



# PRINCIPLE 3

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## **Principle 3:** ***Effective Research-Based Programs***

A grant recipient shall design and implement its activities based on research or evaluation that provides evidence that the strategies used prevent or reduce drug use, violence, or disruptive behavior.



## Design and implement programs for youth based on . . .

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- RESEARCH or EVALUATION  
that gives you evidence that they  
work



- NEEDS ASSESSMENT, GOALS ,  
OBJECTIVES and  
PERFORMANCE INDICATORS





# Definitions from THE GUIDANCE DOCUMENT – PRINCIPLE 3

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## PROGRAMS FOR YOUTH:

- ◆ Implemented directly with students.
- ◆ Delivery of curriculum
- ◆ Skill building lessons
- ◆ Must be demonstrated to be effective [fidelity of implementation] or show promise [demonstrate effectiveness in two years]





# How do you do it?

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- ❖ **Aligning activities with objectives**
- ❖ **Considering process evaluation as part of this step**
- ❖ **Implementation (and cost) issues**
- ❖ **Maintenance of effective programs already in place**
- ❖ **Budgeting for program implementation and maintenance**





# Effective - Promising Programs for Youth

## ◆ Effective Programs for Youth

- that have already demonstrated to be effective in preventing or reducing drug use, violence, or disruptive behavior, or in modifying behaviors or attitudes demonstrated to be precursors to or predictors of drug use or violence.
- need not conduct evaluations of effectiveness.
- Care should be taken to implement the program that faithfully replicates the effective program as it was originally conceptualize, implemented and tested.

## ◆ Promising Programs for Youth

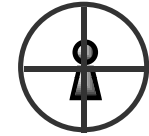
- are locally developed or selected programs that may be effective but not rigorously evaluated.
- After the end of no more than two years of implementation, the program must demonstrate that it has been effective in preventing or reducing drug use, violence, or disruptive behavior or in modifying behaviors or attitudes demonstrated to be precursors to or predictors of drug use or violence.
- If they do not meet the test after the two-year period, another program must be selected.

## ◆ Programs Not Directly Serving Youth

- as part of the effort to prevent youth drug use and violence may be pursued.
- Success of these programs must be considered within any program evaluation described within four of the Principle of Effectiveness.

U.S. Department of Education. (1998) Safe and drug-free schools and communities act. State Grants for Drug and Violence prevention program. Nonregulatory guidance for implementing the SDSFSCA Principles of Effectiveness.

# School-, Family-, and Community-Based Prevention Strategies



	UNIVERSAL PREVENTION	SELECTIVE PREVENTION	INDICATED PREVENTION
SITE OF THE INTERVENTION	GENERAL POPULATION	AT-RISK SUBGROUPS	AT-RISK INDIVIDUALS
<b>School</b>	<p>Information/education</p> <ul style="list-style-type: none"> <li>● media campaigns</li> <li>● health education curricula</li> <li>● school assemblies</li> </ul> <p>Competency/skills training</p> <ul style="list-style-type: none"> <li>● social influence</li> <li>● normative education</li> <li>● life/social skills training</li> <li>● assertiveness training</li> <li>● communication skills</li> <li>● decision making</li> <li>● anger/stress management</li> </ul> <p>School management changes</p> <ul style="list-style-type: none"> <li>● school policies</li> <li>● instructional changes</li> </ul>	<p>Alternative programs</p> <ul style="list-style-type: none"> <li>● skills training</li> <li>● after school classes</li> <li>● special club/groups - Children of Alcoholics</li> <li>● sports/recreation</li> <li>● mentoring</li> </ul> <p>Competency/skills training</p> <ul style="list-style-type: none"> <li>● cultural pride</li> <li>● tutoring</li> </ul> <p>Peer leadership</p> <p>Peer resistance</p> <p>Parent-peer groups</p>	<p>Alternative programs</p> <ul style="list-style-type: none"> <li>● mentoring</li> </ul> <p>Peer leadership/resistance</p> <p>Parent-peer groups</p> <p>Peer counseling</p> <ul style="list-style-type: none"> <li>● student assistance</li> <li>● student crisis/hot line</li> <li>● school support group</li> </ul> <p>Competency/skills training</p> <ul style="list-style-type: none"> <li>● cultural pride</li> <li>● tutoring</li> </ul> <p>In-school suspension</p> <p>Alternative classes/school</p>
<p>In National Institute on Drug Abuse. (1997) <i>Drug Abuse Prevention: What Works</i>. (NIH Publication No. 97-4110). Washington, D.C.: U.S. Government Printing Office. 27-28.</p>			

# School-, Family-, and Community-Based Prevention Strategies

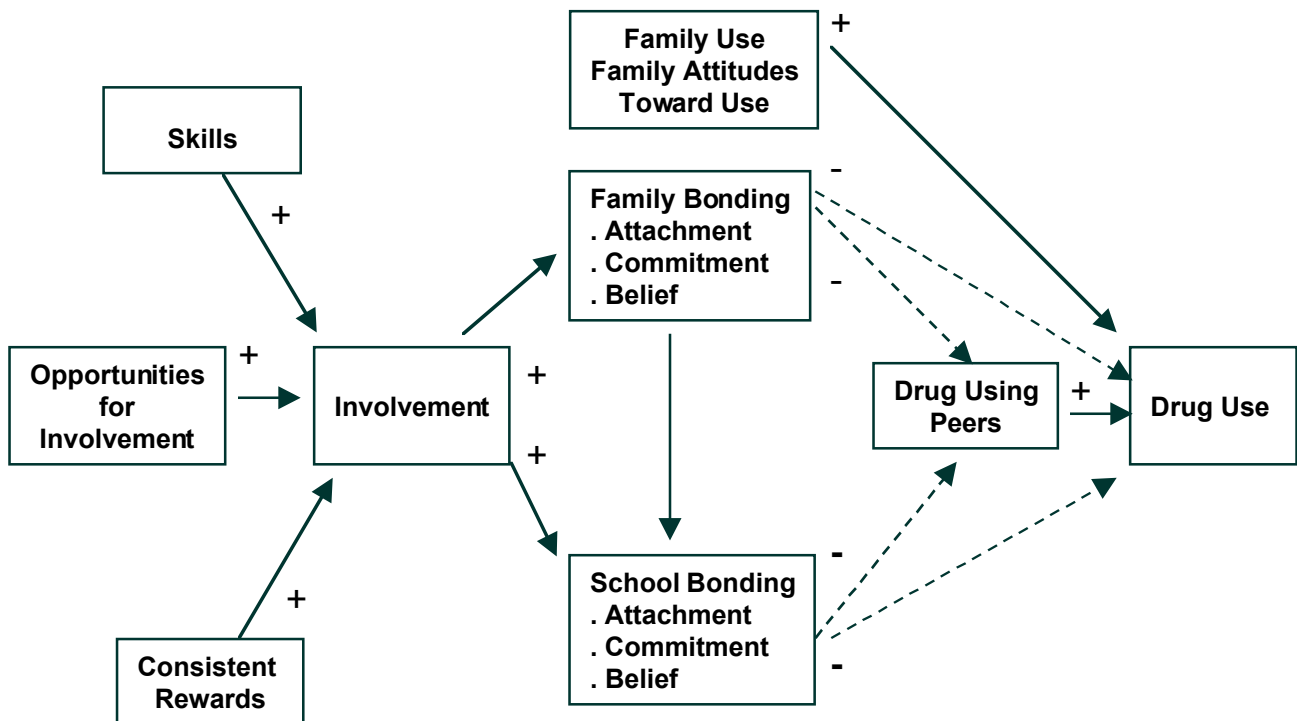


	UNIVERSAL PREVENTION	SELECTIVE PREVENTION	INDICATED PREVENTION
SITE OF THE INTERVENTION	<i>GENERAL POPULATION</i>	<i>AT-RISK SUBGROUPS</i>	<i>AT-RISK INDIVIDUALS</i>
<b>Family</b>	Parent education <ul style="list-style-type: none"> <li>● groups</li> <li>● lectures</li> <li>● curricula</li> </ul> Parent Involvement programs Parent skills training Family skills training	Parenting skills training Family skills training Family case management Parent support groups	Family skills training Parent peer groups for troubled youth <ul style="list-style-type: none"> <li>● <i>Tough Love</i></li> </ul> Parent self-help groups Structured family therapy <ul style="list-style-type: none"> <li>● Family therapy / counseling</li> <li>● Family case management</li> </ul>
<b>Community</b>	Public awareness campaigns Information clearinghouses Community coalitions <ul style="list-style-type: none"> <li>● community task forces</li> <li>● church-sponsored youth groups</li> </ul> Health policy change	Alternative programs <ul style="list-style-type: none"> <li>● youth/teen clubs</li> <li>● mentoring</li> </ul> Tutoring	Alternative programs <ul style="list-style-type: none"> <li>● rites of passage programs</li> <li>● gang and delinquency prevention</li> </ul> Skills training <ul style="list-style-type: none"> <li>● job skills training</li> <li>● job apprenticeships</li> </ul>

In National Institute on Drug Abuse. (1997) *Drug Abuse Prevention: What Works.* (NIH Publication No. 97-4110). Washington, D.C.: U.S. Government Printing Office. 27-28.



# Social Development Model of Adolescent Drug Use





# The Social Influence Model

Summary by Phyllis Ellickson, Ph.D.

California Department of Education. (1998) Getting Results, Part I, California Action Guide to Creating Safe and Drug-free Schools and Communities. Sacramento, CA: Publications Sales Office. 91. (916) 445-1260

The social influence model is the most recent and most promising approach to drug use prevention. The original versions of the model focused on the external influences, especially pressures from family, peers, and media, that push adolescents toward drug use. Newer versions also stress internal pressures to use drugs -- subtle influences of which an adolescent may not even be aware, such as the desire to be accepted, to look cool, and to be part of the crowd.

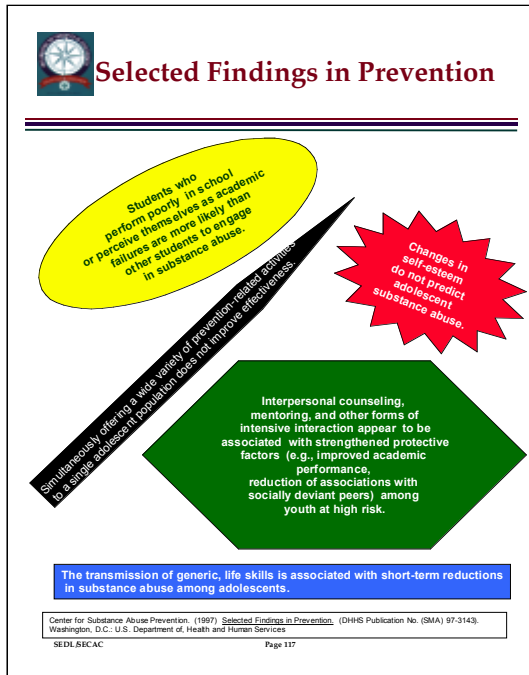
This model recognizes that adolescents are especially vulnerable to social pressures. In their desire to put childhood behind them and to appear grown up, they tend to emulate what they perceive as adult behavior, including drinking, smoking, and using drugs. Accordingly, drug education programs based on the social influence model seek to familiarize adolescents with the sources -- both internal and external -- of pressure to use drugs, to help them counter prodrug arguments, and to teach them techniques for saying no in pressure situations.

The social influence model explicitly recognizes that teaching children how to resist drugs is not enough -- programs must also motivate them to resist. *Creating understanding of the consequences of drug use, undermining beliefs that "everyone uses," and reinforcing group norms against use are all ways in which social influence programs seek to motivate resistance to drug use.* Because adolescents tend to be present-oriented and unconcerned about serious harm in the distant future, discussions focus on how drugs can affect them now, in their daily lives and social relationships.

The theoretical underpinnings of this model, as well as the methods used in programs based on it, derive primarily from **William McGuire's social inoculation theory** and **Albert Bandura's theories of social, learning and self efficacy.** **Social inoculation theory** argues that exposure to persuasive arguments reduces susceptibility to subsequent persuasion. **Social learning theory** stresses the *importance of modeling (imitation) and reinforcement (social approval or disapproval) on learning, and the self-efficacy theory highlights the importance of believing in one's capacity to accomplish a task.* Most programs include several strategies for reinforcing resistance self-efficacy that derived from Bandura's work: *modeling of desired behavior, repeated practice, reinforcement of successful performance, and statement of proximal goals.*

Many social influence programs use peers (older or same-age individuals) to help deliver the curriculum. **Although it is widely believed that peers are more credible than teachers or parents, research on peers' efficacy is inconclusive.** Some studies have reported better results for students in peer-led (versus teacher-led) conditions; others have suggested that peer leaders may not be equally effective for all children, or have been found no difference in effectiveness when older teenagers were involved in program delivery and when they were not.

Recent studies suggest that school-based programs based on social influence model are most effective when reinforced by congruent community and societal messages and by continued prevention efforts in high school.



**Improvements in Academics** - The best documented demonstrations using this approach reported indicators of significant improvement in schoolwork or in academic self-concept among program participants that were accompanied by a trend toward reduced incidence of alcohol or other drug use.

**Implication: Drug use or association with drug-using peers contributes to inadequate school work and poor academic self-image.**

**Changes in Self-esteem** - Improving adolescent self-esteem is not necessarily protective against substance use and that poor self-esteem alone is not predictive of future substance abuse.

**Alternate psychological measures** that may be more useful to prevention include changes in such areas as positive **self-concept**, **future orientation**, **family conflict**, or **self-perceived social competence**.

**Life Skills** - include problem-solving skills, decision-making skills, resistance skills against adverse peer influences, and social and communication skills.

**Implication: Life skills curricula** should be recognized as an **important component** of effective substance abuse prevention programs for adolescents.

**Group Vs Individual Counseling** - At a minimum prevention efforts specifically targeted towards adolescents with histories of recent substance abuse or antisocial behavior should consider **one-on-one interaction** as the initial format for prevention interventions.

**Simultaneous Activities** - Comprehensive prevention depends more on selecting appropriate activities and serviced for each population served than on trying to provide a wide variety of activities and services for either adolescents or any other targeted age group.

# What Works in Prevention of Alcohol and Other Drug Use and Prevention of Violence

## ALCOHOL AND OTHER DRUGS

## VIOLENCE

### EXEMPLARY PRACTICES

### PROMISING PRACTICES

### EXEMPLARY PRACTICES

### PROMISING PRACTICES

Comprehensive, integrated programs with a community component

Extensive components in place over time

Age-appropriate curricula (prosocial bonding in elementary school, social influence approach in middle school with booster session in high school)

Complete and consistent implementation (Do not pick .and choose components.)

Interactive teaching, with teacher training as necessary

Approaches built on social influence model

Full-time prevention coordinator with more training for greater stability and more comprehensive programs

*Mentoring if the relationship is sustained and nonprescriptive and adults and youths are carefully matched*

Coordinated school health programs

Comprehensive integrated services (e.g., Healthy Start)

District policies addressing use of alcohol and other drugs

Service-learning

Environmental strategies to reduce the availability of alcohol and other drugs

Home / family-school partnerships

Early intervention, including student assistance programs

Positive alternative activities (e.g., Friday Night Live)

School structure and management (reduced class size in K-1, pull-out programs, nongrading and ability grouping in elementary school, classroom behavior management, monitoring and reinforcement of behavior, graduated sanctions)

Instructional strategies (continuous progress, tutoring, computer-assisted instruction)

Cooperative learning  
Parent training  
Family counseling

Youth employment and vocational training with intensive educational components

*Mentoring if the relationship is sustained and nonprescriptive and adults and youths are carefully matched*

Structured playground activities, after-school recreation

District policies addressing violence, firearm possession, uniforms, closed campuses

Special educational placement for disruptive secondary school students

Conflict resolution, gang prevention and violence prevention curricula

Mentoring relationships *that include behavior management techniques*

Peer mediation  
School organizational structure

Gang crisis intervention and mediation

Youth-service programs

Intensified motorized patrol, field interrogations, community policing, neighborhood block watch

Metal detectors

Behavioral analysis consultation

California Department of Education. (1998) *Getting Results, Part I*, California action guide to creating safe and drug-free schools and communities. Sacramento, CA: 55.

# What Does Not Work in Prevention of Alcohol and Other Drug Use and Prevention of Violence

## ALCOHOL AND OTHER DRUGS

Information-only programs about negative effects of drugs

Affective-only programs (e.g., those that focus only on increasing self-esteem)

Scare tactics  
Testimonies of ex-addicts

Nonpromotion of students to the next grade

Pre-packaged curricula used in isolation

One-shot programs (e.g., assemblies)

## VIOLENCE <sup>1</sup>

Humanistic and developmental instructional strategies

Teacher aides

Tracking or between-class (as opposed to within a class) grouping by ability

Nonpromotion of students to the next grade

Special educational placement for elementary school students who are disruptive, emotionally disturbed, or learning disabled

Peer counseling

Youth employment and vocational training programs *without an intensive educational component*

Mentoring relationships that do not include reinforcement of appropriate behavior.

Citizen patrols

<sup>1</sup> The interventions in this column showed no effect or negative effects on risk and protective factors *related to violence*.



# Effective Strategies for the Prevention of Youth Violence

Taken from: Dahlberg, Linda L.. (1998) Youth violence in the United States major trends, risk factors, and prevention approach. *American Journal of Preventive Medicine*, Volume 14, Number 4. 267&268

Identifying the factors that increase or reduce the risk for violent victimization and perpetration is an important first step toward preventing youth violence. The interplay of individual, peer, familial, and environmental factors, however, speak to the complexity of the problem of violence in the United States and to the many challenges faced by prevention specialists. In many respects, it is far easier to identify the factors that place young people at risk for violent victimization than it is to design interventions and programs to reduce this risk. Researchers and intervention specialists have risen to this challenge and now more programs are in place in schools and communities across the United States than ever before.

## Approaches to Prevent Violence

The majority of intervention programs taking place in this country focus on changing individual attitudes, beliefs, and behavior. *Cognitive-behavior, behavior modification, and social-skills* training are some of the more common approaches being used *to reduce antisocial and aggressive behavior in children and violent victimization and perpetration* among youths.<sup>116</sup> *Cognitive-behavioral interventions* train participants in anger management, cognitive self-control, moral reasoning, social perspective-taking, and attitude change. *Social-skills training* programs are similar to cognitive-behavioral programs, but place a greater emphasis on behavioral skill development and include techniques such as modeling, rehearsal, and discussion.<sup>116</sup> *Behavioral modification approaches* focus more on direct reinforcement, modeling, and contingency contracting.

Other individual approaches include *rites-of-passage or manhood development programs*. These programs focus on self-esteem and emphasize cultural history, pride, moral guidance, and personal responsibility. Manhood development programs are sometimes paired with *mentoring programs* to provide youths with additional guidance and support.<sup>117</sup> Psychotherapy and intensive casework are also used to alter individual behavior, particularly with youths exhibiting more maladaptive behavioral patterns. Together, individual-level approaches try to change information-processing skills, social cognitions, and perceptions of risk, and provide young people with information on how to manage feelings and situations and the tools to resolve potential conflicts in a nonviolent manner.

*Programs that focus on changing the nature of peer group interactions, peer-group norms, and family functioning* are less common than individual approaches, although programs such as peer mediation have increased in frequency in schools across the United States. Some of the *peer interventions* that have been tried with youths focus on changing peer-group norms. The goal of these programs is to change negative peer influences into positive or prosocial peer influences (i.e., create a positive peer culture). Programs that attempt to reduce or prevent associations with antisocial peers have also been tried. Other peer interventions, such as peer mediation, utilize peers or age mates to resolve conflict disputes.

Family interventions focus on a number of the factors related to aggression and antisocial behavior in children. Family intervention approaches provide education and training to parents with the goal of teaching participants how to effectively discipline, monitor, and supervise children.



# Effective Strategies for the Prevention of Youth Violence

Taken from: Dahlberg, Linda L.. (1998) Youth violence in the United States major trends, risk factors, and prevention approach. *American Journal of Preventive Medicine*, Volume 14, Number 4. 267&268

Some of these programs also try to improve the *family environment* by focusing on family relationships, communication, and problem-solving. Acknowledging that external factors and demands influence family functioning, some approaches also emphasize social support systems and try to provide families with skills and resources to address external demands.

In addition to individual, peer, and family intervention approaches, efforts are under way to change attitudes, beliefs, and behavior by *altering the settings* (e.g., schools and neighborhoods) that young people inhabit on a daily basis. Interventions aimed at changing school settings focus on teacher management practices, school administrative policies and rules, and school security (e.g., metal detectors, surveillance cameras, campus police). Programs such as anti-violence awareness campaigns, safe-haven or community youth programs, and neighborhood helpers have been used to foster prosocial attitudes and behavior in neighborhoods. In several communities across the country, empowerment zones have recently been established to deal with a multitude of community problems, including crime and violence. Efforts to change the physical environments of communities have also been tried (e.g., increased lighting, neighborhood police patrols and substations).

## Determining Effectiveness

The fundamental question from the perspective of public health and policy is: "Do these programs work? Do any of the individual, peer, family, or setting approaches effectively reduce aggressive and violent behavior?"

At present, the answer to these questions is not known. Despite the proliferation of programs in schools and communities nationwide, the most effective strategies to prevent youth violence have yet to be determined. For example, although 39% of states and 61% of districts require conflict resolution training in schools,<sup>118</sup> few of these programs have been evaluated for their effectiveness in reducing violent behavior. Reviews on the state of the field have recently concluded that promising violence prevention programs exist, but evaluations to confirm strong, positive effects are lacking<sup>116,119,120</sup>

Results from interventions that have been evaluated are mixed. Findings from one of the comprehensive reviews of the field<sup>116</sup> indicate *positive effects for cognitive-behavioral interventions, family interventions, school climate programs that include parental involvement, and interventions that reduce exposure to media violence*. Psychotherapy, intensive casework, peer interventions that attempt to, redirect negative peer activities (e.g., Guided Group Interaction), and behavioral modification programs have demonstrated weak, negative, or no effects. Unfortunately, a sizable gap exists between the most commonly used approaches and the most frequently evaluated approaches. Data to support approaches such as social-skills training, mentoring, rites-of-passage programs, peer mediation, conflict resolution, teacher management practices, and school security are clearly needed. Evaluation efforts, however, are under way to help determine if several of these approaches are effective in reducing aggression and violence<sup>121</sup> and some are indicating moderate positive effects.<sup>122</sup> Still needed are evaluation data on programs addressing larger neighborhood, community, or socioeconomic factors.



# *Safe Schools, Safe Students*

## **A Guide to Violence Prevention Strategies**

(© Drug Strategies, Inc.1998)

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### ◆ **Preventing Violence includes:**

– **Normative change**

– **Personal and Social Life Skills Training**

- Anger management
- Empathy and perspective Taking
- Social problem-solving
- Media Resistance
- Social Resistance
- Communication
- General Social Skills

### ◆ **Key Elements of Promising Violence Prevention Programs**

- Activities designed to foster school norms against violence, aggression and bullying.
- Skills training based on a strong theoretical foundation.
- A comprehensive, multifaceted approach, including family, peer, media and community.
- Physical and administrative changes to promote a positive school climate.
- At least 10-20 sessions during the first year of a well-organized, well-implemented program and 5-10 booster sessions in the succeeding two years.
- Interactive Teaching.
- Developmentally tailored interventions.
- Culturally sensitive material
- Teacher training



# Criteria for Selecting Effective Violence Prevention Programs (1998)

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- **Strong Research Design**
- **Evidence of Significant Deterrent Effects**
  - ⇒ 1 year after leaving the program
- **Sustained Effects**
- **Multiple Site Replication**
  - ⇒ Demonstrated Portability
- **Other Criteria**
  - ⇒ Mediating Variables
  - ⇒ Costs
  - ⇒ Willingness to work with requests



# Criteria for Effective Substance Abuse, Violence and Disruptive Behavior Prevention Programs

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- Findings were based on theory.
- The program was implemented as it was intended and implemented long enough to influence positive change.
- There was evidence of quality sampling design, including adequate sample sizes and response rates.
- The measures were relevant, high quality, and statistically powerful.
- Rigorous data collection resulted in complete data
- Data analysis techniques were appropriate and technically adequate.
- Confounding variables were eliminated that might have been responsible for the program effects.
- Level of confidence could be placed on project findings.
- A follow-up measure was conducted at least four weeks after the intervention.
- Sustained effect was demonstrated and model was suitable for multiple site replication or likely to demonstrate success in diverse settings with diverse populations.

Scattergood, Phyllis, Dash, Kimberly, Epstein, Joel, and Adler, Melanie. (1998) Applying Effective Strategies to prevent or reduce substance abuse, violence, and disruptive behavior among youth. Newton, MA: Education Development Center, Inc. 8&9.



# Defining the Types of “Science-based” Programs / Principles

The term “science-based” refers to the process by which knowledge is derived. “Science-based” information is that which has been identified and /or substantiated through an expert consensus or analytic process using commonly agreed upon criteria for rating research endeavors. Additionally, conceptual or exact replications add to the credibility that findings, principles, or models are effective. Science based results are derived via similar processes, whether those results are reported as either program models or prevention principles.

Based on the above assumptions the operational definition of science-based uses discrete, but overlapping levels of support for the scientific basis of particular models. Users should determine the level of credibility that best meets their needs. Described below are five types of scientific review processes. **Type 1** is considered a review process, but the result does not meet requirements of scientific rigor. **Type 2** represents a more rigorous type of review, but still does not reflect scientifically defensible results. **Types 3, 4, and 5** represent review processes from which results can be deemed scientifically defensible.

**Type 1.** The program/principle has been **identified or recognized publicly, and has received awards, honors, or mentions.**

A. This level of recognition is alone insufficient to ensure that principles derived from the strategy, or the model itself, are effective. To be judged useful, information from the program should have been subjected to review and critique by a panel of judges qualified in the field of substance abuse prevention and in research methods to determine both the quality of the research plan and analysis. Selection for Recognition is often accomplished without such reviews, because other criteria have higher priority.



# Defining the Types of “Science-based” Programs / Principles

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**Type 2.** The program/principle has **appeared in a nonrefereed professional publication or journal.** It is important to distinguish citations found in professional publications and those found in journals.

A. Professional publications are subject to the same potential problems as other forms of public recognition. Program information that appears solely in such periodicals should be viewed as having suggestive value, but should not be taken as support for a particular program model or principle.

B. Appearance in a nonrefereed professional journal generally offers better information about the credibility of the information. Still, the distinction between a nonrefereed and refereed journal is important. Information published in nonrefereed journals is similar to information in other professional publications and newsletters-- it is suggestive, but without substantiation. Refereed journals require that an expert/peer consensus be reached regarding the merit of the work (refereed journals appear under **Type 3**); this is the minimum requirement for a rating of scientifically defensible.

1. Although appearance in a refereed journal provides a minimum level of certainty regarding the quality of information contained in the paper, such journals do not assure full credibility. When writing a journal article, authors may be very selective about results presented, thereby providing an overly positive view of their work. Unfortunately, without source documents, referees do not often know what data are missing. Similarly, journals may demonstrate a pronounced “positivity bias,” publishing only significant positive results, thus reinforcing authors’ selective reporting.



# Defining the Types of “Science-based” Programs / Principles

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**Type 3.** The program’s source documents have **undergone thorough scrutiny in a expert/peer consensus process for the quality of implementation and evaluation methods, or a paper has appeared in a peer-reviewed journal.**

A. Unlike journal reviews, complete source documents are scrutinized. All dosage information and data collection processes are detailed, all analyses are presented for review. Reviewers, experienced in the substance abuse prevention field and trained as evaluators, code both the implementation variables and activities, as well as the findings. The project is rated for producing credible information regarding principles of prevention, and a summary judgement regarding the potential of the program model for prevention is made.

1. Ratings made in exercises like these differentiate between studies producing highly defensible findings (i.e. integrity rating of 4 or 5) and those less capable of standing on their own, serving primarily a corroborative function (i.e, integrity rating of 3). Reviewers should be cautioned to keep these distinctions in mind.

B. A report of study methods and findings appears in a peer-reviewed journal.



# Defining the Types of “Science-based” Programs / Principles

**Type 4.** The Programs/principles have **undergone either a quantitative meta-analysis or an expert/peer consensus process in the form of qualitative meta-analysis.**

A. Here, multiple studies are reviewed and coded, generally first for the quality of methodological rigor and then for findings. Often, dosage and other implementation characteristics are also coded. Analysis takes place across programs, and principles of prevention are identified. In addition, common activities or prevention strategies that produce consistently positive findings can be enumerated. Because these principles receive support across a broad array of program interventions and evaluation strategies, we gain confidence that the principles are real and solidly defensible. Similarly, because strategies are consistently linked to positive outcomes, we gain confidence that they relate causally to the observed effects.

1. Whereas quantitative met-analytic efforts generally produce defensible conclusions regarding common successful principles and strategies, qualitative meta-analyses may yield less certain conclusions. The problem with qualitative methods is that there is no way of systematically aggregating or weighing specific findings; thus, estimates of overall links between interventions and outcomes are less precise. Still, qualitative analyses can produce clearly defensible findings regarding both principles and strategies when results are relatively consistent. If results are inconsistent, qualitative analyses provide insight as to the critical variables that determine when a strategy might be effective and when it might fail.



# Defining the Types of “Science-based” Programs / Principles

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## **Type 5. Replications of program/principle have appeared in several refereed professional journals.**

A. The best evidence of a program model’s effectiveness is that it can be replicated across venues and populations, demonstrating credibility, utility, and generalizability. Projects fulfilling these requirements occupy the top portion of the data collection pyramid.

1. Programs can be replicated exactly or principles derived from programs can be replicated conceptually. Exact replications simply apply the original program to a new population or in a new venue. Conceptual replications adapt the program, maintaining its key principles but modifying specific activities. Both add to the certainty about the scientific basis of the program -- exact replications speak most directly to the program model, whereas conceptual replications also address prevention principles.

2. Evidence of replication should be found in refereed journal articles or meta-analytic efforts. Evidence should be unique so that each publication represents a separate program intervention effort. The scientific basis of a program is not strengthened when the same data are published in three different journals, or when different authors all cite the same original study.

B. Successful replication of an effective program model also provides support for the principles on which the program is based and the intervention strategy as a whole. Meta-analytic techniques can be used to identify successful strategies and principles across program models.



# Validation of Programs

**Program/Strategy:**

	<b>Types of Validation Processes</b>				
<b>Integrity Ratings:</b>	<b>Type 5</b>	<b>Type 4</b>	<b>Type 3</b>	<b>Type 2</b>	<b>Type 1</b>
5					
4					
3					
2					
1					

**Integrity Ratings:**

- 1 = no confidence
- 2 = weak, at best some confidence in results
- 3 = mixed, some weak, some strong characteristics
- 4 = strong, fairly good confidence in results
- 5 = high confidence in results, findings fully defensible

**Types of Validation Processes:**

- Type 1 = public recognition, awards
- Type 2 = article appears in professional publication or nonrefereed journal
- Type 3 = expert/peer consensus process or paper appears in a refereed journal
- Type 4 = qualitative or quantitative meta-analyses
- Type 5 = replications of program/principle appears in several refereed professional journals

Substance Abuse and Mental Health Services Administration. (1999) Working Draft - Science-based practices in substance abuse prevention: a guide. Center for Substance Abuse Prevention : Division of Knowledge Development and Evaluation. :38



**Table A. Blueprint Programs**

PROJECT	TARGET POPULATION	EVID. OF EFFECT*	MULTI-SITE	COST/BENEFIT	SUSTAINED EFFECT	GENERALIZABLE	TYPE OF PROGRAM
Nurse Home Visitation (Dr. David Olds)	Pregnant women at risk of preterm delivery and low birthweight	X	X	X	through age 15	X	Prenatal and postpartum nurse home visitation
Bullying Prevention Program (Dr. Dan Olweus)	Primary and secondary school children (universal intervention)	X	England, Canada; South Carolina		2 years post-treatment	Generality to U.S. unk.; initial S.C. results positive	School-based program to reduce victim/bully problems
Promoting Alternative Thinking Strategies (Dr. M. Greenberg and Dr. C. Kusche)	Primary school children (universal intervention)	X	X		2 years post-treatment	X	School-based program to promote emotional competence
Big Brothers Big Sisters of America (Ms. Dagnar McGill)	Youth 6 to 18 years of age from single-parent homes	X	Multisite single design, 8 sites			X	Mentoring program
Quantum Opportunities (Mr. Ben Lattimore)	At-risk, disadvantaged, high school youth	X	Multisite single design, 5 sites; replic. by D.O.L.	X	through age 20		Educational incentives
Multisystemic Therapy (Dr. Scott Henggeler)	Serious, violent, or substance abusing juvenile offenders and their families	X	X	X	4 years post-treatment	X	Family ecological systems approach
Functional Family Therapy (Dr. Jim Alexander)	Youth at risk for institutionalization	X	X	X	30 months posttreatment	X	Behavioral systems family therapy
Midwestern Prevention Project (Dr. Mary Ann Pentz)	Middle/junior school (6th/7th grade)	X	X		Through high school	X	Drug use prevention (social resistance skills); with parent, media, and community components
Life Skills Training (Dr. Gilbert Botvin)	Middle/junior school (6th/7th grade)	X	X		Through high school	X	Drug use prevention (social skills and general life skills training)
Multidimensional Treatment Foster Care (Dr. Paricia Chamberlain)	Serious and chronic delinquents	X	X	X	1 year post-treatment		Foster care with treatment

Elliott, Delbert S. (1998) Effective research-based programs. Plenary Session at Implementing The Principles of Effectiveness Safe and Drug-free Schools Program Conference. Washington, D.C.: U.S. Department of Education. June 9, 1998.



# Promising Violence Prevention Programs (1998)

Meet the first Criteria with some Success Addressing Risk Factors

- ◆ **Fast Track**
- ◆ **Parent-Child Development Center Programs**  
(New Orleans)
- ◆ **Perry Preschool**
- ◆ **Syracuse University Family Development and**
- ◆ **Yale University’s Welfare Project (Headstart)**



- ◆ **Intensive Protective Supervision Project (IPSP)**
- ★ **Project PATHE (School Program)**
- ★ **Seattle Social Development Project**
- ◆ **Project STATUS (Students Training Through Urban Strategies)**
- ◆ **Prevention Intervention**



Some Deterrent Effect - Not Sustained

- ◆ **Alcohol Misuse Prevention Program**
- ◆ **Growing Healthy**
- ◆ **Know Your Body**
- ★ **Project ALERT**
- ★ **Project Northland**
- ◆ **Social Acceptance**

Elliott, Delbert S. (1998) Effective research-based programs. Plenary Session at Implementing The Principles of Effectiveness Safe and Drug-free Schools Program Conference. Washington, D.C.: U.S. Department of Education. June 9, 1998.

# Effective Substance Abuse, Violence and Disruptive Behavior Prevention Program (1998)

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- ★ **Across Age**
- ◆ **Adolescent Training and Learning to Avoid Steroids (ATLAS) Project**
- ★ **BASIS**
- ★ **Big Brothers/Big Sisters of America** (Dagmar McGill)
- ★ **Bry's Behavioral Monitoring and Reinforcement Program**
- ★ **Bullying Prevention Program** (Dr. Daniel Olweus)
- ★ **Child Development Project** (CDP)
- ◆ **Effective Schools Project**
- ◆ **Families and Schools Together** (FAST)
- ◆ **Focus on Families**
- ◆ **Growing Healthy**
- ★ **Life Skills Training** (Dr. Gil Botvin)
- ★ **Midwestern Prevention Project** (STAR - Dr. Mary Ann Pentz)
- ◆ **Preparing for Drug-Free Years**
- ◆ **Project Northland**
- ★ **Project PATHE**
- ★ **Promoting Alternative Thinking Strategies** (PATH- Dr. Mark Greenberg)
- ★ **Quantum Opportunities** (Dr. Benjamin Lattimore)
- ★ **Reconnecting Youth** (Dr. Leona Eggert)
- ★ **Rotheram's Social Skills Training** (RSST)
- ★ **Strengthening Families Program** (SFP)
- ◆ **Structural Family Therapy (SFT) Program for Hispanic Families**
- ★ **Student Training Through Urban Strategies** (STATUS)
- ★ **Weissberg's Social Competence Promotion Program** (WSCPP)
- ◆ **Young Negotiators**

Scattergood, Phyllis, Dash, Kimberly, Epstein, Joel, and Adler, Melanie. (1998) Applying Effective Strategies to prevent or reduce substance abuse, violence, and disruptive behavior among youth. Newton, MA: Education Development Center, Inc. 8&9.



# Promising Substance Abuse, Violence and Disruptive Behavior Prevention Programs (1998)

Research-based. Only certain aspects produced desired changes in knowledge, attitudes, practices, and skills.

Promising Programs

- ◆ Adolescent Alcohol Prevention Trial (AAPT)
  - ◆ Adolescent Transitions Program (ATP)
  - ◆ Alcohol Misuse Prevention Program
  - ◆ CHOICE Interventions
  - ◆ Here's Looking at You, Two and 2000
  - ◆ I'm Special
  - ◆ Nebraska Network of Drug-Free Youth Program
  - ★ Project ALERT
  - ◆ Project CARE
  - ◆ Project SMART/SMART Leaders
  - ◆ Project Success
  - ◆ School Transitional Environment Project (STEP)
  - ★ Seattle Social Development Project
  - ◆ Teenage Health Teaching Modules
- 
- ◆ Effective Behavior Support (EBS)
  - ◆ First Step to Success
  - ◆ Lane School Program
  - ◆ Multimodel School-based Prevention Demonstration
  - ◆ Peace Builders
  - ★ Positive Adolescent Choices Training (PACT)
  - ★ Project ACHIEVE
  - ◆ The Resolving Conflict Creatively Program (RCCP)
  - ◆ Second Step: A Violence Prevention Curriculum
  - ◆ Society-based programs, including: community policing; public service announcements, warning of dangers of drug use and other risk-taking behaviors; drug supply interdiction to increase retail drug (i.e., tobacco) prices; and increased taxes on alcohol and tobacco.
  - ◆ Westerly Public Schools Program Systemwide Efforts in Westerly, Rhode Island.

Scattergood, Phyllis, Dash, Kimberly, Epstein, Joel, and Adler, Melanie. (1998) Applying Effective Strategies to prevent or reduce substance abuse, violence, and disruptive behavior among youth. Newton, MA: Education Development Center, Inc. 8&9.



# Illustrative Promising Preventive Intervention Programs that Work

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- **Elementary-Age Children**
  - ◆ Academic Tutoring and Socials Skills Training
  - ◆ Assertiveness Training Program (Program I)
  - ◆ Assertiveness Training Program (Program II)
  - ◆ Children of Divorce Intervention Program
  - ◆ Family Bereavement Program
  - ◆ Mastery Learning and Good Behavior Game
  - ◆ Montreal Social Skills Training
  - ◆ Social Relations Intervention program
  - ★ **Seattle Social Development Project**
- **Adolescents**
  - ◆ Alcohol Education Project
  - ◆ **Adolescent Alcohol Prevention Trial**
  - ★ **Project ALERT**
  - ◆ Behaviorally Based Preventive Intervention
  - ◆ Changing Teaching Practices
  - ◆ Intervention campaign Against Bully-Victim Problems
  - ◆ Positive Youth Development Program
  - ★ **Midwestern Prevention Project** (STAR - Dr. Mary Ann Pentz)

Patricia J. Mrazek and Robert J. Haggerty, Editors. (1994) "Reducing Risks for Mental Disorders - Frontiers for Preventive Intervention Research", Committee on Prevention of Mental Disorders Division of Biobehavioral Sciences and Mental Disorders. Washington, DC: INSTITUTE OF MEDICINE NATIONAL ACADEMY PRESS. 506.



# Tentative Findings of 15 CDC-Sponsored Violence Evaluation Projects

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## ◆ Early Intervention Projects

Sites: Chicago, New York City, Tucson

- Positive effects for social competence
- Mixed effects for aggression
- More Positive effects for older children (grades 3-6) than for younger (K-2)
- More positive effects for intensive intervention and for longer than shorter exposure to interventions

## ◆ Middle School Projects

Sites: Detroit, Houston (2), Indianapolis, Richmond, Portland

- Positive effects for knowledge; intentions to use non-violent strategies
- Only two projects showed reductions in aggression, fighting, disciplinary infractions
- More positive effects for students in stable vs. chaotic school environments
- More positive effects in school with support for program

## ◆ Older Youth (14-19 years)

Sites: Boston, Chicago

- Inconclusive

From: Dahlberg, Linda L. (1998) The prevention of youth violence: rationale, characteristics and update on 15 evaluation projects. Presented at Georgia Prevention Network Annual Conference, September 24, 1998 . Norcross, Georgia:

# 15 Violence Prevention Programs

**Table 1. Strategies implemented by each youth violence-prevention project**

Level of intervention and strategy	Tucson (Pima County)	New York City	Chicago /Aurora	Los Angeles	Richmond	Indianapolis	Houston (Univ)	Houston (HD)	Portland	Johnston County	Brooklyn	Detroit	Chicago	Boston	Durham
<b>Individual level</b>															
Cognitive-behavioral training	A	A	A		A	A	A	A	A	A	A	A	A		A
Social skills training	A	A			A	A	A	A	A	A	A	A	A		A
Cognitive-behavioral training specifically for high-risk youth		A	B	A										A	
Manhood development													A		A
Mentoring									A						A
<b>Proximal interpersonal systems</b>															
Family counseling			C												
Parent education								A	A	A					A
Peer mediation		A			A		A	A				P			
Preventing association with antisocial peers									A						
Shifting peer group norms			A				A	B		A					
Shifting peer group perceptions			A	A						A					
<b>Proximal social settings</b>															
Changing teacher practices	A		A				A								
Changing school climate	A			A											
Student motivation									A						
Changing community worker knowledge and practices								A		A					
Changing institutional practices							A	A		A			P	A	
Recreation-diversion							A	A							
Increase community awareness							A								
<b>Societal macrosystem</b>															
Job training and placement															B
Entrepreneurial training														P	

A = within one project, one or a group of strategies evaluated as a unit.

B = within one project, a second single or group of strategies evaluated as a unit.

SEDL/SECAC/111998

C = within one project, a third single or group of strategies evaluated as a unit.

P = a strategy implemented for both the intervention and the comparison group, the effect of which cannot be determined.



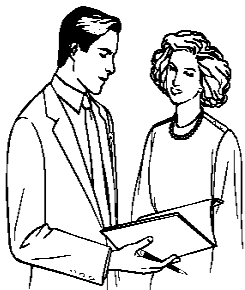
# School-Based Crime Prevention

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## ◆ Categories of School-Based Prevention

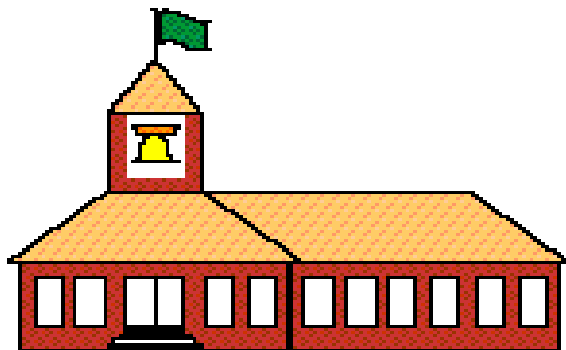
- Four that Alter School or Classroom Environments
  - Building School Capacity
  - Setting Norms for Behavior, Rule-Setting
  - Managing Classes
  - Regrouping Students
- Five to Change Behaviors, Skills, Attitudes or Beliefs of Individual Students
  - Instructing Students
  - Behavior Modification and Teaching Thinking Strategies
  - Peer Programs
  - Other Counseling and Mentoring
  - Provide Recreational, Enrichment, and Leisure Activities



Gottfredson, Denise C. (1997) Chapter 5. School Based Crime Prevention in PREVENTING CRIME: WHAT WORKS, WHAT DOESN'T, WHAT'S PROMISING. A Report to The United States Congress. Prepared for the National Institute of Justice. University of Maryland. <http://www.ncjrs.org/works/>



# Promising Programs



- ① Building School Capacity
  - ★ Project PATHE
  - ◆ The Effective Schools Project
  - ◆ NIJ Place-Oriented Strategies
- ② Norms for Behaviors and Rule Setting
  - ◆ BASIS
  - ◆ Discipline Management Study (1983)
  - ★ Bullying (Olweus)
- ③ Managing Classes
  - ★ Project PATHE
  - ◆ Students Training Through Urban Strategies (Project STATUS)
  - ★ The Seattle Social Development Project
  - ★ Child Development Project (CDP)
- ④ Regrouping Students
  - ◆ School Transitional Environment (STEP)
  - ◆ Project STATUS



# Promising Programs

## Individual Change Strategies: Changing Student Knowledge, Skills, Attitudes, Beliefs, or Behaviors



### Instruction

- Social Competency Skill Development
  - ★ Project ALERT
  - ★ Life Skills Training (Botvin)
  - ★ Weissberg's Social Competency Promotion Program (WSCPP)
  - ★ Promoting Alternative Thinking Strategies (PATHS)
- Violence-prevention instruction
  - ◆ Community Violence Prevention Program
  - ◆ Gang Resistance Education Training (G.R.E.A.T.)
- Law-related Education (L.R.E.)



### Behavior Modification and Teaching Thinking Skills

- ◆ Achievement Place
- ◆ "Anger-Coping" Intervention (Lockman)
- ★ Rotherman's Social Skills Training (RSST)
- ★ Bry's Behavioral Monitoring and Reinforcement Program
- ★ Weissberg's Social Competency Promotion Program

*"The overall patterns of results for programs involving peers in the delivery of services is not promising." p.25*

- **Peer Counseling**
  - "Lends **no** support to any claim of **benefit**." (Gottfredson, 1987)
- **Peer Mediation**
  - "**No significant effects** on observable student behavior (e.g., fighting, disciplinary referrals)
- **Peer Leaders**
  - ? **Mixed results**
- **Counseling - SAP**
  - Evaluations are lacking. (Hansen & O'Malley, 1996)
- **Counseling and Tutoring**
  - Academics improved but **no reductions in delinquency**. (Gottfredson, 1986)
- **Mentoring**
  - ? School, attendance increase, **unknown effect on delinquency**



# Eight High Risk Youth Model Programs (CSAP)

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## ★ **Across Ages**

## ★ **The Child Development Project**

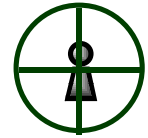
- ◆ Creating Lasting Connections
- ◆ DARE to Be You
- ◆ Greater Alliance of Prevention Systems
- ◆ Involving Parents of High Risk Youth in Prevention
- ◆ Residential Student Assistance Program
- ◆ Smart Leaders / Booster Sessions

From: Model Programs for High Risk Youth. (1998) The Prevention Pipeline. (11:5) Substance Abuse and Mental Health Services Administration. Rockville, Maryland. 13-17.



# Midwestern Prevention Project

(Students Taught Awareness and Resistance- STAR)  
(Pentz, et al. 1989a; 1989b; 1989c)



National Institute on Drug Abuse. (1997) *Drug Abuse Prevention: What Works*. (NIH Publication No. 97-4113).  
Washington, D.C.: U.S. Government Printing Office. 21-25, 39-61

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- ◆ **Comprehensive, Universal Prevention Program**
- ◆ **Research-based model** : Risk and Protective Factor, authors research model, Inoculation Theory.
- ◆ **Focuses on :**
  - School-based program at middle school, junior high
  - Media programming
  - Parent Skills Training
  - Community organization
  - Promoting Health policy change
- ◆ **Populations having implemented it:** Two cities - Kansas City and Indianapolis populated by 12.5% and 13.8% African-American.
- ◆ **The Curriculum focuses on:**
  - Correction of misconceptions regarding social norms for substance abuse
  - Development of resistance to peer pressure
  - Raising awareness of family influences in substance abuse
  - Resistance to negative media influences on substance abuse.
- ◆ **Curriculum Sessions:**
  - 13-lesson curriculum (Phase One) and 5-lesson booster curriculum (Phase Two) and homework assignments.
  - Student skill Leaders are selected to assist teacher demonstrating the resistance skills.
- ◆ **Format**
  - Community mobilization and parent skills training is provided. The Media component is implement simultaneously with curriculum.



# Strengthening Families Program (Kumpfer et al. 1996)



National Institute on Drug Abuse. (1997) Drug Abuse Prevention: What Works. (NIH Publication No. 97-4114).  
Washington, D.C.: U.S. Government Printing Office. 17,19-23

- ◆ **Selective Prevention Program**
- ◆ **Research-based model** : Family environment and parenting factors, Inoculation Theory.
- ◆ **Focuses on :**
  - increase parenting skills
  - increases children’s skills
  - improve family relationships
- ◆ **Populations having implemented it:** African-American, Asian, Pacific Island, Hawaiian and Hispanic/Latino families,; families of low socioeconomic status, families of children ages 6-14.
- ◆ **Content focuses on Skill development:**
  - **Parenting skills include:** positive attention and praise, levels of empathy for children, effective discipline, alternatives to physical, decreasing use or modeling or non-use of substances.
  - **Children’s Skills:** communication skills, resistance skills to use of substances and inappropriate behaviors, recognition of feelings, ATOD knowledge, skills to cope with anger and criticism, enhancing self-esteem.
  - **Family Relationships:** reducing family conflict, improving communications, time together and planning and organizational skills.
- ◆ **Sessions:**
  - 2-3 hours weekly for 14 weeks
    - Elementary school-age children (ages 6 to 10) of substance abusers and their families
    - 7-session for at-risk junior high students (ages 11 to 14) and their families.
- ◆ **Format**
  - Parents and children attend separate, 1-hour sessions followed by a 1-hour family training session which they attend together. The Family Skills training sessions encourage parents and children to learn and practice their new behaviors within the family.



# Reconnecting Youth Program (Eggert et al.,1995)



National Institute on Drug Abuse. (1997) Drug Abuse Prevention for At-Risk Individuals. (NIH Publication No. 97-4115). Washington, D.C.: U.S. Government Printing Office. 24-27, 5

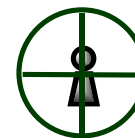
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- ◆ **School - Based Indicated Prevention**
- ◆ **Research-based model** : Risk-Protective Factor Research  
- designed to intervene in the destructive cycle of school dropout, substance abuse, and suicidal behavior among at-risk.
- ◆ **Focuses on :**
  - life skills to increase competence (Personal Growth Class)
  - group support system
  - cooperative learning models
- ◆ Populations having implemented it: mixed ethnically grades 9-12.
- ◆ **Content focuses on :**
  - Self-Esteem Enhancement providing support skills for self and others, positive self-esteem.
  - Decision-making to promote student's ability to resist offers to use alcohol and other drugs or participate in other delinquent or potentially harmful behaviors.
  - Personal control skills and weekly monitoring of mood, school behaviors, and drug-use control to promote skills building and enhancing school performance.
  - Interpersonal Communication expressing care and concern for others, listening, sharing thoughts and feelings tactfully, giving and receiving constructive criticism.
- ◆ **Sessions:**
  - 5-month(20 week) semester of daily 50-60 minute class sessions.
  - A second optional is available confusing on continued growth and relapse prevention.



# Life Skills Training (Botvin et al. 1990a)



In National Institute on Drug Abuse. (1997) Drug Abuse Prevention for the General Population. (NIH Publication No. 97-4113). Washington, D.C.: U.S. Government Printing Office. 12-13.

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- ◆ **Comprehensive School-Based Universal Program**
- ◆ Research-based model : Cognitive-behavioral
- ◆ Focuses on :
  - skill development
  - resistance skills for middle and junior high students
    - resist social influences
    - learn life skills to increase competence
    - promotes protective factors
- ◆ Populations having implemented it: white middle-class, two-parent families, urban African-American and Hispanic/Latino youth.
- ◆ Content focuses on Skill development:
  - Substance Abuse Information
  - Decision-making to enhance self esteem
  - Media Influences- resisting advertising pressure
  - Self-directed behavior change - managing anxiety
  - Communication skills - communicating effectively
  - Social Skills - developing personal relationships
  - Assertiveness - asserting their rights in interpersonal relationships
- ◆ Sessions:
  - 15 sessions taught in grade seven
  - 10 in grade eight
  - 5 in grade nine
- ◆ Format
  - demonstration, behavioral rehearsal, feedback and reinforcement, and behavioral homework assignments.



# Sample Format for Reviewing Promising Models

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Name of Program:

- ◆ Circle One: Universal Selective Indicated Program
- ◆ What Research-based model :
  - 
  -
- ◆ Focuses on :
  - 
  -
- ◆ Populations having implemented it:
  - 
  -
- ◆ Content focuses on:
  - 
  -
- ◆ Describe Sessions:
  - 
  -
- ◆ Evaluation Results:
  - 
  -
- ◆ Costs
  
- ◆ Technical Assistance/Professional Development



# Format for Reviewing Promising Models

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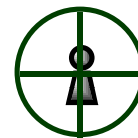
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**Name of Program:**

- ◆ Circle One: Universal Selective Indicated Program



# Choosing a Research-Based Prevention Program



- ◆ Step 1. *Identify effective models and programs*
- ◆ Step 2. *Complete a local needs assessment.*
- ◆ Step 3. *Identify local causes of problem.*
- ◆ Step 4. *Identify target population/s.*
- ◆ Step 5. *Select the prevention effort:*

—**Universal** - address the entire population (local community, school, neighborhood) with messages to prevent or delay the behavior.

—**Selective** - targets those at-risk as a result of being a member of a population segment (COAs, dropouts, failing grades).

—**Indicated** - prevents the onset of problem in those showing early warning signs such as continuing drug use, suspension, arrests.

- ◆ Step 6. *Determine the location for the prevention strategies:*
  - school
  - family
  - community

- ◆ Step 7. *Choose the prevention approach/es*