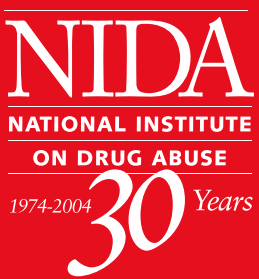

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National Institute on Drug Abuse

Preventing Drug Use
among Children and Adolescents

A Research-Based Guide
for Parents, Educators, and Community Leaders

Second Edition

In Brief

U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES
National Institutes of Health

National Institute on Drug Abuse

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among Children and Adolescents

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U.S. DEPARTMENT OF
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Preface

Today's youth face many risks, including drug abuse, violence, and HIV/AIDS. Responding to these risks before they become problems can be difficult. One of the goals of the National Institute on Drug Abuse (NIDA) is to help the public understand the causes of drug abuse and to prevent its onset. Drug abuse has serious consequences in our homes, schools, and communities. From NIDA's perspective, the use of all illicit drugs and the inappropriate use of licit drugs is considered drug abuse.

Prevention science has made great progress in recent years. Many interventions are being tested in "real-world" settings so they can be more easily adapted for community use. Scientists are studying a broader range of populations and topics. They have identified, for example, effective interventions with younger populations to help prevent risk behaviors before drug abuse occurs. Researchers are also studying older teens who are already using drugs to find ways to prevent further abuse or addiction. Practical issues, such as cost-benefit analyses, are being studied. Presenting these findings to the public is one of NIDA's most important responsibilities.

We are pleased to offer our *In Brief* edition of the publication, *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition*. The second edition offers updated principles, new questions and answers, new program information, and expanded references. This *In Brief* edition summarizes sections of the guide for community use. For more information, we invite you to visit NIDA's Web site at www.drugabuse.gov, where the complete guide and other materials on the consequences, prevention, and treatment of drug abuse are offered. We hope you will find both the guide and the *In Brief* edition useful and helpful.

Nora D. Volkow, M.D.
Director
National Institute on Drug Abuse

Introduction

This *In Brief* edition provides highlights from the *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition*. It presents the updated prevention principles, an overview of program planning, and critical first steps for those learning about prevention. Thus, this shortened edition can serve as an introduction to research-based prevention for those new to the field of drug abuse prevention. Selected resources and references are also provided. This publication and the complete second edition can be ordered or printed from NIDA's Web site, www.drugabuse.gov.

NIDA hopes that research can continue to provide effective, appropriate, and practical approaches for communities working on the challenges of preventing drug abuse among children and adolescents nationwide.

Prevention Principles

These principles are intended to help parents, educators, and community leaders think about, plan for, and deliver research-based drug abuse prevention programs at the community level. The references following each principle are representative of current research.

Risk Factors and Protective Factors

PRINCIPLE 1 Prevention programs should enhance protective factors and reverse or reduce risk factors.[14]

- The risk of becoming a drug abuser involves the relationship among the number and type of risk factors (e.g., deviant attitudes and behaviors) and protective factors (e.g., parental support).[32]
- The potential impact of specific risk and protective factors changes with age. For example, risk factors within the family have greater impact on a younger child, while association with drug-abusing peers may be a more significant risk factor for an adolescent.[11, 9]
- Early intervention with risk factors (e.g., aggressive behavior and poor self-control) often has a greater impact than later intervention by changing a child's life path (trajectory) away from problems and toward positive behaviors.[15]
- While risk and protective factors can affect people of all groups, these factors can have a different effect depending on a person's age, gender, ethnicity, culture, and environment.[5, 20]

PRINCIPLE 2 Prevention programs should address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco or alcohol); the use of illegal drugs (e.g., marijuana or heroin); and the inappropriate use of legally obtained substances (e.g., inhalants), prescription medications, or over-the-counter drugs.[16]

PRINCIPLE 3 Prevention programs should address the type of drug abuse problem in the local community, target modifiable risk factors, and strengthen identified protective factors.[14]

PRINCIPLE 4 Prevention programs should be tailored to address risks specific to population or audience characteristics, such as age, gender, and ethnicity, to improve program effectiveness.[21]

Prevention Planning

Family Programs

PRINCIPLE 5 Family-based prevention programs should 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.[2]

Family bonding is the bedrock of the relationship between parents and children. Bonding can be strengthened through skills training on parent supportiveness of children, parent-child communication, and parental involvement.[17]

- Parental monitoring and supervision are critical for drug abuse prevention. These skills can be enhanced with training on rule-setting; techniques for monitoring activities; praise for appropriate behavior; and moderate, consistent discipline that enforces defined family rules.[18]
- Drug education and information for parents or caregivers reinforces what children are learning about the harmful effects of drugs and opens opportunities for family discussions about the abuse of legal and illegal substances.[4]
- Brief, family-focused interventions for the general population can positively change specific parenting behavior that can reduce later risks of drug abuse.[27]

School Programs

PRINCIPLE 6 Prevention programs can 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.[30, 31]

PRINCIPLE 7 Prevention programs for elementary school children should target improving academic and social-emotional learning to address risk factors for drug abuse, such as early aggression, academic failure, and school dropout. Education should focus on the following skills:[8, 15]

- self-control;
- emotional awareness;
- communication;
- social problem-solving; and
- academic support, especially in reading.

PRINCIPLE 8 Prevention programs for middle or junior high and high school students should increase academic and social competence with the following skills:[6, 25]

- study habits and academic support;
- communication;
- peer relationships;
- self-efficacy and assertiveness;
- drug resistance skills;
- reinforcement of anti-drug attitudes; and
- strengthening of personal commitments against drug abuse.

Community Programs

PRINCIPLE 9 Prevention programs aimed at general populations at key transition points, such as the transition to middle school, can produce beneficial effects even among high-risk families and children. Such interventions do not single out risk populations and, therefore, reduce labeling and promote bonding to school and community.[6, 10]

PRINCIPLE 10 Community prevention programs that combine two or more effective programs, such as family-based and school-based programs, can be more effective than a single program alone.[3]

PRINCIPLE 11 Community prevention programs reaching populations in multiple settings—for example, schools, clubs, faith-based organizations, and the media—are most effective when they present consistent, community-wide messages in each setting.[7]

Prevention Program Delivery

PRINCIPLE 12 When communities adapt programs to match their needs, community norms, or differing cultural requirements, they should retain core elements of the original research-based intervention[27] which include:

- *Structure* (how the program is organized and constructed);
- *Content* (the information, skills, and strategies of the program); and
- *Delivery* (how the program is adapted, implemented, and evaluated).

PRINCIPLE 13 Prevention programs should be long-term with repeated interventions (i.e., booster programs) to reinforce the original prevention goals. Research shows that the benefits from middle school prevention programs diminish without follow-up programs in high school.[25]

PRINCIPLE 14 Prevention programs should include teacher training on good classroom management practices, such as rewarding appropriate student behavior. Such techniques help to foster students' positive behavior, achievement, academic motivation, and school bonding.[15]

PRINCIPLE 15 Prevention programs are most effective when they 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.[6]

PRINCIPLE 16 Research-based prevention programs can be cost-effective. Similar to earlier research, 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.[1, 13, 23, 26]

Chapter 1: Risk Factors and Protective Factors

What are risk factors and protective factors?

Research over the past two decades has tried to determine how drug abuse begins and how it progresses. Many factors can add to a person's risk for drug abuse. *Risk factors* can increase a person's chances for drug abuse, while *protective factors* can reduce the risk. Please note, however, that most individuals at risk for drug abuse do not start using drugs or become addicted. Also, a risk factor for one person may not be for another.

Risk and protective factors can affect children at different stages of their lives. At each stage, risks occur that can be changed through prevention intervention. Early childhood risks, such as aggressive behavior, can be changed or prevented with family, school, and community interventions that focus on helping children develop appropriate, positive behaviors. If not addressed, negative behaviors can lead to more risks, such as academic failure and social difficulties, which put children at further risk for later drug abuse.

Research-based prevention programs focus on intervening early in a child's development to strengthen protective factors before problem behaviors develop.

The table below describes how risk and protective factors affect people in five *domains*, or settings, where interventions can take place.

Risk Factors	Domain	Protective Factors
Early Aggressive Behavior	Individual	Self-Control
Lack of Parental Supervision	Family	Parental Monitoring
Substance Abuse	Peer	Academic Competence
Drug Availability	School	Anti-drug Use Policies
Poverty	Community	Strong Neighborhood Attachment

Risk factors can influence drug abuse in several ways. The more risks a child is exposed to, the more likely the child will abuse drugs. Some risk factors may be more powerful than others at certain stages in development, such as peer pressure during the teenage years; just as some protective factors, such as a strong parent-child bond, can have a greater impact on reducing risks during the early years. An important goal of prevention is to change the balance between risk and protective factors so that protective factors outweigh risk factors.

What are the early signs of risk that may predict later drug abuse?

Some signs of risk can be seen as early as infancy or early childhood, such as aggressive behavior, lack of self-control, or difficult temperament. As the child gets older, interactions with family, at school, and within the community can affect that child's risk for later drug abuse.

Children's earliest interactions occur in the family; sometimes family situations heighten a child's risk for later drug abuse, for example, when there is:

- a lack of attachment and nurturing by parents or caregivers;
- ineffective parenting; and
- a caregiver who abuses drugs.

But families can provide protection from later drug abuse when there is:

- a strong bond between children and parents;
- parental involvement in the child's life; and
- clear limits and consistent enforcement of discipline.

Interactions outside the family can involve risks for both children and adolescents, such as:

- poor classroom behavior or social skills;
- academic failure; and
- association with drug-abusing peers.

Association with drug-abusing peers is often the most immediate risk for exposing adolescents to drug abuse and delinquent behavior.

Other factors—such as drug availability, trafficking patterns, and beliefs that drug abuse is generally tolerated—are risks that can influence young people to start abusing drugs.

What are the highest risk periods for drug abuse among youth?

Research has shown that the key risk periods for drug abuse are during major transitions in children's lives. The first big transition for children is when they leave the security of the family and enter school. Later, when they advance from elementary school to middle school, they often experience new academic and social situations, such as learning to get along with a wider group of peers. It is at this stage—early adolescence—that children are likely to encounter drugs for the first time.

When they enter high school, adolescents face additional social, emotional, and educational challenges. At the same time, they may be exposed to greater availability of drugs, drug abusers, and social activities involving drugs. These challenges can increase the risk that they will abuse alcohol, tobacco, and other substances.

When young adults leave home for college or work and are on their own for the first time, their risk for drug and alcohol abuse is very high. Consequently, young adult interventions are needed as well.

Because risks appear at every life transition, prevention planners need to choose programs that strengthen protective factors at each stage of development.

When and how does drug abuse start and progress?

Studies such as the National Survey on Drug Use and Health, formally called the National Household Survey on Drug Abuse, reported by the Substance Abuse and Mental Health Services Administration, indicate that some children are already abusing drugs at age 12 or 13, which likely means that some begin even earlier. Early abuse often includes such substances as tobacco, alcohol, inhalants, marijuana, and prescription drugs such as sleeping pills and anti-anxiety medicines. If drug abuse persists into later adolescence, abusers typically become more heavily involved with marijuana and then advance to other drugs, while continuing their abuse of tobacco and alcohol. Studies have also shown that abuse of drugs in late childhood and early adolescence is associated with greater drug involvement. It is important to note that most youth, however, do not progress to abusing other drugs.

Scientists have proposed various explanations of why some individuals become involved with drugs and then escalate to abuse. One explanation points to a biological cause, such as having a family history of drug or alcohol abuse. Another explanation is that abusing drugs can lead to affiliation with drug-abusing peers, which, in turn, exposes the individual to other drugs.

Researchers have found that youth who rapidly increase their substance abuse have high levels of risk factors with low levels of protective factors.[32] Gender, race, and geographic location can also play a role in how and when children begin abusing drugs.

Preventive interventions can provide skills and support to high-risk youth to enhance levels of protective factors and prevent escalation to drug abuse.

COMMUNITY ACTION BOX

- **Parents** can use information on risk and protection to help them develop positive preventive actions (e.g., talking about family rules) before problems occur.
- **Educators** can strengthen learning and bonding to school by addressing aggressive behaviors and poor concentration—risks associated with later onset of drug abuse and related problems.
- **Community Leaders** can assess community risk and protective factors associated with drug problems to best target prevention services.

Chapter 2: Planning for Drug Abuse Prevention in the Community

How can the community develop a plan for research-based prevention?

The first step in planning a drug abuse prevention program is to assess the type of drug problem within the community and determine the level of risk factors affecting the problem. The results of this assessment can be used to raise awareness of the nature and seriousness of the community's problem and guide selection of the best prevention programs to address the problem.

Next, assessing the community's readiness for prevention can help determine additional steps needed to educate the community before launching the prevention effort. Then, a review of current programs is needed to determine existing resources and gaps in addressing community needs and to identify additional resources.

Finally, planning can benefit from the expertise of community organizations that provide youth services. Convening a meeting with leaders of these service organizations can set the stage for capturing ideas and resources to help implement and sustain research-based programs.

THE COMMUNITY PLAN

Prevention research suggests that a well-constructed community plan:

- **Identifies** the specific drugs and other child and adolescent problems in a community;
- **Builds** on existing resources (e.g., current drug abuse prevention programs);
- **Develops** short-term goals related to selecting and carrying out research-based prevention programs and strategies;
- **Projects** long-term goals so that plans and resources are available for the future; and
- **Includes** ongoing assessments of the prevention program.

How can the community use the prevention principles in prevention planning?

The prevention principles offer guidance and support for selecting and adapting effective, research-based prevention programs to meet specific community needs. For example, Principle 3 notes how a plan should address the drug problems in a community and the steps that can be taken to address them. Principle 5 explains what content to include in a family-based program.

The principles can help guide community planners in selecting the best prevention programs for their community and in providing the best strategies for putting them into effect. That way, parents, educators, and community leaders can carefully plan how, when, and where to carry out each program.

How can the community assess the level of risk for drug abuse?

To assess the level of risk of youth engaging in drug abuse, it is important to:

- measure the nature and extent of drug abuse patterns and trends;
- collect data on risk and protective factors throughout the community; and
- identify prevention efforts already under way to address the problem.

It is also important to consult with key community leaders to understand the community culture. Researchers have developed many tools, available to community planners, to assess the extent of a community's drug problems. They include public access questionnaires and existing community-level data (e.g., truancy records, drug arrest records, emergency room admissions data). For Web sites with information on these and other assessment resources, see *Selected Resources and References*.

Is the community ready for prevention?

Identifying a serious level of risk in a community does not always mean that the community is ready to take action. Based on studies of many small communities, researchers have identified nine stages of "community readiness" that can guide prevention planning.[24] Once prevention planners know what stage the community is in, they can take the next steps for starting prevention programming (see the table on page 19).

ASSESSING READINESS[24]		COMMUNITY ACTION
Readiness Stage	Community Response	Ideas
1. No awareness	Relative tolerance of drug abuse	Create motivation. Meet with community leaders involved with drug abuse prevention; use the media to identify and talk about the problem; encourage the community to see how it relates to community issues; begin pre-planning.
2. Denial	Not happening here, can't do anything about it	
3. Vague awareness	Awareness, but no motivation	
4. Pre-planning	Leaders aware, some motivation	
5. Preparation	Active energetic leadership and decision-making	Work together. Develop plans for prevention programming through coalitions and other community groups.
6. Initiation	Data used to support prevention actions	Identify and implement research-based programs.
7. Stabilization	Community generally supports existing program	Evaluate and improve ongoing programs.
8. Confirmation/ Expansion	Decision-makers support improving or expanding programs	Institutionalize and expand programs to reach more populations.
9. Professionalization	Knowledgeable of community drug problem; expect effective solutions	Put multi-component programs in place for all audiences.

How can the community be motivated to implement research-based prevention programs?

The methods needed to motivate a community to act depend on the community's stage of readiness so that community actions provide the maximum benefits.

One important way to effect community change is through the development of an active community anti-drug coalition. Community anti-drug coalitions can and do hold community-wide meetings, develop public education campaigns, and attract sponsors for drug abuse prevention strategies. To strengthen the impact of these strategies on community drug problems, coalitions should focus on implementing research-tested programs and approaches.

Research has shown that the media can raise public awareness about a community's drug problem and prevent drug abuse among specific populations.

How can the community assess the effectiveness of current prevention efforts?

Many communities begin the process with a review of current prevention programs to determine:

- ✔ *What programs are in place in the community?*
- ✔ *Were strict scientific standards used to test the programs during their development?*
- ✔ *Do the programs match community needs?*
- ✔ *Are the programs being carried out as designed?*
- ✔ *What percentage of at-risk youth is being reached by the programs?*

Another evaluation approach is to track data over time on drug abuse among students in school, rates of truancy, school suspensions, drug abuse arrests, and drug-related emergency room admissions. Data from community drug abuse assessments can serve as a baseline for measuring change. Because drug abuse problems change with time, periodic assessments can ensure that programs are meeting current community needs.

COMMUNITY ACTION BOX

- **Parents** can work with others in their community to increase awareness about the local drug abuse problem and the need for research-based prevention programs.
- **Educators** can work with others in the school system to review current programs and identify research-based prevention interventions geared toward students.
- **Community Leaders** can organize a community group to develop a community prevention plan, coordinate resources and activities, and support research-based prevention in all sectors of the community.

Chapter 3: Applying Prevention Principles to Drug Abuse Prevention Programs

How are risk and protective factors addressed in prevention programs?

The risk and protective factors are the primary targets of effective prevention programs used in family, school, and community settings. The goal of these programs is to build new and strengthen existing protective factors and reverse or reduce risk factors in youth.

Prevention programs are usually designed to reach target populations in their primary *setting*. However, in recent years it has become more common to find programs for any given target group in a variety of settings, such as holding a family-based program in a school or a church.

In addition to setting, prevention programs can also be described by the *audience* for which they are designed:

- ***Universal*** programs are designed for the general population, such as all students in a school.
- ***Selective*** programs target groups at risk or subsets of the general population, such as poor school achievers or children of drug abusers.
- ***Indicated*** programs are designed for people already experimenting with drugs.

In the Family

Prevention programs can strengthen protective factors among young children by teaching parents better family communication skills, appropriate discipline styles, firm and consistent rule enforcement, and other family management approaches. Research confirms the benefits of parents providing consistent rules and discipline, talking to children about drugs, monitoring their activities, getting to know their friends, understanding their problems and concerns, and being involved in their learning. The importance of the parent-child relationship continues through adolescence and beyond. (See examples of family-based programs in Chapter 4.)

In School

Prevention programs in schools focus on children's social and academic skills, including enhancing peer relationships, self-control, coping, and drug-refusal skills. If possible, school-based prevention programs should be integrated into the school's academic program, because school failure is strongly associated with drug abuse. Integrated programs strengthen students' bonding to school and reduce their likelihood of dropping out. Most school prevention materials include information about correcting the misperception that many students are abusing drugs. Other types of interventions include school-wide programs that affect the school environment as a whole. All of these activities can serve to strengthen protective factors against drug abuse. (See examples of school-based programs in Chapter 4.)

Recent research suggests caution when grouping high-risk teens in peer group preventive interventions. Such groupings have been shown to produce negative outcomes, as participants appear to reinforce each other's drug abuse behaviors.[10]

In the Community

Prevention programs work at the community level with civic, religious, law enforcement, and other government organizations to enhance anti-drug norms and pro-social behaviors. Many programs coordinate prevention efforts across settings to communicate consistent messages through school, work, religious institutions, and the media. Research has shown that programs that reach youth through multiple settings can strongly impact community norms.[7] Community-based programs also typically include development of policies or enforcement of regulations, mass media efforts, and community-wide awareness programs. (See community-based programs in Chapter 4.) For example, it is important to note that some carefully structured and targeted media interventions have been proven to be very effective in reducing drug abuse.[22]

What are the core elements of effective research-based prevention programs?

In recent years, research-based prevention programs have proven effective. These programs were tested in diverse communities, in a wide variety of settings, and with a range of populations (for example, family-based programs in schools and churches).

As community planners review prevention programs to determine which best fit their needs, they should consider the following core elements of effective research-based programs.

- *Structure*—how each program is organized and constructed;
- *Content*—how the information, skills, and strategies are presented; and
- *Delivery*—how the program is selected or adapted and implemented, as well as how it is evaluated in a specific community.

When adapting programs to match community needs, it is important to retain these core elements to ensure that the most effective parts of the program stay intact.

The table on page 27 provides examples of these core elements of prevention programs by sample program types—for example, Community (Universal), School (Selective), and Family (Indicated). In brief, the core elements are described below.

Structure

Structure addresses *program type*, *audience*, and *setting*. Several program types have been shown to be effective in preventing drug abuse. School-based programs, the first to be fully developed and tested, have become the primary approach for reaching all children. Family-based programs have proven effective in reaching both children and their parents in a variety of settings. Media and computer technology programs are beginning to demonstrate effectiveness in reaching people at both community and individual levels.

Research also shows that combining two or more effective programs, such as family and school programs, can be even more effective than a single program alone. These are called multi-component programs.

Content

Content is composed of *information, skills development, methods,* and *services*. Information can include facts about drugs and their effects, as well as drug laws and policies. For instance, in a family intervention, parents can receive drug education and information that reinforces what their children are learning about the harmful effects of drugs in their school prevention program. This opens opportunities for family discussions about the abuse of legal and illegal drugs.

Drug information alone, however, has not been found to be effective in deterring drug abuse. Combining information with skills, methods, and services produces more effective results. Methods are geared toward change, such as establishing and enforcing rules on drug abuse in the schools, at home, and within the community. Services could include school counseling and assistance, peer counseling, family therapy, and health care. Parental monitoring and supervision can be enhanced with training on rule-setting; methods for monitoring child activities; praise for appropriate behavior; and moderate, consistent discipline that enforces family rules.

Delivery

Delivery includes program *selection* or *adaptation* and *implementation*. During the selection process, communities try to match effective research-based programs to their community needs. Conducting a structured review of existing programs can help determine what gaps remain. This information can then be incorporated into the community plan, which guides the selection of new research-based programs. Chapter 4 presents brief program descriptions. More comprehensive program information is included in the complete second edition. Also, planning and program sources can be found in *Selected Resources and References* in this booklet.

Adaptation involves shaping a program to fit the needs of a specific population in various settings. To meet community needs, scientists have adapted many research-based programs. For programs that have not yet been adapted in a research study, it is best to run the program as designed or include the core elements to ensure the most effective outcomes.

Core Elements of Prevention Programs								
Program Type	Structure		Content				Delivery	
	Audience	*Setting*	*Information*	*Skills Development*	*Methods*	*Services*	*Selection/ Adaptation*	*Implementation Features*
Community (Universal)	All Youth	Billboards	Drug Trends	Social Skills	Tolerance Policies	Drug-Free Zones	Spanish-Speaking Population	Consistent Multimedia Messages
School (Selective)	Middle School Students	After-School Programs	Drug Effects	Resistance Skills	Norms Change	School Counseling and Assistance	Gender	Booster Sessions
Family (Indicated)	High-Risk Youth and Their Families	Clinics	Drug Abuse Symptoms	Parenting Skills	Home Drug-Testing; Curfew	Family Therapy	Rural	Recruitment/ Retention

Implementation refers to how a program is delivered, which includes the number of sessions, methods used, and program follow-up. Research has found that *how* a program is implemented can determine its effectiveness in preventing drug abuse.

Use of interactive methods and appropriate booster sessions helps to reinforce earlier program content and skills to maintain program benefits.

How can the community implement and sustain effective prevention programs?

Following selection of its prevention plan, the community must begin to implement programs that meet its needs. In many communities, coalitions formed during the planning process remain involved in oversight; but the responsibility for running individual programs usually remains with local public or private community-based organizations. Running an effective research-based program often requires use of extensive human and financial resources and a serious commitment to training and technical assistance. Outreach efforts to attract and keep program participants interested and involved are important, especially with hard-to-reach populations. Research has shown that extra effort in providing incentives, flexible schedules, personal contact, and the public support of important community leaders helps attract and retain program participants.

How can the community evaluate the impact of its program on drug abuse?

Evaluating community prevention programs can be challenging. Community leaders often consult with evaluation experts, such as local universities or State agencies, to assist in evaluation design.

An evaluation needs to answer the following questions:

- *What was accomplished in the program?*
- *How was the program carried out?*
- *How much of the program was received by participants?*
- *Is there a connection between the amount of program received and outcomes?*
- *Was the program run as intended?*
- *Did the program achieve what was expected in the short term?*
- *Did the program produce the desired long-term effects?*

The community plan should guide actions for prevention over time because community needs change. Therefore, it is important to check program progress and decide if the original goals are being met. Evaluations may offer the chance to change plans and methods to better address current community problems.

What are the cost-benefits of community prevention programs?

Research has shown that preventing drug abuse and other problem behaviors can produce benefits for communities that outweigh the monetary costs. The cost-effectiveness and benefit-cost of two long-term effective interventions,[26] the Strengthening Families Program: For Parents and Youth 10–14 (SFP 10–14), and Guiding Good Choices (GGC), produced net benefits in preventing adult cases of alcohol abuse. For every dollar spent, a $10 benefit was measured as a result of the SFP 10–14 program, and a $6 benefit was the result of the GGC program. In addition, an analysis of the Skills, Opportunity, And Recognition (SOAR) program had a benefit-to-cost ratio of $4.25 for every dollar spent.[1, 13] An earlier study found that for every dollar spent on drug abuse prevention, communities could save from $4 to $5 in costs for drug abuse treatment and counseling.[23]

COMMUNITY ACTION BOX

- **Parents** can work with others in the community to use the prevention principles in selecting drug abuse programs.
- **Educators** can incorporate research-based content and delivery into their regular classroom curricula.
- **Community Leaders** can work with evaluation experts to evaluate program progress and develop improvements in outcomes.

Chapter 4: Examples of Research-Based Drug Abuse Prevention Programs

To help those working in drug abuse prevention, NIDA, in cooperation with the prevention scientists, presents the following examples of research-based programs that feature a variety of strategies proven to be effective. Each program was developed as part of a research study, which demonstrated that over time youth who participated in the programs had better outcomes than those who did not. The programs are presented within their audience category (universal, selective, indicated, or tiered).

Since these programs are only examples, community planners may wish to explore the additional programs and planning guides highlighted in *Selected Resources and References*. For more information on program materials and references, please consult *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition*, or visit NIDA's Web site at www.drugabuse.gov. With NIDA's continued support of research on effective prevention strategies, new research-based programs will continue to be made available in the future.

Universal Programs

Caring School Community Program (Formerly, Child Development Project). This is a universal family-plus-school program to reduce risk and strengthen protective factors among elementary school children. The program focuses on strengthening students' "sense of community," or connection, to school. Research has shown that this sense of community has been key to reducing drug use, violence, and mental health problems, while promoting academic motivation and achievement.

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Classroom-Centered (CC) and Family-School Partnership (FSP) Intervention. The CC and FSP interventions are universal first-grade interventions to reduce later onset of violence and aggressive behavior and to improve academic performance. Program strategies include classroom management and organizational strategies, reading and mathematics curricula, parent-teacher communication, and children's behavior management in the home.

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Guiding Good Choices (GGC) (Formerly, Preparing for the Drug-Free Years). This curriculum was designed to educate parents on how to reduce risk factors and strengthen bonding in their families. In five 2-hour sessions, parents are taught skills on family involvement and interaction; setting clear expectations, monitoring behavior, and maintaining discipline; and other family management and bonding approaches.

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Life Skills Training (LST) Program. LST is a universal program for middle school students designed to address a wide range of risk and protective factors by teaching general personal and social skills, along with drug resistance skills and education. An elementary school version was recently developed and the LST booster program for high school students helps to retain the gains of the middle school program.

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Lions-Quest Skills for Adolescence (SFA). SFA is a commercially available, universal, life skills education program for middle school students in use in schools nationwide. The focus is on teaching skills for building self-esteem and personal responsibility, communication, decision-making, resisting social influences and asserting rights, and increasing drug use knowledge and consequences.

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Project ALERT. Project ALERT is a 2-year, universal program for middle school students, designed to reduce the onset and regular use of drugs among youth. It focuses on preventing the use of alcohol, tobacco, marijuana, and inhalants. Project ALERT Plus, an enhanced version, has added a high school component, which is being tested in 45 rural communities.

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Project STAR. Project STAR is a comprehensive drug abuse prevention community program to be used by schools, parents, community organizations, the media, and health policymakers. The middle school portion focuses on social influence and is included in classroom instruction by trained teachers over a 2-year timetable. The parent program helps parents work with children on homework, learn family communication skills, and get involved in community action.

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Promoting Alternative Thinking Strategies (PATHS). PATHS is a comprehensive program for promoting emotional health and social skills. The program also focuses on reducing aggression and behavior problems in elementary school children, while enhancing the educational process in the classroom.

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Skills, Opportunity, And Recognition (SOAR) (Formerly, Seattle Social Development Program). This universal school-based intervention for grades one through six seeks to reduce childhood risks for delinquency and drug abuse by enhancing protective factors. The multi-component intervention combines training for teachers, parents, and children during the elementary grades to promote children's bonding to school, positive school behavior, and academic achievement.

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The Strengthening Families Program: For Parents and Youth 10–14 (SFP 10–14) (Formerly, the Iowa Strengthening Families Program). This program offers seven sessions, each attended by youth and their parents, and is conducted through partnerships that include state university researchers, cooperative extension staff, local schools, and other community organizations.

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Selective Programs

Adolescents Training and Learning to Avoid Steroids (ATLAS). ATLAS is a selective program for male high school athletes, designed to reduce risk factors for use of anabolic steroids and other drugs, while providing healthy nutrition and strength-training alternatives to illegal use of athletic-enhancing substances. Coaches and peer teammates are part of the program. Parents are involved through homework and a take-home guide on sports nutrition.

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Coping Power. Coping Power is a multi-component child and parent preventive intervention directed at pre-adolescent children at high risk for aggressiveness and later drug abuse and delinquency. The Coping Power Child Component is a program for fifth- and sixth-graders, usually in an after-school setting. Training teaches children how to identify and cope with anxiety and anger; control impulses; and develop social, academic, and problem-solving skills. Parents are also provided training.

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Focus on Families (FOF). FOF, a selective program for parents receiving methadone treatment and their children, seeks to reduce parents' use of illegal drugs and teaches family management skills to reduce their children's risk for future drug abuse. The promise of the FOF program—particularly for very high-risk families—is evident in the early reduction in family-related risk factors with an overall trend toward positive program effects on child outcomes.

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The Strengthening Families Program (SFP). SFP, a universal and selective multi-component, family-focused prevention program, provides support for families with 6- to 11-year-olds. The program, which began as an effort to help drug-abusing parents improve their parenting skills and reduce their children's risk for subsequent problems, has shown success in elementary schools and communities.

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Indicated Programs

Project Towards No Drug Abuse (Project TND). This indicated prevention intervention targets high school age youth who attend alternative or traditional high schools. The goal is to prevent the transition from drug use to drug abuse, through considering the developmental issues faced by older teens.

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Reconnecting Youth Program (RY). RY is a school-based indicated prevention program for high school students with poor school achievement and potential for dropping out. The program goals are to increase school performance, reduce drug use, and learn skills to manage mood and emotions.

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Tiered Programs

Adolescent Transitions Program (ATP). ATP is a school-based program that uses a tiered approach to provide prevention services to students in middle and junior high school and their parents. The universal intervention directed to parents of all students in a school establishes a Family Resource Room. The selective intervention level, called the Family Check-Up, offers family assessment and professional support. The indicated level provides direct professional help to the family.

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Early Risers "Skills for Success" Risk Prevention Program. Early Risers is a selective, preventive intervention for elementary school children at heightened risk for early onset of serious conduct problems, including legal and illegal drug use. The program's focus is on improving academic ability, self-control, social skills, and parental involvement in the child's activities.

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Fast Track Prevention Trial for Conduct Problems. Fast Track is a preventive intervention for young children at high risk for long-term anti-social behavior. The intervention includes a universal classroom program (adapted from the PATHS curriculum) for high-risk children selected in kindergarten. The selective intervention reaches parents and children at higher risk for conduct problems.

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Chapter 5: Selected Resources and References

Resources relating to drug abuse prevention are listed below. Information on NIDA's Web site is followed by Web sites for other Federal agencies and private organizations. These resources and the selected references that follow are excellent sources of information in helping communities run successful research-based drug prevention programs. Note that full contact information for these resources may be found in the complete guide, *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition*.

Selected Resources

National Institute on Drug Abuse (NIDA)
National Institutes of Health (NIH)
U.S. Department of Health and Human Services (DHHS)

NIDA's Web site (www.drugabuse.gov) provides information on all aspects of drug abuse, particularly the effects of drugs on the brain and body, prevention of drug use among children and adolescents, the latest research on treatment for addiction, and statistics on the extent of drug abuse in the United States. The Web site allows visitors to print or order publications, public service announcements, posters, science education materials, research reports and fact sheets on specific drugs or classes of drugs, and the *NIDA NOTES* newsletter. The site also links to related Web sites in the public and private sector.

Other Federal Resources

Center for Substance Abuse Prevention (CSAP)
Substance Abuse and Mental Health Services Administration (SAMHSA), DHHS
Phone: 301-443-9110
www.prevention.samhsa.gov

Centers for Disease Control and Prevention (CDC), DHHS
Phone: 404-639-3534
Phone: 800-311-3435 (toll-free)
www.cdc.gov

Safe and Drug-Free Schools Program
U.S. Department of Education (DoE)
Phone: 800-872-5327 (toll-free)
www.ed.gov

Drug Enforcement Administration (DEA)
U.S. Department of Justice (DOJ)
Phone: 202-307-1000
www.dea.gov

Knowledge Exchange Network, SAMHSA, DHHS
Phone: 800-789-2647 (toll-free)
www.mentalhealth.org

National Clearinghouse for Alcohol and Drug Information (NCADI), SAMHSA, DHHS
Phone: 800-729-6686 (toll-free)
www.ncadi.samhsa.gov

National Institute on Alcohol Abuse and Alcoholism (NIAAA), NIH, DHHS
Phone: 301-443-3860
www.niaaa.nih.gov

National Institute of Mental Health (NIMH), NIH, DHHS
Phone: 301-443-4513
www.nimh.nih.gov

National Institutes of Health (NIH), DHHS
Phone: 301-496-4000
www.nih.gov

National Library of Medicine (NLM), NIH, DHHS
Phone: 301-594-5983
Phone: 888-346-3656 (toll-free)
www.nlm.nih.gov

Office of Juvenile Justice and Delinquency Prevention (OJJDP), DOJ
Phone: 202-307-5911
www.ojjdp.ncjrs.org/pubs/substance.html

Office of National Drug Control Policy (ONDCP)
Phone: 800-666-3332 (toll-free)
www.whitehousedrugpolicy.gov

Substance Abuse and Mental Health Services Administration (SAMHSA), DHHS
Phone: 301-443-8956
www.samhsa.gov

Other Selected Resources

American Academy of Child and Adolescent Psychiatry (AACAP)
Phone: 202-966-7300
www.aacap.org

American Academy of Family Physicians (AAFP): KidsHealth
www.familydoctor.org

American Academy of Pediatrics (AAP)
Phone: 847-434-4000
www.aap.org

American Psychological Association (APA)
Phone: 800-374-2121 (toll-free)
Phone: 202-336-5510
www.apa.org

American Society of Addiction Medicine (ASAM)
Phone: 301-656-3920
www.asam.org

Blueprints for Violence Prevention
Center for the Study and Prevention of Violence
Phone: 303-492-1032
www.colorado.edu/cspv/blueprints/

Center on Addiction and Substance Abuse (CASA)
at Columbia University
Phone: 212-841-5200
www.casacolumbia.org

Community Anti-Drug Coalitions of America (CADCA)
Phone: 800-542-2322 (toll-free)
www.cadca.org

Drug Strategies, Inc.
Phone: 202-289-9070
www.drugstrategies.org

Join Together
Phone: 617-437-1500
www.jointogether.org

Latino Behavioral Health Institute
Phone: 213-738-2882
www.lbhi.org

National Asian Pacific American Families Against Substance Abuse (NAPAFASA)
Phone: 213-625-5795
www.napafasa.org

National Criminal Justice Reference Service (NCJRS)
Phone: 800-851-3420 (toll-free)
Phone: 301-519-5500
www.ncjrs.org

National Families in Action (NFIA)
Phone: 404-248-9676
www.nationalfamilies.org

National Hispanic Science Network (NHSN)
Phone: 305-243-2340
www.hispanicscience.org

National Prevention Network (NPN)
Phone: 202-293-0090
www.nasadad.org/Departments/Prevention/prevhme1.htm

Partnership for a Drug-Free America
Phone: 212-922-1560
www.drugfreeamerica.org

Society for Prevention Research (SPR)
Phone: 202-216-9670
www.preventionresearch.org

Selected References

The following references have been selected as either summaries of the literature of the past several years or as the latest findings on specific aspects of prevention research, which have been cited in this publication. For a more comprehensive list of research citations, please consult the NIDA Web site at www.drugabuse.gov.

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