

## Chapter 2:

# Foundations of Substance Abuse Prevention Curricula

*“Every American child will face a conscious choice whether to smoke, drink or use [other] drugs before they graduate from high school. What each chooses will be related to a host of factors, including parental and family engagement, religious and moral values, genetics, learning disabilities and psychological factors. Schools have a unique opportunity to affect two of the critical factors: availability of drugs and students’ perception of risk in using them” (CASA, 2001, p. ii).*

After reading Chapter 2, the reader will be able to:

- ▶ *Define substance abuse prevention.*
- ▶ Describe where substance abuse prevention activities can occur.
- ▶ Describe the difference between school- or community-based substance abuse prevention programs and classroom-based substance abuse prevention curricula.
- ▶ Identify research-based key elements and content areas of effective substance abuse prevention curricula.
- ▶ Explain the importance of interactive activities as part of a successful substance abuse prevention curriculum.

### Overview

Chapter 2 reviews the foundations of substance abuse prevention, including research-based principles of prevention, various types of prevention programs and settings, content areas of a prevention curriculum, key elements of a successful prevention effort, the role of interactive activities in prevention, and various types of interactive activities that can be included in a substance abuse prevention curriculum. Understanding these factors is essential for maximizing the likelihood that prevention efforts implemented in classrooms and other, similar community settings will have their desired impact.

### Defining Prevention

Substance abuse prevention is of particular importance for youth because there is an opportunity to affect destructive habits before they become entrenched

in the lifestyle (Bandura, 1997). Substance abuse prevention encompasses a wide variety of activities aimed at various audiences, with the ultimate goal of preventing, postponing, or reducing substance abuse and the negative outcomes with which it is associated. Prevention efforts can be designed for and directed to children and adolescents who have not used drugs, have been determined to be at high risk for substance abuse, and/or have already begun to experiment with drugs (NIDA, 2003).

### Foundations of Prevention

Although it is less the case in community settings, those who work with youth in school settings are primarily evaluated on and rewarded for their ability to impart knowledge to their students. While teaching in the traditional sense has its place in substance abuse prevention, research findings have indicated that merely delivering factual information in the face of so many social and other influences is insufficient (Bandura, 1997). Consequently, what guides effective substance abuse prevention efforts is not only information about the dangers and effects of different substances, but also theories and findings from relevant research about the content areas and methods that are most likely to influence substance abuse behavior (NIDA, 2003).

Ideally, prevention efforts should be ecological in nature; that is, interventions should influence substance abuse behaviors of individuals at various environmental levels:

- ▶ Intrapersonal—individual characteristics that influence behavior, such as knowledge, attitudes, and beliefs.

- ▶ Interpersonal—social networks (family, peers, roommates, friends) that provide social identity, support, and role definition.
- ▶ Institutional—rules, regulations, policies, and informal structures that may constrain undesirable behaviors or promote recommended behaviors.
- ▶ Community—social networks and norms that may exist formally or informally among individuals or among groups and organizations.
- ▶ Public policy—laws and regulations at the local, state, and Federal levels.

### When Classrooms Are Not in Schools

We refer throughout the *Handbook* to “classroom-based” prevention. In so doing, the word *classroom* denotes any setting—be it a school, community youth group, religious youth group, or other, similar setting—that comprises a group of young people to whom substance abuse prevention curricula can be directed.

This multilevel ecological perspective on prevention should involve interactive approaches to health promotion that stress advocacy, organizational change, policy development, economic support, environmental change, and other elements that influence the various levels of the social and political environment (Sallis & Owen, 2002).

Tobacco control is one area where the ecological approach has demonstrated success. Long-term reductions in smoking rates have been attributed to the combination of multilevel interventions aimed at individuals, social norms, policy, regulations, and reduction in the availability of cigarettes (Sallis & Owen, 2002).

School- and community-based prevention programs are important elements of the ecological approach. Most youth substance abuse prevention programs today are based on one or more theoretical models aimed at individual and/or interpersonal change. Some of the more popular theories targeting intra- and interpersonal change in the substance abuse prevention setting are presented in Table 1. Programs that are most likely to succeed are based on a clear understanding of targeted health behaviors and their social and environmental contexts. Theories are useful in providing a framework for this understanding by: (1) clarifying the nature of targeted

health behaviors, such as substance abuse; (2) explaining potential processes for changing these behaviors; (3) explaining the effects of external influences on the behaviors; and (4) helping identify the most suitable targets for programs, methods for accomplishing change, and outcomes amenable to evaluation.

### A Word About Health Curricula in Schools

The objective of a school health curriculum is to offer an ongoing, sequenced, and developmentally appropriate program that is consistent with community needs and provides at least 50 hours per year of health instruction. Such a program should be based on two factors: (1) local (i.e., within the school) needs; and (2) national data. Whether a school is using an existing health curriculum or developing its own, English and Sancho (1990) recommend evaluating health curricula on goals and objectives of the curriculum, content, teaching strategies, learning activities, materials, time devoted to curriculum implementation, evaluation methods, cultural equity, and gender equity.

### Where Should Substance Abuse Prevention Take Place?

As indicated by the ecological model, substance abuse prevention activities can be directed at individuals and communities in many different contexts and at several different levels. Prevention activities can be as diverse as initiating a public policy decision to raise cigarette sales taxes, broadcasting a radio ad on the dangers of marijuana, opening a class discussion to correct misperceptions among middle school youth about their peers’ substance use, and conducting a 10-minute classroom activity that teaches kindergartners about the differences between safe and unsafe things to put into their bodies.

Studies have shown that there are multiple determinants of substance abuse. Findings from this body of research indicate that familial influence, peer associations and pressure, early antisocial behavior and substance abuse, school experiences, attitudes and beliefs, and personality variables all play significant roles in determining youths’ substance abuse behaviors (Hawkins, Lishner, Catalano, & Howard, 1985). With such a broad array of determinants, prevention researchers recommend implementing substance abuse prevention programs through as many different points of access as possible. Activities should take place in the home, in schools, and in the community in general. Community-based programs can link various organizations—such as schools, universities, daycare centers, religious organizations, youth groups, businesses, and treatment centers—to

**Table 1: Summary of Selected Health Behavior Theories**

Level	Theory	Focus
Intrapersonal (individual)	Stages of Change Model	Individuals' readiness to change or attempt to change toward healthy behaviors
Intrapersonal	Health Belief Model	Individuals' perceptions of the threat of a health problem and the appraisal of recommended behaviors for preventing or managing the problem
Interpersonal	Consumer Information Model	Process by which consumers acquire and use information in their decision making
Interpersonal	Social Learning Theory	Explains behavior via a three-way, dynamic reciprocal theory, in which personal factors, environmental influences, and behavior continually interact

reach all populations; offer a more comprehensive range of services and an expanded menu of prevention activities; and provide a variety of access points to the drug-using population without singling out individuals. Family-based approaches can enhance family bonding and relationships through the improvement of parenting and family management skills; provide parents with drug education and information; and serve as a setting where parents can practice developing and enforcing family rules concerning substance abuse. School-based approaches can enhance children's and adolescents' peer relationships, coping skills, self-control, social behaviors, and drug-offer-refusal skills; these programs provide a ready-made learning environment and accessible audiences encompassing the early through teen years.

This *Handbook* focuses on one of the essential components of comprehensive communitywide prevention programs: substance abuse prevention curricula that can be implemented in classrooms and similar settings within community organizations that serve youth.

### School-Based and Community Organization-Based Programs

Substance abuse prevention programs have been identified as one of the ten content areas necessary to a comprehensive school health education program (American School Health Association, 1994). While they are generally considered to fit within the domain of health education, many substance use prevention programs can also be applied within the context of other academic areas, such as math, science, English, art, and

music. Likewise, many substance abuse prevention activities address National Health Education Standards for Students (Joint Committee on National Health Education Standards, 1995). These requirements include the following areas:

- ▶ Students will comprehend concepts related to health promotion and disease prevention.
- ▶ Students will demonstrate the ability to access valid health information and health-promoting products and services.
- ▶ Students will demonstrate the ability to practice health-enhancing behaviors and reduce health risks.
- ▶ Students will analyze the influence of culture, media, technology, and other factors on health.
- ▶ Students will demonstrate the ability to use interpersonal communication skills to enhance health.
- ▶ Students will demonstrate the ability to use goal-setting and decision-making skills to enhance health.
- ▶ Students will demonstrate the ability to advocate for personal, family, and community health (Joint Committee on National Health Education Standards, 1995).

In addition to meeting such requirements, there are many benefits to basing substance abuse prevention programs in schools. They:

- ▶ Reach a majority of school-aged children and adolescents.
- ▶ Take advantage of the learning environment.
- ▶ Use the teaching skills of the staff.
- ▶ Use resources available in the school/classroom.

### A Word of Caution: Know Your Policies

While schools have multiple advantages as venues for substance abuse prevention programming, prevention practitioners involved in organizing school-based programs should be aware of and follow all requirements for approval of new activities and/or materials in their school or district.

In addition, schools offer opportunities to reach all youth populations and serve as important settings for specific subpopulations at risk for substance abuse, such as young people with behavioral problems and learning disabilities, as well as potential dropouts.

Community-based organizations also have the potential to play a significant role in substance abuse prevention through the use of classroom-based curricula. The factors that draw youth to these organizations, such as similar interests, similar backgrounds, or similar life experiences, can often be used to the advantage of substance abuse prevention efforts. Likewise, staff skills and other organization resources can be channeled into substance abuse prevention activities. These prevention activities can provide the organization with an enhanced or new focus on substance abuse prevention.

### Classroom-Based Prevention: Prevention Curricula vs. Prevention Programs

School-based and other youth organization-based substance abuse prevention programs often include both curricular and extracurricular elements. Prevention *curricula* are composed of substance abuse prevention activities or lesson plans that can be used in a classroom setting. Examples of prevention curricula include group discussions about the risks associated with marijuana use or a class debate on the pros and cons of the legalization of marijuana. Extracurricular activities lend themselves better to use outside the classroom and involve other individuals in the community (e.g., volunteers, parent-teacher associations [PTAs], counselors) in addition to the target group. Examples of extracurricular activities might include individual or group counseling or a PTA-

sponsored, schoolwide drug awareness session for parents and students. School-based *programs* may address the sociocultural environment of the school; evaluate and attempt to limit the availability of drugs on or near school property; address issues such as school connectedness; educate and otherwise involve parents; and include a classroom component aimed at intra- and interpersonal change. Community-based programs can accomplish many of these same kinds of tasks. In cases in which the organization has established strong relationships with other organizations in the community and is highly motivated to make substance abuse prevention a priority, a youth organization may have distinct advantages over a school setting.

School-based and other youth organization-based programs may be part of a larger ecological approach that addresses substance abuse at the community, policy, and other relevant levels. As stated earlier, the emphasis of this *Handbook* is on the development of substance abuse prevention curricula that can be applied in a variety of settings within both school-based and youth organization-based programs. While these efforts will likely achieve better outcomes when implemented in conjunction with and as a component of more comprehensive and ecological programs, substance abuse prevention curricula can play an important role in substance abuse prevention even in the absence of larger, more coordinated efforts.

This *Handbook* is designed to help prevention practitioners select substance abuse prevention activities through which they can build a prevention curriculum that best meets the needs of their particular group of youth. The exercise of building the curriculum incorporates research findings that have identified the most important elements of substance abuse prevention programs and methods by which these can be translated into the selection of substance abuse prevention activities.

### Substance Abuse Prevention Curricula: Targeting Different Stages of Substance Abuse

Because a large number of youth experiment with alcohol, tobacco, and other drugs, substance abuse prevention should target all youth on a regular basis throughout the school year, from elementary school through high school. *Universal* substance abuse prevention programs are targeted to a general population, regardless of the extent to which individuals in that population have

or have not used drugs. A universal program targets all students in a given school or youth organization. However, virtually all prevention practitioners will have in their target population subsets of youth who are at higher risk for the initiation of substance abuse, such as children of alcoholics or those with behavioral problems. These youth would be targeted with *selective* substance abuse prevention programs. *Indicated* substance abuse prevention programs target young people who are already using drugs and aim to decrease, eliminate, and/or, more controversially, minimize the harm that might result from that use. Some prevention programs incorporate all three levels of intervention, while others include only one or two. Substance abuse prevention curricula should reflect the fact that some prevention activities are more appropriate for the general population, while others are designed for at-risk youth or youth who are already engaging in substance abuse. Understanding the risk factors, protective factors, and substance abuse behavior of the target population is the key to helping the practitioner determine the extent to which the prevention curriculum reflects and addresses these different stages of substance abuse. (See Chapter 3 to learn more about assessing target populations and Chapter 4 for a detailed discussion on risk and protective factors.)

#### **A Word of Caution: Grouping High-Risk Teens**

Research indicates that interventions with a peer group of teens who have been identified as high-risk can have negative outcomes. Teen participants can reinforce rather than reduce substance abuse behaviors. Further research is examining how parental and/or positive peer relationships might prevent these effects (NIDA, 2003).

### **Substance Abuse Prevention Should Begin Early**

At what age should substance abuse prevention activities begin? Since risk factors generally exist prior to substance abuse initiation, the answer is: “The earlier, the better.” Kindergarten is not too early to begin laying the foundation for a healthy lifestyle and the ability to make good choices. Fortunately, substance abuse prevention programs can be targeted to individuals of virtually every age. Some points to consider include:

- ▶ Children in kindergarten through grade 3 are still very connected to their parents, want them nearby, and seek their approval. For these reasons, it is helpful to involve parents in substance abuse prevention activities

aimed at this age group by: (1) sending home assignments designed to be engaged in by youth and parents together; (2) inviting parents to join in programs and activities at school; and/or (3) including parents in building curricula.

- ▶ Prevention activities are best started in elementary school and reinforced periodically as youth encounter new social situations and pressures to use drugs. While it is recommended that programs designed to meet the developmental needs of children and adolescents be offered at each grade level, care should be taken not to oversaturate youth to the point that they discount the information.
- ▶ Harm reduction/responsible use is a controversial notion because such activities or programs might seem to give tacit approval to an undesirable behavior. Many programs espouse zero substance abuse as their goal and are vehemently opposed to programs that promote harm reduction or responsible use. A prevention practitioner should be aware of his or her institution’s stance on this issue and choose activities accordingly.

#### **A Word About Risk Factors, Protective Factors, and At-Risk Youth.**

The label “at-risk youth” is often assigned to both gifted and remedial learners who do not fit the mainstream school population. Some authors, however, assert that all youth are at risk for drug use and for failing to achieve their potential. Researchers tell us that the most crucial risk factors for drug use are those that influence a child’s early development within the family, followed closely by those that involve a child’s interaction in environments outside the family, such as school, peer groups, and the community at large. Conversely, protective factors are those that involve strong bonds and clear rules of conduct within the family, successful school performance, and positive relationships with community institutions. (For a comprehensive discussion of protective factors, risk factors, and at-risk youth, see Chapter 4.)

### **Components of an Effective Substance Abuse Prevention Curriculum**

For educators, parents, service providers, and policy makers, the bottom-line questions are: “What works?” and “How do we reach young people and help them live a healthy lifestyle?” There are, of course, no simple answers.

Substance abuse prevention programming has benefited from research conducted over the last 20 years, particularly research about what constitutes effective programs. Mohai (1991), for example, indicates that effective programs are comprehensive; intervention efforts should begin early; different strategies should be included for different populations; and programs should coordinate with a broader, communitywide prevention effort. However, in a recent study of almost 2,000 public and private middle schools, less than 1 in 3 schools was using effective curricula, and only 1 in 5 schools (21 percent) used delivery methods that have been identified as key elements in a classroom-based prevention effort (Ringwalt et al., 2002).

## Critical Elements

According to *Preventing Substance Abuse Among Children and Adolescents: A Research-Based Guide*, National Institute on Drug Abuse (NIDA)-sponsored research has demonstrated 16 core principles for effective substance abuse prevention programs.

In addition, effective prevention programs delve into the reasons people use drugs—e.g., self-discovery, self-expression, or some perceived benefit—and propose realistic alternatives to substance abuse. They avoid exaggeration and hysteria—i.e., they present honest and factual material (Center for Addiction and Mental Health, 1999).

## National Institute on Drug Abuse Core Principles for Effective Drug Use Prevention Programs

### All programs should:

- 1) Enhance protective factors and reverse or reduce risk factors.
- 2) Address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco, alcohol); the use of illegal drugs (e.g., marijuana, heroin); and the inappropriate use of legally obtained substances (e.g., inhalants, prescription medications, over-the-counter drugs).
- 3) Address the type of drug abuse problem present in the local community, target modifiable risk factors, and strengthen identified protective factors.
- 4) Be tailored to address risks specific to the target group and the characteristics of the group—such as age, gender, and ethnicity—to improve program effectiveness.

### Family programs should:

- 5) Enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information.

### School programs should:

- 6) Be designed to intervene as early as preschool to address risk factors for drug abuse, such as aggressive behavior, poor social skills, and academic difficulties.
- 7) For elementary school children, target improvement in academic and social-emotional learning to address risk factors for drug abuse, such as early aggression, academic failure, and dropping out of school.
- 8) For middle/junior high and high school students, increase academic and social competence.

### Community programs should:

- 9) Aim for general populations at key transition points, such as from elementary to middle school.
- 10) When possible, combine two or more effective programs, such as family- and school-based programs.
- 11) Provide consistent messages across all targeted settings.
- 12) Retain the core elements of the original research-based intervention (i.e., structure, content, and delivery) when adapting programs to match community norms or differing cultural requirements.
- 13) Be long term, with repeated interventions to reinforce original prevention goals.
- 14) Include teacher training on good classroom management practices, such as rewarding appropriate student behavior.
- 15) Employ interactive techniques such as peer discussion groups and parent role-playing that allow for active involvement in learning about drug abuse and reinforcing skills.
- 16) Be cost-effective. Recent research shows that for each dollar invested in prevention, a savings of up to \$10 in treatment for alcohol or other substance abuse can be seen.

Regarding what constitutes ineffective programming, research indicates that scare tactics that provide only information on drugs and their effects, self-esteem building exercises, values clarification, and programs that present materials in large assemblies or in a didactic manner have been shown not to be effective in substance abuse prevention (Tobler & Stratton, 1997).

As stated, research has demonstrated that the 16 principles listed above should be the core elements of substance abuse prevention programs. These principles can also be applied to prevention curricula. In particular, research suggests that prevention practitioners working in classrooms and similar settings should incorporate the following specific principles into their substance abuse prevention curricula:

- ▶ Enhance protective factors and reduce known risk factors.
- ▶ Begin implementing prevention curricula as early as the preschool years.
- ▶ Target all forms of drug use, including the use of tobacco, alcohol, marijuana, and inhalants.
- ▶ Target social-emotional learning and academic support for elementary-age children.
- ▶ Target social and academic competence for middle/junior high and high school youth.
- ▶ Include skills to resist drugs when offered; strengthen personal commitments against drug use; and reinforce attitudes against drug use.
- ▶ Employ interactive methods.
- ▶ Include a parents' or caregivers' component that reinforces what the children are learning.
- ▶ Ensure that the curricula will be implemented over the school career, with regular "booster" sessions.
- ▶ Adapt the curricula to the drug use problem in the local community and, if possible, the target population.
- ▶ Select activities that are age-specific, developmentally appropriate, and culturally sensitive.

- ▶ Discuss drugs and their effects honestly, without undue exaggeration, but do not limit curricula to these topics.
- ▶ Acknowledge and address the reasons some young people make the decision to use drugs.
- ▶ Avoid didactic methods and large assemblies.

### Critical Content Areas

*“The programs that have proved most effective in preventing substance abuse strip the substance of its glamorous image; make known that regular use of injurious substances is not normative behavior for young adolescents, as is widely misbelieved; personalize how the substance adversely affects current physiological functioning in everyone and increases long-term health risks; and model strategies for resisting social coercions to use the substances” (Bandura, 1997, p. 306).*

Research has demonstrated that prevention programs need to be comprehensive and have sufficient intensity in order to be effective (Sussman & Johnson, 1996). Likewise, research strongly suggests that prevention programs in schools complement the existing goal of enhanced academic performance, as school failure and dropping out are strongly associated with substance abuse. In addition, with regard to prevention curricula suitable for implementation in the classroom or youth organization settings, research indicates that the following content areas be emphasized (NIDA, 2003):

- ▶ **Protective factors.** Prevention curricula should help youth engage in positive aspects of life, such as helping, caring, and goal setting. This content area should help young people build the skills necessary to establish and maintain successful peer relationships and feel a sense of community with their peers.
- ▶ **Social influences.** Prevention curricula should teach youth strategies that help them recognize external pressure (e.g., advertising, role models, peer attitudes) to use alcohol, tobacco, and other drugs and contribute to the development of cognitive skills to resist such pressures.
- ▶ **Assistance in developing social skills.** Prevention curricula should teach youth social skills to increase their ease in handling

social situations and, in turn, improve peer relationships and school performance. These skills include self-control and how to effectively manage stressful situations. Decision-making, communication, and assertiveness skills are particularly important during the late elementary and middle school years, when pubescence changes social dynamics among young people and the adults in their lives.

- ▶ **Drug offer refusal skills.** Prevention curricula should teach and reinforce skills that youth can use to effectively refuse offers to use alcohol, tobacco, and other drugs and still maintain friendships. Young people who may otherwise be motivated to avoid drug use are at increased risk of using drugs when peers present offers to use.
- ▶ **Normative education.** Prevention curricula should correct misperceptions held by youth about the nature and extent of drug use among peers. Youth generally overestimate the proportion of their peers who are actively involved in drug use; this misperception makes it easier to succumb to pressure generated by the myth that “everybody is doing it.” Actual use rates taken from student surveys and opinion polls can be used to help youth gain more accurate perceptions of peer drug use.
- ▶ **Perceived harm.** Prevention curricula should help youth understand the risks and short- and long-term consequences of alcohol, tobacco, and other drug use. These messages should not be sensationalistic, should come from a credible source, and should be reinforced in multiple settings.

Research has also demonstrated the effectiveness of several school-based approaches to substance abuse prevention, as well as the ineffectiveness of many others (Botvin, 1998). In general, it has been found that programs that rely solely on teaching the adverse consequences of substance abuse have been less effective than other approaches (Tobler & Stratton, 1997).

### Tailoring Content

Substance abuse prevention curricula also need to be tailored or customized to the target population. This entails adapting program content to the intended

audience’s age level (which largely determines levels of cognitive, social, and moral development); gender; cultural/ethnic background; geographic location; socioeconomic background; and risk level. Tailoring helps ensure that audience members will perceive the message as being relevant because the materials are based on the unique characteristics of the selected group (Resnicow, Braithwaite, Dilorio, & Glanz, 2002). Methods for collecting information about the specific characteristics of your target group will be discussed in more detail in Chapter 3 of this *Handbook*.

## Elements of Successful Program Delivery

### Leader Characteristics

An effective and well-prepared leader can make the difference between a successful and an unsuccessful substance abuse prevention curriculum. The effective leader understands that curriculum delivery has a critical influence on how prevention messages are received, maintains an open dialogue with the students, and employs a method of delivery that engages students in active learning (role playing, group discussion). The effective leader also understands that establishing trust with the audience is a necessary component if delivered prevention messages are to be perceived as valid.

The effective leader sets high expectations, engages in open and supportive communication, projects values of caring and helping, and creates a positive environment. He or she prepares for the role knowing that translating prevention messages into classroom practice and creating a positive and intellectually stimulating classroom environment require motivation, knowledge, and skill. The effective leader is willing to support and work on community prevention efforts. He or she understands the serious consequences of substance abuse during the school years, particularly for young adolescents, and examines his or her own substance abuse patterns to identify any biases he or she may convey to the target audience that might contradict the message of the curriculum.

### Learning Theories and Styles

The method of delivery of the program is also crucial. Research indicates that successful curricula employ interactive activities rather than lectures (Tobler & Stratton, 1997). One reason the former have been

successful is that their lesson plans are designed such that an audience with a diversity of learning styles can absorb the material.

As many who work in educational settings know, young people present a vast array of intelligences and learning preferences. Interactive activities are particularly useful because they have a greater likelihood than other, more traditional—i.e., didactic—methods of teaching to incorporate and engage a variety of learning styles. There are dozens of learning theories being used in classrooms and other teaching environments today, each with implications for how material is presented to students. The following principles are fundamental to any theory of learning:

- ▶ Young people have different abilities and interests that impact how they learn and their motivation to learn.
- ▶ Learning is facilitated by activities that engage learners in the construction of knowledge that is unique to them.
- ▶ Because learning occurs in different ways, it is important to teach using methods that allow all children and adolescents an opportunity to use their own best methods of learning. Different school systems, schools, and individual teachers may have different theories that guide their classroom activities.

For purposes of facilitating the identification and selection of substance abuse prevention lesson plans and activities during the curriculum-building process, the four major channels of learning have been used here: visual—those who learn best by seeing; auditory—those who prefer to listen; tactile/kinesthetic—those who learn well by writing things down or otherwise using fine motor skills; and kinesthetic—those who prefer to use more gross motor movement in the learning process (see Table 2). With the multitude of elaborate learning theories and learning styles that exist today, these sensory modalities provide a relatively simple way to categorize classroom-based activities so that educators can make a quick determination as to the extent to which their identified activities will not only address the key elements of a successful prevention curriculum, but also engage the broadest range of learners.

## Characteristics of the “Y” Generation

(Source: Northwestern University, Zell Center for Risk Research, n.d.)

By targeting teaching to the unique characteristics of today’s learners, educators and leaders will promote learning that has application in school, work, and community settings. The following characteristics have been attributed to Generation Y-ers. (loosely defined as those born between the late 1970s and the mid- to late 1990s), and offer insight into new ways of teaching. Generally speaking, Generation Y youth are:

### Technology savvy

- ▶ More than 80 percent of teens have access to the Internet, either at home or from another location.
- ▶ Two-thirds of children have used a computer before turning 5.
- ▶ It is estimated that children and adolescents currently aged 10-17 years will spend one-third of their life on the Internet.

### Upbeat and positive

- ▶ They tend to have high self-esteem.
- ▶ They are optimistic about their future life and work.

### Education-minded

- ▶ 90 percent of high school seniors plan to attend college.
- ▶ 70 percent of teens believe college is necessary to their success.

### Ethnically diverse

- ▶ 35 percent of the 10 million youth belong to minority ethnic groups (compared with 24 percent of baby boomers).
- ▶ Relative to older generations, Y-generation youth are much more open and tolerant of differences.

### Altruistic

- ▶ Volunteer activities are common.

## Teaching the Y Generation

(Source: Eisner, 2004).

The following are suggestions for targeting instruction to individuals with learning characteristics such as those identified with Generation Y.

### Expect:

- ▶ A “prove it to me” mentality, challenging presented information.
- ▶ A desire to find facts on their own.
- ▶ An aversity to risk taking.

### Generation Y may respond best to:

- ▶ Loud, quick visual, audio, or music-oriented messages.
- ▶ “Fun” activities rather than didactic activities.
- ▶ Word of mouth through in-person and Internet peer contact.

**Table 2. Four Channels of Learning**

Channel	Learner Preferences	Implications for Teaching
Visual	Learn through seeing; can typically recall well what has been read or observed	Visual displays, pictures, charts, graphs, diagrams, overhead transparencies, videos, flip charts, and handouts
Auditory	Prefer to listen; search for meaning through inflection, tone of voice, and other signals	Presentations, discussions, talking things through, listening to others' perspectives
Tactile	Prefer to write things down and/or incorporate fine motor skills	Hands-on approaches, active exploration
Kinesthetic	Use their bodies in the learning process	Activities that allow movement and exploration, acting/drama, role play, designing, building

Adapted from Farquharson and Carithers (2003).

### **Interactive Activities**

Interactive activities (also called active learning or discovery learning) are those exercises that involve youth in an active role in the learning process. These activities can be defined as “instructional techniques that involve youth in doing things and reflecting on what they are doing.” Tobler and Stratton (1997) have stated that successful substance abuse prevention curricula rely on interactive techniques rather than on lectures or other forms of one-way communication. For children and adolescents to learn, they must do more than just listen—they must read, write, discuss, and/or be engaged in solving problems (Chickering & Gamson, 1987). Ultimately, for youth to get the most out of any lesson, they need to be actively involved and engaged in higher-order thinking tasks such as analysis, synthesis, and evaluation. Cambourne (2002) views engagement as the overriding element facilitating learning, since only through engagement can the student acquire the fundamentals of learning.

Interactive activities are particularly appropriate for the building of substance abuse prevention curricula because they can be instituted at any age and can afford a leader the opportunity to address a variety of issues, including those related to learning styles, social skills, and high-risk youth. The following pages discuss the types of interactive activities that can be incorporated into a substance abuse prevention curriculum.

### **Interactive Activities and Learning**

Although the research is far from conclusive, interactive approaches appear to have achieved more positive results in delivering prevention messages to a wide cross-section of children and adolescents than have traditional, didactic methodologies.

Several interactive activities—role plays, simulations, Socratic questioning, brainstorming, small-group activities, cooperative learning, class discussions, and service-learning projects—have been shown to have a favorable influence on the attitudes and achievement levels of youth. These strategies engage youth in self-examination and learning (Bosworth & Sailes, 1993).

### **Interactive Activities and Social Skills**

During the past decade, a number of strategies have been employed to change the attitudes and behaviors of children and adolescents regarding substance abuse. Research has shown that programs relying solely on the provision of information are not only ineffective, but may actually result in a greater likelihood of drug experimentation (Bangert-Drowns, 1988; Fustukjian, 1990). Programs that employ interactive activities, on the other hand, have been shown not only to improve learning, but to be effective strategies for developing social skills (e.g., decision-making and communication skills) that have been proven effective in substance abuse prevention.

## Types of Interactive Activities

Interactive activities include problem solving, cooperative learning, group discussions, role plays/simulations, games, debates, oral reports/presentations, and peer discussion/peer teaching. There is no shortage of alternatives to traditional didactic presentations, and the literature contains a rich menu of approaches that prevention practitioners can readily integrate into their instructional repertoire. Some activities can be classified in different ways. Problem solving, for example, can be done individually, as part of a cooperative learning exercise, or as part of a peer-led exercise. While there are many different types of interactive activities, they all share a common characteristic in that they involve youth taking an active role in the learning process. Interactive activities can be incorporated into the standard academic curriculum on an ad hoc basis, or they can exist as part of a structured attempt to bring interactive learning to children and adolescents on a regular basis. Interactive activities can be performed in a variety of settings in addition to the classroom, such as after school, in scout meetings, and as part of religious programs. Activities can be combined; role plays, for instance, can be done as part of an organized cooperative learning exercise.

Regardless of how the activities are used within the classroom or program, they are capable of energizing the class, often reaching youth with learning styles that do not respond to “chalk and talk” or lecture formats. This section describes some of the most popular interactive activities (the list is by no means exhaustive), with examples of ways they can be used in substance abuse prevention.

### Problem Solving

*“Problem solving is the foundation of a young child’s learning. It must be valued, promoted, provided for, and sustained in the early childhood classroom. Opportunities for problem solving occur in the everyday context of a child’s life. By observing the child closely, teachers can use the child’s social, cognitive, movement, and emotional experiences to facilitate problem solving and promote strategies useful in the lifelong process of learning” (Britz & Richard, 1992).*

## The Problem-Solving Model

Both individual and group problem-solving processes can be beneficially included in classroom activities. Group problem solving is particularly beneficial for young children because it is a process that generates a great diversity of ideas for them to consider and reflect upon. Becoming skillful at problem solving is based on understanding and following sequenced steps:

- ▶ Identifying the problem.
- ▶ Brainstorming a variety of solutions.
- ▶ Choosing one solution and trying it out.
- ▶ Evaluating what has happened.

The process of problem solving—making choices and learning from them—is facilitated by leaders who observe, listen, and ask open-ended questions that further the process, such as, “What will happen if ...?” and “What other ways can you think of ...?” Problem solving becomes a cycle of learning when mistakes are made and different solutions have to be explored. This discovery process allows youth to construct their own learning. It is important to remember that most problems have more than one solution and that some problems cannot be solved.

“Good” problems have the following characteristics:

- ▶ They are meaningful and interesting.
- ▶ They connect to problem solvers’ own life experiences.
- ▶ They can be solved at a variety of levels.
- ▶ New decisions must be made.
- ▶ The actions can be evaluated.

Problem solving is a way to make sense of the environment and, in fact, control it. The process allows youth to be active participants and deal with changes in an increasingly diverse world.

Like any skill, problem solving can be learned and must be practiced. It is facilitated by a classroom schedule that provides large blocks of time for integrated learning, space for ongoing group projects, and many open-ended materials. Problem solving in the classroom starts with a leader who is curious and willing to learn. A leader who displays these attributes becomes a model for the class and is likely to be emulated by the youth. Further, by articulating his or her own problems and discussing solutions with the students, a leader can make them more aware of the significance of the problem-solving process. By exploring social relationships, manipulating objects, and interacting with people, youth are able to formulate ideas, experiment with those ideas, and accept or reject what they learn. Building knowledge by making mistakes is part of the natural process of problem solving. Through exploration, experimentation, testing hypotheses, and, finally, solving problems, youth make learning personal and meaningful. Piaget and Inhelder (1969) state that children understand only what they discover or invent

themselves. It is this discovery within the problem-solving process that is the vehicle for youths' learning. Children and adolescents are encouraged to construct their own knowledge when the leader plans problem-solving exercises, bases the framework for learning in problem solving, and provides adequate time, space, and materials.

### Cooperative Learning

All cooperative learning methods share the idea that youth work together to learn and are responsible for their teammates' learning as well as their own (Slavin, 1995). Cooperative learning methods differ but can be grouped according to five characteristics:

1. Positive interdependence—students perceive that they need each other to complete the group's task (“sink or swim together”).
2. Face-to-face motivational interaction—students assist each other's learning by helping, sharing, and encouraging efforts to learn.
3. Individual accountability—students' performances are assessed, and the results are given to both the group and the individual.
4. Interpersonal and small-group skills—students are encouraged to acquire and use needed social skills to enhance the effectiveness of the group's functioning.
5. Group processing—time is set aside for groups to discuss how well they are achieving their goals and maintaining effective working relationships among members.

Research suggests that cooperative learning creates incentives for youth to do well (Johnson, Maruyama, Johnson, Nelson, & Skon, 1981). Cooperative settings tend to establish proacademic norms among youth. In other words, learning is seen as a positive attribute that advances a youth's status in the eyes of his or her peers, whereas in traditional classrooms, youth who strive to do well academically often lose status among their peers. An additional, often overlooked benefit of cooperative learning is that it is an ideal way of bringing youth with diverse ethnic backgrounds together in an educational setting that is not superficial (Slavin, 1995). Using cooperative learning in the classroom setting is a learned skill, and teachers can develop it by conducting

cooperative learning under supervision, with feedback after each session.

### Group Discussions

Discussion in a class or group is one of the most common strategies to promote active learning—with good reason. If the objectives of a course are to promote long-

#### Tips for Facilitating Discussion

- ▶ Paraphrase what a youth has said. He or she will appreciate that you have been listening and it will provide a concise summary for other youth who might not have understood the speaker or were not listening.
- ▶ Compliment an interesting or insightful comment.
- ▶ Expand on a youth's response.
- ▶ Take the opposite side (play devil's advocate) with a youth's comments to stimulate discussion.
- ▶ Pull together ideas from different youth to show their relationship.

term retention of information, motivate youth toward further learning, allow students to apply information in new settings, and/or develop youths' thinking skills, then discussion is preferable to lectures (McKeachie, Pintrich, Lin, & Smith, 1986). Research has suggested, however, that to achieve these goals, leaders must be knowledgeable in alternative techniques and strategies for questioning and discussion (Hyman, 1980) and must create a supportive intellectual and emotional environment that encourages youth to take appropriate risks (Lowman, 1984). To foster such an environment, group behavioral norms must be set. Group discussion can be held on virtually any topic. A good topic for middle school youth, for example, might be the connection between sporting events and companies that sell alcoholic beverages.

In a variation on this strategy, the subgroup discussion, the leader breaks the group into subgroups of two, three, or more individuals. Each subgroup shares information and records it. This technique encourages participation by everyone.

### Other Types of Interactive Activities

- ▶ Fishbowl Discussions. In fishbowl discussions, a portion of the class is asked to form a discussion circle. The remaining students

form a listening circle around the inner circle. The object of this activity is to get the youth accustomed to: (1) listening; (2) being listened to; and (3) describing what they have heard. Variations on this technique include having persons from the inner circle tap members of the outer circle to replace them when they have exhausted all of their ideas, and conducting several simultaneous fishbowls.

- ▶ **Role Plays/Simulations.** In role playing, youth are given a character or role to play and then interact, staying “in character.” Role plays are effective tools for teaching refusal skills, assertiveness, conflict resolution, and problem solving. Such activities allow youth to practice communication skills, explore their own values, and develop listening skills. A simple role play might entail two youth: one who portrays someone who is trying to get a friend to drink beer at a party, and one who does not want to drink the beer but still wants to be accepted in the group.
- ▶ **Games.** Games are highly versatile tools for achieving many different objectives. They offer a mechanism for developing decision-making, problem-solving, interpersonal, and communication skills and often have the advantage of being based in more than one academic discipline. *Family Feud*, for example, is an excellent game format for youth in middle school. Teams of youth work together to come up with the best answers to various drug-related questions, such as street names for drugs or effects of drugs on the body. Cooperative games may have particular usefulness for the delivery of substance abuse prevention activities (Orlick, 1995).
- ▶ **Debates.** Debating allows youth the opportunity to explore various sides of issues that affect society. The substance abuse prevention field is replete with issues—e.g., legalization of marijuana, needle exchange programs, and tobacco legislation—that lend themselves to the debate format.
- ▶ **Oral Reports/Presentations.** Oral reports combine a number of learning strategies into one activity and allow youth to hone their skills in information gathering, organization, and

presentation. Oral reports are a form of peer teaching that allows leaders to cover a large amount of information in a relatively short time. A unit on substance abuse, for example, provides ample opportunity for a leader to assign oral presentations on a variety of drugs and their effects.

### Peer-Led Versus Adult-Led Approaches

Peer education is an important element of substance abuse prevention programs and may serve as a powerful motivator, especially for disenfranchised individuals. Such programs recruit peer educators who are at high risk and teach them how to educate and help save the lives of their friends and colleagues. This technique recognizes that community “insiders” have tremendous powers of persuasion and can be effective agents of change.

Peers can be valuable to substance abuse prevention programs. Research suggests that peer-led approaches are in many cases more effective than adult-led approaches. Whether a program is peer-led or adult-led may contribute to its effectiveness; however, because of the variety of methods used to study this question, results indicating the degree of effectiveness are inconclusive. It is recommended that the primary focus of prevention programs be on the characteristics identified as important for program effectiveness. Within that context, peer-led components may be valuable tools to employ.

Source: Cuijpers, P. (2002).

In peer-led approaches, peer leaders lead fellow youth through substance abuse prevention activities. During these exercises, youth challenge each other’s beliefs, try out new social skills, and provide important emotional support to one another that can extend beyond the group session (Benard, 1990). An effective, peer-led program should:

- ▶ Be supervised by well-trained adults capable of modeling the desired skills.
  - ▶ Be based on demonstrated needs (e.g., steroid use by athletes in a high school where this has been a problem).
  - ▶ Represent the social composition of the school and community.
  - ▶ Be interactive and experiential (i.e., the program should incorporate interactive activities and encourage “hands on” learning).
  - ▶ Provide peer leaders with extensive training and opportunities for skill renewal.
- ▶ **Demonstrations.** An effective demonstration shows how something is done or how something works. Demonstrating the legal process that takes place when a person is

arrested for driving under the influence of alcohol, for example, can make an impression that words alone would fail to do. Youth should be encouraged—and allowed time—to practice presentations and be prepared to answer questions. They should also be encouraged to use visual aids, which are helpful in getting across important information—besides adding another learning dimension.

### Elements of Interactive Activities

Not only can interactive activities take many forms, but the nature of the activities' structure can also vary. An interactive activity incorporates three potential elements: a lesson plan, educational materials, and supplemental, noneducational materials. These elements can be structured as:

- ▶ A lesson plan alone. An activity of this type might simply ask the leader to divide the youth into five groups and ask them to create antidrug posters to present to the class.
- ▶ A lesson plan accompanied by an educational product (video, poster, puzzle, etc.). An activity of this type might be a video on teenage smoking accompanied by a leader's guide that illustrates how to conduct a group discussion based on the material presented.
- ▶ A lesson plan that incorporates the use of supplemental, noneducational materials (such as magazines or music CDs). An activity of this type might involve conducting an analysis of magazine advertisements for tobacco and alcohol. In this case, the advertisements would come from magazines chosen by the youth that may reflect their cultural background.
- ▶ A lesson plan accompanied by an educational product that also incorporates the use of supplemental, noneducational materials. An activity of this type might involve an analysis of magazine advertisements for tobacco and alcohol through viewing an accompanying video that shows advertisements and how they are analyzed and through the analysis of magazine advertisements that youth bring in themselves.

### Example: Customizing Interactive Activities

<b>Target Population</b>	The target population is rural, mostly Hispanic, high school juniors in Texas. Through observation, focus groups, interviews, and surveys, tobacco and alcohol use have been identified as problems.
<b>Activity</b>	“Analyze magazine advertisements for tobacco and alcohol” (as a way of focusing on an activity related to the drug problems in the target group).
<b>Lesson Plan</b>	Show the video called <i>Advertising Analysis</i> , then split the class into five separate groups to perform analyses on different advertisements they have found in magazines.
<b>Educational Material</b>	The video <i>Advertising Analysis</i> . Although this video is tailored neither for rural populations nor for Hispanic/Latino youth, it is the best video on this topic available to the teacher.
<b>Supplemental Material</b>	Magazine advertisements. Try to tailor the activity by suggesting that students collect advertisements from the magazines they read. The magazines might reflect the cultural heritage of the target group, further tailoring this activity.

Note: If none of the elements can be tailored, there are other ways of making the activities more meaningful to the target population during implementation. See Chapter 7 for more detailed information on implementation.

Each potential element of the interactive activity (lesson plan; educational material; supplemental, noneducational material) offers an opportunity to customize the activity to the needs of the target population. An example is presented above.

### **Building a Curriculum to Fit the Needs of the Target Population**

Chapter 3 will describe how to collect information on the target population from a variety of sources. The online Curriculum Builder can then assist in developing a curriculum based on this knowledge of the target group. For each lesson plan or interactive activity, the Curriculum Builder will identify the content area it addresses, the learning modality it is likely to engage,

and the health education standard(s) it meets. Armed with an understanding of the target population, prevention leaders will be able to select and implement activities that best meet the needs of the intended audience in terms of learning style, content area, and specific demographic characteristics.

### Conclusions

Substance abuse prevention, a key to reducing substance abuse among youth, can be targeted to influence people, institutions, and community and societal norms. School- and community-based prevention programs aimed at children and adolescents should be customized to the specific characteristics of the target audience, including age, gender, geographic location, race/ethnicity, drug(s) used, and other factors. Furthermore, substance abuse prevention programs targeted to youth must incorporate interactive activities to achieve optimal learning among participants. Finally, substance abuse prevention programs must include six basic content areas: normative education, protective factors, social skills, social influences, perceived harm, and refusal skills. Interactive activities can be used across all of these prevention content areas and can cater to a variety of different learning styles.

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