

Prevention 2000:

THE
ROBERTWOOD
JOHNSON
FOUNDATION®



MOVING EFFECTIVE
PREVENTION PROGRAMS
INTO PRACTICE

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PREFACE

During the second half of the 20th century drug use and its attendant problems recaptured the attention of Americans in the late 1960s and early 1970s when illicit drug use, especially by youths, increased substantially. It was not until 1970 that the U.S. Congress, with the enthusiastic backing of the National Council on Alcoholism, recognized alcohol use as a cause of major public health problems. Congress responded by creating the National Institute on Alcohol Abuse and Alcoholism (NIAAA). In 1974 Congress established the National Institute on Drug Abuse (NIDA), with the mission of conducting research on the cause and treatment of substance-use disorders and the ultimate objective of eliminating the demand for illicit substances.

For the past 30 years various governmental and nongovernmental agencies and philanthropic organizations, including The Robert Wood Johnson Foundation, have funded research and program activities aimed at reducing alcohol and other drug problems. The mid-1980s saw stepped-up efforts aimed at understanding how to prevent problems, with a focus on preventing alcohol, tobacco and drug use by children and youths. Many of those efforts relied on school-based programming that used a variety of curricula to educate students about the hazards of alcohol and other drug use and help them avoid such use, often with mixed results.

Findings from these research activities have led to the promulgation of principles for effective prevention programs from numerous sources and calls on the part of those funding prevention efforts at the local, state and federal level for greater adherence to evidence-based programs. The U.S. Center for Substance Abuse Prevention, among others, has made “bridging the gap between research and practice” a priority for its funding activities and supports activities to help communities select and implement effective prevention programs.

In 1997, NIDA published *Preventing Drug Use Among Children and Adolescents: A Research-Based Guide* to “provide important research-based concepts and information to further efforts to develop and carry out effective drug-abuse-prevention programs.” Referred to as “The Red Book,” it includes an overview of the research on the origins and pathways of drug use, the basic principles derived from effective prevention research, and the application of research results to the prevention of drug use initiation among young people.

In 1998, the U.S. Department of Education adopted four *principles of effectiveness* and published nonregulatory guidelines for implementing them by agencies receiving Safe and Drug Free Schools and Communities Act funding. Those principles call for recipients of Title IV to:

- base programs on a thorough assessment of objective data about the drug and violence problems in the schools and communities served
- with the assistance of a local or regional advisory council where required by the SDFSCA, establish a set of measurable goals and objectives and design its programs to meet those goals and objectives
- design and implement programs for youths based on research or evaluation that provide evidence that the programs used prevent or reduce drug use, violence or disruptive behavior among youths

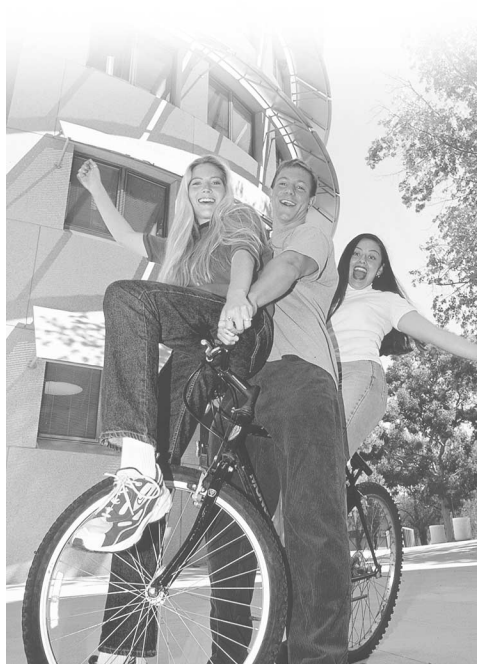


- evaluate its programs periodically to assess its progress toward achieving its goals and objectives, and use its evaluation results to refine, improve and strengthen its program, and to refine its goals and objectives as appropriate.

Another lesson taught by nearly two decades of prevention research is the need for a comprehensive approach, one that not only addresses the specific educational needs of individuals but also seeks to bring about basic change at the institutional, community and public policy level. This approach is grounded in the principle that the decisions that people make about alcohol and other drug use will be shaped by the physical, social, economic and legal environment that in turn can be shaped by a committed group of local prevention advocates, education officials, government officials and others. Consistent with current prevention research, many are now saying that a broader approach to substance-abuse prevention is needed, one that reflects a more complete understanding of how societal conditions drive substance abuse and related problems.

However, despite the extent of prevention research over the past three decades, some prevention professionals and researchers contend that not enough is yet known about what works in prevention and call for more rigorous formative research and evaluation of programs. Still others maintain that the prevention field should focus less on the effectiveness of programs *per se* and concentrate more on understanding which strategies have been shown to be effective, prompting discussion on the relative merits of school-based versus environmental versus community-based versus comprehensive approaches to prevention.

It is against this backdrop that The Foundation convened the meeting *Prevention 2000: Moving Effective Programs into Practice*.





INTRODUCTION

In October 2000, The Robert Wood Johnson Foundation brought 40 distinguished researchers and leaders in prevention together at a symposium in St. Michaels, Maryland, to consider the current status of prevention in the United States and the steps necessary to move effective prevention programs into practice. The Foundation's intent was to benefit prevention performance and outcomes by conveying to policymakers the conclusions and recommendations from this group of experts as they considered the next steps for advancing the prevention field in mounting evidence-based initiatives at the federal, state and local levels.

The meeting, called *Prevention 2000: Moving Effective Programs into Practice*, emphasized new ideas and opportunities for prevention. Participants were encouraged to think about the future of prevention and to focus on openings rather than barriers.

Nancy Kaufman, a vice president at The Foundation, said that The Foundation hoped that this meeting would result in concrete actions that could be accomplished to advance the field quickly. She urged participants to think of ways they could become involved to help implement recommendations.

Kaufman told participants that The Foundation sees its role as a facilitator within the prevention field to bring together others not necessarily in the field who also believe that it is important for alcohol and other drug prevention to make substantial advances in implementing effective programs.

In preparation for the meeting, The Foundation commissioned three papers as background reading for participants, who also received briefing papers from presenters to inform roundtable and working group discussions. This report includes summaries of the papers as well as the dialogue and recommendations of participants.

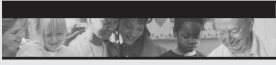
Participants at The Robert Wood Johnson Foundation's *Prevention 2000: Moving Effective Prevention Programs into Practice* identified a range of conclusions and recommendations for advancing the prevention of alcohol, tobacco and other drug problems in the United States. These findings, synthesized from the two days of presentations and discussion and summarized below, center on seven key points that can be addressed at the federal, state and local levels:

- **blend school-based and community prevention efforts to effect environmental change.** Community-wide approaches that involve broad participation of all sectors in the development of prevention efforts, including individually focused and environmental and policy focused, are needed.
- **link prevention programs with the primary mission of schools: academics.** Prevention efforts at schools need to be more fully integrated with academic curricula. The case needs to be made that time spent in schools on prevention programs contributes to academic success.
- **integrate prevention resource systems to support prevention efforts.** A more integrated approach that crosses disciplines and agencies is needed to maximize available resources. A less categorical approach to prevention is needed in order to address common risk factors. Prevention is about systems and strategies, not more discrete programs.



- **forge agreement on what is to be prevented as a foundation for program design.** Standards for definitions and terms across prevention disciplines need to be developed in order to avoid contributing to confusion in those looking for guidance.
- **employ new technologies to support prevention.** Technologies are now available to both reach individuals with prevention messages as well as disseminate information on evidence-based prevention to help communities develop prevention efforts.
- **increase funding, training and support for prevention researchers and practitioners.** Prevention works, but questions remain about both what works best in prevention and how communities can implement effective prevention activities.
- **learn what practitioners, including teachers, are doing at ground level.** Because of the likelihood that practitioners consider program components to be fungible, it is important to know more about which components are essential and in what combinations.



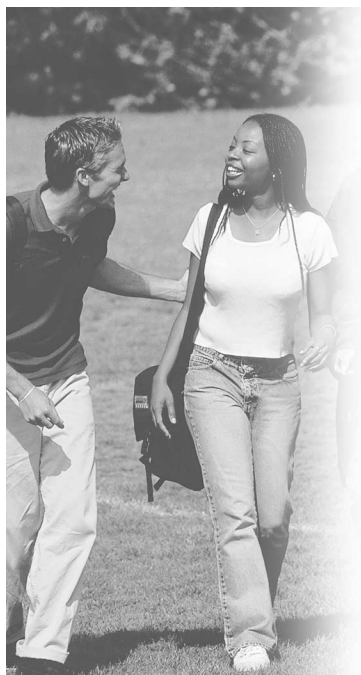


SUMMARY: Moving Effective Programs Into Practice

After a series of panel presentations and dialogue among meeting participants, they adjourned into three discussion groups, each considering a question posed by The Foundation to stimulate new ideas for advancing prevention. Their responses and recommendations are summarized below.

QUESTION 1: How can we develop common principles and a common language?

- *Get broad involvement in program design and research.* Stakeholders, practitioners, community residents and people from different community sectors should be approached from the beginning to work with researchers to identify problems that need to be addressed—and not just substance abuse, but other problems related to substance abuse. This would help identify key questions that need to be addressed by researchers. Karol Kumpfer, the former director of CSAP, used the image of a “bridge” between research and practice to make the point that it’s a two-lane bridge. It extends both from research to practice and from practice to research to provide feedback from people in communities about the issues and problems they deal with and the questions they think need to be answered. Stakeholders as well as researchers need to be held accountable for progress, process, outputs and outcomes, which means a full range of involvement of stakeholders in research.
- *Use a “child-by-child” approach.* Researchers and program developers would benefit from using a “child-by child” or bottom-up approach in developing programs. That requires identifying the developmental needs of children, and then identifying effective program elements to meet those needs. In other words, researchers and program developers should try to imagine the life of a child—for example a third-grader in a particular elementary school, in a particular neighborhood, from a home with a family living in poverty. What are the developmental needs of that child? What are the programs or interventions in the community that could address his or her needs and strengths?
- *Develop a “consumer report” for communities.* Communities would benefit from a report on program elements that makes it very easy for practitioners or community residents to see what choices they have, how effective these programs were, what they cost, how easy they were to implement and what their true impact was. That way prevention “consumers” can make informed decisions on whether they want to buy a particular product.
- *Create an ideal program or design.* Because a large number of model program elements or characteristics and principles of effectiveness are now being promulgated, it would be useful for people in the field to come together to choose from among these different programs and elements to come up with a fairly comprehensive program with a chance at being effective.
- *Design implementation strategies to take advantage of market opportunities.* The prevention field needs to become responsive to perceived needs in a community as expressed by residents and practitioners. This is essentially market-driven research that involves the potential market in identifying



problems and research questions that need to be addressed. Once products are developed, researchers can engage in market research with the community to see what it is really interested in and then adapt programs to meet those needs.

- *Develop an infrastructure for prevention.* This involves activities to develop receptivity on the part of communities and among stakeholder groups to make use of effective programs and effective research in prevention efforts. One approach is an international registry of proven programs across problem areas to inform people in different settings about the range of prevention opportunities. Such a registry could pull together research on the co-occurrence of disorders, such as substance abuse, mental illness, child abuse, violence, early sexuality and unwanted pregnancy. Studies supported by agencies in different fields do a very good job of identifying these variables in different ways, but they are not available in one place where researchers and practitioners have access to the finest studies to shed light on the co-occurrence of various disorders in various populations.
- *Broker for integrated programs and funding.* The idea is to build up a capacity for integrated efforts at the federal level. While schools are an important setting for kids, so are other settings. It's important to build up the infrastructure in homes, public housing, neighborhoods, schools, workplaces, recreational settings and so on. Settings with the capability for effective programs go far beyond schools.
- *Provide training and technical assistance.* Use community coalitions, such as the Miami Coalition, which have been in business for years and have had an impact, or university-based prevention-research centers as “apprenticeship” experiences so others can benefit from their experiences. They would act as “centers of excellence.”
- *Summarize existing prevention-services research and perform a gap analysis.* This would help inform decisions about research focus and funding.

QUESTION 2: What is needed to make effective programs available to local communities?

- *Understand the structure of communities by developing a partnership with the key leaders of those communities.* This will help assure that programs implemented in communities do not come from the “top down,” but rather are truly important to the community. Researchers and program developers need to understand the concerns of community members and their demands in order to help them assess their needs.
- *Establish links between prevention and education.* Much has been said about the interrelationships among different problem behaviors, the common factors associated with the development of these problems and the need in prevention efforts to integrate programs in order to address the range of risk factors. But educators have the job of teaching kids to read and write. They do not typically see themselves as having the responsibility of doing prevention. However, very little research has been conducted on the degree to which simply teaching kids well might effectively prevent many of these problems.



- *Determine the degree of allowable adaptation in order to speed diffusion and identify what is the “least-marketable unit.”* It may be that one way to disseminate programs is to get down to the smallest unit that’s marketable. What level of adaptation allows the program to still be effective?
- *Make implementation easier by providing support and by understanding constraints faced by communities.*
- *Organize advocacy for the science of prevention.* There is a need to clearly articulate what the problems are in terms of incidence, prevalence and costs. With this information communities and states can rationally prioritize the problems they want to address. For example, some people in a community may say they don’t mind if their children smoke cigarettes as long as they don’t use drugs. However, if they understood the relative risk of death attributed to this behavior, they might rethink their priorities. There is also a need for an organized system for advocating the value of science, both empirically based practices of programs and policies, as well as the value of other practices that underpin effective prevention, such as experimental evaluations of programs.
- *Make the case for cost-effectiveness.* While the field has some exciting cost-effectiveness analyses, there aren’t many. The more research of this type that exists, the better the case can be made for prevention programs. In addition, more needs to be learned about the relative cost-effectiveness of different programs. For example, a simple policy intervention, such as an excise tax increase, could possibly prevent a number of alcohol problems more cheaply than a program directed at individuals to reduce binge drinking.
- *Market prevention research to the rest of the field.* Researchers and program developers should market evidence-based prevention directly to the National Prevention Network and others who are professional practitioners, as well as to communities.
- *Identify opportunities to create and capitalize on “tipping points.”* Certain events function as tipping points in the sense that when they occur other things fall into place. The prevention field needs to identify opportunities to create those kinds of tipping points both locally and nationally. For example, the increase in marijuana use noted in the Monitoring the Future survey acted as a tipping point to stir interest in developing a national anti-drug media campaign.
- *Facilitate national peer-to-peer meetings.* Often one state will adopt something that has quite a bit of influence on other states. There need to be more opportunities for peers from different states to interact and share information.
- *Make it easier for systems to cooperate in evidence-based models.* People often do not understand community systems as well as they might, so are not in a good position to work with these systems in the communities to use the complex, evidence-based models.
- *Apply the same experimental evaluations to dissemination strategies.* In NIH stages of research, it’s at the fifth stage when programs go into the field. That assumes that they have gone through methods development, efficacy trials and effectiveness trials before their dissemination. When a prevention practice is believed to be effective, such as a teacher delivering a particular curriculum, it should be defined as a dependent variable subject to the five phases of research. In this example, it means measuring the teacher’s adequacy in teaching the program and conducting efficacy trials evaluating interventions designed to influence teachers to adopt or to maintain that teaching practice.



- *Create incentives for communities to blend funding.* Unless contingencies are set up, different funding streams tend to do nothing to get groups to cooperate. Setting up systems in which funds are blended or allowed to mingle in ways that would facilitate cooperation would be valuable. Financial incentives affect how organizations operate. Thus, if we want organizations to adopt practices that we think are meritorious, we may need to make funding contingent on such cooperation.
- *Increase use of Internet technology.* The Internet can help facilitate prevention in a number of ways. For example, the community toolbox Website at the University of Kansas had a million hits last year from all over the world. It has several thousand pages of information on all facets of community prevention.

QUESTION 3: How can we better help communities adapt or adopt programs to local circumstances?

- *Test adaptation models on a continuum from programs implemented exactly as designed to complete local adaptation models.* This will provide information on outcomes along the whole range of activity. Through the adaptation process, many communities and schools take pieces of programs to their own settings and arrangements.
- *Work with colleges of education to increase prevention education and in-service training.* Such exposure should start while students are undergraduates and be part of their ongoing in-service requirements. Teachers too often ask why they didn't learn about prevention in school or during in-service training when they are suddenly responsible for a prevention curriculum or program.
- *Document outcomes, including educational and academic performance outcomes.* Make the case that prevention programs may, in fact, affect academic performance by including such measures in prevention evaluation.
- *Build on core prevention components with targeted components for specific risk factors and behavioral problems.* Some commonalities exist in the needs of children in their development growth that can be tracked through all problem areas.
- *Support community organizations that can facilitate training, technical assistance, planning, and evaluation in schools and communities for implementing evidenced-based prevention.* Many important organizations are not part of a prevention partnership, so a great deal of responsibility and weight falls on schools. However, this is a community issue requiring community solutions.
- *Conduct resource-mapping to develop mechanisms for bridging science to practice in communities.* This requires carefully mapping a community and a state to see what is possible and what can be brought to bear on these problems.

Priorities of the Group and Next Steps

Meeting participants prioritized the recommendations of the three discussion groups into five areas that could form the basis for working groups to advance prevention agendas. These areas are:

Community and Institutional Partnerships—Focusing on recommendations aimed at developing broader involvement in setting research agendas, identifying resources through asset-mapping, increasing support for training and technical assistance to advance evidence-based prevention, promoting community partnerships and involvement in comprehensive approaches, and advocating for more integrated funding.



Program Fit and Evaluation—Identifying the developmental needs of children and the program elements to meet those needs. It also looks at test adaptation models to identify levels of effectiveness, identifying core and target prevention program components and “least-marketable units,” and on providing support to communities to make program implementation easier.

The Science of Ecology and Process—Pursuing recommendations aimed at better understanding dissemination issues by conducting experimental evaluations.

Integration and Expansion (Marketing)—Exploring the role of the Internet and other technology in prevention, integrating systems to increase cooperation for evidence-based models. Market research and advocacy are avenues to understand consumer-prevention needs and to demonstrate benefits of prevention. Such technology can also increase prevention infrastructures by conducting research on co-occurring problems.

Innovation and Advocacy—Organizing advocacy for the science of prevention through activities such as making the case for the cost-effectiveness of prevention and organizing peer-to-peer meetings across disciplines.

In the aftermath of *Prevention 2000: Moving Effective Prevention Programs into Practice*, a number of meeting participants volunteered to be members of the following three working groups based on those priorities.

Dissemination: Understanding the Process of Dissemination to Practitioners in Different Settings

This group will concentrate on the processes involved in dissemination and utilization of prevention research in diverse settings. The overall goal of this group will be to better understand how practitioners can be most effectively supported by research, including what marketing tactics would best promote the dissemination of effective programs. The group will focus on two major topics: first, how best to compile information on the most effective prevention practices; and how best to disseminate such information to the major community settings including school, after-school settings, workplace, home, treatment settings and faith-based settings.

Adaptation: Adoption of Effective Programs and Adaptation to Local Circumstances

The group will seek to answer two questions: ‘How can a given program be best fit into a community?’ and ‘Can a model be developed that is more adaptable for practitioners?’ This group will focus on how to improve replication by determining what is needed to modify programs so practitioners in local circumstances can effectively use them. They will consider means to evaluate the effectiveness of adaptation models, identify specific core program components and devise feasible methods of providing support to communities in their adaptation efforts.

Integration: Strengthening Community Linkages and Partnerships Based on Research

The purpose of this group is to encourage a more comprehensive approach to substance-abuse prevention through creative partnerships, with a special focus on the research-to-practice dynamic. This group will explore the concept of “community readiness,” work to identify lessons learned at the community level, and assess where particular interventions have succeeded and why. Focusing on the systems within communities, the group will also seek to identify evidence-based models of community behavior change. The near-term goal of the group will be to put together a prioritized action plan to move the issue of integration forward through cooperative activities among researchers, program developers, funders and community partners.



BACKGROUND PAPERS

A Snapshot of the Processes Used by States and Schools to Select, Implement and Evaluate Substance-Abuse Prevention

In anticipation of the *Moving Effective Programs into Practice* meeting, RWJF commissioned James A. Neal to provide the Foundation with information that may suggest potential areas of worthwhile programming to improve the current processes used by states, school districts and schools to select, implement and evaluate substance-abuse-prevention programs.

Neal, lead deputy at the South Carolina Department of Alcohol and Other Drug Abuse Services for more than 20 years and a former chair of the National Prevention Network (NPN), developed an interview protocol to find out the current state of affairs in schools regarding alcohol, tobacco and other drug prevention. He visited five states and interviewed 42 Safe and Drug-Free Schools and Communities (SDFSC) coordinators at the state- and school-district levels, as well as the state NPN representatives. He also conducted telephone and e-mail interviews with state SDFSC coordinators and representatives from NPN, the U.S. Department of Education's Comprehensive Centers Network and the Center for Substance Abuse Prevention's Regional Centers for the Application of Prevention Technologies.

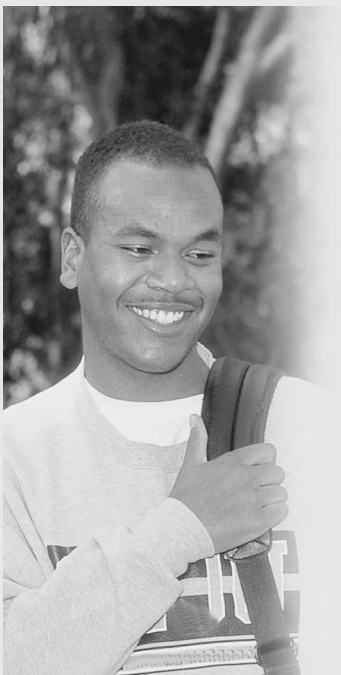
Neal's paper *A Snapshot of the Processes Used by States and Schools to Select, Implement and Evaluate Substance-Abuse Prevention* was distributed to participants in advance of the meeting and was presented during the opening session.

"After all these interviews I found out something that we all know: When we look at substance-abuse prevention, we see it differently. As I spoke with people around the country, I found that they have very different perspectives on what we should be doing in substance-abuse prevention. I also became more convinced that we need more dialogue on this topic. Dialogue is what is going to move us ahead," Neal said.

Some general findings from Neal's interviews included the importance of local control over school curricula, which is "valued almost universally in all states." Perhaps because of this widely held belief, the requirement by the U.S. Department of Education that recipients of SDFSC funds demonstrate adherence to its Principles of Effectiveness appears to be "a most welcome guideline at the state and local school district levels."

The requirement in the *Principles of Effectiveness for Prevention Programs* to show a positive outcome appears to be having an impact and is welcomed by states. People know about it and are changing how they select prevention programs for schools. It was also apparent that concerns growing out of the well-publicized cases of violence within schools have caused decision-makers to place a greater emphasis on violence prevention than on substance-abuse prevention.

Neal heard about barriers to implementing a substance-abuse program with fidelity. Many states have adopted standards of excellence for schools that focus on basic skills such as language and math. However, health is frequently absent from these standards and substance-abuse prevention was not mentioned as a separate standard. As a result administrators often do not see substance-abuse prevention as important enough to warrant the suggested time to implement curricula with fidelity.





Blend school-based and community prevention efforts to effect environmental change

“A frequently cited issue: whether to import an evidence-based program or integrate effective prevention throughout the K-12 curriculum. Because of these disparate views some school district and state coordinators said that they hoped they would never be mandated to use a particular curriculum,” Neal said.

Neal also found that long-range planning is not a strength within the substance-abuse-prevention field.

“Having a vision of where you want to go is not a strength, particularly within schools, state departments of education and school districts. They did not place much emphasis on what they wanted to happen five years from now in terms of substance-abuse prevention in schools. It’s much like Alice meeting the Cheshire Cat. We don’t know which way we want to go, so we just go any which way.”

Individual and Environmental Prevention Strategies

Environmental prevention works to change the underlying economic, legal, social and cultural processes of community life that contribute to substance abuse. Individual prevention strategies are those that focus on the problems and needs of individuals and seek to change individual attitudes, beliefs and behaviors regarding alcohol, tobacco and other drug use.

For example, an environmental approach to reducing underage drinking might involve training clerks to insist on proper age-identification when selling alcoholic beverages. An individual approach might involve education efforts, such as a media campaign, aimed at discouraging young people from drinking.

When it comes to blending environmental and individual prevention strategies for a comprehensive approach, Neal said that interviewees had a general understanding of the concepts. However, for the most part they didn’t have knowledge of action steps necessary to develop specific environmental changes within a community that would reinforce a specific curriculum approach within the schools.

“It appears that there is a need to assist schools and communities in planning prevention actions that reinforce each other. For example, if I’m trying to prevent underage drinking and I choose a particular curriculum to use in schools, based on the research literature, shouldn’t I also look at environmental policy changes that need to occur concurrently in the community? We need to learn more about how to blend these approaches and avoid arguing about which is better,” Neal said.

Program Selection

Neal found that, in general, states had not developed guidelines or principles beyond the *Principles of Effectiveness* to help them make programming decisions. States used publications such as *Making the Grade* to assist in making choices about programs they were going to use. The most frequently mentioned programs they used were Life Skills Training, Project Alert, DARE, Second Step, I’m Special, and All-Stars, as well as parts of programs such as Here’s Looking at You, Prime Time, Skills for Adolescence, Stars and a number of others. A number of schools also used state or locally developed curricula. In some cases, instead of purchasing existing programs, states said they preferred to create their own.

What influences the choice of programs? According to Neal’s survey, factors in program selection include costs, adherence to the *Principles of Effectiveness*, history and use, as well as the availability of information on programs and identified needs.



Integrate prevention
resource systems
to support prevention
efforts

Training

“Most states do not have specific training requirements for the district’s SDFSC coordinator, with some notable exceptions. For example, under Vermont state law all teachers must receive substance-abuse-prevention training and Virginia contracts with James Mason University for training on effective prevention practices and offers one-day-a-year technical assistance in substance-abuse prevention to all its school districts.” Neal said. As a next step for consideration, he suggested that schools and communities receive improved technical assistance. The need for time and resources for technical assistance was a common theme in his survey.

Neal summed up what he believes should occur: “We need a commitment to change, and that commitment is made as much with the heart as it is with the head. With the heart, it’s the commitment to see things get done differently. With the head, it’s the commitment to use evidence-based programs and performance-based measures instead of just going on as usual and doing programs. We need to be guided by evidence-based theories and practices that blend environmental and individual approaches. We’ve got to learn how to blend these two approaches so that at the same time we are implementing a program in a school, we look at those things that need to occur within the environment to reinforce that program.

“We need, both simultaneously and consistently, to use evidence-based theories and programs at multiple levels that follow a logic model in planning. We also need an integrated state or community-prevention-resource system. Every state and every community has a prevention-resource system. Some are more intentional than others. Some are networks and some aren’t. If we approach these as systems instead of programs, we may be more likely to sustain efforts. We need to advance a systems approach,” Neal concluded.

Drug-Abuse-Prevention Research in the U.S.: The Challenge of Taking Effective Programs from the ‘Laboratory’ to the Community

In her background paper for the meeting, *Drug-Abuse-Prevention Research in the U.S.: The Challenge of Taking Effective Programs from the ‘Laboratory’ to the Community*, Zili Sloboda, from the University of Akron, says that a major challenge to drug-abuse prevention is “the great gap that exists between the development of effective prevention programs and the delivery of these programs.”

Prevention research during the 1980s and 1990s has led to greater understanding of what kinds of programs are effective in preventing substance abuse by youths. According to Sloboda, the success of these programs has largely been based on the combination of availability of behavioral theories, improved understanding of how children learn and improved information regarding factors associated with both children’s use of drugs and their resistance to use drugs.

“These programs carefully translate this information into program components and messages. Their effectiveness depends greatly on how closely their delivery faithfully follows the original design.”

But while the results of these proven prevention programs give new hope to practitioners at the community level, Sloboda said not all communities use these proven programs.

One research finding informing contemporary prevention efforts is a broadened understanding of the origins of substance abuse and other mental health problems. This has resulted in a move from a public health classification system of intervention programs, which focused on the stages of disease progression: primary,



secondary and tertiary prevention. The focus is now on the individual's level of involvement with alcohol or drugs, or with other problem behaviors.

“This approach recognizes that those receiving prevention program services have differing needs. Under this system, activities targeted to the general public or a whole population group that has not been identified on the basis of individual risk are called universal programs. Selective interventions are those delivered to specific populations known to be at higher-than-average risk. Indicated interventions are those that directly address individuals who may have experienced one or more problems associated with alcohol or drugs,” said Sloboda. “Use of this classification system not only helps communities select programs that address their specific needs, but also serves to guide the prevention research field to where more program development and research are needed.”

Factors Contributing to Substance Use

Research has led to a better understanding about how children learn and about what distal and proximal factors and processes lead to the initiation of drug use. Sloboda said that, on the basis of this knowledge, prevention researchers are developing theories that articulate the relationship between these factors and processes. These theories are then transformed into the content and structure of prevention programming.

“We call these elements of the program mediators. It is by affecting these mediators that we intend to eliminate or reduce drug use. Researchers today are beginning to examine the relationship between these mediators and drug use to determine which among them has the greatest impact. This knowledge will serve not only to streamline prevention programs but also will serve to modify existing theories regarding the initiation of drug use,” Sloboda said.

Program Delivery

Sloboda's paper underscored one of Neal's survey findings about barriers to implementing substance-abuse programs with fidelity. She points out that researchers share similar concerns about how well programs are delivered and how well they are received. Some studies have found that children exposed to a program delivered by instructors who maintained high implementation fidelity had better outcomes than those exposed to the program delivered by instructors who implemented the program with low fidelity. But children exposed to the program delivered by “low implementers” had better outcomes than children did in the control conditions. For example, students who received 60 percent of the Life Skills Training program had better outcomes six years after the intervention than children in a control group.

Prevention researchers are also looking at programs found to be effective in determining the elements consistently included in these successful programs. In 1996, NIDA compiled 14 principles of effective prevention programming in the areas of content, structure and delivery of the program that emerged from its research in *Preventing Drug Use Among Children and Adolescents: A Research-Based Guide*.

Sloboda said that prevention researchers are continuing to develop and test prevention programs that are tailored to the specific needs of a variety of populations. They are working to determine the key ingredients of successful prevention programs and are concerned about how communities can best deliver these programs so that their integrity is preserved enough to have an impact on drug use.



Community Implementation

How are communities implementing these research findings? According to Sloboda, most importantly, communities are reassessing their need for prevention services in light of a number of other forces currently converging on them, including some regulatory imperatives.

The structure of prevention programming in the United States focuses on children in schools. A recent survey of school districts completed by Denise Hallfors, of the University of North Carolina, found that the most popular program is Drug Abuse Resistance Education or DARE (82 percent). Following DARE in descending order of popularity are: Here's Looking at You (63 percent), McGruff's Drug Prevention and Child Protection (52 percent), Life Skills Training (41 percent), Project Alert (31 percent), and Star or I-Star (21 percent). However, Sloboda pointed out, "from this list of middle school programs, only Life Skills Training, Project Alert and Star have been evaluated and found to be effective. The available evaluations of DARE focus only on the elementary school program and have demonstrated only short-term effects."

In addition to issues of fidelity in delivering the programs to increase their success, Hallfors' survey also found that in more than half of the school districts, prevention programs have been altered by school staff. This suggests that even if schools were delivering programs with demonstrated effectiveness, the programs' impact could be reduced.

Sloboda said that those interested in promoting effective prevention can draw a number of conclusions from this situation. "We have prevention researchers developing effective prevention programs. We have researchers examining what components of prevention programs make them effective. We find that the research demonstrates that delivering the program as it is designed in content and structure is extremely important to maintain the high rates of success achieved while studied under more controlled circumstances. However, within the community we find that not only are research-based prevention programs not being delivered, but also when teachers deliver programs of any type, the key components are not delivered with sufficient intensity to make a difference. Why is there this gap between research and practice? And how can we close this gap?"

Not Schools Alone

For Sloboda the explanations lie on both sides. Schools, the settings in which prevention services are most often delivered, have a primary purpose of educating children. Nevertheless, schools have taken on other health and social services as these have been found to affect the learning process. In addition, as violence in our schools has become more serious, even law-enforcement officers are becoming permanent members of the school community.

"Teachers are expected to take on responsibilities other than teaching, even at a time when there is increasing pressure on them to raise the academic achievement levels of their students. The school, its administration and its teachers are being pulled in many directions. It is not surprising that teachers adapt prevention programs within this context. They alter prevention programs because teachers see that academic achievement is their basic responsibility. Teachers also may not feel comfortable with the approach used by the prevention program manual. The emphasis on interactive methods may run counter to the training teachers receive in more didactic methods," said Sloboda.





Link prevention programs with the primary mission of schools: academics

According to Sloboda, other systemic threats to successful implementation include: (1) separation of those who select the type of program being delivered, such as the school district superintendent, from the teachers who would implement the program; (2) low priority usually given to health education, particularly for children in grades six and seven, who are those most likely to be the targets of drug-abuse-prevention interventions; and (3) lack of fit of the intervention itself with existing programs or the specific needs of the schools.

Sloboda's paper also echoed Neal's call to pay more attention to environmental prevention strategies to reinforce programs that take place in the schools. Sloboda said that, "although less studied, it is also clear that the environmental settings in which children learn and live will impact how they learn and in what behaviors they are likely to engage. What goes on in the classroom and school while students receive an intervention and what they face when they go home heavily influence the extent to which they accept the credibility of information delivered in the intervention."

Transferring From Research to Practice

"In the best of all worlds, the transfer of new approaches to prevent drug abuse would include several sectors of society: researchers, practitioners, policy makers and the public. Each of these groups has a different perspective on the problem of drug abuse and how to prevent it. Each should have a voice in the development and selection of prevention programming for their communities. However, there is currently no forum for such conversations," said Sloboda.

According to Sloboda, the process for the transfer of evidence-based prevention program—or *technology transfer*—consists of three related dimensions: dissemination, diffusion and replication or adaptation.

"Dissemination consists of taking the information about an effective program and telling practitioners, policy makers and the public about it. Diffusion relates to the delivery and adoption of the program, and involves training and practice, while replication concerns how the program is delivered. Each component of technology transfer can be implemented in various ways. Dissemination can be achieved through the printed word in journals, brochures, news stories and over the Internet. Diffusion can be achieved through face-to-face training sessions and through self-teaching approaches with detailed manuals or videos—with or without feedback. Replication also can be approached through a variety of techniques, with monitoring being conducted by independent raters, self-assessment, or through full evaluation processes with ongoing quality assurance."

However, in the absence of an existing structure to support such a process, today technology transfer is sporadic and incomplete and can be viewed as the new frontier for prevention research in the United States, said Sloboda. She thinks that theories from many diverse disciplines, such as communications and marketing, can be applied to this work to aid in dissemination.

Sloboda said that a number of questions also require research. For example, "What is the differential impact on diffusing prevention programs when using formal structures such as graduate schools of education versus using more informal structures such as existing community coalitions? What types of research questions would need to be asked regarding these components? What factors influence whether an instructor delivers a prevention program with high fidelity? Are there differences in how teachers are trained? What have their prior teaching experiences been? To what extent do current drug-use patterns affect children's responsiveness to prevention messages?"

Involve a wider range of sectors in the development of community prevention programs



Forge agreement
on what is to be
prevented as a
foundation for
program design

According to Sloboda, the need to close the gap between researchers and communities in the United States is of immediate concern to communities and those in the drug-abuse-prevention field. Major funding agencies of prevention programs will require communities to either deliver only programs with demonstrated effectiveness or, if they deliver unevaluated programs, to conduct a full evaluation of their programs. The implication of these pressures for the future of drug-abuse prevention is that there must be closer communication between prevention researchers and communities.

Sloboda said that without more proactive and focused efforts and, most importantly, without an established infrastructure for technology transfer and communications based on the outcomes of research, the chances of developing a strong national prevention service system will be compromised.

“The future of drug-abuse prevention in the United States requires that researchers, practitioners and policy makers reach out to each other to work for the common good of our young people. Until we can bridge the existing gaps among us, we will continue to struggle against drug abuse and its related problems.”

Identifying Effective School-Based Substance-Abuse-Prevention Interventions

Michael Roona, executive director of the Social Capital Development Cooperation in Albany, New York, coauthored what has been described as a definitive meta-analysis of school-based drug-education program evaluations in order to identify program characteristics that are most effective in reducing the use and abuse of different substances at different grade levels.

In *Identifying Effective School-Based Substance-Abuse-Prevention Interventions*, a background paper for the meeting, Roona and his colleagues say that in order to implement effective interventions, “we must know which types of interventions are effective. We also need to know if some interventions are substantially more effective than others, and whether the benefits derived from the more effective interventions are worth the cost. Finally, we should know whether some interventions are more likely to be implemented fully and correctly by those responsible for implementation, and we should know about any adverse consequences that may derive from implementing different types of interventions.”

The authors also say, “before we can implement effective substance-abuse-prevention interventions, we need to know what we are trying to prevent. Are we trying to prevent the use of cigarettes? The abuse of alcohol? Is binge drinking the primary concern or is driving while intoxicated? An intervention may succeed in reducing underage drinking (or delaying the onset of alcohol use by underage youths) by reinforcing negative attitudes toward alcohol in some youths. However, among youths who are predisposed to consume alcohol, that same intervention may encourage reckless behavior by inciting youths to play drinking games or to drive while intoxicated.

“Conversely, an intervention may be highly effective at reducing binge drinking by encouraging moderation, but have no effect on the prevalence or frequency of alcohol consumption. How we define the measures of success for an intervention will have a potentially profound effect on the ‘success’ of the intervention. Promoting abstinence does not necessarily reduce harm, and reducing harm is not likely to encourage abstinence. Furthermore, ‘the drug problem’ in America is socially constructed in terms of the abuse of crack, crystal meth, heroin or other ‘hard’ drugs.”



Comparing Program Effectiveness

Roona and his colleagues used meta-analysis statistical techniques in their review in order to synthesize the ensemble of available studies to quantitatively assess the effectiveness of different types of universal school-based drug-education programs. They examined the relative effectiveness of comprehensive life skills and social influences programs on the use and/or abuse of different substances at different grade levels.

The researchers found that previous findings about the superiority of comprehensive life skills programs appear to be true at the elementary and high school levels, but not at the middle school level. At the middle school level, they found no difference between the effectiveness of comprehensive life skills programs and social influences programs for cigarettes, marijuana, all drugs combined and all drugs excluding alcohol. For alcohol measures, social influences programs were significantly more effective than comprehensive life skills programs. Furthermore, the “success” of the social influences programs is largely attributable to their ability to reduce alcohol abuse. However, such programs have no effect on the prevalence of alcohol use.

According to the researchers, the superiority of the social influences programs—relative to the comprehensive life skills programs—at reducing the prevalence of alcohol use at the middle school level is a consequence of the fact that comprehensive life skills programs are counterproductive. That is, they encourage alcohol use without reducing alcohol abuse. They concluded that promoting abstinence might not be a viable objective when substance use is normative, but preventing abuse and its attendant harms may be viable.

The Dilemma for Policy Makers

“The dilemma for policy makers is to make informed decisions about what types of programs to implement given the contingent nature of evidence regarding program effectiveness. Because the social influences programs have consistently demonstrated their superiority as generic substance-abuse-prevention programs at the middle school level for all substances we examined, we feel fairly confident in recommending them. We are less certain of the finding that refusal skills are not an essential curriculum component, simply because so few interactive drug-education programs taught refusal skills. But if the time and effort required to do role plays that teach refusal skills is great, interactive drug-education programs that do not teach them may be more cost effective and easier to implement. Further research is needed to assess the importance of teaching refusal skills and their costs relative to their benefits.

“If prevention interventions in American schools are to take the form of classroom-based universal drug-education curricula that focus primarily on middle-schoolers (as the Safe and Drug Free Schools Program’s Middle School Prevention Coordinator Initiative seems to indicate) and emphasize preventing tobacco, alcohol and marijuana use (rather than ‘hard’ drug use), perhaps the curricula should emphasize social influences rather than comprehensive life skills. Determining whether school-based prevention interventions should take the form of universal drug-education curricula implemented in classrooms, however, is beyond the scope of this paper. It may well be the case that student assistance programs targeting the needs of ‘at risk’ youth or school restructuring activities that create protective schools (or some combination of the above) are better approaches,” Roona and his colleagues concluded.



PANEL PRESENTATIONS AND DIALOGUE

What Promising Efforts Are Underway to Get Effective Prevention Programs Disseminated and Adopted?

Over the past few years a committee that includes representatives from a number of federal agencies and other organizations has been working to develop performance measures of effectiveness in drug prevention. Darlind Davis, from the Office of National Drug Control Policy, said that impetus for developing federal guidelines came from the struggles of practitioners at the local level who were asking the federal government to come up with some basic prevention tenets that could be understood in plain English, “not using the language of the various disciplines.”

“In the 1920s Margaret Mead said that disciplines were created so everyone could go and find some truth and then come back to the table and share it. But they went off and developed sociology, anthropology and so on, and each thought he [or she] had found ‘the answer.’ Mead found it unfortunate that people didn’t come back and put their findings together. That’s what we’ve been trying to do,” Davis said.

Meeting participants from seven agencies—the Office of National Drug Control Policy, the Department of Education, the National Institute of Mental Health, the National Institute on Drug Abuse, the National Institute on Alcohol Abuse and Alcoholism, the Center for Substance Abuse Prevention, and the Office of Juvenile Justice and Delinquency Prevention—contributed panel briefing papers for the *Prevention 2000: Moving Effective Prevention Programs into Practice* meeting.

ONDCP’s *Evidence-Based Principles for Substance Abuse Prevention* includes 15 principles and guidelines drawn from literature and guidance supported by the departments of Education, Justice, and Health and Human Services, as well as ONDCP. Some of the principles have been tested in laboratory, clinical and community settings using rigorous research methods. Others were developed using techniques that meet other research standards, resulting in a set of principles that are broadly supported by a growing body of research.

Davis said that the ONDCP evidence-based principles “cross various other principles, but do not replace each agency’s discrete guidance for the particular federal programs they support.” The ONDCP principles are available in Spanish, “which we’re using especially along the United States-Mexico border. We are sharing what we have found from research, based on our experiences in the United States, with our international colleagues,” Davis said.

Prevention in the Schools

Bill Modzeleski, director of the Department of Education’s Safe and Drug Free Schools Program, believes that regarding prevention in schools, it’s not a question of *whether* change is needed, but rather “how quickly we can create change and how drastic that change can be.

“When we talk about change, we have to consider two things. One, the school day is changing dramatically.





Prevention is about systems and strategies, not more programs

And emphasis on academics and assessment is affecting what goes on in drug prevention as well as the other prevention fields. In addition, kids are changing significantly. We need to look at both the change in youths as well as the change in school days when we begin to create prevention programs,” he said.

Secondly, according to Modzeleski, prevention is not about more programs. “This is about systems and strategies—about tying together what we are doing rather than simply adding more programs. The school day has no time for more programs. This is about making cultural changes and linking schools with communities and parents. We have to move away from just focusing on programs.”

People express concerns about the shortage of resources for prevention, but Modzeleski said that while there may be a resource shortage, “we really also need to do better with the resources we have. We also need to do better in connecting with the available resources.”

The Foundation posed four questions to panel participants. In response to the first question, “What is the most promising opportunity for prevention and why?” Modzeleski pointed to the Department of Education’s middle school coordinator program.

“We are funding approximately 450 people full-time to go into middle schools to focus on learning about current research and translating that research into action. We are now into the second cohort of 450 people, so we have a base of people working full-time in middle schools around the country that we can utilize to take good practices and translate them into action.”

In response to the question, “What opportunities do you see to help the practice of prevention?” Modzeleski said that the current focus on standards of academic excellence poses an opportunity for prevention.

“If we make it clear that drug prevention, violence prevention and teen-pregnancy prevention are linked to academic performance, we will be way ahead of the curve. We should begin to look at how to make those links.”

In response to the question, “What do you think are the critical next steps for prevention?” Modzeleski said that in his view “we need to do a better job linking existing programs, get the community involved and energize and excite kids.”

“We can’t sit at a table creating programs for kids without getting kids to tell us what’s going to turn them on and excite them. Too often when I visit a classroom and ask kids about drug prevention, they’ll tell me the programs suck—that’s their terminology, not mine, but it’s accurate. We need to change the way we deliver programs.”

Responding to the question, “What promising programs or information not yet in practice or circulation can you describe?” Modzeleski said that we need a better definition of success.

“One of the things that’s really confusing for me and confusing for schools when we talk about prevention is what we mean by ‘success.’ We must have this discussion so educators and policy makers and school board members know that if I do ‘x’ I could expect ‘y.’”

Modzeleski also would like to see how programs could be tied together in a seamless web of activity. “I think our focus is too narrow. This is not just about drug prevention. It’s really about risk factors that kids bring with them to school. They are coming to teachers or counselors with a host of problems related to

Get the community involved



Take a less
categorical approach
to prevention
programming

family, drugs, alcohol, sleep deprivation and so on. But, since there's not a lot of time in the school day, we need to develop a strategy to deal with these issues in a more seamless web."

Another promising area for Modzeleski is increased use of technology. "One of the things we don't discuss enough is how to use technology. We are in the year 2000 and kids are on the Internet. They are probably much more proficient with technology, yet none of us talks about using technology to develop prevention strategies and programs and prevention."

Multidisciplinary Approach Needed

Doreen Koretz, associate director for prevention at the National Institute of Mental Health, divided her comments on opportunities for prevention into two categories: substantive issues and tools needed to advance prevention.

"We need to take a less categorical approach to prevention programming. We know that these things are packaged—they don't tend to occur in single kinds of problems. It's certainly true for mental disorders and substance abuse, and for violence and substance use. We know there are lots of common risk factors over a wide variety of outcomes, especially in the younger age range. Yet the funding and the packages we're selling tend to be very categorical, which is partially a function of how we have funded these programs. We have separate projects—and sometimes even the same investigators—looking at substance-abuse programs, mental health programs, HIV, violence and so on. It's expensive for programs and confusing in the field. It's probably worthwhile to repackage and rethink some of these projects, which I think we can do in a way that maintains accountability."

According to Koretz a second area worth considering is social norms. "While there has been a lot of interest in social norms, less work, less research and less programming has taken place in this area. We have to think beyond basic public service announcement approaches and start using behavioral research in areas such as persuasion and large-group process that the advertising field uses. In the HIV arena there have been some very interesting attempts using local opinion leaders to change the social norms within small contexts."

As for tools that might be made available to help the field move ahead, Koretz said that one of the problems has to do with bringing more people into the field, as both practitioners and researchers.

"We simply don't have a lot of new blood coming into this field. I wonder whether we could think about some ways to attract people, such as funding, to bring them into the prevention arena. We need to think about the infrastructure of prevention programming way beyond the schools. We look to the schools, in part, because that infrastructure is there. But in terms of where people go for help, they go to primary-care physicians, to Head Start programs, to the courts and other places. We have to develop an infrastructure for delivering prevention programming into some of those other systems."

Koretz said that a third opportunity for prevention is to come up with ways to accelerate the accumulation of knowledge and the development of new hypotheses. "We see a lot of the same models coming in over and over again. There are not a lot of new ideas or hypotheses on how to do prevention more effectively. It might be useful to have an annual, week-long working research institute that brings researchers together



Employ new technologies to support prevention.

from a variety of prevention arenas with practitioners to say: ‘What are the new ideas?’ ‘What are the real issues?’ ‘What’s coming out?’ That way we won’t have to wait for three years until the information hits the scholarly journals.”

Adopt and Adapt

As for issues of adoption and adaptation, Koretz says that it is a struggle. People have no clue about this area because “we have this great irony. We demand fidelity from our programs, but this inhibits adaptation. On the other hand, if we allow these programs to be adapted, the findings don’t hold up. We don’t really know what’s going on in terms of getting things adopted. But more importantly, why are these programs so fragile? If we’re really hitting the critical mediators—and we seem to be hitting the important variables—there’s an assumption that it’s due to dosage. But I don’t know that it’s only dosage. We have problems in content and perhaps in the way things are delivered. This is the theory of how the intervention is delivered and how kids are persuaded. It may be an issue of the relative salience of different program components according to developmental level. Michael Roona’s paper pointed out that certain variables for middle-schoolers may be more important than they are for high school students. We need to revisit that question.”

Koretz also underscored the need for ready access to evidence on effectiveness. “Different people use different criteria for judging success. But different areas and different programs need a way to access the relevant dimensions of success to be able to compare different kinds of programs. Whether it’s a full-blown registry or something similar in a smaller scale with information about different components of success, it would make the system more flexible.”

Koretz concurred with Modzeleski on the importance of using new technologies for prevention—both for training prevention practitioners and also for the delivery of intervention services.

“Using cyber-interventions raises ethical issues because there are a lot of implications, but we really need to start thinking about it. We know from survey research that people are very comfortable using computers to answer sensitive questions and computer-based interventions can go out more broadly on a population level,” she concluded.

Give Communities What They Want

Elizabeth Robertson, chief of the Prevention Research Branch at the National Institute on Drug Abuse, said that NIDA has been conducting research on the basic science of prevention to understand what causes programs to work when they do work, whom they work for, and under what conditions. In addition to the mediators and moderators discussed in Sloboda’s paper, NIDA is also looking at program content, client population, characteristics of implementers and the characteristics of the settings in which programs are implemented to try to tease apart what is it about these programs that makes them work. “That’s what communities want to know. They don’t want the canned programs—they are going to fuss with them. That’s what we’re trying to figure out,” said Robertson.



Develop standards for definitions and terms across prevention disciplines.

At the other end of the spectrum, NIDA is emphasizing funding research on the aspects of organization-management delivery and prevention services that affect selection, adoption and adaptation of programming. “We have a number of good efforts under way. Now, the big picture looks like a bunch of puzzle pieces that we don’t know how to assemble. We are trying to figure out how we can juggle these pieces around and get them into some sort of order to help us to advance the field.”

According to Robertson, the first step needed is a status review to figure out what is really known about prevention efficacy and effectiveness. What might be appropriate criteria for certification of prevention? How can we develop the next generation of researchers? What is the relative effectiveness of program components versus strategies?

“By components, I mean family-based and school-based components versus strategies like social-skills development or norms change, contribution of implementation features, existing dissemination structures and policies. Many more dissemination structures are available than we are currently using. For example, the DEA, the Office of Juvenile Justice and Delinquency Prevention and others have dissemination structures. We’re not bringing these into a systemic approach to this problem,” Robertson said.

Steps for a Systematic Approach to Prevention

Robertson outlined several steps needed to achieve a systematic approach to prevention. The first is activities to achieve standardization in the field.

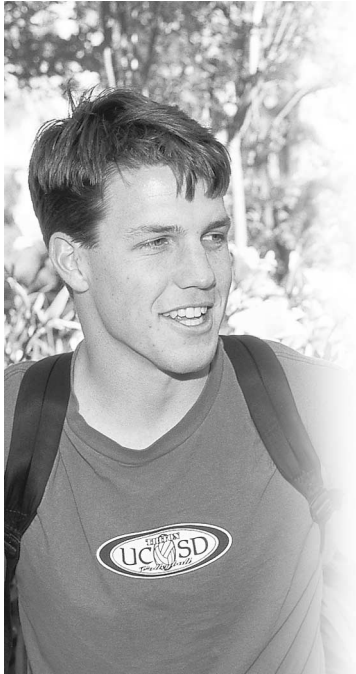
“We are multidisciplinary, but we tend to have disparate definitions and terms, which presents confusion to practitioners. We need to come together and develop standards for definitions and terms. We need standards for criteria of effectiveness that we can all agree on across multiple levels and types of programming. We need some criteria or standardization for training and certification—of not only practitioners but also prevention researchers. We have no big university programs to train the next generation of researchers. We need to have standards for best practices for implementations, which would be a move away from content into how we actually do it. We then must develop measurement practices that can be used across studies and across communities to make comparative judgments about where we’re going.”

Robertson also called for an examination of the research and testing system components, which would include looking at needs and readiness assessments. “Communities want to know what the best program for them is, but maybe it doesn’t need to cost so much money to get that kind of information,” she said.

“Once we have that we can move into tailoring studies to look at some of these diverse implementation systems, levels of intervention, populations and contexts. We need to move into some multi-site dissemination trials that look at disseminating some model programs with different populations.”

According to Robertson, the next step would be the development of a system that looks at evaluation and systems feedback to support a continuous, ongoing assessment.

“We sometimes think of prevention as being static. You have a program: It works. But Bill Modzeleski said that kids and the social context are changing all the time. We need continuous feedback on what these programs look like and how they work. And we need comparisons across studies so we can understand adaptation better.



We need to identify key principles that seem to pervade the whole system. Finally, we need to refine the standards and practices we come up with.”

Looking to the future, Robertson said that “we need to look at program impact in terms of cost-benefit effectiveness and sustainability, policy and regulation change, and modification of systems in order to get those programs institutionalized that are found to be the most effective.”

Researcher Activists and the Dissemination of Research

Commenting on the dissemination research discussion, Jan Howard, chief of the Prevention Research Branch at the National Institute on Alcohol Abuse and Alcoholism, said that some of the best researchers are extremely active in alcohol-related programs. “They are changing the world and they are changing it through science.” She pointed to Ralph Hingson, of Boston University, who was active in promoting the policy implications of his research on the impact of .08 blood-alcohol-level laws on traffic crashes. That research helped to convince Congress to pass federal legislation pressuring all states to adopt .08 laws.

But Howard says that people don’t necessarily have to be activist researchers to make a difference. “By our very research in the community, we are teaching a cadre of people and learning with them how to make change. It leaves a residue which may or may not remain—we are not necessarily cognizant of where change is taking place as a result of research.”

To Howard it’s abundantly clear that research is not separate from dissemination when “presidents of colleges are sitting down with our best researchers for our prevention-of-binge-drinking-at-colleges program and working out a long-range plan. I believe that this project and some others we are involved with have long-term implications for the dovetailing of research and practice.”

Howard said that NIAAA recently convened a group to develop its statement about prevention. “I was able to get people together to really think about how we’re going to approach this question. Basically, the group concluded that ‘we can’t say much about effectiveness except in the policy area and we may just have to live with that uncertainty and say that this much we know.’”

Howard said, “I have changed the practice in our institute because we were not getting intervention research; we were getting the risk factor and etiological research. Now researchers who want NIAAA prevention money have to try to effect change—and that doesn’t mean studying dissemination. It means testing interventions to make changes. You don’t often need to know what caused something in order to change it, as I keep reminding people. The answer is that we won’t achieve certainty, but we have to try.”

Promoting Accountability

Paul Brounstein, director of the Division of Knowledge Development and Evaluation at CSAP, agrees with Howard. He said, “Over the last 20 years we have learned a substantial amount about what works for whom and under what conditions. We haven’t learned an awful lot about why things work. But you can’t always know why, or at least you can’t always wait until you know why to move things ahead.”

According to Brounstein, CSAP has taken a much harder look at what it is doing—and part of that is trying to be more accountable about how it spends its money. That has trickled down to the communities



that it deals with because they need to be accountable as well. Currently all CSAP funding has set-asides on how much must be spent on evidence-based prevention.

“Most communities get funding from multiple sources, and each has its own set of requirements, so communities come to us and ask us, ‘Which shall I use?’ What we have done is create confusion in the field,” said Brounstein.

In response to that confusion and to provide guidance to communities, in 1994 CSAP reviewed results from its High-Risk Youth Program to identify those that had undergone rigorous evaluations with consistently positive results. An expert review consensus process selected seven as model programs. In 1998 CSAP expanded that process through its National Registry of Effective Prevention Programs, which reviewed prevention programs funded by other federal agencies, state governments or private foundations against 15 review criteria. These included ratings regarding readiness of programs for broad-based dissemination and made more specific some of the original criteria. It also implemented a multifaceted dissemination system.

“We pull out what can be the cornerstones of prevention programs in the communities. We fully expect that people are going to modify these programs. We want to provide guidance on fidelity and adaptation. And CSAP has an aggressive marketing plan for these materials. The NREPP Website offers a good deal of information on this project,” said Brounstein. “The key is to create a public-private partnership so that the federal government is not solely responsible for getting these programs out to the communities, but rather to rely on groups and national organizations that have their own dissemination networks in place.

CSAP has agreements with such groups as the Boys and Girls Clubs of America, the National Head Start Association and others to pilot test programs and move them into the field once they have demonstrated that they can be replicated both in implementation and results.

“We also try and provide support to these organizations, because if you don’t provide support, all the model programs in the world aren’t going to get you anywhere. Our online Decision Support System provides technical support in terms of needs assessments, grant writing and matching community needs with program selection. We also support six regional Centers for the Application of Prevention Technology to provide training and technical assistance, primarily to the state incentive grantees and their sub-grantees—and resources are tight,” said Brounstein.

CSAP is also working with the Department of Education to provide local evaluators. In this way, communities that say, “We have a great program but we just don’t have good data,” can hook up with people at the land-grant universities, such as students who are looking for master’s thesis or dissertation topics, to get them involved with local evaluation activities.

As for opportunities for prevention, Brounstein believes that the field is at point where it can come to broad consensus on model programs and interventions. “Regarding the roles of programs versus principles, we have seen people take principles that have a scientific basis and put them together in ways that you might not imagine, and expect that they are going to get some kind of effective result. When they don’t, they are surprised,” he said.

Provide specific guidance to communities



Promote community-wide approaches

“We also need to talk about the systems development that is required locally to support prevention. I would like to see us connect prevention funding streams to make this consensus and promotion process easier and more efficient. And, because fidelity and adaptation requirements are important, we need sustained training and technical assistance,” Brounstein concluded.

Community-wide Prevention Approaches

Kellie Dressler-Tetrick, coordinator of the Safe Schools Program in the Office of Juvenile Justice and Delinquency Prevention, said that OJJDP views these prevention principles as being especially relevant to juvenile justice and delinquency prevention. The key is to address the major risk and protective factors starting early enough and using community-wide approaches, such as the Safe Schools/Healthy Students Initiative.

“This initiative at the federal level is unique. The departments of Education, Health and Human Services, and Justice came together to provide not only funding but leadership to put together a \$142 million demonstration program in 77 sites across the nation that requires the school districts to establish community partnerships. We view this as one of the most promising opportunities for prevention. These sites are working with local law enforcement, mental health services, the juvenile justice system, social services, child welfare agencies and others,” said Dressler-Tetrick.

In her view, opportunities for helping the practice of prevention include supporting the replication efforts of programs that have proven to be effective and using multidisciplinary approaches in program planning, implementation and evaluation.

“On the issue of replication, OJJDP worked with the Center for the Study and Prevention of Violence to help communities implement and integrate a package of proven programs. Called the Blueprints for Violence Prevention, it uses multidisciplinary approaches for program planning, implementation and evaluation. Safe Schools/Healthy Students is an example of this approach,” said Dressler-Tetrick.

That initiative brought together the expertise of the education, mental health and juvenile justice systems at the federal level. This approach is being translated down to the local level.

“In doing this at the federal level—and we hope at the local level—we are creating less duplication across systems and providing opportunities for more effective use of funds,” said Dressler-Tetrick. “Another benefit of this multidisciplinary approach has been that local communities are now able to develop and implement infrastructures for providing services to children and families.”

In her assessment of the critical next steps for prevention, Dressler-Tetrick drew from the work of Thomas Vischi, senior advisor for drug policy in the office of the secretary for the Department of Health and Human Services. She said, “We need to identify key areas for additional research. We need to increase the readiness of states and localities to use evidence-based, proven practices. And, as important as replication is, we still need to continue to design and test new preventative interventions.

“I also wanted to take up the point that James Neal raised about the mix of programs and strategies that are being implemented in schools. We still need to understand what that means, how it’s playing out in schools, and what mix of programs and strategies is effective.”



Fidelity and Adaptation

William Hansen, Ph.D., president of Tanglewood Research and author of numerous curricula for school and community-based prevention, commented that it is disturbing to have evidence-based programs for dissemination that, especially for school-based programs, are not adhered to or adapted and are changed in the field.

“Why does this happen? I suspect that at least one of the answers is that the programs are poorly designed. In my experience, a program that is well designed would meet the expectations of those people who are trying to use it. When you design a program that imbeds scientific principles, if you ignore the kinds of things that teachers and students are naturally going to do, you’re going to end up with this situation where fidelity becomes an issue. But, when a program is extremely well designed, that problem goes away. We probably need to spend some time between the initial research and dissemination to identify some bridging research that makes things adhere to scientific principles, but can be adapted by the people who understand them,” Hansen said.

But Modzeleski pointed out that schools represent a huge system of 52 million kids in 15,000 school districts. “We can’t design anything that’s going to fit everybody. And the school is changing dramatically. Every state now has assessments and every single superintendent, principal and teacher is being pushed to reach high academic standards, which is creating a collapsing of the school day. This means that prevention programs, which were well intended and wonderfully created a year or two ago, are not going to be implemented with fidelity. Every 15-minute portion of time is needed by teachers to teach to the tests that they are being assessed on. That’s what principals and superintendents are also being assessed on. They’re not being assessed on the percentage of kids who are not using alcohol and drugs. They are being assessed on how well they do according to state standards.”

According to Sheppard Kellam, of the Pelavin Research Center, that is the area where dialogue has to occur. “We have danced around the question of importing programs versus integrating curriculum within the education mission and making prevention a seamless part of the school day for kids. The best rationale for this is that what we do in the way of risk reduction is highly correlated with academic achievement. What I draw from this is the need for working collaboratively with education researchers and educators.

“We have to think about multilevel programming that involves classrooms, non-instructional settings, home-to-school environments and community settings. This is complex, but we have studies and paradigms in each of those levels already and we need to integrate them.” James Neal said school administrators around the country feel this need as well. “The exciting thing for me is getting to the point where prevention is an integral and integrated part of the education mission,” he said.

Stretching the Boundaries of Prevention

Patricia Mrazek, a Minnesota-based mental health policy consultant and writer, said that from her experiences working in the mental health field, the next critical step for prevention is to come together on the problem.





Increase training and support for prevention researchers

“This meeting’s title is ‘Moving Effective Programs into Practice.’ It doesn’t say ‘substance abuse’ and it doesn’t say ‘school-based,’ so I want us to stretch the boundaries of how we think about these. Others have said that we need to move away from this narrow categorical approach. If we don’t have a more cooperative approach, the same thing will happen to prevention that happened to treatment. How many of you have worked directly with families and sat around a table with perhaps 12 different agencies involved with the same family? We’re fast approaching that in prevention, whether it’s one program for the kid for HIV [prevention], another for pregnancy [prevention], and another for substance abuse [prevention], and still another for depression prevention. On top of that, there are the programs to promote self-esteem and skills building and so forth. We must avoid that,” Mrazek said.

According to Mrazek, another critical next step is the need to come together on standards of evidence and quality of trials. “We talk about working together and it sounds good, but the devil is in the details because when it comes to what is meant by evidence there are huge differences. It doesn’t help the community that we can’t come to some agreement. But I think that we can do it and I think that we can start thinking about sets of good-quality evidence we can work on together and move forward.

“As a third step, we have to come together on interventions. Anyone who has looked into the details of the intervention programs knows that what happens in substance abuse is often likely to happen in depression prevention and other areas. The basic content, relationship and skills building are common to these areas. If we can take that central core and learn more how to put various components on it, I think we can move forward.

“The fourth critical step is coming together in our work. A few groups are absent from this meeting. For example, prevention consumers are absent, and they can be huge advocates for prevention,” Mrazek said.

Mrazek concluded her remarks by outlining three quick things that can occur. The first is an international registry of prevention. “We need to move forward with it. Everybody likes the idea and people are talking around the world. Canada is talking about doing one and so is Australia.”

The second is the need to jump-start training and an Institute of Medicine recommendation to fund mid-career researchers. “A lot of people outside this area are working on the borders of prevention. With some money, we can provide incentives for them to do prevention research.”

Thirdly, Mrazek called for a large public-awareness campaign about the science of prevention, not unlike what has happened in the medical health field. “If we don’t create demand from the public, we’re never going to get very far in terms of health insurance coverage for preventative services. If the public knows there’s a science base and understands that this is like other health issues, we’ll be able to move ahead.”

A View From the States

Michael Langer, the prevention services supervisor for the Washington State Division of Alcohol and Substance Abuse and president of the National Prevention Network, brought the perspective of the state or jurisdiction levels in his remarks.

“NPN represents the people who provide prevention services within the state agency for alcohol and drug programs. It is part of the National Association of State Alcohol and Drug Abuse Directors. Most of the



agencies we represent manage not only prevention services but also intervention, treatment and support services within a state system,” explained Langer.

“Some of the promising opportunities that are available come from using a logic model to establish guidelines for providers. I met with my colleagues from the other states recently and it was interesting to see how many folks are changing their guidelines. Some said that they want 25 percent of programs to be researched-based. Others say 50 percent. Still others say that 100 percent of the programs they fund will be research- or evidence-based. That is a definite move forward,” Langer said.

According to Langer, CSAP’s State Incentive Grants have been very helpful at the state level. “At our state level not only are we funding local programs that are research-based, but at the state level, this has brought us together with the education department, traffic safety department and departments of health and community development—all the different agencies that are involved in prevention. It required us to take an inventory and look at what we were asking of our communities in terms of needs assessment, program selection, evaluation and reporting. Other states are doing this as well. We are coming together to develop joint or coordinated systems. There are still different systems, but communities don’t have to do different needs assessments and submit different applications to get resources. That has as been a real move forward for us in Washington.”

One opportunity for prevention, according to Langer, is the balancing of environmental and targeted approaches.

“We see a great benefit from environmental approaches as well as targeted approaches. How do we get people at the community level to focus on a balance between the two? They get so geared up for specific strategies that they sometimes forget about the community mobilization and policy work that need to be done as well.”

Langer also see an opportunity for advancing prevention, not only in bridging the gap between researchers and practitioners, but also researchers, policy makers and administrators as well as practitioners. “A lot of state conferences and summits bring researchers together with practitioners and administrators. And the National Prevention Network is planning its 13th annual research conference that draws about 1,000 participants and brings researchers, administrators and practitioners together.”

Langer outlined what he sees as critical next steps for moving effective programs into practice, thereby advancing prevention. They are:

- *Replication and adaptation of effective models.* When do we adapt? How do we adapt? How do we make sure we’re addressing the needs of the local communities? How can we keep the door open for innovation?
- *Workforce development.* The challenge is to keeping the workforce trained, skilled and knowledgeable not only in terms of administering specific strategies, but also planning for them.
- *Program training.* Effective program dissemination requires staff training. But that costs money, and staff turns over. There is a need to develop strategies and leverage resources to people trained in these models



■ *Performance measures in the block grant.* While single-state agencies receive some money from OJJPD, the Department of Education and the state itself, the largest amount generally comes via the federal block grant. States are facing changes in block-grant reporting. Such changes have the potential to significantly affect the way that they do business in terms of guidelines for community providers and what they report.

■ *Enhance communication.* Bring practitioners, researchers and others together in cross-disciplinary meetings.

■ *Resource development.* Advocate at the local, state and federal levels for the necessary resources for prevention.

David Racine, president of Replication and Program Strategies, commented that workforce development plays a very important role in determining success disseminating and replicating programs.

“Gabriel Szulanski at the University of Pennsylvania’s Wharton School looked at the transfer of knowledge within large companies. Going in, he assumed that the major factor was motivation—that is, whether people on the receiving end of the knowledge were interested and motivated to use it. They found that it wasn’t motivation, but rather the absorption capability of the people on the receiving end to understand the knowledge that leads them to use it. In the programs I’ve worked with and become familiar with, often a fairly large gap exists between the knowledge that’s entailed in a program and the kind of normal people who are going to be expected to implement it. This is where I think we see a major threat to fidelity. It’s not always intentional. It’s often a function of capability. We’ve learned to build this into the process of selecting locations to the program, paying a lot more attention to the capability of the people locally who are actually implementing the program, and not allowing the program to go to places where that capability isn’t high enough,” said Racine.

Concluding the discussion session, Anthony Biglan suggested that it is useful to think about the focus of the meeting in terms of the evolution of a set of cultural practices.

“The cultural practice I think we are most focused on in this meeting is the one of identifying and disseminating peer-supported programs and policies. But imagine that 20 years from now, the prevalence all of the kinds of adolescent problems that we are concerned about is going down significantly--perhaps in some communities, perhaps nationwide. What would have evolved in terms of the practices of our society to get to that place? We’ve been largely betting on the fact that we could throw these practices over the wall and people would run and grab them and make use of them.”

Biglan suggested that another way to motivate people to action is through problem surveillance. He pointed out that that the Monitoring the Future report on the upturn in marijuana use mobilized the society to implement a number of practices, such as the ONDCP media campaign.

“This is an example of how in the absence of randomized trials, society looked at this increase [in drug use] and said we better do something.”



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PREVENTION RESOURCES

Prevention 2000: Moving Effective Prevention Programs into Practice report, background readings and briefing papers are available online at The Robert Wood Johnson Foundation Website at http://rwjf.org/app/rw_publications_and_links/rw_pub_other.jsp and the Silver Gate Group Website at <http://silvergategroup.com>

Preventing Drug Use Among Children and Adolescents: A Research-based Guide, National Institute for Drug Abuse, 1997. Online at <http://165.112.78.61/Prevention/Prevopen.html> or call the National Clearinghouse for Alcohol and Drug Information, 800/729-6686

Final SDFSCA Principles of Effectiveness, U.S. Department of Education. Online at <http://www.ed.gov/legislation/FedRegister/announcements/1998-2/060198c.pdf>
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The National Registry of Effective Prevention Programs (NREPP)
<http://www.preventionregistry.org>



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