not yet been implemented, some items on the checklist may not yet have been carried out. In these cases, the assessment should consider whether these steps are planned for and whether it would be possible to incorporate them easily into the proposed strategy.

The checklist can be used for a variety of purposes. It can be used by decisionmakers to select an approach from a variety of existing prevention strategies simultaneously under consideration. In this case, a comparison of individual assessments across the different options can identify which of the proposed strategies most closely adheres to the guidelines and recommendations and holds the most promise for producing desired results. For the purpose of selection, guidelines one through four may be most relevant (examining empirical evidence, conceptual soundness, etc.), while many of the guidelines in the second and third domains would be applicable after a decision had been made to implement a particular strategy.

The checklist can also be used to design an entirely new prevention effort. In this case, the guidelines and recommendations would provide a framework for focusing attention on important issues to consider and action steps to take in the planning, development, and implementation phases.

Checklist of Prevention Guidelines

Directions

For each of the 10 prevention guidelines, a series of questions has been developed for the prevention effort being evaluated. Please read each item, and (either individually or in a group) check the appropriate box to indicate whether or not the issue has been addressed. Answers to these questions are subjective, and differences between raters are expected. As such, the checklist ratings and computed scores should be used as a general index of the extent to which a prevention effort addresses these issues and for identifying areas for improvement. Each "no" answer should be given a score of 0. Each "yes" answer should receive a score of 1 for all guidelines except guideline three. Because only three (rather than six) questions relate to guideline three, give each "yes" a score of 2. Thus, for each guideline, scores will range from 0 to 6. Scores of 0 to 2 are considered low, 3 to 4 medium, and 5 to 6 are high. After completing all items on the checklist and computing total scores for each guideline, a simple bar graph can be used to visually display the results and identify areas requiring further attention.

Applied to a current or ongoing prevention strategy, the checklist can be used to identify strengths and weaknesses and determine where adjustments may need to be made in order to enhance the likelihood of success. As with designing a new approach, use of the checklist to assess an ongoing effort would utilize guidelines across all three domains. Thus, an analysis of an existing effort may indicate that insufficient attention has been paid to issues of conceptual soundness (domain 1), inclusive participation (domain 2), or quality of delivery (domain 3). Information from the assessment can then be used to make appropriate changes to improve the effort.

Based on the extent to which the action steps for each guideline have been carried out (or are addressed in the implementation plan), the proposed or actual effort can be given a score of high, medium, or low on each of the guidelines. The goal, of course, is for the effort being assessed to score high on each guideline. When some scores are low, however, different decisions and actions are called for depending on where the low scores are. Following the checklist are three examples of possible profiles and what kind of action might be called for in each case, plus a blank profile for duplication and use by the reader.

1. Knowledge of the Target Population

Recommendation 1.1. Base the prevention effort on a clear understanding and definition of the populations and groups to be influenced and a careful consideration of their patterns of substance use, cultures, value systems, and likelihood of responsiveness to the effort.

1. Has the target population been defined by age, gender, socioeconomic status, and cultural and religious characteristics?
 Yes No
2. Have the cultural characteristics of the target population been considered, including traditions, customs, communication patterns, and so on?
 Yes No
3. Have patterns of substance use been examined?
 Yes No
4. Have values and attitudes been considered?
 Yes No
5. Has the likelihood that the target population will respond to the prevention effort been assessed?
 Yes No
6. Are mechanisms in place to monitor the continued appropriateness of the strategy for the target population over time?
 Yes No

2. Clarity and Realism of Expected Results

Recommendation 2.1. Focus the prevention effort on specific, realistic goals.

1. Has clear focus on realistic goals been maintained?
 Yes No
2. Has the potential "reach" of the effort been considered?
 Yes No
3. Has the potential "strength" of the effort been considered?
 Yes No

Recommendation 2.2. Consider the goals of a specific prevention effort in the context of the larger prevention goals of the community, State, or Nation.

4. Have specific goals of the effort been defined?
 Yes No
5. Have general prevention goals been defined, and are specific goals of the effort coordinated with them?
 Yes No
6. If it is clear that prevention goals cannot be achieved, has the effort been reexamined?
 Yes No

3. Corroborative Empirical Evidence of Potential Effectiveness

Recommendation 3.1. When available, gather and use reliable empirical evidence of effectiveness from comparable programs to select and guide the current effort.

1. Have previous experiences with this type of effort been identified?
 Yes No
2. Has evaluation evidence of effectiveness been identified?
 Yes No
3. Has the methodological soundness of previous evaluations been assessed?
 Yes No

4. Conceptual Soundness

Recommendation 4.1. Use a logical conceptual framework to connect the prevention effort with its intended results and ultimately with the overall goal of reducing substance abuse.

1. Have logical connections between prevention activities and prevention goals been identified?
 Yes No
2. Has support for other well-established theories been examined?
 Yes No
3. Have plans been made to update the effort should new information become available?
 Yes No

Recommendation 4.2. Base the conceptual framework used to explain the prevention effort on existing knowledge, and refine or revise the framework as needed to reflect new learning from public health, behavioral sciences, and other fields.

4. Have issues of causation versus correlation been considered?
 Yes No
5. Has the nature of motivation to use alcohol and drugs been considered?
 Yes No
6. Have intermediary factors that link prevention with use been considered?
 Yes No

5. Inclusive Participation

Recommendation 5.1. Include in the prevention effort activities that secure and maintain buy-in of key decisionmakers and leaders as well as of those organizations and individuals who directly or indirectly will be responsible for implementing the effort.

1. Have key decisionmakers in the target area been identified?
 Yes No
2. Are key decisionmakers actively involved in planning and executing the effort?
 Yes No
3. Have formal and informal leaders been identified?

Yes

No

4. Have formal and informal leaders been involved in planning and executing the effort?

Yes

No

5. Where appropriate, have recipients of the prevention strategy been involved in planning and implementation?

Yes

No

6. Have cultural issues been considered in efforts to foster inclusive participation?

Yes

No

6. System Integration

Recommendation 6.1. Design and implement the prevention effort to build on and, in turn, support related prevention efforts.

1. Have other related prevention efforts in the target area been identified?

Yes

No

2. Has the effort been designed and carried out in coordination with other prevention efforts?

Yes

No

3. Have opportunities to maximize effectiveness by building on other efforts been identified?

Yes

No

Recommendation 6.2. Design and implement the prevention effort with consideration for the strains that it may place on different parts of the system.

4. Have possible system strains caused by the effort been planned for?

Yes

No

6. Have ways to minimize or avoid system strains been planned?

Yes

No

6. Have representatives from other parts of the system been included in the planning process?

Yes

No

7. Appropriate Structuring of the Effort

Recommendation 7.1. Carry out the prevention effort through activities consistent with the availability of personnel, resources, and realistic opportunities for implementation.

1. Has the effort been segmented into manageable components?

Yes

No

2. Are components designed to strengthen each other?

Yes

No

3. Has the planning for the overall effort been centralized and coordinated?

Yes

No

4. Have the budget, staff, and activities been decentralized?

Yes

No

Recommendation 7.2. Create opportunities for the exercise of leadership across a broad range of participants.

5. Have participants been involved as leaders?

Yes

No

6. Have leadership roles been used as opportunities to broaden participation and investment in the effort?

Yes

No

8. Appropriateness of Timing, Intensity, and Duration

Recommendation 8.1. Time the prevention effort so that implementation coincides with a period of peak community concern or the target population's readiness for the change intended.

1. Has full advantage been taken of transient opportunities and "teachable moments"?

Yes

No

2. Has the effort capitalized on dramatic current events while maintaining a measured, rational approach?

Yes

No

3. Has readiness to address controversial problems or difficult strategies been carefully assessed?

Yes

No

Recommendation 8.2. Design the prevention effort for delivery with sufficient intensity (in exposure, breadth, and impact) to produce its intended results and be applied over appropriate duration so that these results can be sustained.

4. Has the intensity of the effort been matched to the intensity of the problem and its causes?

Yes

No

5. Has the effort been maintained or repeated over a long enough period to maintain effectiveness?

Yes

No

6. Have efficient ways been found for applying "booster" interventions?

Yes

No

9. Attention to Quality of Delivery

Recommendation 9.1. Design and implement the prevention effort for the highest possible quality in each step of its execution.

1. Has the highest quality of implementation been planned?

Yes

No

2. Have important implementation features been identified?

Yes

No

3. Has each implementation feature been planned and executed for highest quality?

Yes

No

4. Has attention been paid to staff characteristics and qualifications?

Yes

No

5. Has attention been paid to management issues?

Yes

No

6. If necessary, has the effort been reshaped to respond to changing events and opportunities?

Yes

No

10. Commitment to Evaluation and Effort Refinement

Recommendation 10.1. Pay adequate attention to monitoring and process and outcome evaluation.

1. Has the effort been planned with monitoring and evaluation in mind?
 Yes No
2. Has outcome evaluation been conducted to measure success of the effort in producing desired results?
 Yes No
3. Has the evaluation been integrated into the effort?
 Yes No
4. Has the effort been continuously monitored?
 Yes No
5. Have careful records been kept and used in assessing the effort?
 Yes No
6. Has information from monitoring and evaluation been fed back to improve the effort?
 Yes No

In the first summary profile example, the effort scores low on most of the guidelines in the first domain (clarity and realism of expected results, evidence of empirical support, and conceptual soundness of the effort) and medium on knowledge of the target population. Scores in the second domain are generally high. High ratings are obtained on inclusive participation and system integration, and a medium rating is given to appropriate structuring of the effort. Ratings for two of the three guidelines related to implementation are low (appropriateness of timing, intensity, and duration and commitment to evaluation), while the rating for quality of delivery is medium.

The first example might be a profile for a community effort that is based on strong community motivation and commitment but that did not take heed of previous experience and research. In this situation, it would be desirable to capitalize on the strengths of the effort (the commitment and cooperation in the community) and overcome the weaknesses (poor conceptual and empirical base). It may be necessary to rethink or even abandon the specific strategies being implemented; the effort may be so inappropriate or flawed that success is highly unlikely. The strong organizational structure and community cooperation could then be refocused to efforts with a greater likelihood of effectiveness. This redirection would have to be handled skillfully. Community members are sometimes inclined to distrust research findings that conflict with their beliefs about their own community. Hence, they may not agree that a strategy would not work until they try it for themselves (Kibel and Holder, in press). A delicate balance must be maintained in redirecting the effort away from a strategy that is unlikely to be successful while not destroying the enthusiasm and commitment that is needed to make any strategy work.

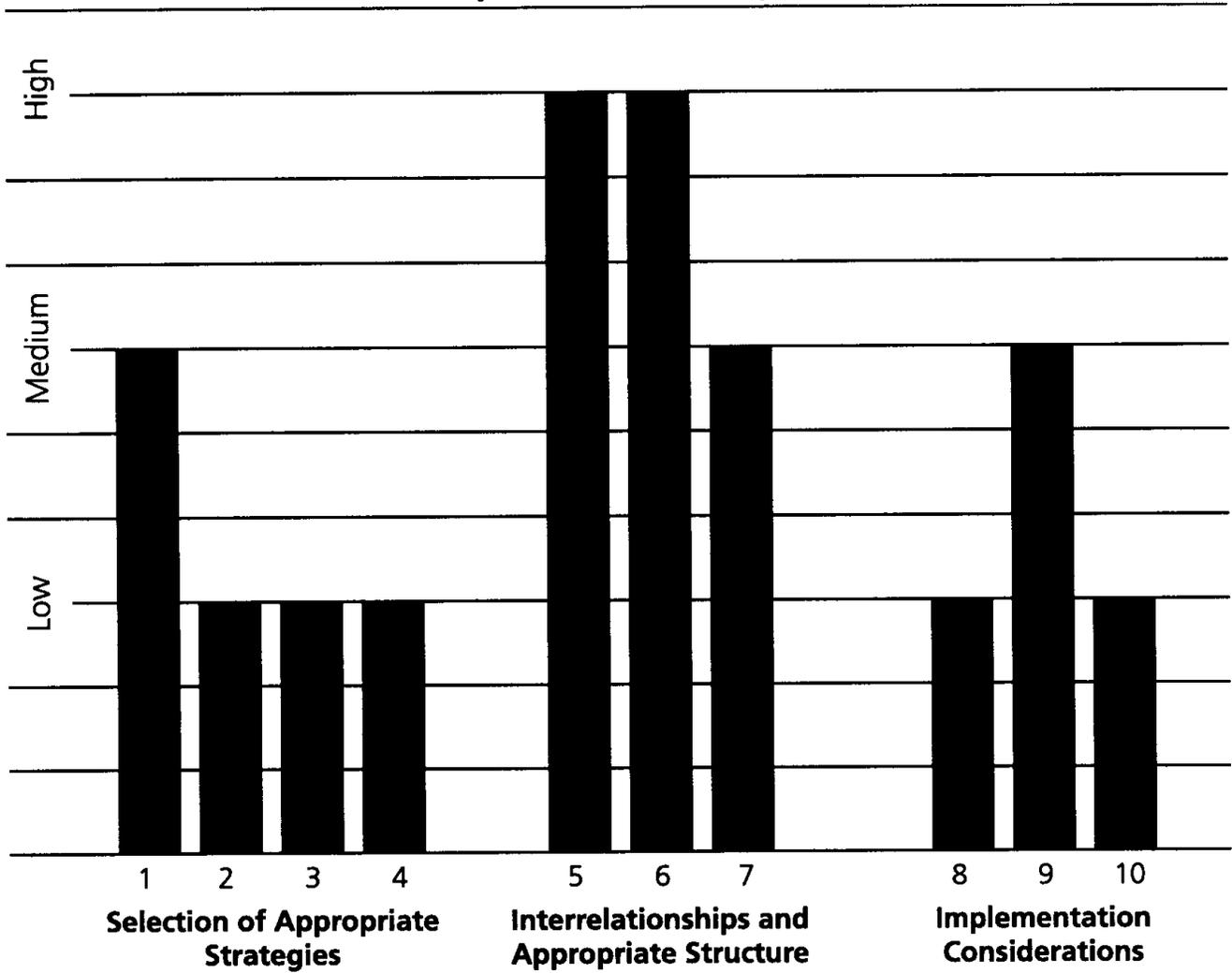
In the second example, the effort scores relatively well on most of the guidelines in the first and third domains; but it scores poorly on guidelines having to do with the coordination, cooperation, and involvement of a variety of leaders and participants. These scores might be typical of an effort that is designed and implemented by one agency or individual without much attention to community structural or organizational issues. Some efforts of this type might succeed—at least in the short run. For example, based on the leadership of one person, the city council might pass an ordinance banning cigarette vending machines. This action by itself might have an effect on smoking, especially among minors. Without a broader, more coordinated effort with greater community buy-in, however, youth might find other sources of tobacco or a backlash movement might develop later to overturn the ordinance. A scoring profile of this type would call for greater attention to inclusion and coordination in order to maximize the effectiveness of the effort.

In the third example, the effort scores well in the first domain, medium to high in the second, but low on two of the guidelines in the third. According to this profile, selection of current strategies has been guided by theory and/or empirical evidence, and a moderate amount of attention has been placed on issues of inclusion and coordination. Continued emphasis on cooperation and integration with other prevention efforts in the community and on appropriate structuring of activities may increase the scores in the second domain. The uniformly low scores on implementation

indicate that significant adjustments are needed to improve the quality of delivery and to ensure that the timing, intensity, and duration of the effort are appropriate. Also needed to ensure the long-term success of the effort is the incorporation of stronger monitoring and feedback mechanisms, which may provide important process and outcome data for the continuous assessment and, if necessary, refinement of the effort.

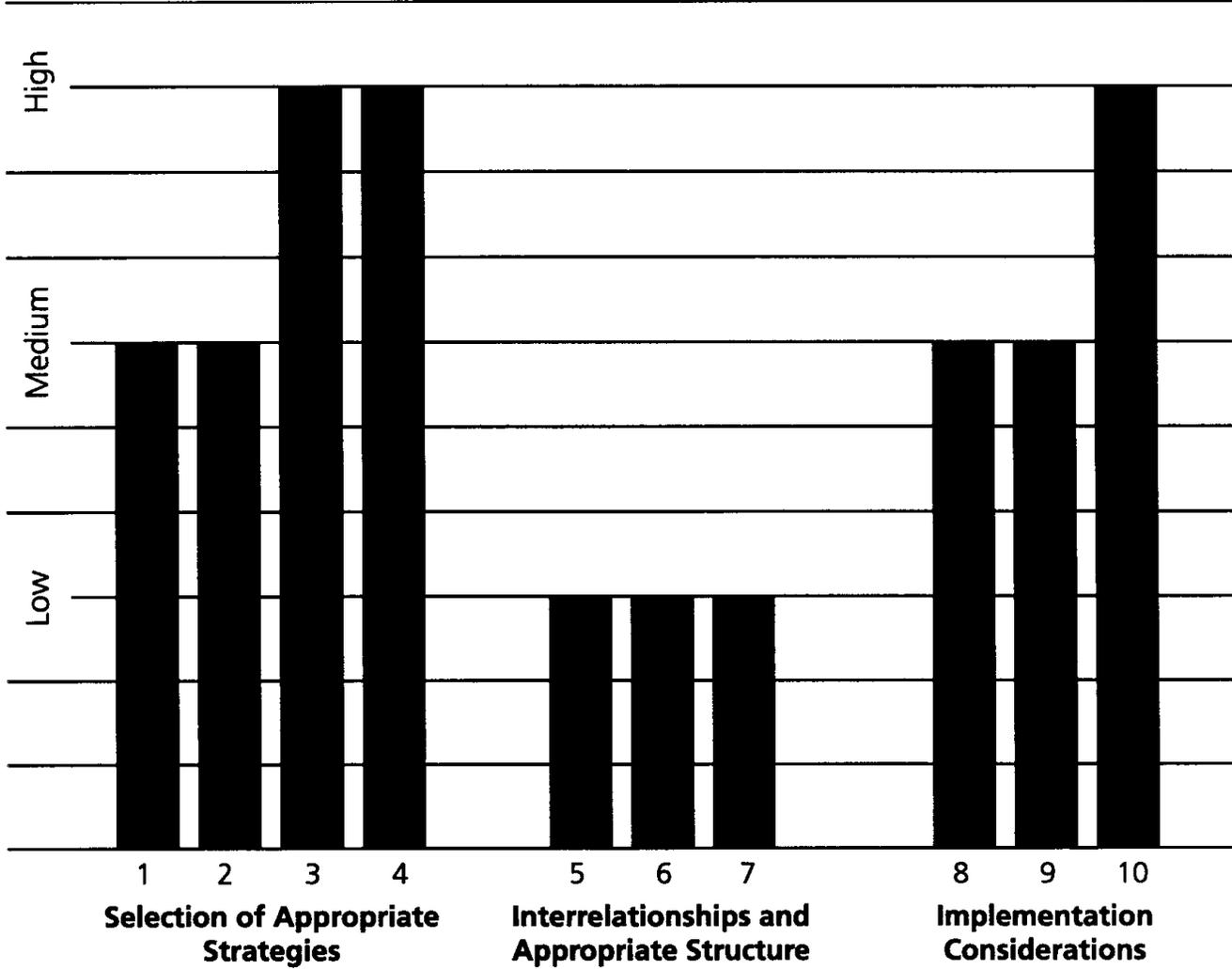
As these examples illustrate, different scoring profiles have different action implications. It is hoped that a thorough discussion of an effort's strengths and weaknesses, guided by the guidelines and recommendations included in this document, will lead to better informed decisions, more efficient use of resources, and ultimately to more effective prevention.

Example 1: Summary Profile



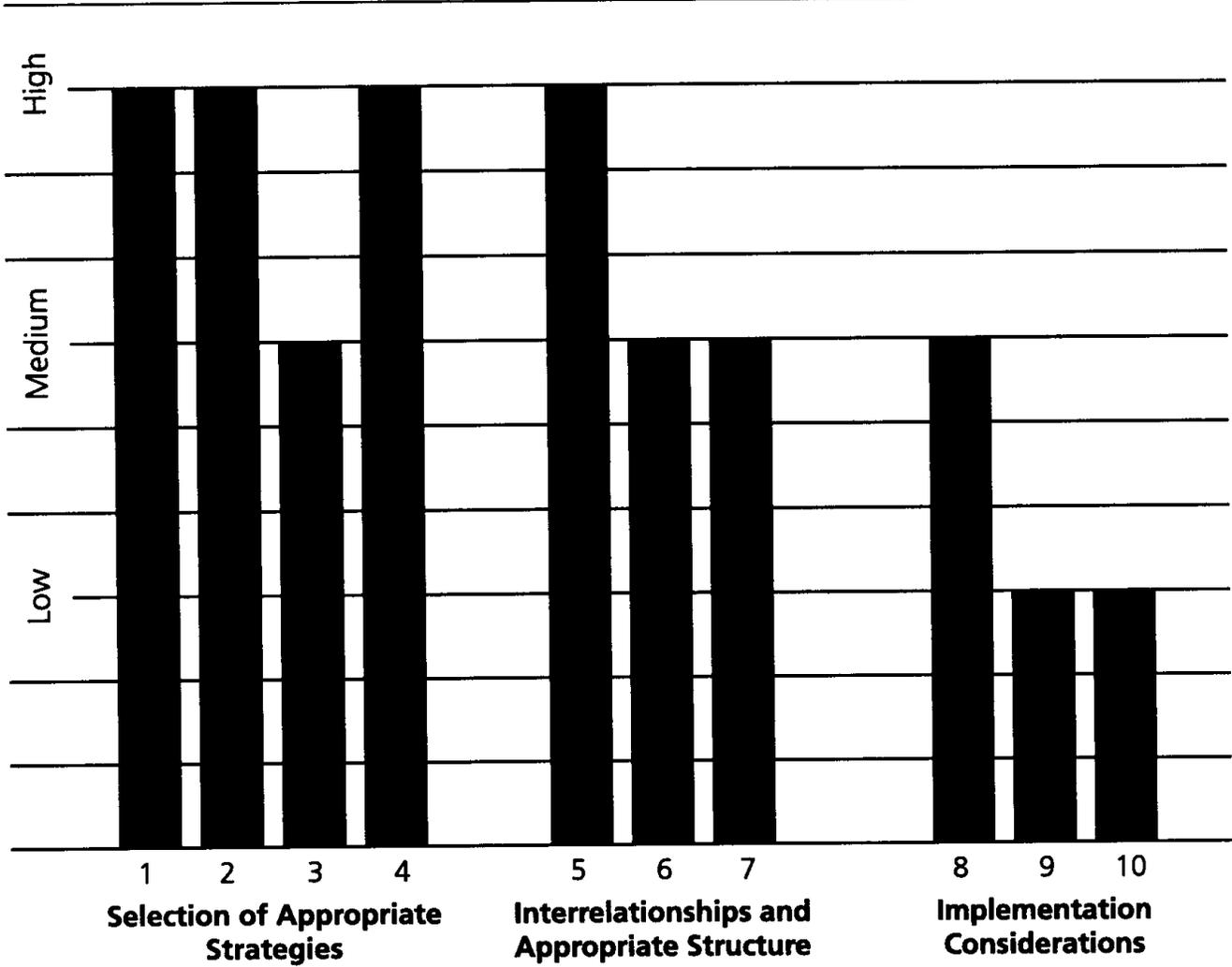
Guidelines

Example 2: Summary Profile



Guidelines

Example 3: Summary Profile



Guidelines

Guidelines for Effectiveness

Selection of Appropriate Strategies

1. Knowledge of the Target Population
2. Clarity and Realism of Expected Results
3. Corroborative Empirical Evidence of Potential Effectiveness
4. Conceptual Soundness

Interrelationships and Appropriate Structure

5. Inclusive Participation
6. System Integration
7. Appropriate Structuring of the Effort

Implementation Considerations

8. Appropriateness of Timing, Intensity, and Duration
9. Attention to Quality of Delivery
10. Commitment to Evaluation and Effort Refinement

Benchmarks Profile Form

High

Medium

Low

1

2

3

4

5

6

7

8

9

10

**Selection of Appropriate
Strategies**

**Interrelationships and
Appropriate Structure**

**Implementation
Considerations**

Guidelines

Summary

Researchers, policymakers, and concerned citizens agree that the reduction of substance abuse is critical to the Nation's health. As the momentum shifts toward a public health and preventive approach to substance abuse problems, the issue of effectiveness looms ever larger. Over the years, as prevention has matured as a science, a growing body of evaluation and analysis has been conducted. From the available evidence (e.g., CSAP 1995a), prevention works. Questions are frequently raised, however, regarding how best to set priorities for the expenditure of scarce prevention resources in order to maximize the potential for effectiveness of prevention approaches.

This document is a simple, condensed presentation of guidelines and recommendations associated with promising prevention efforts. It reflects the best knowledge available and affords States, communities, and prevention professionals a framework for assessing present and future efforts.

We have learned a great deal in the past decades about the best ways of preventing substance abuse. The array of available prevention strategies ensures that feasible options are within reach of any person wishing to become involved with prevention—as a parent, friend, concerned citizen, professional, or policymaker. The guidance that emergent research and field experience provide can help government agencies, communities, and citizens make full use of these strategies.

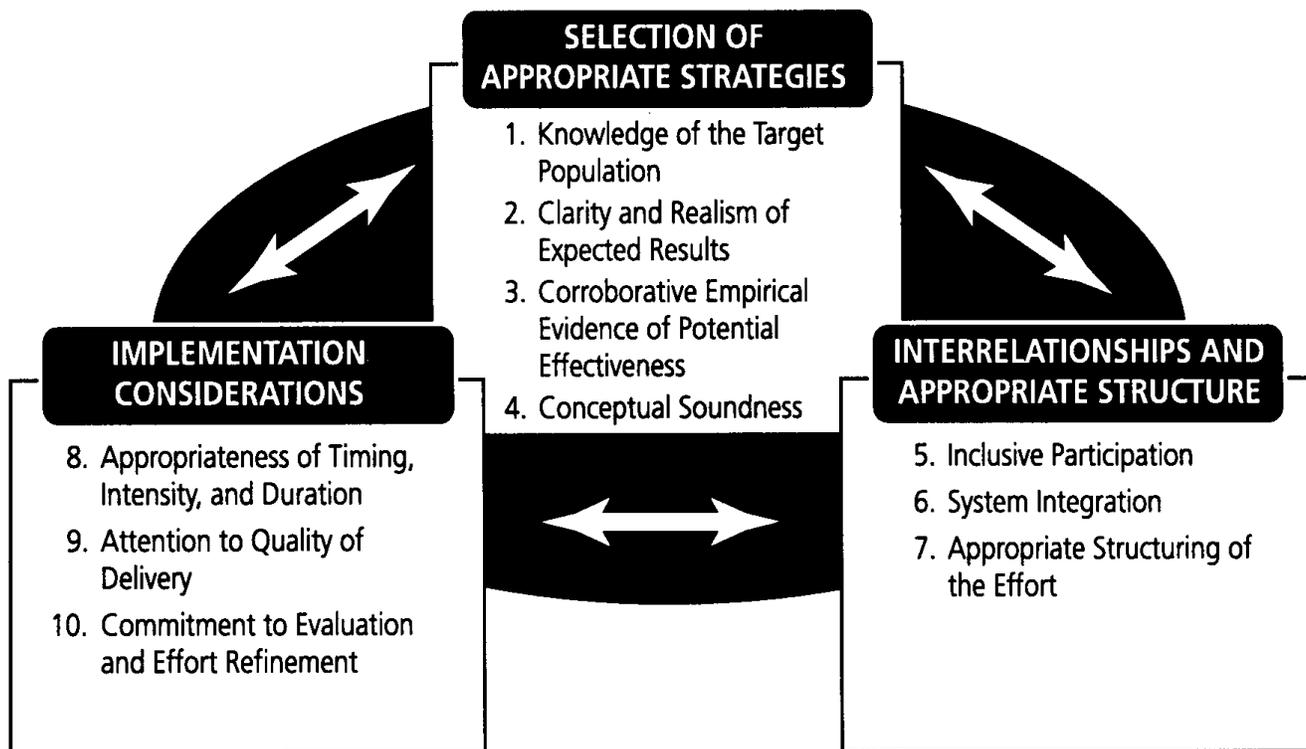
The options should not be accepted uncritically, however. Some strategies have strong evidence of effectiveness; others do not. Some are appropriate for all target groups; others must be changed to reflect the unique values or traditions of specific target groups. Some can be borrowed and used almost intact; others must be customized before use and refined during use to account for local dynamics. Even if a strategy is appropriate, the quality of implementation may contribute to its success or failure.

To help provide guidance, this document introduces a set of guidelines that can be used to promote effective prevention programming. The guidelines are intended to be helpful in sorting through the variety of possible strategies and assessing their feasibility and potential efficacy. These guidelines can be used to assess the relative promise of existing prevention efforts, to plan and design new prevention efforts, or to identify areas for change in ongoing prevention efforts. The guidelines are designed to be applied in situations in which prevention planners are designing or choosing from specific strategies in order to respond to needs that have already been identified, or in which a strategy is already in place and there is the desire to strengthen and improve it.

The following figure illustrates the 10 guidelines as three interrelated domains. To the extent that any guidelines are neglected, the strength of the prevention planning effort may be compromised. In general, the sequence of the domains and guidelines reflects the progression of planning and execution of prevention efforts.

The guidelines fall into three domains of an assessment process. The first domain consists of four guidelines falling under the general category of *selection of appropriate strategies*. These guidelines place the prevention effort on the surest possible footing by assessing the strategy's appropriateness for the desired goals and target population, its previous record of success, and its conceptual soundness. The second domain consists of three guidelines that focus on *interrelationships and appropriate structure*. They address issues related to getting the right mix of people and organizations involved in the effort in appropriate ways. Finally, in the third domain, the last three guidelines address *implementation considerations*. They emphasize the importance of the nature and quality of implementation as well as of monitoring and evaluation as integral components of the overall effort.

The preceding chapters provide detailed descriptions of the guidelines and associated recommendations. They include many examples of successful and unsuccessful applications to a wide range of prevention efforts. A checklist that can be used in applying the guidelines to a specific prevention effort is presented in chapter six.



References

- Alexander, C.; Neis, H.; Anninou, A.; and King, I. (1987). *A New Theory of Urban Design*. New York: Oxford University Press.
- Alinsky, S.D. (1971). *Rules for Radicals: A Practical Primer for Realistic Radicals*. New York: Vintage Books.
- Bangert-Drowns, R.L. (1988). The effects of school-based substance abuse education: A meta-analysis. *Journal of Drug Education* 18(3):243-264.
- Blomberg, R.D. (1993). Lower BAC limits for youth: Evaluation of the Maryland .02 law. In: *Alcohol and Other Drugs: Their Role in Transportation*. Transportation Research Circular No. 413. Washington, DC: National Research Council, Transportation Research Board, pp. 25-27.
- Botvin, G.J.; Baker, E.; Dusenbury, L.; Botvin, E.M.; and Diaz, T. (1995). Long-term follow-up results of a randomized drug abuse prevention trial in a white, middle-class population. *Journal of the American Medical Association* 273(14):1106-1112.
- Brown, J.H., and Horowitz, J.E. (1993). Deviance and deviants: Why adolescent substance use prevention programs do not work. *Evaluation Review* 17(5):529-555.
- Center for Substance Abuse Prevention. (1995a). *CSAP Statistical Bulletin: Drug-Free for a New Century: A Chart Book by the Center for Substance Abuse Prevention*. Rockville, MD: Center for Substance Abuse Prevention.
- Center for Substance Abuse Prevention. (1995b). *Cultural Competence for Evaluators: A Guide for Alcohol and Other Drug Abuse Prevention Practitioners Working With Ethnic/Racial Communities*. CSAP Cultural Competence Series 1. DHHS Pub. No. (SMA)95-3066. Rockville, MD: Center for Substance Abuse Prevention.
- Centers for Disease Control. (1993). Cigarette smoking among adults—United States, 1991. *Morbidity and Mortality Weekly Report* 42(12):230-233.
- Cohen, A.Y. (1991). *Volunteers in Prevention: Voluntarism and Community Service as Immunization Against Substance Abuse*. Bethesda, MD: Potomac Press.
- Communities for Tobacco-Free Kids: Drawing the Line. (1996). Materials from May 29/30 conference, Chicago.
- Cook, R.F.; Lawrence, H.; Morse, C.; and Roehl, J. (1984). An evaluation of the alternatives approach to drug abuse prevention. *International Journal of the Addictions* 19(7):767-787.
- Flay, B.R.; Koepke, D.; Thomson, S.J.; Santi, S.; Best, A.; and Brown, S. (1989). Six-year follow-up of the first Waterloo school smoking prevention trial. *American Journal of Public Health* 79(10):1371-1376.
- Goldstein, H. (1990). *Problem-Oriented Policing*. New York: McGraw-Hill.
- Gottfredson, D.C. (1986). An empirical test of school-based environmental and individual interventions to reduce the risk of delinquent behavior. *Criminology* 24(4):705-731.
- Gottfredson, G.D. (1984). A theory-ridden approach to program evaluation: A method for stimulating researcher-implementer collaboration. *American Psychologist* 39(10): 1101-1112.
- Green, L., and Kreuter, M. (1991). *Health Promotion Planning: An Educational and Environmental Approach*. Mt. View, CA: Mayfield Publishing Company.
- Grossman, M.; Coate, D.; and Arluck, G.M. (1987). Price sensitivity of alcoholic beverages in the U.S.: Youth alcohol consumption. In: Holder, H.D., ed. *Control Issues in Alcohol Abuse Prevention: Strategies for States and Communities*. Suppl. 1. Greenwich, CT: JAI Press, pp. 169-198.
- Hawkins, J.D.; Catalano, R.F.; and Miller, J.L. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin* 112(1):64-105.

- Hawkins, J.D.; Lishner, D.M.; Jenson, J.M.; and Catalano, R.F. (1987). Delinquents and drugs: What the evidence suggests about prevention and treatment programming. In: Brown, B.S., and Mills, A.R., eds. *Youth at High Risk for Substance Abuse*. DHHS Pub. No. (ADM)87-1537. Rockville, MD: National Institute on Drug Abuse, pp. 81-131.
- Holder, H.D. (1992). Undertaking a community prevention trial to reduce alcohol problems: Translating theoretical models into action. In: Holder, H.D., and Howard, J.M., eds. *Community Prevention Trials for Alcohol Problems: Methodological Issues*. Westport, CT: Praeger Publishers, pp. 227-243.
- Holder, H.D. (1993). Prevention of alcohol-involved traffic crashes. In: *Alcohol and Other Drugs in Transportation: Research Needs for the Next Decade*. Transportation Research Circular No. 408. Washington, DC: National Research Council, Transportation Research Board, pp. 85-105.
- Hu, T.; Keeler, T.; Sung, H.; and Barnett, P. (1995). The impact of California anti-smoking legislation on cigarette sales, consumption, and prices. *Tobacco Control* 4 (suppl 1):S34-S38.
- Institute for Health Policy, Brandeis University. (1993). *Substance Abuse: The Nation's Number One Health Problem: Key Indicators for Policy*. Princeton, NJ: Robert Wood Johnson Foundation.
- Jason, L.A. (1991). Participating in social change: A fundamental value for our discipline. *American Journal of Community Psychology* 19(1):1-16.
- Jessor, R. (1987). Problem-behavior theory, psychosocial development, and adolescent problem drinking. *British Journal of Addiction* 82(4):333-334.
- Johnston, L.D.; O'Malley, P.M.; and Bachman, J.G. (1995). *National Survey Results on Drug Use From the Monitoring the Future Study, 1975-1994: Volume 1, Secondary School Students*. NIH Publication No. 95-4026. Washington, DC: U.S. Government Printing Office.
- Kibel, B.M. (1995). "Imagine and Create!!: Enhancing Community Life Through Open Systems Planning-for-Action." Unpublished manuscript. Bethesda, MD: Pacific Institute for Research and Evaluation.
- Kibel, B.M., and Holder, H.D. (in press). Community-based drug abuse prevention. In: *Drug Abuse Prevention: Sourcebook on Strategies and Research*. Westport, CT: Greenwood Publishing Group.
- Kilmann, F.H., and Kilmann, I. (1989). *Managing Beyond the Quick Fix: A Completely Integrated Program for Creating and Maintaining Organizational Success*. San Francisco: Jossey-Bass.
- Klitzner, M. (1987). An assessment of the research on school-based prevention programs. In: *Report to Congress and the White House on the Nature and Effectiveness of Federal, State, and Local Drug Prevention/Education Programs*. Washington, DC: U.S. Department of Education, Office of Planning, Budget, and Evaluation.
- Klitzner, M. (1993). A public health/dynamic systems approach to community-wide alcohol and other drug initiatives. In: Davis, R.C.; Lurigio, A.J.; and Rosenbaum, D.P., eds. *Drugs and the Community: Involving Community Residents in Combatting the Sale of Illegal Drugs*. Springfield, IL: Charles C. Thomas Publisher, pp. 201-224.
- Klitzner, M.; Vegega, M.; and Gruenewald, P. (1988). An empirical examination of the assumptions underlying youth drinking/driving prevention programs. *Evaluation and Program Planning* 11(3):219-235.
- Lengel, A. (1989). Mentor/mentee: Someone in my corner. *Gifted Child Today* 12(1): 27-29.
- Levy, D., and Sheflin, N. (1985). The demand for alcoholic beverages: An aggregate time series analysis. *Journal of Public Policy and Marketing* 4:47-54.
- Lorion, R.P.; Price, R.H.; and Eaton, W.W. (1989). The prevention of child and adolescent disorders: From theory to research. In: Shaffer, D.; Philips, I.; Enzer, N., eds. *Prevention of Mental Disorders, Alcohol and Other Drug Use in Children and Adolescents*. OSAP Prevention Monograph-2. DHHS Pub. No. (ADM)90-1646. Rockville, MD: Office for Substance Abuse Prevention, pp. 55-96.
- Malvin, J.H.; Moskowitz, J.M.; Schaps, E.; and Schaeffer, G.A. (1985). Evaluation of two school-based alternatives programs. *Journal of Alcohol and Drug Education* 30(3):98-107.

- Manley, M.; Glynn, T.; and Shopland, D. (1994). The impact of cigarette excise taxes on smoking among children and adults. In: Information Exchange Conference: Breaking the Grip of Tobacco State by State. May 16-17, San Francisco, CA: pp. 42-52.
- McKnight, A.J., and Streff, F.M. (1994). The effect of enforcement upon service of alcohol to intoxicated patrons of bars and restaurants. *Accident Analysis and Prevention* 26(1):79-88.
- Moskowitz, J. (n.d.). "School Drug and Alcohol Policy: A Preliminary Model Relating Policy and Implementation to School Problems." Unpublished manuscript. Berkeley, CA: Prevention Research Center.
- National Highway Traffic Safety Administration. (1993). *Enforcement of Underage Impaired Driving Laws: Issues, Problems and Recommended Solutions*. Washington, DC: National Highway Traffic Safety Administration.
- Office of National Drug Control Policy. (1995). *National Drug Control Strategy: Strengthening Communities' Response to Drugs and Crime*. Washington, DC: U.S. Government Printing Office.
- Office for Substance Abuse Prevention. (1989). *Prevention Plus II: Tools for Creating and Sustaining Drug-Free Communities*. DHHS Pub. No. (ADM)89-1649. Rockville, MD: Office for Substance Abuse Prevention.
- Office for Substance Abuse Prevention. (1991a). *The Future by Design: A Community Framework for Preventing Alcohol and Other Drug Problems Through a Systems Approach*. DHHS Pub. No. (ADM)91-1760. Rockville, MD: Office for Substance Abuse Prevention.
- Office for Substance Abuse Prevention. (1991b). *Prevention Plus III: Assessing Alcohol and Other Drug Prevention Programs at the School and Community Level: A Four Step Guide to Useful Program Evaluation*. DHHS Pub. No. (ADM)91-1817. Rockville, MD: Office for Substance Abuse Prevention.
- Patton, M.Q. (1986). *Utilization-Focused Evaluation*. 2nd ed. Beverly Hills, CA: Sage Publications.
- Potapchuk, W.R., and Polk, C.G. (1993). *Building the Collaborative Community*. Washington, DC: National Institute for Dispute Resolution.
- Powers, S.A. (1993). Community responses to drugs: Manhattan and Brooklyn case studies. In: Davis, R.C.; Lurigio, A.J.; and Rosenbaum, D.P., eds. *Drugs and the Community: Involving Community Residents in Combatting the Sale of Illegal Drugs*. Springfield, IL: Charles C. Thomas, pp. 106-122.
- Reid, D.; McNeil, A.; and Glynn, T. (1995). Reducing the prevalence of smoking in youth in western countries: An international review. *Tobacco Control* 4:(3)266-277.
- Ross, H.L. (1985). Detering drunken driving: An analysis of current efforts. *Journal of Studies on Alcohol* 10(Suppl.):122-128.
- Ross, H.L., and LaFree, G. (1986). Deterrence in criminology and social policy. In: Smelser, N.J., and Gerstein, D.R., eds. *Behavioral and Social Science: Fifty Years of Discovery*. Washington, DC: National Academy Press, pp. 129-151.
- Sechrest, L.; West, S.G.; Phillips, M.A.; Redner, R.; and Yeaton, W. (1979). Introduction: Some neglected problems in evaluation research: Strength and integrity of treatments. In: Sechrest, L.; West, S.G.; Phillips, M.A.; Redner, R.; and Yeaton, W., eds. *Evaluation Studies Review Annual*, Volume 4. Beverly Hills, CA: Sage Publications, pp. 15-35.
- Senge, P. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday.
- Siegel, R.K. (1989). *Intoxication: Life in Pursuit of Artificial Paradise*. New York: E.P. Dutton.
- Spencer, L.J. (1989). *Winning Through Participation: Meeting the Challenge of Corporate Change With the Technology of Participation*. Dubuque, IA: Kendall/Hunt.
- Stewart, K., and Voas, R.B. (1994). Decline in drinking and driving crashes, fatalities and injuries in the United States. In: *The Nature of and the Reasons for the Worldwide Decline in Drinking and Driving*. Transportation Research Circular No. 422. Washington, DC: National Research Council, Transportation Research Board, pp. 50-59.

- Sweedler, B.M. (1994). "The United States Priority Programs and Policies in Alcohol and Other Drugs and Transportation." Paper presented at the 73rd Annual Meeting of the Transportation Research Board, Washington, DC, January 12.
- U.S. Department of Health and Human Services. (1991). *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. DHHS Publication No. (PHS)91-50212. Washington, DC: U.S. Government Printing Office.
- Vingilis, E., and Coultres, B. (1990). Mass communications and drinking-driving: Theories, practices and results. *Alcohol, Drugs and Driving* 6(2):61-81.
- Wagenaar, A.C., and Wolfson, M. (1993). Tradeoffs between science and practice in the design of a randomized community trial. In: Greenfield, T.K., and Zimmerman, R., eds. *Experiences With Community Action Projects: New Research in the Prevention of Alcohol and Other Drug Problems*. CSAP Prevention Monograph-14. DHHS Pub. No. (ADM)93-1976. Rockville, MD: Center for Substance Abuse Prevention, pp. 119-129.
- Weick, K.E. (1984). Small wins: Redefining the scale of social problems. *American Psychologist* 39(1):40-49.
- Weingart, S.N. (1993). A typology of community responses to drugs. In: Davis, R.C.; Lurigio, A.J.; and Rosenbaum, D.P., eds. *Drugs and the Community: Involving Community Residents in Combatting the Sale of Illegal Drugs*. Springfield, IL: Charles C. Thomas, pp. 85-105.
- Wheatley, M.J. (1992). *Leadership and the New Science: Learning About Organization From an Orderly Universe*. San Francisco: Berrett-Koehler.
- Wickizer, T.M.; Von Korff, M.; Cheadle, A.; Maeser, J.; Wagner, E.H.; Pearson, D.; Beery, W.; and Psaty, B.M. (1993). Activating communities for health promotion: A process evaluation method. *American Journal of Public Health* 83(4):561-567.
- Wittman, F.D., and Biderman, F. (1993). The California Community Planning Demonstration Project: Experiences in planning for prevention of alcohol problems in four municipalities. In: Greenfield, T.K., and Zimmerman, R., eds. *Experiences With Community Action Projects: New Research in the Prevention of Alcohol and Other Drug Problems*. CSAP Prevention Monograph-14. DHHS Pub. No. (ADM)93-1976. Rockville, MD: Center for Substance Abuse Prevention, pp. 102-114.
- Zador, P.L.; Lund, A.K.; Fields, M.; and Weinberg, K. (1989). Fatal crash involvement and laws against alcohol-impaired driving. *Journal of Public Health Policy* 10:467-485.

Selected CSAP Resources

Publications

- Alcohol Practices, Policies, and Potentials of American Colleges and Universities: A White Paper* (1991). CS01.
- Breaking New Ground for Youth at Risk: Program Summaries*. OSAP Technical Report 1 (1992). 137 pp. BK163.
- Citizen's Alcohol and Other Drug Prevention Directory. Resources for Getting Involved* (1990). 276 pp. BK171.
- Communicating About Alcohol and Other Drugs: Strategies for Reaching Populations at Risk*. OSAP Prevention Monograph-5 (1992). 402 pp. BK170.
- Cultural Competence for Evaluators: A Guide for Alcohol and Other Drug Abuse Prevention Practitioners Working With Ethnic/Racial Communities* (1992). 310 pp. BKD79.
- Drug Prevention Curricula: A Guide to Selection and Implementation* (1988). 65 pp. PHD511.
- Experience With Community Action Projects: New Research in the Prevention of Alcohol and Other Drug Problems*. CSAP Prevention Monograph 14 (1993). 301 pp. BKD87.
- Learning to Live Drug Free: A Curriculum Module for Prevention* (1990). 52 pp. BKDS IB.
- Parent Training Is Prevention* (1993). 184 pp. BK184.
- Preventing Adolescent Drug Use: From Theory to Practice*. OSAP Prevention Monograph-8 (1991). 270 pp. BK185.
- Prevention in Action. 1991 Exemplary Alcohol and Other Drug Prevention Programs* (1991). 20 pp. RP0798.
- The Prevention Pipeline*. Bimonthly journal.
- Prevention Plus 111: Assessing Alcohol and Other Drug Prevention Programs at the School and Community Level* (1991). 470 pp. BK188.
- Prevention Primer: An Encyclopedia of Alcohol, Tobacco, and Other Drug Prevention Terms* (1993). 106 pp. PHD627.
- Prevention Resource Guide: African Americans* (1993). 26 pp. MS459.
- Prevention Resource Guide: Faith Communities* (1993). 24 pp. MS457.
- Prevention Resource Guide: Impaired Driving* (1994). 24 pp. MS434.
- Prevention Resource Guide: Intervention* (1993). 12 pp. MS450.
- Prevention Resource Guide: Prevention in the Workplace* (1993). 33 pp. MS453.
- Prevention Resource Guide: Tobacco* (1993). 22 pp. MS452.
- Prevention WORKS! A Discussion Paper on Prevention of Alcohol, Tobacco, and Other Drug Problems* (1993). 48 pp. RPO813.

Signs of Effectiveness II: Preventing Alcohol, Tobacco, and Other Drug Use: A Risk Factor/Resiliency-Based Approach (1994). 94 pp. PHD679.

Turning Awareness Into Action: What Your Community Can Do About Drug Use in America (1991). 73 pp. (Spanish and English) PHD519.

Understanding Evaluation: The Way to Better Prevention Programs (1993). 98 pp. BKD115.

Youth and Drugs: Society's Mixed Messages. OSAP Prevention Monograph 6 (1990). 174 pp. BK172.

If you would like to

order materials on substance abuse, please contact the National Clearinghouse for Alcohol and Drug Information (NCADI) at 1-800-729-6686 or TDD 1-800-487-4889.

If you have access to the Internet, visit us at our PREVline World Wide Web home page at <http://www.health.org> or send us an e-mail message at info@prevline.health.org. Our Web page provides graphical representations of statistics on substance abuse and costs, formatted publications, the Information on Drugs and Alcohol database, and hyperlinks to other Federal agencies and national organizations involved in substance abuse prevention and treatment.

If you don't have access to the Internet but you have a modem, tap into the PREVline electronic bulletin board system (BBS). Join the 5,000 users who are already exchanging knowledge and obtaining immediate access to new developments in the substance abuse prevention and treatment field. Users can be parents looking for information to help them talk to their kids about drugs, community leaders who are motivated to stop drug abuse in their neighborhood, or prevention specialists researching the role drugs play in violence.

To access the PREVline BBS, simply dial 301-770-0850 and set your modem at 8-N-1 (speed up to 14,400 baud). After connecting to PREVline, for USER ID, type "new" to create your account.

Most NCADI services are available online, including

- Approximately 1,800 downloadable files concerning prevention;
- A public forum where questions and comments can be posted;
- A keyword-searchable online library of research data, scientific studies, and other prevention information;
- NCADI publications catalog; and
- Access to information specialists who can answer questions and place orders for materials.

NCADI is a one-stop access point to the most up-to-date, comprehensive information developed for the prevention and treatment of substance abuse.

NCADI is provided on behalf of the Center for Substance Abuse Prevention, a service of the Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services.