

PARTNERSHIP FOR A DRUG-FREE AMERICA

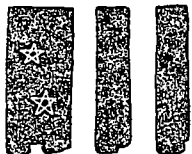
Jim Burke

*Jose - feji*

January 20, 1995

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P. Edelman  
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L. Panetta  
C. Rasco  
J. Reno  
R. Riley  
D. Shalala

F.Y.I.



PARTNERSHIP FOR A DRUG-FREE AMERICA  
405 LEXINGTON AVE. • NEW YORK, NY 10174-0002

# National Marijuana Campaign

**PHOTOCOPY  
PRESERVATION**

January 18, 1995

## CAPITAL JOURNAL By GERALD F. SEIB

### Drug Comeback: One Sad Trend Lost in Shuffle

**T**HE NEW CONGRESS isn't exactly short of things to do, but here's one task crying out for attention: putting a stop to the backsliding under-way in the national war against drugs.

Subtly, almost imperceptibly, drug use is creeping back up among America's youth. Worse yet, all the warning signs of bigger problems ahead are flashing. Use of marijuana, often a precursor of cocaine use, is up sharply among teens. Simultaneously, young people's perception that drugs are risky is declining, an attitude change that usually forecasts an actual upturn in drug use.



At least one powerful voice is trying to persuade the new, Republican-controlled Congress to fix its eyes on this troubling picture. The voice belongs to William Bennett, the former drug czar, who has been pressing new GOP members to get drugs onto at least their second 100 days' agenda. His message, Mr. Bennett says, is simply this: "You cannot ignore it."

In truth, though, ignoring the problem is what a lot of people, in Congress and out, have been doing. Consequently, the country is in a position roughly akin to that of a drug abuser who may appear to be recovering but who actually is in grave danger of a relapse.

Over the last few years, it was possible to conclude that, outside of the inner cities, broader American society had finally turned the tide in its long battle against illegal drugs. Studies by the University of Michigan Institute for Social Research, for instance, showed that drug use among high school seniors declined gradually but steadily through the second half of the 1980s and into the 1990s. Not coincidentally, perceptions that regular drug use was risky rose through the same period.

**N**OW, THOSE comforting trend-lines have turned. The University of Michigan research shows that illicit drug use has been rising, slowly but clearly, among eighth and 10th graders and high school seniors in each of the last two years. Particularly alarming was the rise found in the use of marijuana. Over the past two to three years, the share of students reporting

use of marijuana at least once in the past year has doubled among eighth graders, grown by two-thirds among 10th graders, and jumped by 40% among high school seniors.

The rise in marijuana use is particularly troubling, because historical trends show that marijuana is a "gateway" drug often leading to other drugs. Recent studies by Columbia University's Center on Addiction and Substance Abuse, or CASA, document a link between marijuana, as well as alcohol and tobacco, and later cocaine use. To put a grim human face on the latest statistics, CASA estimates that the jump in youthful marijuana use means 820,000 more young Americans will try cocaine in their lifetime, and that 58,000 of them will become regular cocaine users as adults.

Why is this happening? The best guess is the broadest one. The country is letting down its collective guard.

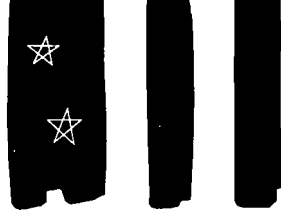
**F**OR STARTERS, society generally has stopped pounding home the theme that drugs are dangerous, meaning that a whole new set of young Americans isn't getting the same kind of clear signal their older brothers and sisters did. "The message is getting mixed," frets Joseph Califano, the former health, education and welfare secretary and CASA's chairman. "It's everything from the fact that we're starting to see pot come back to the movies and the music business, which are incredibly important to young people, to the fact that Jocelyn Elders is sending out an ambiguous message."

Surgeon General Elders has just departed, of course, so now it's up to President Clinton and his administration to undo any damage her casual remarks about possible drug legalization may have done. But the problem is hardly confined to the Clinton administration. Congress is equally complicit in toning down the anti-drug message.

In the budget he presented for the current fiscal year, Mr. Clinton proposed spending \$659.2 million on a program to help ensure safe and drug-free schools. Congress last year chopped that request down by 27%, to \$482 million.

Now comes the new Republican Congress, which will be torn between its budget-cutting impulses and the painful fact that programs to interdict drugs and prevent their use cost money. This is one area where anti-crime bromides alone won't suffice. Some in the drug-fighting community are particularly worried that, as spending on federal social programs gets packed into block grants and shipped out to the states, drug-fighting will get pushed to the back of the line of competing claims.

For his part, Mr. Bennett suggests that existing federal and state law-enforcement money could be used for a "targeted, intense effort at closing down drug markets in the cities." The first battle, though, isn't against drug dealers. It's against creeping national complacency.



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### **Creative Credits Marijuana Campaign**

#### **“Cafeteria”**

|                    |                  |
|--------------------|------------------|
| Agency:            | Grey Advertising |
| Creative Director: | Scott Sorokin    |
| Art Director:      | Glenn Batkin     |
| Copywriter:        | Helene Cohn      |
| Producer:          | Jan Zislin       |
| Director:          | Barry Young      |
| Production Co.:    | Fahrenheit Films |
| Editor:            | Jerry Fried      |

#### **“Russell, Alex, Rob ”**

|                             |                                              |
|-----------------------------|----------------------------------------------|
| Agency:                     | The Ad Store                                 |
| Creative Director:          | Paul Cappelli                                |
| Art Directors:              | Paul Cappelli, Joe Berlinger, Bruce Sinofsky |
| Agency Producer:            | Paul Cappelli                                |
| Directors:                  | Joe Berlinger, Bruce Sinofsky                |
| Director of<br>Photography: | Robert Richman                               |
| Production Co.:             | Gray Matter Productions                      |
| Production Co.              |                                              |
| Producer:                   | Lise Ostbirk                                 |
| Editing:                    | Alan Morris, Invisible Dog                   |
| Crew:                       |                                              |
| Gaffer:                     | Greg Addison                                 |
| Asst. Camera:               | John Thome                                   |
| Prod. Coordinator:          | Cheryl Cwilk                                 |
| Prod. Assistants:           | Laura Fieury, Marcus Ray                     |



**“Inhale”**

Agency: W. B. Doner  
Creative Director: Neal Spector  
Account Contact: Vera Yardley  
Art Director: Pete D’Agostino  
Copywriter: Tom Mayer  
Producer: John Bick  
Director: Neil Abramson  
Production Co.: Palomar Pictures

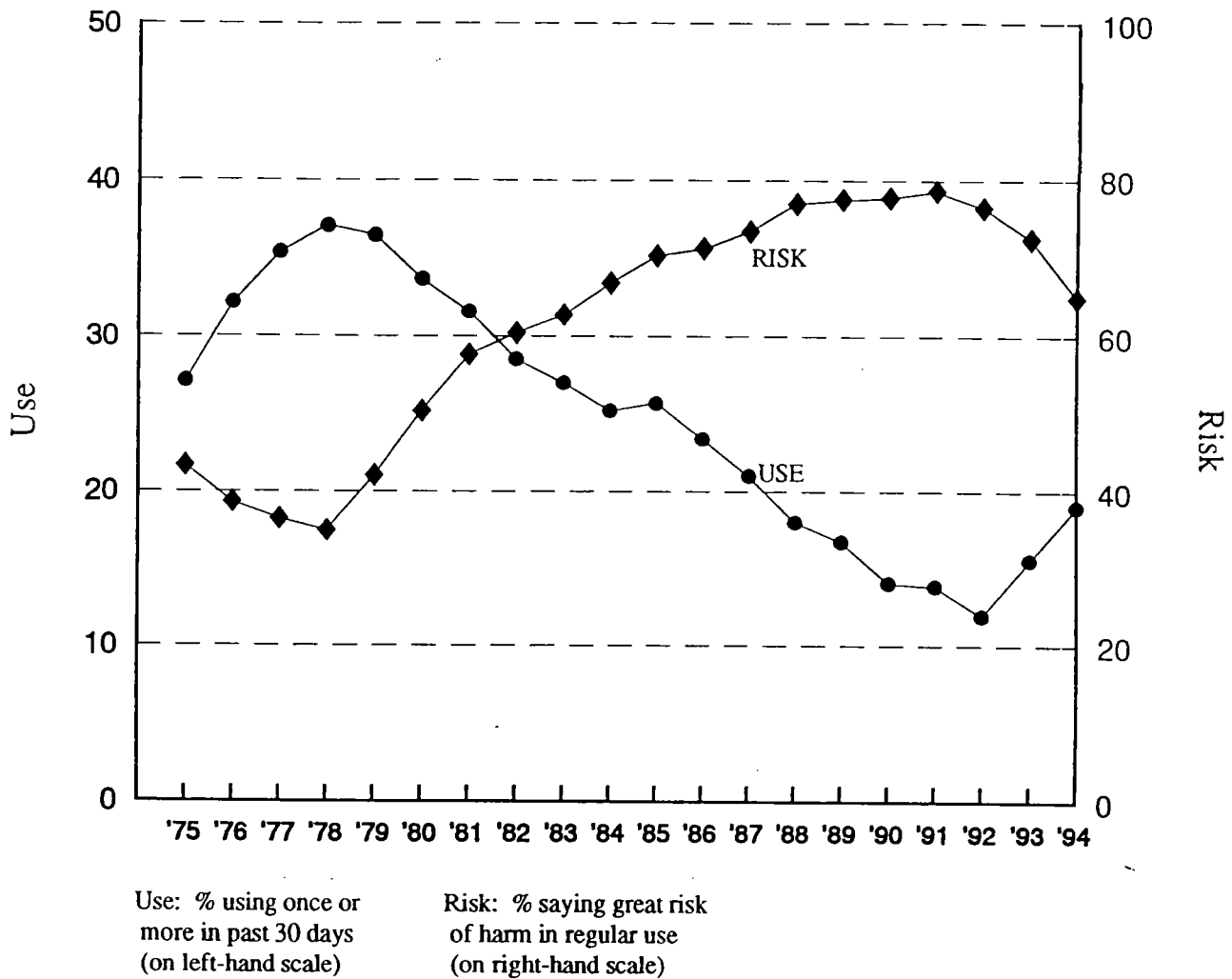
**“Pass Up”**

Agency: W. B. Doner  
Creative Director: Neal Spector  
Account Contact: Vera Yardley  
Art Director: Pete D’Agostino  
Copywriter: Tom Mayer  
Producer: Andrea Begley  
Director: Anthony Hoffman  
Production Co.: Propaganda Pictures

**“April, Jennifer”**

Producer: Karen Olender  
Director: Andrew Turman  
Production Co.: Picture This Entertainment

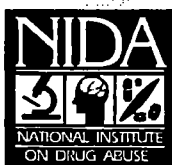
Marijuana:  
Perceived Risk of Regular Use,  
and Prevalence of Use in Past Thirty Days for Twelfth Graders



*the facts about.....*

# MARIJUANA

- Marijuana is the most widely used illicit drug in the United States. Research has shown marijuana use has many serious and harmful effects.
- Short-term, or acute effects of marijuana include impairments in learning and memory, perception, judgment, and complex motor skills. Marijuana can cause difficulty speaking, listening effectively, thinking, retaining knowledge, problem solving, and forming concepts.
- An "amotivational syndrome" can develop in heavy, chronic marijuana users. It is characterized by decreased drive and ambition, shortened attention span, poor judgment, high distractibility, impaired communication skills, and diminished effectiveness in interpersonal situations.
- Judgment of speed and time are impaired by marijuana use, making driving particularly hazardous. In one study of more than 1,000 accident victims at a shock trauma unit, 35% were found to have detectable levels of marijuana in their blood.
- Regular use of marijuana -- with or without other illicit drugs -- is correlated with higher levels of truancy, fighting, delinquency, arrests, and health problems in adolescents.
- Physiological effects of marijuana include an alteration of heart rate. Use of marijuana may result in intense anxiety, panic attacks, or paranoia.
- Marijuana smoke contains some of the same carcinogens and toxic particulates as tobacco, sometimes in higher concentrations. Daily use of 1 to 3 joints appears to produce the same lung diseases (bronchitis, emphysema, and bronchial asthma) and potential cancer risk as smoking five times as many cigarettes.



National Institute on Drug Abuse  
National Institutes of Health



# HHS FACT SHEET

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

## Monitoring the Future Study: Drug Use Among 8th-, 10th-, and 12th-Graders December 1994

### ILLICIT DRUGS

- In 1994, 45.6 percent of high school seniors had used an illicit drug at least once in their lifetime. Past year use of an illicit drug by seniors increased from 31.0 percent in 1993 to 35.8 percent in 1994 after steadily declining from a peak of 54.2 percent in 1979.
- The use of **marijuana** at all prevalence levels increased among 8th-, 10th-, and 12th-graders in 1994. Among 8th-graders, the increases in lifetime, annual, and current use of marijuana first reported between 1991 and 1992 continued from 1993 to 1994: In 1994, 16.7 percent had used marijuana at least once; 13.0 percent had used it in the past year; and 7.8 percent had used it in the preceding month.
- In 1994, 30.4 percent of 10th-graders had used marijuana at least once, up from 24.4 percent in 1993; 25.2 percent had used in the past year, up from 19.2 percent; 15.8 percent had used in the past month, up from 10.9 percent. For 12th-graders, the rates of marijuana use are still below the high levels of the peak years of 1978-1979. In 1994, 38.2 percent of seniors had used marijuana at least once, up from 35.3 percent in 1993; 30.7 percent used marijuana in the past year, up from 26.0 percent; 19.0 percent used in the past month, up from 15.5 percent.
- The use of **cocaine** also increased among 8th- and 10th-graders between 1993 and 1994. In 1994, 3.6 percent of 8th-graders, 4.3 percent of 10th-graders, and 5.9 percent of 12th-graders had used cocaine at least once. Use of **crack cocaine** at all prevalence levels increased for 8th-graders: In 1994, 2.4 percent of 8th-graders had used crack at least once; 1.3 percent had used it in the past year; and 0.7 percent in the past month.
- In 1994, 10.5 percent of seniors had used **LSD** at least once, and 6.9 percent had used in the past year, nearing the level of use during the peak years of the mid-1970s. Among 8th- and 10th-graders, use of LSD in the past year was reported at 2.4 and 5.2 percent, respectively.
- In 1994, one in five 8th-graders (19.9 percent) had used **inhalants**, which include glues, aerosols, and solvents, at least once. In 1994, 11.7 percent of 8th-graders, 9.1 percent of 10th-graders, and 7.7 percent of 12th-graders had used inhalants within the past year.

### STUDENTS' ATTITUDES AND PERCEPTIONS

- The erosion of antidrug attitudes observed in 1993 continued in 1994. Fewer students in all three grades said that smoking marijuana occasionally, or even regularly, is harmful to their health. Among 8th- and 10th-graders, the perceived risk of using crack cocaine once or twice declined; the perceived risk of powder cocaine (used once or twice and occasional use) also declined among 8th-graders. Levels of disapproval of cocaine use (both crack and powder) also declined among both 8th and 10th-graders. The perceived risk of inhalant use (once or twice and regular use) rose among 10th-graders, while disapproval of inhalant use held fairly steady among both 8th- and 10th-graders.



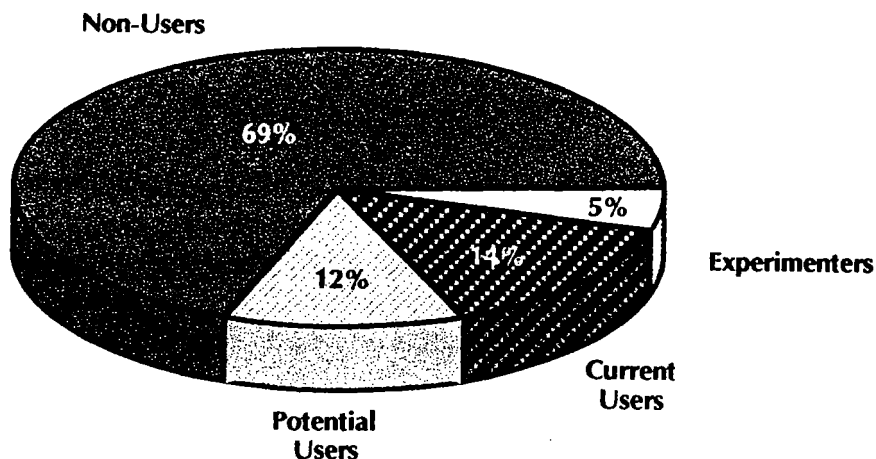
## PARTNERSHIP FOR A DRUG-FREE AMERICA

### Teen Marijuana Market

An analysis of American teenagers, conducted for the Partnership, takes a close look at the drug-related attitudes of 13 to 15 year olds. The analysis, a segmentation study, was developed from data gathered for PDFA's Attitudinal Tracking Survey. This annual survey is conducted by Audits & Surveys Worldwide. In total, 3600 teens aged 13 to 15 were interviewed.

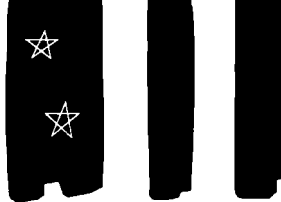
The study places 13 to 15 year olds into four categories based on past, present or potential marijuana use and on current attitudes about marijuana.

- Seven out of every 10 (69%) 13 to 15 year olds do not use marijuana. These teens currently express anti-marijuana attitudes, they perceive risks in using, and socially disapprove of users.
- Fourteen percent (14%) are identified as current users. They are more likely to be positive toward marijuana and less likely than all other teens to perceive risks in using it. They believe that marijuana usage is widespread among their age group.
- Five percent (5%) are experimenters who also have tried marijuana, but smoke it very infrequently. They have a greater sense of the risks of using marijuana than users and are unlikely to continue to use it.
- Twelve percent (12%) are classified as potential marijuana users. While only a small number of these teenagers have ever tried marijuana, their attitudes are very similar to current users. Like users, they express low levels of risk perceptions and high expectations of benefits to be received from using marijuana.



The analysis identified specific attitudes that help predict usage of marijuana among young teens. Teens are more likely to use marijuana if they believe that usage is normalized behavior among their age group, i.e. "everyone is smoking marijuana." They will be more likely to try marijuana if they have low levels of concern about the risks and correspondingly high levels of expected benefits of using it. They believe usage is permissible if it is occasional. Teens are less likely to try marijuana if using it evokes high social disapproval among their peers. If teens' resistance skills are less well developed, they will be more likely to try marijuana.

From these findings and additional qualitative research, the Partnership began a major communications initiative. Strategies targeted to teens and parents are being developed. The goal of the first strategy in this initiative is to reinforce young teens' feelings that marijuana can mess up their lives in many ways.



## PARTNERSHIP FOR A DRUG-FREE AMERICA

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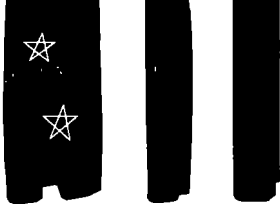
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## PARTNERSHIP FOR A DRUG-FREE AMERICA

### ***SELECT READINGS & RESEARCH ON MARIJUANA***

-- *"A Look at Marijuana's Harmful Effects,"* NIDA Notes (Newsletter of the National Institute on Drug Abuse), February/March 1994.

-- *"STUDY CONCLUDES: NEARLY 90 PERCENT OF COCAINE USERS HAD SMOKED, DRANK AND USED MARIJUANA FIRST."* Study on Gateway Drugs by the Center on Addiction and Substance Abuse at Columbia University, released October 27, 1994.

-- *The Shifting Importance of Alcohol and Marijuana as Gateway Substances among Serious Drug Abusers,* Journal of Studies on Alcohol, September 1994, Golub and Johnson.

-- *The Diagnosis of Marijuana (Cannabis) Dependence,* Journal of Substance Abuse Treatment, 1989, Miller and Gold.

-- *The Role of Marijuana in Homicide, The International Journal of the Addictions,* 1994, Spunt, Goldstein, Brownstein and Fendrich.



# A Look at Marijuana's Harmful Effects

By Neil Swan  
NIDA Notes Contributing Writer

**M**arijuana, often called pot, tea, herb, grass, weed, or, when rolled into cigarettes, joint and reefer, is the term used to refer to cannabis, the hemp plant. It induces physical or psychological changes when smoked or ingested.

Marijuana is still the most commonly used illicit drug in the United States, according to the 1992 National Household Survey on Drug Abuse. More than 67 million Americans reported that they had tried marijuana at least once in their lives, and more than 17 million said they had used it at least once in the past year.

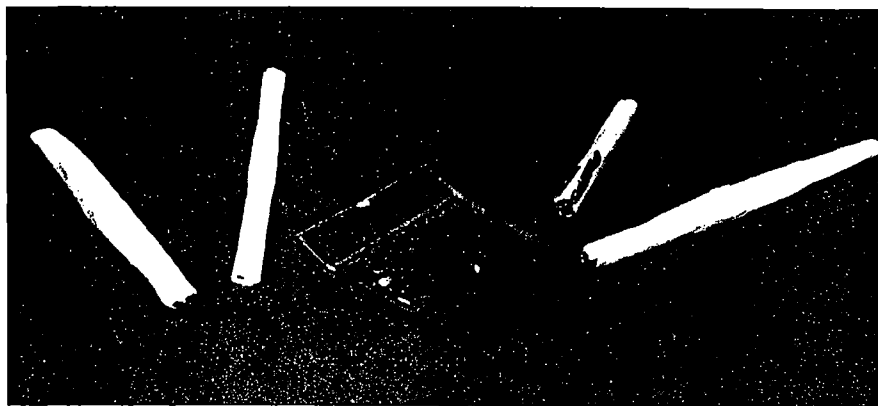
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## ***More of the same cancer-causing agents in cigarette smoke are found in marijuana smoke.***

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Researchers are still calculating the extent of the various harmful effects of marijuana, which impairs memory, perception, judgment, and the coordination and motor skills necessary to drive a car safely. Recent studies reveal marijuana use is a significant factor in highway fatalities. A Canadian study found marijuana's psychoactive ingredient, tetrahydrocannabinol (THC), in the blood of more than 10 percent of fatally injured drivers and in nearly 8 percent of pedestrians killed by vehicles.

Researchers have found that THC adversely affects the brain's hippocampus, which is crucial for



*Marijuana when rolled into cigarettes is also known as joint and reefer.*

learning, memory, and the integration of sensory experiences with emotion and motivation. Numerous studies have shown that smoking marijuana impairs short-term memory. Scientists now are seeking to determine how long the effects on memory last. Some researchers are convinced that persistent cognitive impairment can result from chronic marijuana use.

Using marijuana has other significant health risks, especially when used in conjunction with other drugs of abuse. For example, smoking marijuana increases heart rate, which may not be important to healthy adults, but could be dangerous for people with abnormal heart and circulatory conditions. However, when marijuana is used with cocaine, heart rate is increased even further, increasing risk to heart functioning.

Many marijuana users also drink alcohol while they are smoking. Since both drugs interfere with motor coordination, perception, and judgment of speed and distance, drivers who have used both substances are especially likely to be seriously impaired because the

drugs' effects appear to be additive.

Marijuana smoke is similar to tobacco smoke in many respects and similar effects on the lungs are seen clinically for both, especially chronic coughing and bronchitis. Many marijuana smokers also use tobacco cigarettes, and, since smoking marijuana affects the large airways and tobacco smoke the small ones, users of both types of cigarettes are at increased risk for pulmonary problems. While some of the same cancer-causing agents are found in both marijuana and tobacco smoke, there are more of them in marijuana smoke, creating an even more serious health risk.

Cannabis smoke, like tobacco smoke, also impairs the functioning of alveolar macrophages, the body's first line of defense in the lungs against bacteria and other pathogens. In research with animals, decreases have been found in virtually every immune function studied with marijuana or THC. Taken together, this evidence suggests that the immune system is at risk of at least some impairment from the effects of smoking marijuana. This could

*continued on page 16*

## A Look at Marijuana's Harmful Effects

*continued from page 14*

be dangerous for AIDS patients and others, such as cancer chemotherapy patients, who have impaired immune systems, although clinical studies in this area are lacking.

Pregnant women who smoke marijuana expose their fetuses to THC. Children of such mothers are often of low birth weight, a condition associated with poor health and high mortality in infancy. An unexpected recent finding has linked heavy cannabis use by pregnant women with a rare form of cancer in their children, acute nonlymphoblastic leukemia. Additional studies must be undertaken to verify this relationship.

The effects of marijuana on reproductive hormones depend on the dose, or how much drug is used; how frequently it is used; and for how long. For example, smoking a single marijuana cigarette suppresses production of the female hormone essential for implantation of a fertilized egg in the uterus. Use of marijuana four or more times a week results in increased incidence of menstrual cycles without ovulation.

Psychiatrists say complications from chronic marijuana use include depression, anxiety, sexual problems, and personality disturbances. Studies show that after abruptly stopping marijuana use, the long-term, heavy pot user may develop signs and symptoms of drug withdrawal, including anxiety, depression, disturbed sleep and appetite, irritability, tremors, perspiration, nausea, muscle convulsions, and restlessness. Researchers have reported that these symptoms may be subtle and persist for months. **NN**

## New NIDA Publications

**N**IDA recently issued a number of new publications, including five research monographs that provide the latest information on drug addiction, research, and treatment methodologies.

Other recently released NIDA publications discuss national survey data, intervention models, and biomedical approaches for the prevention and treatment of drug abuse.

In addition, the Institute has produced a number of technology transfer videos and technology transfer packages, which provide up-to-date information on specific topics and include training manuals, handbooks, and study guides.

The technology transfer videos and packages plus single copies of the monographs and other publications are available from the National Clearinghouse for Alcohol and Drug Information (NCADI), P.O. Box 2345, Rockville, MD 20847-2345, (800) 729-6686. As indicated below, additional copies of some publications may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 783-3238. When ordering, please provide the appropriate stock number.

### RESEARCH MONOGRAPHS

#### NIDA Research Monograph 133

*Sigma, PCP, and NMDA Receptors.* Errol B. De Souza, Ph.D., Doris Clouet, Ph.D., and Edythe D. London, Ph.D., eds. Discusses the pharmacological characteristics of sigma-, PCP-, and NMDA-preferring glutamate receptors and the functional roles these receptors and the drugs that bind to them play in biology and behavior.  
NCADI Stock #M133.  
Not available from GPO.

#### NIDA Research Monograph 134

*Medications Development: Drug Discovery, Databases, and Computer-Aided Drug Design.* Rao S. Rapaka, Ph.D., and Richard L. Hawks, Ph.D., eds. Reviews new techniques and technologies used to develop medications for drug abuse treatment.  
NCADI Stock #M134.  
GPO Stock #017-024-1511-3; \$11.

#### NIDA Research Monograph 135

*Cocaine Treatment: Research and Clinical Perspectives.* Frank M. Tims, Ph.D., and Carl G. Leukefeld, Ph.D., eds. Explores major issues in the treatment of cocaine abuse and dependence and reviews available findings from studies of treatment. Sets forth recommendations for research and practice.  
NCADI Stock #M135.  
GPO Stock #017-024-1520-2; \$11.

#### NIDA Research Monograph 136

*Assessing Neurotoxicity of Drugs of Abuse.* Lynda Erinoff, Ph.D., ed. Examines a variety of methodologies used in research on the neurotoxicity of several abused substances including amphetamines, marijuana, and PCP.  
NCADI Stock #M136.  
GPO Stock #017-024-1518-1; \$11.

#### NIDA Research Monograph 137

*Behavioral Treatments for Drug Abuse and Dependence.* Lisa S. Onken, Ph.D., Jack D. Blaine, M.D., and John J. Boren, Ph.D., eds. Provides drug abuse clinicians and researchers with the latest information, techniques, and procedures regarding behavioral treatments for drug dependence.  
NCADI Stock #M137.  
GPO Stock #017-024-1519-9; \$13.



Center on Addiction  
and Substance Abuse  
at Columbia University

## PRESS RELEASE

**HOLD FOR RELEASE**  
10 a.m., Thursday, October 27, 1994

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(212) 841-5260 or  
Bob Neuman (202) 628-2075

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New York, NY 10019

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### **STUDY CONCLUDES: NEARLY 90 PERCENT OF COCAINE USERS HAD SMOKED, DRANK AND USED MARIJUANA FIRST**

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George Rupp, Ph.D.  
Michael P. Schulhof  
Frank G. Wells (1932-1994)

#### ***Comprehensive National Analysis Finds Consistent and Powerful Connection Between "Gateway" Drug Use and Cocaine and Other Illicit Drug Use***

Washington, DC...The Center on Addiction and Substance Abuse at Columbia University (CASA<sup>1</sup>) released a study today showing that children (12 to 17 years old) who use gateway drugs--tobacco, alcohol and marijuana--are up to 266 times--and adults who use such drugs are up to 323 times--more likely to use cocaine than those who don't use any gateway drugs. Compared with people who used only one gateway drug, children who used all three are 77 times--and adults are 104 times--more likely to use cocaine.

"This study--the most comprehensive national assessment ever undertaken--reveals a consistent and powerful connection between the use of cigarettes and alcohol and the subsequent use of marijuana, and between the use of cigarettes, alcohol and marijuana and the subsequent use of cocaine and other illicit drugs," said Joseph A. Califano, Jr., CASA's president and former HEW secretary. "An increasing number of American children and teens believe there is little risk in chugging a beer or smoking a tobacco or marijuana cigarette. With the recently reported rise in smoking, drinking and using marijuana by children and teenagers, this report is a wake up call for parents to discourage their children from smoking and drinking and for governors and mayors to enforce the laws prohibiting the sale of cigarettes, beer, wine coolers and other alcoholic beverages to minors."

The CASA study establishes a clear progression that begins with gateway drugs and leads to cocaine use: nearly 90 percent of people

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<sup>1</sup> The Center on Addiction and Substance Abuse at Columbia University is neither affiliated with, nor sponsored by, the National Court Appointed Special Advocate Association (also known as "CASA") or any of its member organizations, or any other organization with the name of "CASA".

--more--

who have ever tried cocaine used all three gateway substances first. More than half followed a progression from cigarettes to alcohol to marijuana and then on to cocaine. (See Attachment A.)

The CASA study also concludes that the earlier a child starts to use these gateway drugs, and the more frequently, the greater the likelihood of using hard drugs. For example, children who smoke daily are 13 times more likely to use heroin than children who smoke less often.

The study is the most comprehensive to date using national data that looks at both children and adults and all gateway substances. The research is based on the 1991 National Household Survey on Drug Abuse conducted by the National Institute on Drug Abuse.

"No matter how we looked at the numbers, whether the user was white, black, male or female, the statistical connection between smoking, drinking or using marijuana and subsequent illicit drug use is clear," said Califano.

CASA's analysis<sup>2</sup> reveals:

- Children who use marijuana are 85 times more likely to use cocaine than non-marijuana users. (Ninety percent of children who used marijuana, smoked or drank first.)
- Children who drink are 50 times more likely to use cocaine than non-drinkers.
- Children who smoke are 19 times more likely to use cocaine than nonsmokers.

The CASA study also links the use of gateway drugs by children with subsequent regular use of illicit substances as adults:

- Adults who used marijuana as children are 17 times more likely to be regular cocaine users. (Ninety-one percent of adults who used marijuana as children smoked or drank first.)

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<sup>2</sup> For all substances except cigarettes, usage is defined in terms of "having ever consumed" the substance. For cigarettes, the definition is based upon an existing standard of having smoked at least 100 cigarettes (five or more packs) in a lifetime. Regular use of alcohol or illicit drugs means monthly or more frequently.

- Adults who drank as children are six times more likely to be regular cocaine users. (See Attachment B for additional findings.)

Califano noted that the study finds a far more compelling relationship between the use of gateway drugs and subsequent use of cocaine and other illicit drugs than the 1964 Surgeon General's report found between smoking and lung cancer, the 1968 Framingham study found between cholesterol and heart disease, and the 1981 Selikoff study found between asbestos and lung cancer. "Each of those studies led not only to major investments in biomedical research, but to major changes in personal conduct among millions of Americans," said Califano.

Despite the illegal status of cigarettes, alcohol and marijuana for children, use of these gateway drugs by underage youth is widespread. It has been estimated that 3,000 young people in the U.S. become regular smokers every day. In 1993, 19.0 percent of seniors, 14.2 percent of 10th-graders, and 8.3 percent of 8th-graders smoked cigarettes daily, up from 17.2 percent, 12.3 percent and 7.0 percent respectively in 1992. Marijuana use increased from 11.2 percent in 1992 to 12.6 percent in 1993 among eighth graders; from 21.4 percent to 24.4 percent among 10th graders; and from 32.6 percent to 35.3 percent among seniors. Recent studies show that 67 percent of eighth graders, 81 percent of tenth graders and 87 percent of twelfth graders have tried alcohol.

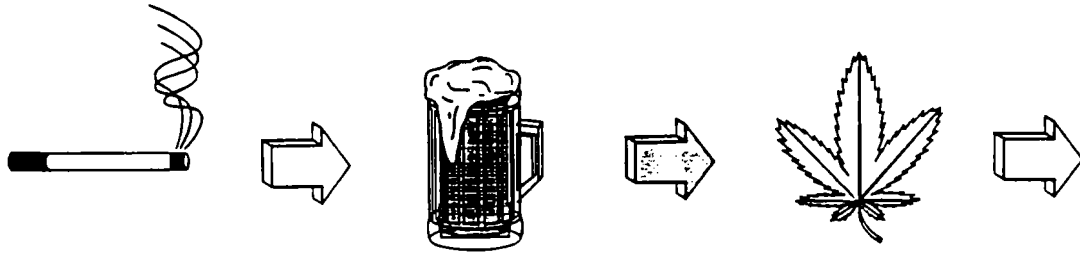
"Ultimately, prevention is our only hope for stemming the tide of new addicts. If we can keep our children and teens from smoking, drinking and using marijuana, then we can go a long way towards preventing the use of all dangerous drugs," said Califano.

The study was conducted under the direction of Jeffrey C. Merrill, vice president for policy and research. The Center on Addiction and Substance Abuse at Columbia University is the only national organization to bring together under one roof all professional disciplines needed to study and combat all types of substance abuse--illegal drugs, pills, alcohol and tobacco--as they affect all aspects of society. The Center's goals are: to explain to the American people the social and economic cost of substance abuse and its impact on their lives; to identify what prevention and treatment programs work, for whom and under what circumstances; and to encourage individuals and institutions to take responsibility to prevent and combat substance abuse.

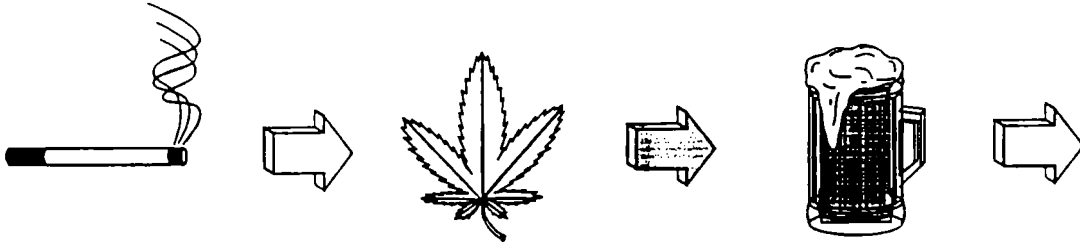
# Paths to Cocaine Use

Of All  
Cocaine  
Users:

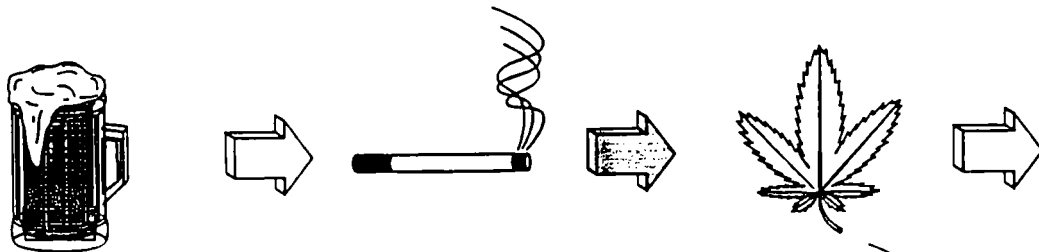
52%



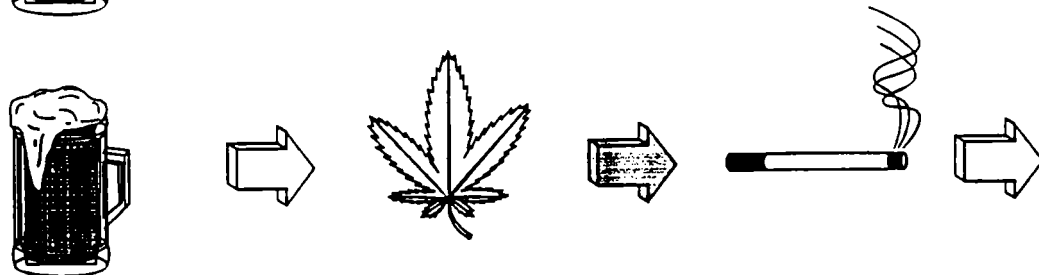
13%



13%



5%



17%

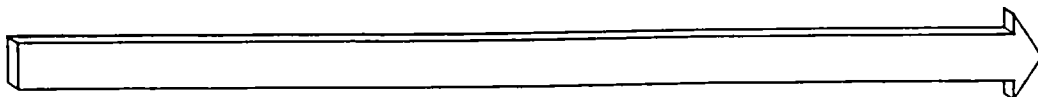
One, two, or three



in other sequences.



0%



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O  
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These percentages have been rounded to the nearest whole number.

## Attachment B

### ADDITIONAL FINDINGS FROM THE CASA GATEWAY DRUGS STUDY

Gateway drug use at younger ages increases the risk for regular drug use<sup>1</sup> as adults:

- Adults who started to drink before the age of 15 are over five times more likely to be regular drug users and nearly eight times more likely to be regular cocaine users as adults than those who started drinking at 18 or older.
- Adults who started to smoke before the age of 15 are three times as likely to be regular drug users and more than twice as likely to be regular cocaine users than those who started smoking at 18 or older.

Frequent tobacco, alcohol and marijuana use among children increases the risk of heroin and cocaine use:

- Children who smoke at least daily are 13 times more likely to use heroin than children who smoke less often.
- Children who drink at least weekly are 8 times more likely to use cocaine than children who drink less than once a month.
- Children who have used marijuana 50 or more times are three times more likely to use another illicit drug than others who have used marijuana only once or twice.

The number of gateway substances used also increases the risk of using other drugs. Compared to adults who don't use any gateway substance, an adult who uses:

- any one gateway substance is 3.1 times more likely to use cocaine;
- any two gateway substances is 19.3 times more likely to use cocaine;
- all three gateway substances is 322.7 times more likely to use cocaine.

Compared to children who don't use any gateway substance, a child who uses:

- any one gateway substance is 3.5 times more likely to use cocaine;
- any two gateway substances is 17.2 times more likely to use cocaine;
- all three gateway substances is 266.3 times more likely to use cocaine.

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<sup>1</sup> monthly or more frequently

# The Shifting Importance of Alcohol and Marijuana as Gateway Substances among Serious Drug Abusers\*

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**ABSTRACT.** Prior research based on representative samples drawn from the general population suggests persons tend to follow a common developmental pathway from use of alcohol as youths through possible use of marijuana as teens potentially leading to use of more serious substances as adults. Based on this model, alcohol and marijuana act as gateways, whereby persons who do not onset to alcohol rarely onset to marijuana; similarly, non-marijuana users rarely onset to more serious substance use and abuse. This study examines whether a sample of serious drug abusers recruited from New York

City in 1988-89 followed the same developmental pathway as observed in general populations. The results suggest that alcohol is not a prerequisite for progression to marijuana, but marijuana use nearly always precedes use of more serious substances such as cocaine, crack and heroin. Furthermore, with the growing prevalence of marijuana (since 1965) the importance of alcohol as a gateway to marijuana use appears to have declined and marijuana's role as a gateway to serious drug use appears to have increased. (*J. Stud. Alcohol* 55: 607-614, 1994)

**S**TUDIES during the 1970s and 1980s have typically concluded that the use of alcohol during youth is a prerequisite to more serious drug use and abuse. Much of this research has been influenced by the seminal work of Denise Kandel and her associates, in which they found that individuals tend to follow a common *developmental pathway*, a sequence of onset to various substances from a time of no substance use as a youth leading to adulthood and the possibility of serious drug abuse (Andrews et al., 1991; Blaze-Temple and Lo, 1992; Brook et al., 1982; Donovan and Jessor, 1983; Elliott et al., 1989; Fleming et al., 1989; Hays and Ellickson, 1990-91; Kandel, 1978; Kandel et al., 1992). Typically, a person's first substance use experience occurs in early adolescence, around age 13, and involves the use of alcohol or perhaps tobacco. Subsequently, some youths who have used alcohol progress to the use of marijuana. Later, typically when they are in their late teens or early twenties, some marijuana users initiate the use of more serious drugs such as cocaine or heroin. These studies have generally concluded

that individuals who never use alcohol rarely initiate the use of marijuana, and that individuals who never use marijuana rarely become users and abusers of more serious drugs such as cocaine or heroin. These studies, however, indicate that the converse does not necessarily hold; use of alcohol does not inevitably lead to the use of marijuana and the use of marijuana does not inevitably lead to use of cocaine. In this respect, the use of each less serious substance acts as a gateway to more serious drug use; in fact, this literature often refers to alcohol, tobacco and marijuana as *gateway substances* emphasizing their early roles in the pathway to more serious drug use and abuse.

Prior studies on developmental pathways have primarily employed a prospective longitudinal design with samples from general populations. In such studies, youths are typically recruited from public schools or their homes and are followed over a number of years during which they report changes in drug use, along with other information. Such longitudinal designs produce detailed substance-use histories and have become an important standard for developmental research on substance use (Elliott, 1992; Kandel, 1980). However, individuals who develop serious drug abuse problems are relatively rare in general populations and are more likely to drop out of school or leave home and, therefore, be among the moderate number of persons who drop out of longitudinal studies. For example, the prevalence of heroin injection reached a peak during the 1960s and early 1970s (Johnson and Manwar, 1991), right about when Kandel and her associates recruited a sample from public schools in New York State. However, only about 40 (3%) of the 1,325 subjects reinterviewed at about age 25 reported using heroin (Kandel and Yamaguchi, 1985). Furthermore, some of the subjects who re-

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ported using heroin may not have become heroin injectors or serious drug abusers. Hence, in this study, probably fewer than 40 of the subjects whose drug use histories were used to identify a developmental pathway actually became serious drug abusers.

Developmental pathways identified with samples from general populations will primarily reflect substance use patterns of less serious users and may potentially mask a different pathway followed by those who become serious drug abusers. Prior studies often report the percent of persons whose substance use pattern conforms with a proposed model; models that exhibit an empirical conformance rate of 90% are typically judged as reasonable. However, if only 3% of the general population become serious drug abusers, then a model may be deemed to fit the data reasonably well even if the model fails to explain the developmental pathway of every serious drug abuser in the sample. Hence, it is necessary to confirm the extent to which the developmental pathway followed by those who become more serious substance abusers conforms with the model developed from samples drawn from the general population.

This study examines the substance use histories of persons who became serious drug abusers based on retrospective interviews and addresses two specific hypotheses:

*Hypothesis 1:* The developmental pathway for those who become serious drug abusers differs from that observed for general populations.

In particular, this study examines the extent to which the developmental pathway of persons who become serious drug abusers in adulthood conforms to the model identified from more general populations: alcohol leads to marijuana which leads to more serious substance use and abuse.

Additionally, much of what is known today about developmental pathways is based upon research on persons born in the 1950s (Kandel's subjects were born between 1953 and 1957). Since 1965, the prevalence, popularity, availability and acceptance of marijuana have increased (Johnson and Manwar, 1991; Johnson and Muffler, 1992). Marijuana's role along the pathway to serious drug abuse may have simultaneously expanded, leading to the second hypothesis:

*Hypothesis 2:* The importance of alcohol as typically the first substance used has declined with the growing availability and popularity of marijuana among youths.

Hence, it is hypothesized that the developmental pathway has not been static; rather, changes in which drugs are most popular among society in general have an impact on the nature of early drug use experience.

## Method

To test these hypotheses requires an extensive sample of serious drug abusers including persons born over a range of years. This study employs the "Careers in Crack" dataset which includes interviews with 1,003 serious drug abusers and sellers (Dunlap et al., 1990; Lewis et al., 1992). The Careers in Crack Project directly recruited serious drug abusers and sellers (753 of whom report having used crack cocaine) from inner-city Manhattan during 1988-89. Obtaining a representative sample of serious drug abusers presents a challenge since these individuals generally maintain limited association with the more conventional, non-drug using community, and often change or do not maintain any permanent place of residence. As a result, simply locating serious drug abusers and providing a suitable environment for obtaining reliable responses is an art itself—such considerations have been documented in previous papers (Dunlap et al., 1990; Lewis et al., 1992; Williams et al., 1992).

The Careers in Crack Project recruited sizable numbers of serious drug abusers from several different locales where they are often found: (1) the streets of Harlem and Washington Heights, (2) drug treatment programs, (3) probation/parole, (4) individuals arrested and released, (5) jail and (6) prison. Most of these subjects can be referred to as serious drug abusers since most either report smoking crack or injecting heroin on a daily or more frequent basis (see Table 1), were recruited from locations and situations where serious drug abusers are typically found, or they had contact with either the criminal justice system or a drug treatment program as a result of their drug use.

The Careers in Crack data provide a unique perspective into life histories of serious drug abusers. As a consequence, this sample clearly excludes those drug users/abusers whose lifestyles do not meet a certain profile. These data are not representative of many occasional recreational users from working, middle and upper socioeconomic backgrounds, who tend to incur arrest less frequently, and who rarely associate with serious drug abusers on the streets of New York City.

Compared to more general populations, the Careers in Crack subjects report a high rate of current use of alcohol and marijuana, and especially more serious substances including cocaine, crack and intravenous drugs; they report a low rate of marriage, a low level of educational achievement and a high rate of unemployment; a high proportion of the sample have sold drugs; and a high proportion self-reported having committed one of the serious offenses identified by the FBI as index offenses (see Table 1). These subjects, however, are not unique in their low conformance to mainstream standards; a comparison with other samples drawn from criminal justice and drug treatment populations exhibit comparably poor or slightly

TABLE 1. Profile of the Careers in Crack sample ( $N = 994$ )

|                                 |                     |
|---------------------------------|---------------------|
| Average age in 1988             | 28 years            |
| Female                          | 31%                 |
| African-American                | 61%                 |
| Other black <sup>a</sup>        | 3%                  |
| Puerto Rican                    | 20%                 |
| Other Latino <sup>b</sup>       | 8%                  |
| White                           | 7%                  |
| Recruited from: Neighborhood    | 40%                 |
| Drug treatment                  | 13%                 |
| Arrestee released               | 15%                 |
| Probation/parole                | 13%                 |
| Jail                            | 10%                 |
| Prison                          | 8%                  |
| Alcohol: Ever use               | 75%                 |
| Currently use                   | 57%                 |
| Median frequency of use         | A few days per week |
| Marijuana: Ever use             | 91%                 |
| Currently use                   | 60%                 |
| Median frequency of use         | A few days per week |
| Cocaine: Ever use               | 81%                 |
| Currently use                   | 54%                 |
| Median frequency of use         | A few days per week |
| Intravenous drugs: Ever use     | 29%                 |
| Currently use                   | 18%                 |
| Median frequency of use         | Once a day          |
| Crack: Ever use                 | 76%                 |
| Currently use                   | 62%                 |
| Median frequency of use         | 2-3 times per day   |
| Single or divorced              | 80%                 |
| Did not graduate high school    | 48%                 |
| Unemployed                      | 75%                 |
| Ever sold drugs                 | 62%                 |
| Ever committed an index offense | 81%                 |

<sup>a</sup>Born in the Caribbean or Africa.<sup>b</sup>Other Spanish-speaking origin.

better characteristics, which suggests that the Careers in Crack sample provides a fairly representative view of disaffiliated persons who perform poorly in society and get in trouble with both drugs and the law (Lewis et al., 1992).

After obtaining informed consent, each subject was interviewed regarding their current and prior substance use, illegal drug selling and nondrug criminality. This study analyzes early experience along the developmental pathway of drug use employing the retrospectively reported dates for first use of alcohol, marijuana, cocaine powder (for snorting), intravenous drugs and crack for the 994 subjects who reported ever having used any of these substances; the analysis excludes the nine subjects who claimed to have never used any of these substances. Since the data were obtained retrospectively, they are subject to possible recall and reporting errors, although every effort was made to establish rapport with the subjects and to help them recall information (Dunlap et al., 1990). Unfortunately, subjects were not asked about the use of tobacco, so it cannot be included in the analysis, even though prior research with general populations have identified its im-

portance as a gateway substance (Fleming et al., 1989; Kandel et al., 1992).

Onset to a substance, in this study, is defined as the year in which a subject reports having first used a substance. Initial experimental use may or may not have actually led to more regular use. However, it appears reasonable to assume that regular use followed since most of the subjects eventually became serious drug abusers. Subjects reported their age at onset to each drug, from which year of onset was computed; they were not asked the day or month of onset. This level of precision (year of onset) resulted in many subjects reporting onset to more than one substance during the same year and ambiguity in the exact order of onset. Consequently, this study often refers to substances a subject "used in the first year of substance use" as opposed to the substance a subject onset to first.

## Results

Table 2 presents a summary of the substances subjects report having used in the first year of any substance use. As noted previously, this presentation is complicated by the fact that many subjects report having onset to more than one substance in that first year. Consequently, Table 2 reports both that 28% of the subjects report having used alcohol and only alcohol in the first year of substance use ("exclusive onset"), and that 52% report having used alcohol at all during their first year of substance use ("any use"). The any use percentage indicates all subjects whose pathway may have started with alcohol and, thus, provides an upper bound on the proportion starting with alcohol. The exclusive onset percentage, a subset of the any use percentage, indicates subjects who clearly onset to alcohol prior to any of the other substances and, thus, provides a lower bound on the proportion starting with alcohol.

These results strongly suggest that for these subjects who became serious drug abusers, alcohol played a much less important role as first substance used than would be predicted from the developmental models based on general populations. Based on even the more generous estimate of 52%, a sizable proportion of these subjects report having first started with a substance other than alcohol (a  $t$  test based on the standard error of 1.6% suggests that the proportion starting with a substance other than alcohol is both substantial and statistically significant at the  $\alpha = .01$  level).

Perhaps as many subjects or more started their substance use pathways with marijuana as did alcohol (31% report exclusive use and 61% any use). Even more surprisingly, many individuals included in this study progressed to more serious substance use and abuse without ever having initiated the use of alcohol. Of the 279 stu-

TABLE 2. Types of substances used in first year of any substance use

|                                                              | Alcohol        |                      | Marijuana              |                      | Other <sup>c</sup>     |                      |
|--------------------------------------------------------------|----------------|----------------------|------------------------|----------------------|------------------------|----------------------|
|                                                              | Exclusive      | Any use <sup>b</sup> | Exclusive <sup>a</sup> | Any use <sup>b</sup> | Exclusive <sup>a</sup> | Any use <sup>b</sup> |
| Percent who onset in first year of substance use ( $\pm$ SE) | 28.1 $\pm$ 1.4 | 51.9 $\pm$ 1.6       | 31.3 $\pm$ 1.5         | 61.1 $\pm$ 1.5       | 9.6 $\pm$ 0.9          | 23.1 $\pm$ 1.3       |

<sup>a</sup>Used substance and only that substance in the first year of any substance use.<sup>b</sup>Used substance and possibly other substances in the first year of use.<sup>c</sup>Cocaine powder, crack and/or IV-drugs, but not alcohol or marijuana.

dents who used alcohol-only (i.e., exclusive use) in their first year of substance use, 90% eventually initiated the use of marijuana. By contrast, of the 311 who used marijuana-only in their first year, merely 54% report eventually initiating the use of alcohol. One might argue that alcohol may be more prevalent among adults than youths and so members of more recent birth cohorts may not have onset to alcohol yet. In contrast, however, a contingency table analysis (not presented here) found that the 54% rate of subsequent alcohol use among those who started with marijuana-only was not associated with age at the interview.

Most subjects started their substance use pathways with either alcohol or marijuana and relatively few subjects reported having started with more serious drugs—cocaine powder, crack or IV-drugs. Only 10% report exclusive use of drugs other than alcohol or marijuana in their first year of substance use and 23% report any use. These rates might have been even lower had subjects been asked about use of tobacco. Overall, these findings support the first hypothesis that alcohol may be less essential for progression to more serious substance abuse than indicated by development models based on samples from general populations.

#### *Individual attributes associated with first substance use of marijuana vs alcohol*

This section examines systematic differences in the demographic profile of those subjects who first onset to marijuana as opposed to those who onset to alcohol to provide further insight into which persons are most likely to have started with marijuana use. Table 3 presents results of a logistic regression model estimating the association of first substance used (either marijuana or alcohol) with birth year, gender, race/ethnicity and recruitment locale. This model identifies those characteristics differentiating the 311 persons reporting use of marijuana-only from the 279 who report use of alcohol-only in the first year of substance use; the analysis is limited to these two groups (59% of the sample), which represent persons whose developmental pathways clearly begin with marijuana and alcohol, respectively.

Logistic regression has the important property of estimating the association of each independent variable with

a binary dependent variable while simultaneously controlling for the influence of all other variables included in the analysis (Hosmer and Lemeshow, 1989). Table 3 reports almost one-to-one (0.9:1.0) odds of first year use of marijuana-only versus alcohol-only for the "reference population," persons whose attributes match the reference levels for each attribute analyzed—these odds are referred to as the "reference rate." Hence, African-American males who became serious drug abusers, who were born in the years 1928-52 and were recruited from the streets of Washington Heights or Harlem, were nearly as likely to onset to marijuana-only in the first year of substance use as to onset to alcohol-only (i.e., for every 9 who onset to marijuana-only 10 onset to alcohol-only).

Table 3 also reports estimated odds ratios associated with each attribute level differing from the reference level. The estimated odds of exclusive first year use of marijuana versus alcohol for persons whose attributes differ from the reference levels equals the product of the reference rate times the odds ratio associated with each attribute differing from the reference level. For example, the model indicates that persons born in the years 1968-73

TABLE 3. Covariates of first substance use (logistic regression analysis of marijuana-only vs alcohol-only)

| Attribute                                                | Level                         | Odds ratio |
|----------------------------------------------------------|-------------------------------|------------|
| Birth cohort<br>Wald (4 df) = 22.0*                      | 1928-52 <sup>a</sup>          | 1.0        |
|                                                          | 1953-57                       | 0.7        |
|                                                          | 1958-62                       | 1.4        |
|                                                          | 1963-67                       | 2.2        |
|                                                          | 1968-73                       | 2.2        |
| Gender<br>Wald (1 df) = 0.4                              | Male <sup>a</sup>             | 1.0        |
|                                                          | Female                        | 0.9        |
| Race/ethnicity<br>Wald (4 df) = 4.7                      | African-American <sup>a</sup> | 1.0        |
|                                                          | Black (other)                 | 2.1        |
|                                                          | Puerto Rican                  | 0.8        |
|                                                          | Latino (other)                | 0.6        |
|                                                          | White                         | 0.9        |
| Recruitment locale<br>Wald (5 df) = 10.9                 | Neighborhood <sup>a</sup>     | 1.0        |
|                                                          | Drug Treatment                | 0.9        |
|                                                          | Arrestee Released             | 0.6        |
|                                                          | Probation/Parole              | 1.0        |
|                                                          | Jail                          | 1.9        |
|                                                          | Prison                        | 1.6        |
| Odds of marijuana : alcohol for the reference population |                               | 0.9:1.0    |

Note:  $-2 \times \log\text{-likelihood} = 590.8$ .\*Significant at  $\alpha = .01$  level.<sup>a</sup>Attribute level for the reference population.

TABLE 4. Cohort differences during the first year of substance use

| Birth year<br>(age at interview) | n   | PERCENT ( $\pm$ SE) WHO ONSET IN FIRST YEAR OF SUBSTANCE USE TO . . . |                |                |                |                    |                |
|----------------------------------|-----|-----------------------------------------------------------------------|----------------|----------------|----------------|--------------------|----------------|
|                                  |     | Alcohol                                                               |                | Marijuana      |                | Other <sup>a</sup> |                |
|                                  |     | Exclusive                                                             | Any use        | Exclusive      | Any use        | Exclusive          | Any use        |
| 1928-52<br>(36-60)               | 196 | 31.6 $\pm$ 3.3                                                        | 52.5 $\pm$ 3.6 | 23.9 $\pm$ 3.1 | 51.5 $\pm$ 3.6 | 14.8 $\pm$ 3.3     | 30.6 $\pm$ 2.5 |
| 1953-57<br>(31-35)               | 155 | 34.8 $\pm$ 3.8                                                        | 58.1 $\pm$ 3.9 | 20.0 $\pm$ 3.2 | 46.4 $\pm$ 4.0 | 16.1 $\pm$ 3.7     | 29.7 $\pm$ 3.0 |
| 1958-62<br>(26-30)               | 238 | 30.7 $\pm$ 3.0                                                        | 58.4 $\pm$ 3.2 | 31.9 $\pm$ 3.0 | 60.9 $\pm$ 3.2 | 7.6 $\pm$ 2.3      | 15.1 $\pm$ 1.7 |
| 1963-67<br>(21-25)               | 229 | 24.4 $\pm$ 2.9                                                        | 46.2 $\pm$ 3.3 | 40.2 $\pm$ 3.2 | 69.4 $\pm$ 3.0 | 5.2 $\pm$ 2.5      | 17.0 $\pm$ 1.5 |
| 1968-73<br>(15-20)               | 176 | 19.3 $\pm$ 2.9                                                        | 44.3 $\pm$ 3.8 | 36.9 $\pm$ 3.6 | 73.9 $\pm$ 3.3 | 6.2 $\pm$ 3.3      | 17.8 $\pm$ 1.8 |
| Total                            | 994 | 28.0 $\pm$ 1.4                                                        | 51.9 $\pm$ 1.6 | 31.2 $\pm$ 1.5 | 61.1 $\pm$ 1.6 | 9.6 $\pm$ 1.3      | 23.1 $\pm$ 0.9 |

<sup>a</sup>Cocaine powder, crack and IV-drugs.

whose other attribute values are at the reference level are twice as likely to report onset to marijuana as opposed to alcohol in the first year of substance use ( $2.2 \times .9 = 2.0$ ).

The Wald statistics reported in Table 3 test whether the variation in estimated odds ratios across the levels of each attribute are statistically significant, based on an asymptotic  $\chi^2$  distribution with number of degrees of freedom equal to one less than the number of levels for the attribute. For the estimated model, only the association between first substance used and birth year was statistically significant ( $\alpha = .01$  level). The differences in the proportion of persons who onset to marijuana versus alcohol across gender, race/ethnicity or recruitment locale were not statistically significant. This lack of statistical significance arises due to an overall lack of variation in first substance use across attribute levels (e.g., white and Puerto Rican subjects exhibit similar odds; male and female subjects also exhibit similar odds), and because those groups that did exhibit different odds were particularly small (e.g., Latinos and other blacks, mainly foreign born) and comprise only 9% of the sample.

The importance of alcohol as a first drug appears to have declined substantially over time for this population of persons who became serious drug abusers. Table 4 presents the percentages of subjects reporting having used alcohol, marijuana or other drugs in the first year of substance use by birth year. Among those in 1952 and earlier (the oldest serious drug abusers in the sample), at least 32% started with alcohol and as many as 53% might have. A similar and perhaps smaller proportion started with marijuana; 24% report exclusive and 52% any use of marijuana in the first year of substance use. As noted previously, few persons in the entire sample started with either cocaine powder, crack or IV-drugs. Table 4 suggests that similarly low rates for early use of more serious drugs prevail across each birth cohort.

Subjects born in the years 1953-57 exhibit rates of first use of alcohol and marijuana comparable to those born in 1952 and earlier. These subjects are slightly more likely to

onset to alcohol first and slightly less likely to have onset to marijuana first than subjects born earlier (1928-52), although the differences are not statistically significant (based on a  $t$  test comparison at the  $\alpha = .05$  level and below).

For subjects born since 1958, however, the proportion of serious drug abusers whose developmental pathways started with marijuana instead of alcohol has increased ( $t$ -test comparisons for the rates of alcohol and marijuana between the 1928-52 and 1968-73 birth cohorts are statistically significant at the  $\alpha = .01$  level and above). The proportion of developmental pathways starting with alcohol among those born from 1958 to 1962 (31% exclusive and 58% any use) are similar to those exhibited by the 1928-52 and 1953-57 birth cohorts. However, the proportion whose first substance use involved marijuana shows a strong increase over previous birth cohorts (32% exclusive and 61% any use). Among the last two birth cohorts, persons who report using marijuana-only in their first year of substance use (40% and 37%, respectively) substantially outnumbered those who onset to alcohol only (24% and 19%, respectively). Thus, among those serious substance abusers born in 1963 or later, marijuana appears to be more likely to precede any use of alcohol than the converse. This increased first use of marijuana coincides with the period of increased prevalence of marijuana use starting in the 1960s and, thus, supports the second hypothesis of marijuana's increasing importance as a gateway drug.

#### *Age at first substance use*

Not only has the type of youths' first-use substance changed with time, the age at first substance use has also changed. Table 5 reports age at first substance use by birth cohort for persons whose first substance use involved alcohol and/or marijuana only (over three-fourths of the sample). The average age at first substance use (be it alcohol or marijuana) declined from a high of 15.8 for the 1928-52 birth cohort to a low of 13.1 for the 1963-67

TABLE 5. Average age at onset to alcohol and marijuana by birth cohort

| Birth year<br>(age at interview) | n <sup>a</sup> | AVERAGE ( $\pm$ SE) AGE AT ONSET |                                  |                      |                | Marijuana onset<br>after alcohol <sup>c</sup> |
|----------------------------------|----------------|----------------------------------|----------------------------------|----------------------|----------------|-----------------------------------------------|
|                                  |                | Alcohol, exclusive               | Alcohol & marijuana <sup>b</sup> | Marijuana, exclusive | Row avg.       |                                               |
| 1928-52<br>(36-60)               | 136            | 14.7 $\pm$ 0.6                   | 16.2 $\pm$ 0.7                   | 16.9 $\pm$ 0.7       | 15.8 $\pm$ 0.4 | 20.3 $\pm$ 0.9                                |
| 1953-57<br>(31-35)               | 109            | 13.5 $\pm$ 0.5                   | 14.8 $\pm$ 0.6                   | 15.3 $\pm$ 0.9       | 14.3 $\pm$ 0.4 | 17.4 $\pm$ 0.7                                |
| 1958-62<br>(26-30)               | 202            | 13.7 $\pm$ 0.5                   | 14.8 $\pm$ 0.5                   | 15.1 $\pm$ 0.4       | 14.5 $\pm$ 0.3 | 17.4 $\pm$ 0.6                                |
| 1963-67<br>(21-25)               | 190            | 11.9 $\pm$ 0.5                   | 13.6 $\pm$ 0.4                   | 13.6 $\pm$ 0.4       | 13.1 $\pm$ 0.2 | 15.1 $\pm$ 0.4                                |
| 1968-73<br>(15-20)               | 127            | 12.8 $\pm$ 0.6                   | 14.5 $\pm$ 0.4                   | 14.0 $\pm$ 0.3       | 13.8 $\pm$ 0.2 | 14.4 $\pm$ 0.5                                |
| Column avg.                      | 764            | 13.4 $\pm$ 0.2                   | 14.7 $\pm$ 0.2                   | 14.7 $\pm$ 0.2       | 14.2 $\pm$ 0.1 | 17.3 $\pm$ 0.3                                |

<sup>a</sup>Subjects who report using alcohol and/or marijuana only in their first year of substance use.

<sup>b</sup>Subjects who report using alcohol and marijuana but not other drugs in their first year of substance use.

<sup>c</sup>Age at onset to marijuana among those who report having onset to alcohol exclusively in their first year of substance use.

cohort (this difference is statistically significant in a two-tailed test at the  $\alpha = .01$  level and above). Subsequently, the average age at first substance use increased slightly to 13.8 for the 1968-73 cohort (significant at the  $\alpha = .01$  level).

Age at first substance use also varied with type of first substance used. Persons who onset to alcohol-only in the first year of substance use, on average, were over a year younger than those who onset to marijuana-only. Overall, the average age at onset to alcohol-only is 13.4 years, which is 1.3 years less than the 14.7 year average age at onset to marijuana-only (this difference is statistically significant in a two-tailed test at the  $\alpha = .01$  level and above). This 1-year difference is repeated within each of the five birth cohorts presented in Table 5. The average age at first use for those who onset to both alcohol and marijuana in the first year of use is 14.7 years, the same as the average age at onset to marijuana-only. These results suggest that persons generally onset to alcohol at a slightly earlier age than marijuana. However, onset to alcohol is not a prerequisite for onset to marijuana.

To determine whether onset to alcohol tends to hasten onset to marijuana, the study examines the age at onset to marijuana by those who onset to alcohol only in their first year of substance use and subsequently onset to marijuana. Their mean age at onset to marijuana is 17.3 years, significantly higher than the 14.7 years of age observed for those who onset to marijuana-only in their first years of substance use (see Table 5). The mean age at onset, however, can be distorted by a few individuals who onset to marijuana later in life (as late as age 46 years). Consequently, the modal age of onset—which is more robust in the presence of extreme values and outliers—by type of substance use is also analyzed. Given the variation in age at onset across birth cohorts, this analysis of modal age is restricted to the two most recent cohorts, which exhibited similar ages at first substance use.

The modal ages at first substance use among persons born since 1963 confirms that, typically, individuals onset

to alcohol at an earlier age than marijuana. The modal age of onset among those who initiated the use of alcohol-only in their first year is 12 years, but for marijuana-only the modal age is 15 years. Furthermore, the modal age of onset to marijuana after having onset to alcohol is 14 years, which suggests that onset to alcohol at an early age may be associated with a slightly younger age of onset to marijuana but that, overall, individuals tend to onset to marijuana in their mid to late teens whether they onset to alcohol in early adolescence or not.

#### *Many serious drug abusers report no alcohol use*

In contrast to prior research on developmental pathways, 25% of these serious drug abusers report never having onset to alcohol. To the best of our knowledge, no previously published study has reported similar findings. Hence, this finding merits careful attention and should be regarded as provisional, contingent upon corroboration with other samples of serious drug abusers. One possible explanation for these findings is that the subcultures of inner-city New York neighborhoods from which these subjects were recruited are predominately drug-using cultures, in contrast to more mainstream society in which drugs are generally rejected and alcohol consumption is widely accepted. From this perspective, a lack of alcohol use among many of these persons does not seem unlikely.

On the other hand, those individuals who report using alcohol-only in the first year of substance use typically report onset in their early teens and those who first onset to marijuana report onset in their mid to late teens, suggesting that marijuana did not exactly substitute for alcohol as a first substance; rather, some persons who later become serious drug abusers do not use alcohol in their early teens when first onset to alcohol typically occurs but become involved with marijuana in their mid-teens along with those who had previously drunk alcohol. This finding is consistent with several alternative hypotheses regarding the developmental pathway to serious drug abuse.

TABLE 6. Marijuana as a gateway to more serious substance use by birth cohort

| Birth year<br>(age at interview) | n <sup>b</sup> | PERCENT ( $\pm$ SE) THAT ONSET IN THE FIRST YEAR OF SUBSTANCE USE TO . . . <sup>a</sup> |                    |                  |
|----------------------------------|----------------|-----------------------------------------------------------------------------------------|--------------------|------------------|
|                                  |                | Marijuana, exclusive                                                                    | Marijuana, any use | Other, exclusive |
| 1928-52<br>(36-60)               | 189            | 54.0 $\pm$ 3.6                                                                          | 77.8 $\pm$ 3.0     | 22.2 $\pm$ 3.0   |
| 1953-57<br>(31-35)               | 150            | 58.0 $\pm$ 4.0                                                                          | 76.0 $\pm$ 3.5     | 24.0 $\pm$ 3.5   |
| 1958-62<br>(26-30)               | 212            | 74.5 $\pm$ 3.0                                                                          | 86.8 $\pm$ 2.3     | 13.2 $\pm$ 2.3   |
| 1963-67<br>(21-25)               | 181            | 76.2 $\pm$ 3.2                                                                          | 93.4 $\pm$ 1.8     | 6.6 $\pm$ 1.8    |
| 1968-73<br>(15-20)               | 105            | 64.8 $\pm$ 4.7                                                                          | 95.2 $\pm$ 2.1     | 4.8 $\pm$ 2.1    |
| Total                            | 837            | 66.1 $\pm$ 1.6                                                                          | 85.3 $\pm$ 1.2     | 14.7 $\pm$ 1.2   |

<sup>a</sup>This analysis examines onset to marijuana or other drugs (cocaine powder, crack and/or IV-drugs) and disregards onset to alcohol.

<sup>b</sup>Number of persons who report having onset to marijuana, cocaine powder, crack and/or IV-drugs.

First of all, this disparity in age at first use along with the uniqueness of the finding is consistent with a hypothesis that some subjects simply failed to report onset to alcohol. A subject's recall at the time of the interview may have been impaired by years of substance abuse. Considering that onset to alcohol may have occurred a long time ago, subjects may have forgotten about it. However, this scenario seems unlikely given that subjects were carefully prodded in face-to-face interviews in order to obtain internally consistent responses. Hence, if a subject forgot to report use of alcohol, its use must not have seemed very salient.

Secondly, use of another substance could have substituted for alcohol. Persons who reported first substance use of marijuana-only in their mid-teens might have onset to tobacco or inhalants in their early teens; unfortunately subjects were not asked for age at onset to either of these.

Thirdly, the differences in age at onset could stem from differences in how youths are introduced to alcohol as opposed to marijuana. Children tend to learn about drug use from people close to them, primarily their parents and peers. Alcohol consumption is quite commonplace in many households in this country. Hence, many children first learn about alcohol either by being offered or perhaps sneaking a sip of an adult family member's drink, typically during early childhood when parental influence is strongest (see "Children of Alcoholics," 1983). In some cases, a child may be "turned-off" from alcohol use if one or both parents exhibit alcohol-related problems, possibly explaining why some never onset to it. In contrast to alcohol, most children are probably introduced to marijuana not through parents but through their peers. Peer relationships generally increase in importance during adolescence at which time their influence often exceeds that of the family. The different sources for introduction to alcohol and marijuana and the ages at which they tend to be most influential clearly suggests why alcohol use occurs at an early age preceding onset to marijuana. Further studies with other samples are needed to better understand

the nature and extent of alcohol avoidance among serious drug abusers.

#### *Marijuana as a gateway to more serious substance use*

Although alcohol may not be a prerequisite for use of marijuana—in contrast to prior studies of the developmental pathway—Table 6 suggests that marijuana fulfills an intermediate role along the pathway to the use of more serious substances such as cocaine powder, intravenous drugs and crack. By design, nearly all members of this sample (84%) had onset to more serious drugs by the time of the interview. Additionally, most persons report having used marijuana (91%). Of the 837 persons who report having used more serious substances, two-thirds (66%) report having used marijuana prior to onset to more serious drugs, and an additional 19% report having onset to marijuana and more serious drugs in the same year. Only 15% report having clearly onset to more serious drug use prior to any possible use of marijuana. These results strongly suggest that marijuana does play an important role on the pathway to more serious drug use. Furthermore, the proportion who onset to marijuana before or in the same year as more serious drugs has increased substantially with time from a low of 78% for persons born from 1928 to 1952 to 95% for the most recent birth cohort (1968-73). These findings further suggest that marijuana's role as a gateway to more serious substance use has become more pronounced over time.

#### Discussion

This study examined the developmental pathway followed by a sample of persons who became serious drug abusers. Prior research based on samples of predominately nonabusing populations identified a pathway leading from alcohol use as an adolescent prior to possible use of marijuana which, in turn, precedes any use of more serious drugs. The results of this study suggest that alcohol did

not serve as a central gateway to further substance use/abuse for these serious drug abusers. Many subjects report that the first substance they used was marijuana, and a substantial proportion of these serious drug abusers claim to have never onset to alcohol. Additionally, the proportion reporting that the first substance they used was alcohol has declined with time.

Not only has the type of substance first used changed with time, the data suggest that age at first use of any substance has also changed. The average age at first substance use has declined from 15.8 years for persons born in 1952 and earlier, to a low of 13.1 for those born in the years 1963-67, and risen back to 13.8 for those born in 1968 and later.

In contrast to the findings regarding alcohol, the results of this study are consistent with the idea that marijuana serves as a gateway to more serious substance use. Nearly all of the serious drug abusers included in the analysis report having onset to marijuana and having done so prior to any use of more serious substances (cocaine powder, crack or IV-drugs). Since the 1960s, the overall prevalence of marijuana use has increased dramatically. This study suggests that the increase represents an expansion in marijuana's role as a gateway substance in addition to a change in overall popularity among persons with established habits of substance use. Both the proportion of subjects in this study whose first substance use experience involved marijuana and the proportion who used marijuana before any subsequent use of more serious drugs increased substantially since the 1960s. Specifically, more persons born since 1963 who became serious drug abusers report having used marijuana in their first year of substance use than alcohol, and very few (less than 10%) report having progressed to more serious drugs without having first used marijuana.

As with any study of this type, it is essential to bear in mind that these results are correlational in nature and do not prove that marijuana use is a prerequisite to more serious substance use—only that marijuana use typically precedes more serious substance use. In this regard, these findings are also consistent with an alternative hypothesis posited by Kandel and Yamaguchi (1985), which holds that individuals tend to use different drugs at different ages. Hence, use of marijuana as a teen is an important indicator of increased risk for subsequent serious drug abuse. However, a policy of preventing marijuana use among teens will not necessarily reduce the subsequent prevalence of serious drug abuse.

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## ORIGINAL CONTRIBUTION

# The Diagnosis of Marijuana (*Cannabis*) Dependence

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**Abstract**—*The definition of marijuana (Cannabis) dependence (addiction) contains three critical elements. These are (a) preoccupation with the acquisition of marijuana, (b) compulsive use of marijuana, (c) relapse to or recurrent use of the marijuana. The manifestations of abnormal marijuana use may assume many forms. Medical, psychiatric, neurological, traumatic, and sociological sequelae occur commonly in acute and chronic marijuana use. Marijuana dependence must be diagnosed primarily as the etiological or precipitating agent to adequately prevent and treat these conditions. The central role of marijuana in marijuana addiction can be identified. The consequences of the marijuana addiction should be separated from the marijuana addict's actual motivation or craving to use marijuana. Marijuana addicts use abnormally because of what marijuana does to them and not for them. Marijuana reinforces its own use. Psychosocial stressors are not required to produce a marijuana addiction in biologically susceptible individuals. Consequences that result from an addiction to marijuana do not produce the abnormal use. A presumptive diagnosis of marijuana dependence (addiction) can be established by detecting significant consequences associated with marijuana use. A definitive diagnosis entails confirming the presence of addictive behavior by identifying a preoccupation, compulsivity and relapse relative to the drug, marijuana.*

**Keywords**—Marijuana, *Cannabis*, dependence, relapse, memory.

## GENERAL CONSIDERATIONS

### The Problem

MANY THEORIES EXIST to explain the etiology of marijuana dependence (Block & Wittenborn, 1986; Goodstadt, Chan, Sheppard, & Cleve, 1986; Grinspoon, 1981). Significant disagreement about the diagnosis and treatment of marijuana dependence (addiction) prevails (Anthony, 1984; Kaplan, Martin, Johnson, & Robbins, 1986; Kaymakcalan, 1981; Negrete, 1988; O'Donnell & Clayton, 1982; Scharr, 1985; Smith, Schmeling, & Knowles, 1988). Uncertainty that it is a primary disease that requires medical consideration predominates. Marijuana addiction still remains an often unspeakable, hidden, and provoking subject.

The fact is that more people are using marijuana today than ever before (Kaplan et al., 1986). The medical

and psychosocial problems associated with marijuana are larger and more pervasive (American Medical Association, 1981; Goodstadt, Chan, & Sheppard, 1982; Goodstadt, Sheppard, & Chan, 1984; Murray, G.F., 1986; O'Donnell & Clayton, 1982). The age range of those affected has increased dramatically. Problems with marijuana associated with teenagers and adults have become common (Erickson, 1986; Recent developments, 1985; Rootman & Smart, 1985; Smart & Adlaf, 1986).

Neither social strata, ethnicity, occupation, nor financial status provide barriers to the onset of and complications from marijuana addiction. What used to be considered the providence of only "the other side of the tracks" is now affecting many individuals, families, the workplace, and the community (Rootman & Smart, 1985; Schwartz, 1986; Smart & Adlaf, 1986; Smith, 1985).

Studies indicate that a substantial number of patients in a typical general medical practice will have significant medical and psychosocial problems associ-

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ated with marijuana use (American Medical Association, 1981; Gold, Pottash, & Estroff, 1985; Hollister, 1986; Jones, 1984). These numbers are increased if alcohol and other drug problems are included (Abelson & Miller, 1985; Cone, Johnson, Moore, & Roache, 1986; Goodstadt et al., 1982; Marijuana & Health, 1982; O'Donnell & Clayton, 1982; O'Malley, Johnston, & Bachman, 1985; Rootman & Smart, 1985; Weckowicz, Collier, & Spreng, 1977).

### MARIJUANA USE AND OTHER DRUGS

Many marijuana addicts have an additional concurrent drug or alcohol problem. Frequently, marijuana is used daily by the addict together with daily or intermittent addictive use of cocaine or alcohol (Goodstadt et al., 1982; O'Donnell & Clayton, 1982; Rootman & Smart, 1985). Without careful and persistent probing during the history, these other drugs may be omitted through denial by the addict (Fehr & Kalant, 1983). In today's addict under 30 years of age, addiction to multiple drugs including alcohol is more the rule than the exception (Dackis, Gold, & Estroff, 1989; Galizio & Maisto, 1985). However, solitary addictions to marijuana do exist, and their identification may be a particular problem because some of the consequences from the addiction may be subtle, that is, less severe "hangovers or withdrawal effects" and a more insidious course because of the milder states of intoxication that are customarily achieved by smoking *Cannabis*.

In clinical histories from marijuana addicts, regular, repetitive, and often daily use of marijuana over periods of years is common. Marijuana is frequently the first or second drug used in chronological sequence of drugs eventually used during adolescence. The drug most often used in conjunction with, prior to, or after marijuana is alcohol (Goodstadt, et al., 1982; Miller, Gold, & Klahr, 1989; O'Donnell & Clayton, 1982; Rootman & Smart, 1985). This combination will persist with marijuana being used daily and alcohol more intermittently. Interestingly for some addicts who begin to use cocaine addictively, marijuana use will diminish dramatically whether the cocaine is administered intranasally, by inhalation or intravenously (Miller et al., 1989). The physician should be skilled not only at the diagnosis of the conditions that are associated with marijuana use but also at the diagnosis of the cause, which is often a marijuana addiction.

### DIAGNOSIS

Addiction to marijuana (*Cannabis*) occurs perhaps as readily as an addiction to alcohol. Marijuana addiction is a disease for which treatment is essential and relatively sophisticated (Dackis et al., 1989; Miller,

1987). The diagnosis of an addiction to marijuana can be suspected by detecting the presence of a medical, psychiatric, social, legal, employment, or financial problem related to marijuana use. The diagnosis can be confirmed by identifying the essential features of addiction. The behaviors of addiction are a reliable and consistent means of diagnosing problem drug use. A preoccupation with the acquisition, compulsive use of and relapse to marijuana use are the most sensitive indicators that marijuana is a consistent problem of central importance (Gold, Verebey, & Dackis, 1985).

Tolerance and dependence also occur with marijuana addiction, although often subtle and difficult to identify. The criteria for DSM-III-R are inherent in the preoccupation, compulsivity, relapse, tolerance, and dependence.

### PSYCHOLOGICAL EFFECTS

The effects of intoxication are hallucinogenic in nature. The sensations of distortions of space and time are symptoms reported frequently by the user. Also, sedation, ennui, euphoria, increased appetite, and heightened imagination and creative thinking commonly occur. Memory and concentration impairments are often present even at low doses, along with cognitive confusion and abstraction difficulties, especially with chronic use (Foltin, 1986; Hofmann, 1983; Murray, J.B., 1986).

The intoxicated user frequently reports that he feels fuzzy, dizzy, sleepy, and "dreamy." He feels more friendly toward others and finds greater pleasure in others' company or, less often, becomes quiet and remote. The users typically have increased awareness of the environment; vision is sharper, sounds more distinct, things seem humorous, and laughter comes easily and frequently. The user not uncommonly feels he has achieved a novel profundity of thought and an extraordinary acuity of insight that do not match objective observation.

Perception in time is distorted so that the time passes slowly, feelings of depersonalization accompanied by perception of body distortions occur. Visual imagery may occur but sometimes only with the eyes closed. Larger doses are hypnotic and induce sleep. Paranoid ideation occurs among users, with intense suspicion at times or, less commonly, with frank paranoid psychosis. The decrements in cognitive and psychomotor performance appear to be dose related: the larger the dose, the greater the decrement, although tolerance may occur. Short-term or immediate memory loss is a frequent concomitant of THC intoxication and withdrawal; subjects fear completing long sentences because they will forget what they have started to say so that the ending of the sentence may well be incongruous with its beginning. The specific impairments that are demonstrated include story recall,

remembered digits, and the like. The result may be a "peculiarly disconnected" pattern of speech, characterized by slightly disjointed sentences and abrupt, irrelevant conversational tangents.

An "acute brain syndrome" or acute psychosis may occur that resembles a delirium in which the patient is disoriented and confused with clouded sensorium, has visual and auditory hallucinations, and experiences feelings of depersonalization and derealization (Pillard, 1970; Snyder, 1971).

The amotivational syndrome (overused and non-specific term) described in marijuana addicts includes personality changes that develop over time: diminished drive, decreased ambition, lessened motivation, apathy, shortened attention span, distractibility, poor judgment, impaired communication skills, introversion, magical thinking, derealization and depersonalization, decreased capacity to carry out complex plans or prepare realistically for the future, a peculiar fragmentation in the flow of thought, habit deterioration, and progressive loss of insight. This syndrome may be caused by the chronic effects of THC on brain cells and on long-term storage in the fat with slow, subsequent release (Ellis, Mann, Judson, Schramm, & Taschian, 1985; Keshavin & Lishman, 1986; Negrete, 1973; Onyang, 1986; West, 1970).

### TOLERANCE AND DEPENDENCE

Tolerance and dependence may not be essential to the diagnosis of marijuana addiction (Miller, Dackis, & Gold, 1987). These adaptive, homeostatic body functions probably occur in response to marijuana in most individuals who use marijuana whether addicted or not (Hillard, Harris, & Bloom, 1985; Karler, Calder, & Turkanis, 1984). Tolerance varies according to genetics, dispositional (size), behavioral (learned), and pharmacodynamic mechanisms (receptor) in any given individual (Harris, Dewey, & Razdan, 1977; Jones, Benowitz, & Bachman, 1976). Tolerance that may develop to cannabis-induced symptoms can be subtle. Tolerance may develop to the mood changes, sedation, distortion in space and time, tachycardia, orthostatic hypotension, skin and body temperature changes, intraocular pressure decrease, EEG slowing, impaired psychomotor task performance and behavior. After abrupt cessation of chronic cannabis use, signs and symptoms of abstinence that indicate the development of dependence include anxiety, depression, disturbed sleep and appetite, irritability, tremors, perspiration, nausea, muscle convulsions, and restlessness.

The signs and symptoms of tolerance and dependence may be subtle and persist for at least months because a large amount of THC is taken up and stored in fat tissues to be slowly released back into the blood stream over protracted periods of time (Johansson, Agurell, Hollister, & Halldin, 1988). Furthermore,

these signs and symptoms of tolerance and dependence are subtle and are often confused with and misattributed to states other than drug-induced that also share these signs and symptoms, making the value of their use questionable (Ellis, 1985; Goodman, Gillman, Rall, & Murad, 1985; Jones, Benowitz, & Horning, 1981).

### DISEASE CONCEPT

#### Morality and Causality

Marijuana addiction remains a moral dilemma for many. That marijuana addiction is a mysterious and metaphysical affliction that originates in an individual who lacks responsibility and motivation is a popular view held by many. From that point of view, only enough inner "willpower" exercised by the addict is needed to overcome "self-inflicted" or abnormal marijuana use. Another common belief is that underlying conditions, either mental or physical, are primarily responsible for the cause of a marijuana addiction. Current medical and psychiatric evidence would support the conclusion that none of the above is true. Recent clinical, neurochemical, and neuropharmacological studies suggest that marijuana addiction is a primary disease of the mind and central nervous system (American Medical Association, 1981, April 17; Estroff & Gold, 1986; Harris et al., 1977; Hillard et al., 1985; Jones et al., 1976; Karler, Calder, & Turkanis, 1984; Kaymakcalan, 1981; Miller, 1987; Negrete, 1974).

The addiction is initiated when marijuana is ingested by individuals with a susceptible predisposition. A pattern of pathological signs and symptoms of a behavioral, psychological, and physical nature ensues from an interaction between *Cannabis* and the brain (Dackis et al., 1989; Estroff & Gold, 1986). Primary marijuana dependence (addiction) by itself has a characteristic clinical course that is predictable and identifiable. Addiction to marijuana can stand alone and does not need other conditions to support and define it (American Medical Association, 1981, April 17; Dackis et al., in press; Grinspoon, 1981; Hofmann, 1983; Kaymakcalan, 1981; Miller, 1987; Negrete, 1974; Onyang, 1986).

#### Denial

A few fundamental points need to be recognized and accepted before the diagnosis can be made successfully. The first and most important point is that denial is essential to the propagation of the marijuana addiction. This denial is present not only in the addict or problem user but also in those associated with the addict. The second point is that there is resistance by the addict and those affected by the addict to considering that marijuana may be a serious problem or a problem

at all for the individual. This is paradoxical since it is more logical to assume that knowing that an addiction to marijuana is causing related consequences is valuable so that the condition can be treated. The third point is that effective treatment is currently available for marijuana dependence and may provide a solution to the related medical and psychiatric problems that are produced by the addiction to marijuana (Dackis et al., 1989; Miller, 1987).

### Cause and Effect

The most important criterion for diagnosing cannabis dependence or problem use is that using marijuana is affecting someone's ability to function, either psychologically or physically (Estroff & Gold, 1986; Gold, Pottash, & Estroff, 1985). Caution is urged throughout the process of establishing a diagnosis because frequently abnormal marijuana use is attributed to the effect of the problem rather than to the cause of it (American Medical Association, 1981, April 17; Dackis et al., 1989; Gold et al., 1985; Tennant & Groesbeck, 1972; Tunving, 1985).

For instance, someone complaining about having difficulty with sleep and believing that marijuana use is a remedial measure is more likely to be suffering from the effects of Cannabis on sleep (Pivik, Zarconi, Dement, & Hollister, 1972). Cannabis suppresses REM sleep so that marijuana use may cause insomnia and disturbed sleep (Gold, Verebey, & Estroff, 1985; Jones, Benowitz, & Bachman, 1976; Williams & Karacan, 1978). Electroencephalographic studies have confirmed many characteristic neurophysiological changes in addition to REM suppression that underlie behavioral effects of acute and chronic marijuana use (Jones et al., 1976). Acute administration of marijuana produces diffuse slowing of background activity whereas withdrawal from chronic marijuana administration results in diffuse, fast activity, suggestive of an activated or anxious state of arousal (Barratt, Beaver, & White, 1974; Low, Klonoff, & Marcus, 1973).

Depression is a common consequence of marijuana use (Fink, 1976; Williams & Karacan, 1978). Rarely does anyone who uses more than one or two "joints" of marijuana on any regular basis escape having a disturbance of cognition and irritability of mood due to marijuana. However, the relationship between Cannabis and mood is often incorrectly reversed in that the reason given for smoking marijuana is because of the depression. Studies have demonstrated that initially depressed individuals do not necessarily use more marijuana and may even use less marijuana. Marijuana addicts appear to use in spite of the depression caused and worsened by marijuana and report a dysphoric response to marijuana inhalation or ingestion (Gold et al., 1985; Miller, 1987).

People appear to exacerbate use because of a susceptibility to the reinforcing effects of marijuana. Marijuana addicts may inherit a predisposition to develop marijuana dependence since alcohol and marijuana dependence often occur together (Cadoret & Garth, 1978; Goodwin, 1979; Goodwin, 1985; Miller, Gold, & Klahr, 1981). People do appear to be motivated to use but not excessively because of stresses and related life problems. Marijuana use in the setting of stress is not abnormal unless the consumption of marijuana is marked by a persistent pattern of loss of control.

Most individuals, whether addicted to marijuana or not, appear to use marijuana for the same reasons, that is, happiness or sadness, success or failure, weddings or divorces, birth or death. Only a casual perusal of using practices is needed to confirm these patterns of apparent motivations for using marijuana *abnormally* in the presence of these life events that are only *incidental*. The reason addicts use marijuana abnormally is because marijuana apparently provides an unusual reinforcement to those with a vulnerability to marijuana not possessed by others (Dackis et al., 1989; Galizio & Maisto, 1985; Gold, Verebey, & Dackis, 1985; Jones et al., 1976; Miller, 1987). In short, life problems, emotions, circumstances and events may lend to marijuana use but do not explain addictive use. Moreover, these conditions may be frequent consequences that result from abnormal marijuana use.

### Diagnostic Criteria

Once a personal or social impairment is determined to exist in the setting of active marijuana use, the diagnosis of addictive use or cannabis dependence can be suspected (Dackis et al., 1989; Jaffe, 1985; Miller, 1987). Abnormal or addictive use is defined by loss of control that is manifested by preoccupation, compulsivity, and relapse regarding marijuana use (Jaffe, 1985; Miller, 1987).

Preoccupation with marijuana is illustrated in a variety of ways, but the essential feature is the persistent presence of marijuana in the individual's pattern of living and repertoire of choices. Marijuana occupies a high priority in the individual's routine in spite of problems related to its use; other responsibilities in the individual's life are relegated to a secondary status. The addict may give up or postpone important social, occupational, or family responsibilities because of the preoccupation with marijuana use. The importance of marijuana may be evident by regular or intermittent use. Loss of control regarding the importance of marijuana in the addict's life underlies the preoccupation with marijuana.

Compulsivity is manifested by continued use in the presence of or in spite of marijuana-related consequences. Regular or repetitive use is frequent but not

a requirement for compulsivity. The distinguishing feature is the continued abnormal use of marijuana when common sense or logic dictates moderation in use or abstinence. The addict may appear at work or in social events in the intoxicated state, unable to perform adequately. The pitfall to avoid is the attribution of the consequences as the cause for compulsive marijuana, that is, "I am smoking abnormally because I have marital difficulties." The reverse is more likely to be true. Loss of control of the use of marijuana is particularly evident in the behavior of compulsive use.

Relapse is a critically important and especially revealing feature of addictive behavior. Coincidental associations between abnormal marijuana use and its consequences may occur without addiction to marijuana but usually not repetitively in a recurrent, identifiable pattern. Relapse is often confirming of a suspected or presumptive diagnosis of a marijuana addiction. A relapse or return to marijuana use after a period of abstinence in spite of previous adverse consequences can confirm the presence of preoccupation and compulsivity with marijuana use.

### Need for Historical Corroboration

The nature of the disease of marijuana addiction, with inherent denial by both the afflicted marijuana addict and those associated with the addict, requires a departure from the traditional one-to-one patient-physician assessment for diagnosis and treatment. Often, additional, corroborative historical information regarding marijuana intake and related consequences is needed to identify behaviors that suggest an addiction to marijuana. Those who are knowledgeable about the patient suspected of having addiction should be approached with care and concern. Caution is urged even at this stage in the diagnostic process, since denial and rationalization may exist even among those who know the addict. Fear, intimidation, and disdain plague many treatment practitioners who attempt to tread the waters of denial and protection within and surrounding the addict. These critical elements represent part of the entire spectrum of the disease of addiction.

## SELECTED MANIFESTATIONS OF DEPENDENCE

### 1. Medical Disorders

*a. Cardiovascular Effects.* Marijuana (THC) may produce a tachycardia, hypotension and decrease in peripheral resistance. The sinus tachycardia is dose dependent and may be blocked by propranolol, suggesting a sympathetic nervous system response. Premature arterial contractions, premature ventricular contractions, myocardial infarction, angina, T wave and S-T segment changes, P wave change and second

degree heart block may occur with acute and chronic marijuana use. The actual frequency of these EKG abnormalities is not known (Akens & Awdeh, 1981; Harris, 1977; Jones et al., 1976).

*b. Pulmonary.* Acute administration of marijuana by inhalation produces significant bronchodilation that can last hours. Chronic marijuana use is destructive to pulmonary tissue and function. Abnormalities in pulmonary function from chronic irritation of marijuana inhalation can occur, and chronic obstructive pulmonary disease may result (Akens & Awdeh, 1981; Harris et al., 1977; Jones et al., 1976; Laviolette & Belanger, 1986).

*c. Reproduction.* Impaired fertility may occur from decreased testosterone levels, reduced sperm counts, and abnormalities in structure and function in sperm in males (Buffum, 1982; Cone et al., 1986; Markianos & Stefanis, 1982). In females, chronic marijuana use may lead to abnormal menstruation, failure to ovulate, and possible teratological abnormalities (Bloodworth, 1983; Klalodney, Masters, Kolodner, & Toro, 1974).

*d. Immunological.* Immunity in marijuana use is a newly explored area. Conclusions are tentative (Hollister, 1988).

### 2. Neurological Disease

Neurological complications such as dementia syndrome, impaired recent memory (for recent events), hallucinosis, and delirium are relatively common in chronic marijuana consumption (Campbell, Evans, Thomson, & Williams, 1971; Co, Goodwin, Gado, Mikhael, & Hill, 1977; Jones et al., 1976; Tunving, 1985; Williams & Karacan, 1978). Some degree of dementia as indicated by a global impairment of intellectual function in areas of concentration, memory, and abstraction abilities is probably a frequent accompaniment of regular marijuana use (Campbell et al., 1971; Co, Goodwin, Gado, Mikhael, & Hill, 1977; Fehr & Kalant, 1983; Jones et al., 1976). As little as one to two "joints" inhaled per day can result in measurable cognitive deficits that are often reversible with complete abstinence from marijuana (Harris et al., 1977; Jones et al., 1976). Depressed I.Q. scores in the areas of concentration, memory, and abstraction measured in marijuana addicts continue to show improvement for months following cessation of marijuana consumption and maintenance of abstinence (Harris et al., 1977; Jones et al., 1976; Stevens & Restak, 1978; Warma, Malholtra, Dans, Das, Nehra, 1988).

*Cannabis* may have an antiepileptic effect similar to that of alcohol in the intoxicated state. Frank structural neurological damage due to the chronic use of THC is controversial. Studies indicate that neurora-

diographic abnormalities may occur on CT scans of the brain although the concurrent use of alcohol in the subjects confounds interpretation of the study since alcohol is an agent that is known to produce cellular and structural brain damage, which is reflected on CT scans (Campbell et al., 1971; Hannerz & Hindmarsh, 1983; Karler & Turkanis, 1981; Turkanis & Karler, 1981).

### 3. Psychiatric Complications

Marijuana produces a multiplicity of subtle and overt psychiatric symptoms. These symptoms can and do cluster in a constellation to produce psychiatric syndromes (Akens & Awdeh, 1981; Galizio & Maisto, 1985; Harris et al., 1977; Jaffe, 1985). A psychiatric syndrome can have multiple etiologies. The manifestations of any of the psychiatric syndromes can be indistinguishable from and identical to those produced by other etiologies than marijuana (Dackis et al., 1989; Harris et al., 1977; Jones et al., 1976; Miller, 1987). If marijuana use is not detected in the history or by physical examination or laboratory investigations, then a syndrome can be and commonly is erroneously attributed to causes other than marijuana.

Few syndromes in psychiatry lend themselves to identification of specific etiological agents or pathological processes. Marijuana addiction produces syndromes where marijuana can be identified as the etiology.

*a. Depression.* One of the more common symptoms and syndromes produced by marijuana is depression (Dackis et al., 1989; Harris et al., 1977; Jones et al., 1976; Miller, 1987). Depression that is secondarily produced by marijuana can be severe and is associated with high suicide rates (Littman, Fabernow, Wold, & Brown, 1974; Martin, Cloninger, Guze, & Clayton, 1985). The full blown picture of disturbances in mood, affect, and cognition, and the presence of neurovegetative signs can be attributed to marijuana use. Cannabis dependence as a primary disorder represents an important risk factor in suicide. Idiopathic affective disorder as a primary cause of depression is of only low relative importance in a discriminant function analysis of risk factors for suicide in comparison to marijuana and other drugs (Littman et al., 1974; Martin et al., 1985).

The spectrum of the depression induced by marijuana that includes the subjective symptoms and objective signs is identical to that required for the diagnosis of a major depression in a primary affective disorder. An individual, subjectively, may complain of sadness, dysphoria, profound hopelessness, a sense of worthlessness and self blame which at times can be of delusional proportions. The chemical effect of marijuana tends to produce poor control of emotions, tearful-

ness, crying spells, lethargy, poor initiative, lack of energy, and general mental and spiritual demoralization similar to the syndromes of diffuse brain damage of any etiology. Objectively, an individual may demonstrate a depressed affect, psychomotor retardation, disturbance in appetite and sleep (Dackis et al., 1989; Harris et al., 1977; Jones et al., 1976; Miller, 1987; Tunving, 1985). The initial treatment of the secondarily induced depression is removal of and abstinence from the primary etiological agent, which is marijuana (Dackis et al., 1989; Miller, 1987).

Many studies indicate that consumption of marijuana initiates and sustains a depression (Dackis et al., 1989; Harris et al., 1977; Jones et al., 1976; Miller, 1987; Tunving, 1985). Few studies actually support the popularly held notion that marijuana use is because of or results from depression. Initially depressed individuals may use more, the same amount, or less marijuana and do not show a consistent pattern of use in the presence of depression. An addict continues to use persistently in spite of the drug-induced depression for reasons attributable to marijuana addiction. The motivation for marijuana use appears to be marijuana and not depression (Dackis et al., 1989; Fink, 1976; Harris et al., 1977; Jones et al., 1976; Tunving, 1985).

*b. Anxiety.* Anxiety is a cardinal manifestation and clinically useful indicator of frequent or excessive marijuana use (Harris et al., 1977; Harris & Lester, 1986; Jones et al., 1976; Tunving, 1985). The symptom of anxiety is produced by the discharge of the autonomic nervous system largely through the contribution of the sympathetic neurons located in the hypothalamus that are excited during marijuana withdrawal. These symptoms can range from apprehension, tension, overreactivity to internal and external stimuli, excessive response to stress, sweating, and tremors. The THC blood level cannot be practically maintained at a steady state since this would require a constant infusion over time unachievable by oral intake or by inhalation especially in the presence of the development of tolerance to marijuana. A decline in the blood level of marijuana triggers the firing of the sympathetic nervous system to produce the onset of withdrawal symptoms. The spectrum of the presentation of the anxiety may range from a subtle and mild to a severe and pervasive anxiety during withdrawal. The anxiety may be persistent and long lasting because of the protracted withdrawal from the slowly released THC (cannabis) from the fat stores (Goodman et al., 1985; Jones, Benowitz, & Horning, 1981; Murray, J.B., 1986).

*c. Sexual Problems.* Since sexual dysfunction and various forms of impotency are so commonly associated with marijuana use, complaints in the area of sexual performance should suggest taking a marijuana history. Decreased desire (libido) regularly occurs in men and

women who frequently consume marijuana. Paradoxically, marijuana may induce uninhibited, aggressive sexual behavior that may be offensive and even dangerous. More subtly, marijuana use may dull the emotions and impair the ability to experience the intimacy required for mutual satisfaction in sexual performance (Buffum, 1982; Cone et al., 1986; Katchodourian & Lunde, 1975).

Excessive sympathetic discharge during marijuana withdrawal may lead to failure to maintain an erection and/or premature ejaculation in men. Marijuana intoxication produces difficulty in achieving, maintaining an erection and experiencing ejaculation in men and absence of orgasm in women (Katchodourian & Lunde, 1975). Chronic, persistent marijuana intake may result in lowered testosterone levels (Bloodworth, 1983; Klalodney et al., 1974; Markianos & Stefanis, 1982; Singer, Ben-Bassat, Malik, & Sagin, 1986).

*d. Personality.* Personality disturbances that result from addiction are also common. The types of maladaptive behaviors, mental disorders, and mood disorders that develop in addicts are many and varied (Foltin, 1986; Harris et al., 1986; Murray, J.B., 1986; Weckowicz et al., 1977). Hysterical and antisocial attitudes and behaviors are often evident in those addicted individuals who might not ordinarily manifest them in an abstinent or treated state. Marijuana addicts may become attention-seeking, demanding, aggressive, emotionally labile, immature, and blaming of others. The defense mechanisms of denial and projection that are operative in marijuana use extend to many other facets of the addict's life. A refusal to admit and accept responsibility for one's action and attribution of one's shortcomings to others are favorite ploys of the addict. Antisocial acts and attitudes of varying types and degrees that are frequently present in the addict include disrespect and lack of concern for others, driving while intoxicated, assault, and other indications of poor judgment and self centeredness (American Medical Association, 1981, April 17; Dackis et al., 1989; Gold, Pottash, et al., 1985; Grinspoon, 1981; Harris et al., 1986; Miller, 1987; Psych News, 1981).

It is important to recognize and emphasize that addicts, before the onset of addiction, represented a large variety of personalities. No specific type of personality appears to be predisposing to the development of cannabis dependence. As discussed, a common superimposed pattern of personality in the addicted may develop in the course of cannabis dependence (Gold, Verebey, et al., 1985; Goodwin, 1984).

#### 4. Trauma

Trauma of all kinds is frequently associated with marijuana use. Visible evidence of trauma such as bruises,

new and old wounds, and fractures seen on examination are indications of intoxication. The intoxicated state that affects mental judgment and motor coordination lends itself to vulnerability to accidental trauma. Accidents are a leading cause of death at any age. Alcohol often and marijuana may play a prominent role in accidents. At least 50% of all highway fatalities are related to alcohol and/or drug use, including marijuana.

#### 5. Sociological Complications

Interpersonal relationships are fundamentally and severely impaired in the addict (Edwards, 1983; Goodstadt et al., 1986; Murray, J.B., 1986; Rootman & Smart, 1985). The difficulties in establishing and maintaining productive relationships with others often begin with those close to the addict, particularly family, peers, and significant others. Frequently, marital discord, separation, and impending divorce are symptoms of the underlying disturbance in interpersonal relationships. The typical addict will only confide about how "misunderstood" he is by his or her spouse and friends, denying much personal responsibility for the difficulties.

Employment problems may or may not be obvious. The marijuana addict's performance may or may not be significantly affected depending on the degree of impairment. The addict is often dishonest in the history obtained by the physician regarding the association of marijuana use, and capacity for productivity diminishes as the addiction progresses. However, the addict may often be able to meet his or her responsibilities by some relative measures that can prompt rationalization that marijuana is not having a significant effect on the work performance (Goodstadt et al., 1986; Murray, J.B., 1986; Weckowicz et al., 1977).

Legal problems may exist or develop (Erickson, 1986). The offenses are often in the form of theft, assaults, or other expressions of impropriety, indiscretion, and poor judgement that indicate loss of control with marijuana.

#### 6. Other Drugs and Medications

The pure marijuana addict in whom marijuana is the only or clearly the predominant drug used addictively is vanishing. Studies indicate that 80% of the alcoholics under 30 years of age use at least one other drug regularly and addictively (Anthony, 1984; Galizio & Maisto, 1985; Goodstadt et al., 1982; Jaffe, 1985; Murray, G.F., 1986; Rootman & Smart, 1985; Smith, 1985). The propensity to freely exchange one drug for another or to use simultaneously in an addictive way is common and alarming. In obtaining a history of marijuana intake and related consequences, a careful screen for other drugs is mandatory (Dackis et al., 1989; Miller, 1987). The list of drugs to which mari-

juana addicts may become addicted is large. The vulnerability for abuse and addiction to marijuana appears to extend to significant numbers of other drugs such as cocaine and alcohol, suggesting a generalized susceptibility to addiction to chemicals possessed by drug addicts and alcoholics (Goodman et al., 1985; Miller, Gold, & Klahr, 1989).

Because a generalized drug-seeking behavior appears to be common in marijuana addicts, careful, judicious, and sparing use of any medications should be exercised. Drug-seeking behavior for any drug or medication should be met with skepticism and scrutiny and may require confrontation of the motivations behind medication requests. Common illicit drugs and prescription medications used regularly by marijuana addicts include alcohol, cocaine, phencyclidine, hallucinogens, benzodiazepines, barbiturates, anticholinergics, and others. A reminder to the physician is that any drug used with preoccupation, compulsivity, and return to use of drug or medication is addicting.

### SUMMARY

The definition of marijuana addiction contains three critical elements. These are (a) preoccupation with the acquisition of, (b) compulsive use of marijuana, and (c) relapse or recurrent use of the marijuana.

Whatever the marijuana addict states his or her problems to be, marijuana is always present. Life circumstances may change. The cast of characters is rearranged in the outer reality, and new explanations are offered. The irrefutable inner reality is that marijuana is there. This is the addict's preoccupation with marijuana.

The compulsive use is no less important an element. It may, but does not necessarily, imply daily or even frequent, regular use. The compulsion is dramatic in that marijuana is used in the face of adverse consequences. Difficulties with interpersonal relationships or employment or legal problems with marijuana may exist that would prompt a reduction or elimination in marijuana use. Addicts, on the other hand, continue their compulsive use of marijuana in spite of and not as a result of these difficulties.

Most marijuana addicts or problem users can stop using marijuana and do. There may be varying periods of days, weeks, months or even years without any marijuana use. The nearly inevitable occurs, and that is the relapse or return to marijuana use. Again, various circumstantial reasons are given to explain relapse. They are rationalizations and epiphenomena. Marijuana is the reason.

Other associated manifestations of marijuana use include medical, psychiatric, neurological, traumatic, neoplastic, and sociological. Marijuana must be diagnosed as the etiological agent to adequately prevent and treat these conditions.

The marijuana addict possesses a generalized susceptibility to developing addiction to other drugs, alcohol, and medications. This vulnerability to universal drug addictions should be addressed in the history of marijuana intake and related consequences and should be cautiously considered in prescribing medications to marijuana addicts.

Denial and rationalization are present in the marijuana addict and in those surrounding the addict. The traditional one-to-one doctor-patient interview is often inadequate to overcome the denial. Additional, corroborative history is needed to acquire information to identify the behaviors of addiction. Caution is urged even in this step since the denial and rationalization are so pervasive.

A multifaceted treatment approach with the diagnosed marijuana addict is recommended. Detoxification, local, regional, and national treatment centers (inpatient and outpatient) and regular meetings of Narcotics Anonymous or Alcoholics Anonymous have become a standard treatment for the marijuana addiction.

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## The Role of Marijuana in Homicide

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### ABSTRACT

In this paper we examine the relationship between marijuana use and homicide. Data derive from interviews with 268 individuals incarcerated in New York State correctional facilities for homicides that occurred in 1984. We found that in terms of lifetime use, marijuana was the most commonly used illicit drug in this sample; that about one-third of respondents who had ever used marijuana used the drug in the 24-hour period before the homicide; and that almost three-quarters of those respondents were experiencing some type of effect from the drug when the homicide occurred. A total of 18 respondents (7% of the total sample) said that the homicide was related to their marijuana use. We examine the reasons these respondents gave for this relationship and the other substances they reported using at the time of the homicide. We also demonstrate that from the perspective of a conceptual framework that specifies the ways that drugs and violence may be linked, there are various nuances in the ways that marijuana and homicide are related. We discuss the implications and limitations of using self-report data from perpetrators of violence for our understanding of the drugs-violence connection.

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*Key words.* Marijuana; Homicide; Self-reports; Prisons

## INTRODUCTION

The belief that marijuana is causally linked to violence and aggression first assumed prominence during the 1930s when lurid accounts of marijuana "atrocities" were published in newspapers all over the country. These largely unsubstantiated stories gave rise to the stereotype of the marijuana user as physically aggressive, criminally inclined, and dangerous. However, no substantial evidence existed of a causal connection between the use of marijuana and the commission of violent or aggressive acts (Kaplan, 1970; Grinspoon, 1971; National Commission on Marijuana and Drug Abuse, 1972).

Since the 1930s a considerable body of research has accumulated concerning the possible link between marijuana and violence. Reviews of this literature have concluded that use of marijuana is not a major cause of violence or aggression. There is little evidence that sporadic or chronic marijuana use results in an increased likelihood that an individual will engage in violent or aggressive behavior. Because it produces a relaxing effect on users, marijuana is usually considered as a suppressor of hostility and aggression (Abel, 1977; Jones, 1980; Cherek and Steinberg, 1987; Fagan, 1990).

Nonetheless, researchers suggest that marijuana has the potential to disrupt interpersonal behavior and to facilitate aggression. When taken by certain individuals in certain social conditions, cannabis may increase irritability and result in violence (Abel, 1977). Case reports describe explosive, agitated, and violent behavior in some individuals (Jones, 1980). And violence by people under the influence of marijuana has been documented in studies involving male and female heroin and cocaine abusers from New York City (Spunt et al., 1990a, 1990b), adolescent male and female Mexican Americans (Watts and Wright, 1990), juveniles incarcerated in detention centers in Florida (Dembo et al., 1987a, 1987b; 1992), and marijuana dealers and smugglers in California (Adler, 1985).

The published literature reveals no study in which persons arrested or incarcerated for a violent crime have been asked detailed questions about their use of marijuana at the time of the crime and their beliefs as to the connection between their marijuana use and the crime. This is the type of data that would provide an important contribution to our understanding of the ways, if any, marijuana and violence are actually linked.

Another area that has not been investigated is the relationship to violence of marijuana in combination with other drugs. Despite the recognition that marijuana is commonly used in combination with alcohol and other drugs, and that drug combinations can have more profound behavioral effects than the use of any one drug alone (Cohen, 1979; Jones, 1980; Simonds and Kashani, 1980), there have not been studies of the link between these combinations and violence.

In 1989 and 1990, interviews were conducted with 268 individuals incarcerated in New York State Correctional facilities for homicide (murder and nonnegligent manslaughter). The main purpose of these interviews was to obtain the offenders' own accounts as to the drug-relatedness of the homicides they were sentenced for having committed. One goal of this research was to examine the relationship between a variety of specific substances and homicide. In this paper we focus on the marijuana-homicide connection. Specifically, we address the following questions:

1. What was the extent of lifetime use in this sample of homicide offenders?
2. To what extent did respondents believe that their marijuana use was related to the homicides that were committed? What reasons did respondents give to explain this relationship?
3. What other drugs were used by respondents who believed that the homicides they committed were related to marijuana? To what extent were their homicides linked to these marijuana-other drug combinations? What were the reasons given for this linkage?
4. Viewed from the perspective of a conceptual framework that specifies the variety of ways that drugs and violence can be related: what were the ways that the homicides were related to marijuana?

## SAMPLE AND METHODS

Self-report data derive from the Drug Relationships in Murder (DREIM) project (Goldstein et al., 1992b). The 268 individuals interviewed on the project were incarcerated for homicides committed in New York State in 1984. The focus was on homicides committed in 1984 because one objective of the project was to compare self-report data with data about these homicides that had previously been obtained from police records. In that study, all police departments in New York State that reported at least one homicide in 1984 retrospectively examined their case files and recorded drug-related information about each homicide on a research protocol developed for the project (Goldstein et al., 1992a).

To be included in the inmate sample, the individual must have been identified in the police study and subsequently arrested, charged, convicted, and incarcerated in a New York State correctional facility. The sample was specified through a detailed matching of the perpetrator file constructed for the police study with files maintained by the State Division of Criminal Justice Services that indicated the identities of all individuals who had actually been arrested and charged for a homicide in the state in 1984 (not all individuals identified in the police study were officially charged, while in other cases there was a victim but no known suspect).

The final stage of the sample selection process was to determine which of the individuals found to be on both lists ( $N = 695$ ) were incarcerated in a New

York State correctional facility so that they could be contacted for an interview. By logging directly onto the New York State Department of Correctional Services' computer system, we found that a total of 430 of these individuals were incarcerated in state prisons. These 430 individuals comprised the original inmate sample. The goal was to contact and interview as many of these individuals as possible.

Three hundred sixty-seven of the 430 individuals in the sample (85%) were eventually contacted for interviews at 37 separate state correctional facilities. During the informed consent discussion, interviewers explained that the purpose of the study was to help us gain a better understanding of the relationship between drugs and violent criminal behavior. Since state corrections policy is that payments to inmates are not allowed, a "thank you" letter that would become part of the respondent's institutional file (and thereby available to parole officials) was offered to potential interviewees as an incentive to participate in the research.

Of the 367 individuals who were contacted for interviews, 268 (73%) agreed to be interviewed (one respondent was incarcerated for, and interviewed about, two separate homicide events that occurred in 1984), and 99 individuals (27%) refused to interview. Interviews were conducted in a variety of settings including classrooms, visitors areas, lawyer and parole officer meeting rooms, prison hospital wards, areas adjacent to the cellblocks, as well as in rooms in "special housing" (solitary confinement) blocks.

A total of 63 individuals (15% of the sample) could not be contacted for an interview. Most had been released to parole supervision before the project began. Others could not be contacted because they were housed in restricted areas at prisons that do not allow outside researchers to contact inmates who are confined to such areas; they died prior to our being able to contact them; they were released to federal authorities; or they were "out to court" during the interviewing period.

The interview schedule was designed to generate quantitative and qualitative data but to be completed in a 1 to 2 hour session. One section focused on the 1984 homicide event for which the individual was incarcerated, and especially the drug-relatedness of that homicide. Another section focused on respondents' personal histories of drug use, drug treatment, drug trafficking, crime, and violence.

Table 1 shows the sociodemographic characteristics of the 268 individuals who were interviewed. The sample was 97% male. The small number of females was a consequence of the following factors: 1) the sample was limited to homicides that occurred during one particular year; 2) in New York State in 1984 only about 8% of all individuals arrested for homicide were female; and 3) females arrested for homicide in the state in that year were less likely than males arrested for homicide to have been incarcerated (New York State Divi-

Table 1.  
*Characteristics of the Interviewee Sample (N = 268)*

|                                                   | %  | N   |
|---------------------------------------------------|----|-----|
| Sex:                                              |    |     |
| Male                                              | 97 | 259 |
| Female                                            | 3  | 9   |
| Race ethnicity:                                   |    |     |
| Black non-Hispanic                                | 47 | 125 |
| Hispanic                                          | 29 | 79  |
| White non-Hispanic                                | 24 | 63  |
| Asian                                             | —  | 1   |
| Age: <sup>a</sup>                                 |    |     |
| Below 20                                          | 17 | 46  |
| 20-29                                             | 50 | 133 |
| 30-39                                             | 24 | 64  |
| 40+                                               | 9  | 25  |
| Marital status: <sup>a</sup>                      |    |     |
| Single                                            | 46 | 124 |
| Married/common law                                | 40 | 106 |
| Divorced/widowed/separated                        | 14 | 38  |
| Number of years of school completed: <sup>a</sup> |    |     |
| 0-8                                               | 22 | 59  |
| 9-11                                              | 44 | 119 |
| 12 or GED                                         | 25 | 66  |
| 13+                                               | 8  | 21  |
| Missing                                           | 1  | 3   |
| Employment: <sup>a</sup>                          |    |     |
| Mainly unskilled                                  | 42 | 112 |
| Mainly skilled                                    | 38 | 102 |
| Never had a legal job                             | 19 | 52  |
| Missing/unknown                                   | 1  | 2   |
| Residence:                                        |    |     |
| New York City                                     | 66 | 177 |
| Outside New York City                             | 31 | 83  |
| Missing                                           | 3  | 8   |

<sup>a</sup> At the time of the 1984 homicide event.

sion of Criminal Justice Services, 1990). Forty-seven percent of interviewees were Black (non-Hispanic), 24% were White (non-Hispanic), and 29% were Hispanic. One interviewee was Asian (Chinese).

At the time of the homicide, respondents ranged in age from 16 to 71 years (median age was 25 years). Forty-six percent were single, 40% were married (or living in a common law relationship), and 14% were divorced, widowed, or separated. Only 25% of respondents were high school graduates or had earned an equivalency degree (median number of years of school completed was 10).

Forty-two percent of respondents stated that before they were incarcerated for the homicide, they worked mainly at unskilled occupations (e.g., cab driver, factory worker, security guard), 38% worked mainly at skilled occupations (e.g., carpenter, printer), and 19% reported never having had a legal job before they were incarcerated. Table 1 also shows that 66% of interviewees resided in New York City at the time of their arrest for the homicide, while 31% resided in other parts of the state; in 3% of cases, residence upon arrest was missing.

## FINDINGS

### Lifetime Use of Marijuana

Table 2 presents data on lifetime use of marijuana and other drugs for the 268 inmate respondents. This table shows that marijuana was the most commonly used *illicit* drug in this sample of homicide offenders; 86% of the sample ( $N = 231$ ) had used marijuana at some time in their lives, slightly less than the percentage of respondents who had ever used alcohol, a legal drug (96%). Marijuana was also the illicit substance first used by these offenders; median age of first use was age 15, just one year after first use of alcohol (at age 14).

Table 2.  
Lifetime Use of Marijuana and Other Substances by the Sample ( $N = 268$ )

|                          | Ever used |     | Median age of first use | Typical use was regular <sup>a</sup> |    | Ever addicted/dependent |    |
|--------------------------|-----------|-----|-------------------------|--------------------------------------|----|-------------------------|----|
|                          | %         | N   |                         | % <sup>b</sup>                       | N  | % <sup>b</sup>          | N  |
| Marijuana <sup>c</sup>   | 86        | 231 | 15                      | 42                                   | 97 | 16                      | 36 |
| Alcohol                  | 96        | 256 | 14                      | 31                                   | 80 | 20                      | 5  |
| Cocaine                  | 68        | 181 | 19                      | 28                                   | 50 | 27                      | 49 |
| Psychedelics             | 32        | 85  | 16                      | 8                                    | 7  | 4                       | 3  |
| Heroin                   | 30        | 79  | 19                      | 37                                   | 29 | 51                      | 40 |
| PCP                      | 21        | 56  | 17                      | 12                                   | 7  | 7                       | 4  |
| Amphetamines             | 21        | 56  | 18                      | 23                                   | 13 | 12                      | 7  |
| Tranquilizers            | 20        | 55  | 18                      | 20                                   | 11 | 9                       | 5  |
| Other opiates            | 12        | 32  | 20                      | 3                                    | 1  | 3                       | 1  |
| Barbiturates             | 12        | 31  | 18                      | 26                                   | 8  | 13                      | 4  |
| Street methadone         | 11        | 30  | 21                      | 7                                    | 2  | 7                       | 2  |
| Other drugs <sup>d</sup> | 15        | 39  | 17                      | 23                                   | 9  | 8                       | 3  |

<sup>a</sup> Regular use is defined as 3 or more days per week.

<sup>b</sup> Percentages are based on number of respondents who ever used a specific substance.

<sup>c</sup> Includes hashish.

<sup>d</sup> Includes Quaaludes, placidyl, steroids.

Respondents were asked how often they would typically get high on substances they had used. Table 2 shows that marijuana was the substance (licit or illicit) most likely to have typically been used on a regular basis (defined as 3 or more days/week); 42% of respondents who had ever used marijuana typically used it regularly. (Fifty-seven percent of the regular users typically used it on a daily or near daily basis, i.e., 6-7 days/week.)

Respondents were also asked if they ever felt addicted to or dependent on the substances they used. Sixteen percent of marijuana users felt they had been addicted to or dependent on marijuana at some time in their lives—about the same percentage as users of alcohol (20%). Users of marijuana were less likely than either users of cocaine (27%) or users of heroin (51%) but more likely than users of all other substances to report they had been addicted or dependent on that substance at some time in their lives.

### Relationship of Marijuana Use to the Homicide

Respondents were asked a series of questions about their use of various substances at the time of the homicide for which they were incarcerated. A total of 73 respondents (32% of those who had ever used marijuana and 27% of all respondents) said they had used marijuana in the 24-hour period prior to the homicide. Table 3 presents data on the marijuana-related effects these 73 respondents were experiencing at the time the homicide occurred. This was determined based on responses to the following questions asked of all individuals who had indicated they had used a particular substance (in this case marijuana) prior to the homicide: "Were you high on [marijuana] when the incident happened?"; "Were you coming down from [marijuana] when the incident happened?"; and "Were you sick or in need of any [marijuana] when the incident happened?"

Table 3.  
Use of Marijuana at the Time of the Homicide and Relationship to Homicide

| Used marijuana in 24 hours before homicide and at time of homicide were | Number who said homicide and marijuana were related |    |
|-------------------------------------------------------------------------|-----------------------------------------------------|----|
|                                                                         | % <sup>a</sup>                                      | N  |
| High                                                                    | 62                                                  | 45 |
| Coming down                                                             | 7                                                   | 5  |
| High and coming down                                                    | 1                                                   | 1  |
| Coming down and sick/in need                                            | 1                                                   | 1  |
| Experiencing no effect                                                  | 29                                                  | 21 |
| Total                                                                   | 100                                                 | 73 |

<sup>a</sup> Percentages are based on number of respondents ( $N = 73$ ) who used marijuana in the 24 hours before the homicide.

Table 3 shows that of the 73 respondents who used marijuana in the 24-hour period prior to the homicide, a total of 52 (71%) said they were experiencing some type of effect related to their marijuana use when the homicide occurred. Sixty-two percent said they were high on marijuana; 7% said they were coming down from marijuana; 1 respondent stated he was both high and coming down from marijuana when the homicide occurred; and 1 said he was both coming down and sick/in need of marijuana at the time. A total of 29% of respondents who had used marijuana in the prior 24 hours said they were neither high, coming down, or sick/in need of marijuana when the homicide happened.

Respondents who indicated they were experiencing some effect related to their marijuana use were asked if they thought that the homicide was in any way related to that status. Table 3 shows that 25% of the 73 individuals who had used marijuana the day of the event ( $N = 18$ ) felt that the homicide was related to their marijuana-related psychopharmacological status at the time of the homicide. This group, which was comparable to the rest of the interviewee sample in terms of the sociodemographic characteristics presented in Table 1, includes 14 of the 45 respondents who said they were high on marijuana at the time of the homicide, 2 of the 5 who were coming down from marijuana, the respondent who said he was both high and coming down, and the respondent who said he was both coming down and sick/in need. Thus, of all 268 respondents, 7% said that marijuana was related to the homicide that brought them to prison.

The 18 respondents who thought the homicide they committed was related to marijuana were asked why they thought the homicide was related to their marijuana use. A variety of reasons were given. Four respondents gave responses which were coded as "it made me aggressive, violent." One of these respondents, who got into an argument with and stabbed a cocaine dealer who refused to "front" him some cocaine, stated that "when I'm high I just lose control . . . it was bad." Another of these respondents, a man who shot his wife after finding her in bed with another man, said "I don't think I would have done anything if I hadn't been under the influence. Probably I would have just smacked her."

Four responses were coded as "it lowered my inhibitions." In one of these cases, the respondent was involved in a robbery in which the owner of a pharmacy was killed. During the interview he stated, "if I wasn't high, I don't think I would have agreed to do it . . . I just felt—let's do it."

Two responses were coded as "it made feel paranoid." One of these was given by a respondent who got into a dispute with a man who urinated on his car; he believed that the marijuana "kept me from thinking clearly—it made me do what I did." Two responses were coded as "it made me feel nervous, anxious." One of these was the response given by a respondent who picked up a

hitchhiker and raped and killed her. He stated, "As I was walking with her into the woods she was scared and I recall somewhat of a thrill feeling. I can't explain it."

One respondent who killed a drug dealer who had ripped him off in a drug deal stated that the marijuana "made me think slow and act foolish. I think that if I hadn't been smoking the pot I would not have stabbed him so many times." Another respondent, who killed his former girlfriend's boyfriend by stabbing him 3 times, stated, "the pot slowed down my reactions, I might have only stabbed him once . . . if I hadn't been high."

### Other Drugs Used by the "Marijuana-Related" Group

We noted above that researchers who have studied the marijuana-violence relationship have not investigated drug combinations involving marijuana in regard to their relationship to violence. This is a significant omission, since marijuana is commonly used in combination with other substances, and it is known that drug combinations can have profound behavioral effects.

All respondents who reported using more than one substance in the 24-hour period before the homicide were asked the following questions: "Do you think the homicide was in any way related to the fact that you took a combination or mixture of drugs, rather than a single drug?"; "What was the combination or mixture?" (up to three drugs were coded); and "What makes you think that?" Responses are shown in Table 4.

Table 4.  
Other Drugs Used by the "Marijuana-Related" Group ( $N = 18$ )  
and Relationship to Homicide

| Homicide related to marijuana and also high on | % <sup>a</sup> | N  | Number who said homicide related to combination |
|------------------------------------------------|----------------|----|-------------------------------------------------|
| Alcohol                                        | 39             | 7  | 3                                               |
| Cocaine                                        | 11             | 2  | 2                                               |
| Alcohol and cocaine                            | 11             | 2  | 1                                               |
| Alcohol and psychedelics                       | 11             | 2  | 2                                               |
| Alcohol and heroin                             | 6              | 1  | 1                                               |
| Alcohol, cocaine, and psychedelics             | 6              | 1  | 0                                               |
| No other substance                             | 17             | 3  | —                                               |
| Total                                          | 100            | 18 | 9                                               |

<sup>a</sup> Percentages are based on number of respondents ( $N = 18$ ) who stated that their homicide was related to marijuana.

We found that 15 of the 18 respondents (83%) who stated that the homicide they committed was related to their marijuana use reported being high on at least one other substance when the homicide occurred. Seven respondents said they were also high (i.e., drunk) on alcohol, which is commonly used together with marijuana and which has consistently been reported in the literature to be linked to violence (see Fagan, 1990). An additional two respondents said they were also high on cocaine; two were also drunk and high on cocaine; 2 were also drunk and high on psychedelics; 1 was also drunk and high on heroin; and 1 reported also being drunk and high on both cocaine and psychedelics.

Table 4 shows that 9 of the 15 respondents (60%) who said they were high on marijuana and at least one other substance believed that the homicide was also related to the combination or mixture of substances. Three of the 9 were respondents who said they were also drunk when the homicide occurred. One of these respondents stated, "One alone you can handle—but two together confuse your mind." Another said, "The alcohol took away my inhibitions, and the pot made me crazy." The third one stated that "the combined effect made me lose self-control."

Also among the 9 respondents who stated that the homicide they committed was related to a marijuana combination or mixture were both of the respondents who were also high on cocaine when the homicide occurred, one of the two respondents who were also drunk and high on cocaine (he stated, "it was the combination, primarily coke, I was hyper, I just couldn't stop"), and both of the respondents who were also drunk and high on psychedelics (one of whom said, "I think that if I would have just been doing marijuana I would have been ok, but the alcohol made me lose it and the purple haze made me crazy so together I was just out of it"). The respondent who was also drunk and high on heroin at the time of the homicide also reported that the homicide he committed was related to a marijuana combination or mixture.

### Types of Marijuana-Related Homicides

The 18 homicides related to marijuana were examined from the perspective of a tripartite conceptual framework that specifies the variety of ways that drugs and violence can be related (Goldstein, 1985, 1989a). This conceptualization emerged from, and has been tested in, a number of empirical research studies in addition to the homicide study reported on here (see Goldstein et al., 1987, 1988, 1989b; Ryan et al., 1990; Brownstein et al., 1992).

According to this framework, drugs and violence may be related psychopharmacologically, economic compulsively, and systemically. Violence is considered *psychopharmacological* when it is the consequence of short- or long-term ingestion of specific substances by the perpetrator or victim of the homicide. *Economic compulsive* violence occurs when a drug user feels compelled

to engage in economically oriented violence in order to support costly drug use. Drug-related violence is considered *systemic* when it is the outcome of traditionally aggressive patterns of interaction within the system of drug use and distribution. Systemic homicides include murders committed within dealing organizations as a means of enforcing normative codes, robberies ending in the death of a drug dealer or a consequent fatal retaliation by the associates of a murdered drug dealer, killing of informers in drug cases, killings resulting from disputes between drug dealers over territory, disputes over drugs or drug paraphernalia, punishment of dealers for selling adulterated or phony drugs, punishment for failing to pay one's drug-related debts, and so on.

After a review of qualitative and quantitative interview data about each homicide, the homicide was classified on the basis of the tripartite model. A main reason for each homicide was coded. Main reasons, which may or may not be drug-related, were best inferences about the primary causal mechanism for a homicide taking place. Table 5 shows the main reason classifications for the 18 cases that were reported by respondents to be related to their marijuana use.

Table 5 shows the variety of ways in which the 18 cases were "marijuana-related." Eleven of these homicides (61%) were classified as primarily psychopharmacological in nature because they were seen as resulting from the ingestion of one or more specific substances; marijuana was one of these substances in all 11 cases (up to three substances were coded in each "drug-related" case). One example was a case in which the respondent, who was White and in his early 20s at the time of the crime, killed his ex-girlfriend's boyfriend.

I was working nights at a transmission place. I'd had a kid with my old lady but we'd been broken up a long time—we'd never been married. She and her boyfriend used to abuse my son. He'd have bruises on his arms and back, the kind that don't come from kids playing. The kid was 6 months old.

Table 5.  
Main Reasons for the "Marijuana-Related" Cases (N = 18)

|                       | %  | N  |
|-----------------------|----|----|
| Psychopharmacological | 61 | 11 |
| Systemic              | 6  | 1  |
| Economic compulsive   | 6  | 1  |
| Multidimensional      | 17 | 3  |
| Not drug-related      | 6  | 1  |
| Unknown               | 6  | 1  |

This one night she'd called me and said: "If you don't come and get your son we're gonna beat him . . . I'm sick of him." I went to the cops and they said I couldn't do anything—that I'd have to fight it in court . . . so I handled it my own way.

One week after the first call she called me again and said come and get him. I picked him up and took him to my aunt's . . . then I went after them to teach them a lesson.

I went to their house and went into the back window, which was a kitchen. I opened a drawer and took out a steak knife. They must have heard me. Someone hit me—I turned around and it was Jim—the boyfriend—I stabbed him. He died on the way to the hospital. She was stabbed 3 times—thigh and fingers—I was arrested 20 minutes later—the cops came within 5 minutes and questioned me—then arrested me.

I was high and drunk. I had a six-pack earlier in the day, and had a couple of shots of rum 20 minutes before [the crime]. I also smoked three bowls of pot about a half hour before. I might have only stabbed the boyfriend once if I hadn't been high—the pot slowed down my reactions.

One homicide was classified as economic-compulsive because it was primarily the result of an economically-oriented crime to obtain money for drugs. In this case the respondent, needing money for marijuana and cocaine, killed a neighbor who refused his request for money. According to the respondent, who was Black and in his early 20s:

I went to his apartment, knocked on his door, he knew me, said to come in. We sat down, talked, I asked him for money, he said he didn't have any to give me. I got angry, I went for him, threw a punch, this led to a fight, he fought back, the fight went on for 10 minutes. It got out of hand, it turned out serious. I choked him, don't know for how long, he died later. A broken neck. I just needed money for reefer and coke. His saying "no" angered me.

The homicide referred to above in which the respondent killed a drug dealer who ripped him off was the one case classified as being primarily systemic in nature, even though the respondent said he was high on marijuana at the time and that the homicide was related to his state of intoxication. This was because the homicide primarily occurred as a result of the drug rip-off. According to the respondent, who was a 20-year-old Hispanic (the interview was conducted in Spanish):

This guy, a Puerto Rican who was a dealer, came to the pizza shop where I worked and an employee there gave him some money for drugs. Me and this other employee were sort of friends. The guy left

and didn't come back. It was 12 noon. At night after work we went looking for the guy. At 9 P.M. The money was for coke and some marijuana. Some of the money was mine.

After we went looking for the guy we found him at an apartment partying. There were three of us; the other guy was a friend of the other employee. The guys with me had knives. I started to get worried—I thought that maybe I shouldn't have gone along. We hung out at his apartment and drank beer and smoked a joint with the dealer and two of his friends. The air was tense. The dealer started to get mean. He called me and my friends things. My friend was pushed by one of the dealer's friends. There was a lot of pushing. "Where's our money?" "What money?" "You're a thief." "Fuck you."

We were only after our money. About 100 bucks.

The dealer came at me, with a bottle. I was scared. We fought. I got a knife from my friend—he handed it to me—I was scared. Everyone was yelling and crazy. I hit the dealer with the knife—he went down—I stabbed him two more times to keep him down. I was crazy. I turned myself in 1 hour later. I think that if I hadn't been smoking the pot I would not have stabbed him so many times.

The marijuana made me think slow and act foolish. I think that if I hadn't been smoking the pot I would not have stabbed him so many times.

Table 5 shows that 3 of the 18 "marijuana-related" homicides (17%) were classified as multidimensional in nature. These homicides contained two or all three dimensions of drug relatedness in sufficiently equal weights that it is impossible to say that one dimension was a more powerful explanation for the killing than any other dimension. One of these cases involved a respondent who was White and 22 years old and who killed a woman he knew during a burglary while he and a friend were high on marijuana, alcohol, and psychedelics. The respondent reported that during the day of the homicide they had shared an ounce of marijuana (they smoked two to three joints 15 minutes before the crime), a quart of beer, and five hits of LSD. The homicide also had a strong economic compulsive dimension, as revealed in the respondent's statement that "I felt I needed reefer, I liked the high, I committed the crime to get money to buy more." According to the respondent:

Me and my roommate (a codefendant) were getting short on money to buy drugs, pay the rent, and use for ourselves. We decided to rob an elderly upper-middle class woman whom [the co-defendant] knew from when he was a maintenance man. He faked an injury to get into her home. As soon as we got in, he bludgeoned the woman. He then called me, I was waiting outside the house, and then we robbed the house.



We were interested in a strong box. We found out later that it only contained legal documents but no money.

(This respondent also told the interviewer that when he was arrested 2 days later in his apartment, he happened to be rolling 25 joints. Just before letting the police in, he hid most of the marijuana and put one joint into his pocket. The police patted him down during the arrest, but never found the joint. While in the police lockup and away from the guards, he smoked the joint.)

Table 5 also shows that one of the 18 homicides was classified as "not drug-related." Based on the following account provided by the respondent, it did not appear that this homicide primarily resulted from drug use or distribution, even though the respondent claimed it had a drug dimension to it. The homicide, rather, occurred in the context of a "botched" robbery.

My wife and I were sitting in our apartment. We had a few beers (12 cans). A friend came over. We drank more beer. I had six more and two joints, he had two cans and one joint. He asked me if I wanted to go out and make money with him. Before I knew it we went out and came across this place I was familiar with (oil depot). We went in. He pulled a gun. He said this is a stickup. A truck driver walked in. He and the dispatcher were made to lay down on the floor. He asked where the money was. Was told—no money here. I knew that from my previous knowledge of the place. He looked over at me, I agreed, no money. I felt something was gonna happen. I looked at him and said: "don't shoot." I heard the gun go off. He shot the dispatcher. We left. I came back later by myself, to make sure the guy didn't die. I seen the cops and they were carrying him out under a sheet.

This respondent did not suggest that the robbery was motivated by a compulsive need to obtain money in order to buy drugs. He gave no indication that his partner's decision to shoot the dispatcher was influenced by antecedent drug use. Thus, while the respondent claimed that his own drug use was related to his being present at the scene of the robbery/homicide, the robbery/homicide itself was categorized as being nondrug-related.

Table 5 also shows that one of the 18 "marijuana-related" cases was classified as "unknown." This was because the respondent denied participation in the homicide and did not provide sufficient information about the incident to permit a clear determination as to how it should be classified.

## SUMMARY AND DISCUSSION

The purpose of this paper was to examine self-report data concerning the connection between marijuana and homicide based on interviews obtained from

268 individuals incarcerated for homicides committed in New York State in 1984. The main purpose of these interviews had been to obtain the offenders' own accounts as to the drug relatedness of the homicides they committed.

Our analyses focused on the extent of lifetime use of marijuana in the sample, the relationship of marijuana use to the homicides, other drugs that were used by respondents who believed the homicides they committed were related to their marijuana use, and the various ways that the homicides and marijuana were related.

We found that marijuana was the most commonly used *illicit* drug among these offenders; 86% had used the drug sometime in their lives. Marijuana was typically the first illicit drug used by the sample, and the drug most likely to have been used on a regular basis. Sixteen percent of the sample said they had been addicted to or dependent on marijuana at some time in their life.

About one-third of the respondents who had ever used marijuana used it on the day of the homicide. About 70% of those who used it on that day said they were experiencing some type of effect from the drug at the time the homicide actually occurred. About 60% of these individuals said they were high on the drug; most of the others said they were coming down from the drug. Twenty-five percent of those who said they were experiencing some effect from marijuana when the homicide happened believed that the homicide was related to that effect; a variety of reasons for this relationship were offered by these respondents. This last group (those who said the homicide and marijuana were related) were 7% of the total interview sample, and 8% of those who said they had ever used marijuana in their lifetime.

We also found that over 80% of those who thought that the homicide was related to their marijuana use were high on at least one other substance when the homicide was committed; typically, this other substance was alcohol. Sixty percent of the respondents who were high on a marijuana-other drug combination believed that the homicide was also related to the drug combination.

We also examined the cases that the respondents believed were marijuana-related from the perspective of a conceptual framework that specifies the variety of ways that drugs and violence can be related. Within this context, we showed that there are various nuances in the ways that marijuana and homicide can be related. In most homicide cases that were reported to be marijuana-related, the nature of that relationship was psychopharmacological.

Our data suggest that while large numbers of people in our sample of homicide offenders had used marijuana in their lifetime, and a fair number even used it on the day of the killing, marijuana rarely played a determining role in the homicides that were committed. When it was a factor in a homicide, it tended to play a secondary role. It was almost always used in combination, and when the killer was high on marijuana, he/she was usually high on something else as well.

The DREIM research study only focused on homicides in one state during one year. The sample was not randomly selected, and only homicide offenders who were convicted and incarcerated were included. Thus, our findings cannot be generalized to the universe of homicide offenders.

Additional limitations regarding the findings of this research arise from gathering self-reports in the prison context. Some respondents seemed to present accounts of their drug use and its relationship to the homicide within a general denial of responsibility. For example, it was relatively common for respondents to claim their partner pulled the trigger, they didn't know a homicide was going to take place, they tried to stop their partner, they returned to the scene of the crime to help the victim, and so on. Their descriptions of their drug use and their states of intoxication at times seemed to be designed to convince the interviewer that they were not responsible for a heinous crime.

Further, in those cases where multiple drugs had been consumed, subjects had difficulty attributing psychopharmacological effects to one drug rather than the other, or to an interactive effect. Similarly, where economic compulsive homicides occurred as a result of a stated need to obtain multiple drugs (e.g., cocaine and marijuana), it was difficult to ascertain whether the need for one of the drugs was more primary than the need for the other.

Despite these limitations, a clear implication from this study is that in-depth interviewing with perpetrators of violence has great potential for contributing to our knowledge of the actual ways and reasons why specific drugs, including marijuana, may be related to violent behavior. Data are likely to be valid and reliable to the extent that liaisons at the prison facilities are respected and well-liked, which endows the interviewers with credibility and legitimacy; the respondent is assured of confidentiality prior to interviewing; and interviewers have a thorough knowledge of the crime and drug subcultures and a high level of competence, experience, and training in interviewing procedures.

Additional studies employing a wide variety of methodological techniques focusing on how the use of marijuana may provoke violent behavior are needed. Studies in which perpetrators of other types of violent behavior (e.g., aggravated assault, robbery) are interviewed about the possible relationship of marijuana and other drugs to those events, and studies specifically designed to learn more about interactive effects of marijuana and other drugs, would also be valuable extensions of the current research. Such studies could generate valuable information that would be helpful for those who work with drug abusers and violent criminals in terms of both treatment planning and staff training.

## ACKNOWLEDGMENTS

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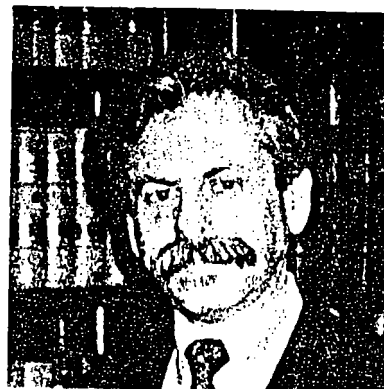
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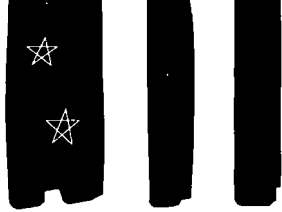
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## PARTNERSHIP FOR A DRUG-FREE AMERICA

### ***PARTNERSHIP FOR A DRUG-FREE AMERICA***

### ***FACT SHEET***

The Partnership for a Drug-Free America is a non-profit coalition of professionals from the communications industry, whose mission is to reduce demand for illegal drugs in America. Through its national anti-drug advertising campaign and other forms of media communication, the Partnership works to decrease demand for drugs by changing societal attitudes which support, tolerate or condone drug use.

The organization is comprised of a small staff and hundreds of volunteers from the communications industry, who create and disseminate the Partnership's work. Advertising agencies create Partnership messages pro bono; research firms donate information services; talent unions permit their members to work for free; production professionals bring Partnership messages to life; a network of advertising professionals distribute the group's work to national and local media; public relations firms loan services to various Partnership projects; and media outlets donate valuable broadcast time and print space to deliver Partnership messages to millions of Americans.

Research clearly demonstrates that the Partnership's national campaign has helped to increase anti-drug attitudes, resulting in lower drug use across America. The three leading national studies on drug use, along with leading drug policy makers, support its effectiveness. *The New York Times* has described the Partnership as "one of the most effective drug education groups in the U.S."

To date, more than 400 anti-drug ads have been created by our volunteers. From March 1987 through the end of 1993, the total amount of broadcast time and print space donated to Partnership messages topped \$1.7 billion, making this the largest public service media campaign in history. Today, in states across the country, the Partnership is helping drug prevention specialists create local versions of PDFA's national advertising campaign. And a multi-faceted Partnership program is reaching out to inner city children with highly specialized messages about drugs. While the Partnership continues its national and local media efforts, it also uses "non-traditional" media. Partnership ads, for example, now appear on home video rentals, on the packaging of children's toys and sports equipment, and in direct-mail material.

3/94

# The Dallas Morning News

July 21, 1994

## Number of U.S. drug users holds firm, ending decline

*Knight-Ridder Newspapers*

WASHINGTON — The number of Americans using illegal drugs held steady in 1993, bucking a 13-year trend of uninterrupted decline, said a survey released Wednesday by the federal government.

The 1993 National Household Survey on Drug Abuse found that 11.7 million Americans — 5.6 percent of the population 12 years and older — used illegal drugs in the month before being interviewed.

That's down by more than half from the 24.3 million drug users in 1979, the peak year of illegal drug use, but slightly higher than the 11.4 million reported in 1992. The increase was not considered statistically significant.

Secretary of Health and Human Services Donna Shalala said the numbers were troubling.

"Many of these remaining drug users are chronic, hard-core users, whose addictions are more severe and who are more difficult to reach and more resistant to change,"

The survey reported that Americans 35 and older, many of whom began using drugs during the peak years of the 1970s, have been slow to quit drugs.

Although the number of drug users younger than 35 has decreased

by about 50 percent since 1985, drug use among those 35 and older has dropped by only 10 percent, said Dr. Dan Melnick, director of the HHS office that conducted the survey.

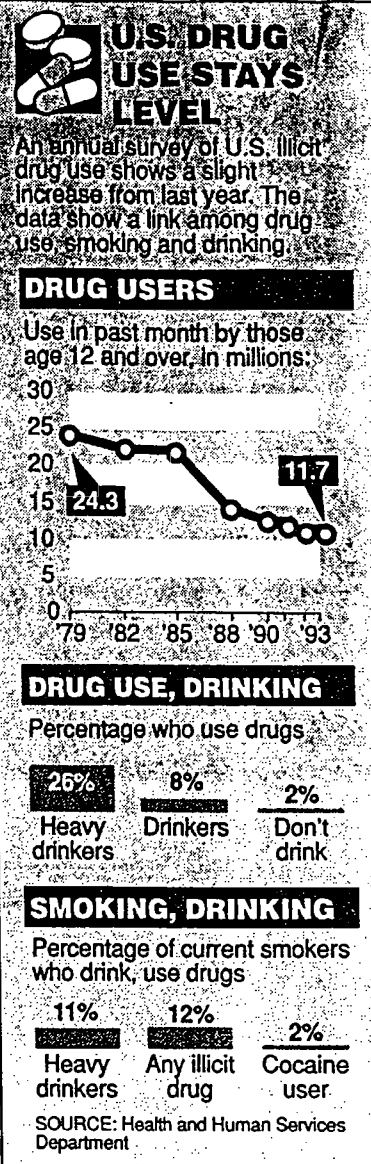
The number of heavy cocaine users has remained constant at about half a million since the survey began asking about cocaine use in 1985.

Steve Dnistrian, vice president of Partnership for a Drug-Free America, a nonprofit, anti-drug group, said the leveling off in usage might be due to less public concern about drug abuse.

"When the numbers flatten, you never know which way they will go," he said.

Lee Brown, director of the president's Office of National Drug Control Policy, said that President Clinton's drug control strategy will attempt to change the numbers by focusing \$355 million of the 1995 budget on treatment programs for hard-core drug users who are more likely to commit crimes and be involved in violence.

The survey of 26,489 people probably understated drug usage because it excluded anyone not in a household — such as college students living in dorms, military personnel and prisoners.



The Dallas Morning News/KRT

# The Record

July 20, 1994

## Encouraging news on the drug front

By CLAUDE LEWIS

**A**lthough it would be foolhardy to relax, there's no denying that the news concerning use of illicit drugs by inner-city teenagers is at last somewhat improved.

Judging from the results of a study by the Partnership for a Drug-Free America, an independent research group, that children living in New York City are growing "more defiant to drugs and drug dealing" and that there has been a slight reduction in the use of the highly addictive crack-cocaine.

The thinking among some drug experts is: When it comes to illicit drug use and dealing, as New York goes, so goes the nation.

According to the study of 15,000 children — the largest quantitative research on urban youth and drugs ever conducted in the United States — urban children show significant awareness of the risk of drugs, have a decreasing perception of the benefits associated with drugs and a negative perception of drug dealers, and show a modest improvement resisting illegal narcotics.

While children of all races in above- and below-poverty schools showed progress, African American children attending schools in below-poverty areas made particular gains, according to the study, which was released last week.

Let me be quick to note that not everyone working in the drug treatment field is impressed.

Irv Shandler, executive director of the Diagnostic Rehabilitation Center of Philadelphia expressed surprise at the findings. "To a large extent, we deal with addicted women, and we haven't seen very many changes generally. While many people are hailing success in assisting women and others, we're still fighting an uphill battle with Harrisburg to get funding to treat addictive women. The problems continue."

“

Let me be quick to note that not everyone working in the drug treatment field is impressed.

”

Six months ago an article in Newsweek trumpeted the new and positive attitude toward illicit drugs among teenagers in some of Philadelphia's toughest black communities. Perhaps what the writer found was true, but there are not many believers in the city itself.

"From what I see," said Jerome Johnson, 16, a high school dropout who lives in North Philadelphia, "the guys are still doin' it to death. They usin' everything they can get. If they don't see any hope, they gonna turn to something, drugs or booze or both. It's always been that way." And Johnson knows his way around the city.

Mark Bencivengo, assistant health commissioner of Philadelphia, is not impressed by the PDFA announcement either.

"I can't speak for New York," Bencivengo said, "but I'll tell you, the problem continues to be enormous here and elsewhere across the country. We're seeing more heroin use in Philadelphia, although most of our data reflects conditions among those 18-years-old and above. We aren't seeing any significant drop-off in drug use. Such studies make me a bit nervous because they sometimes cause people to believe we've gotten a strong grip on the problem."

"Heroin use is up. The quality of the drug is outstanding and the price is reasonable. We're seeing new users. Some of them are turning to heroin to reduce the crash effect of using less cocaine. We're also seeing a greater use of 'blunts.' " A blunt is a cigar in which the tobacco is discarded and replaced with marijuana or cocaine and PCP.

Tom Hedrick, president of Partnership for a Drug-Free America, calls it a "tragedy" to put a black face on drugs instead of studying the increases among middle-class whites." He said, "As long as it's seen as a black problem, it won't be solved."

From coast to coast, there is an heroic effort to educate young people about the danger of drugs. There's little question that the campaign has enjoyed some success. But experts are careful about being too hopeful about every indicator.

I'm aware people sometimes want to believe a thing is so bad that perception becomes reality. I'm not suggesting the PDFA is in any way faulty, but I'm also not ready to say we're on the path toward defeating the vast number of drug dealers and distributors among us.

As the study suggests, there may be the beginning of some improvement. But no one should bet the rent money that illicit drugs will soon be obsolete.

*Claude Lewis is a syndicated columnist for the Philadelphia Inquirer*

## REVIEW &amp; OUTLOOK

## Good News on Drugs

Dwight Gooden didn't make it into the All-Star game on Tuesday. In fact, the New York Mets pitcher won't be showing up for any more ball games this summer. He's been suspended for 60 days without pay for "violating his aftercare." The Mets won't say more, but it's surely a reference to Mr. Gooden's earlier drug problems. Many of us hoped he had kicked his cocaine habit years ago, and it's a personal tragedy for Mr. Gooden that he apparently hasn't been able to do so.

It's always bad news, especially for young people, when a famous athlete runs afoul of drugs. But also from New York this week comes some good news. A two-year study of 15,000 New York City grade-school children shows that antidrug attitudes are on the rise there among kids. According to the study, which is the largest ever done on urban youth and drugs in the U.S., New York youngsters are more aware than ever of the perils of drugs. Moreover, they are less likely to see any benefits in using drugs. The reputation of dealers and their girlfriends is also on the skids; kids realize dealing drugs is, literally, a short-lived career.

While the survey found strong anti-drug attitudes across all races and income groups, they were most pronounced among black children and poor children. This makes sense. These children live in communities where they encounter the ravages of drugs every day, and, for them, seeing is believing. Knowing a neighbor or a sibling whose life has been ruined by drugs provides a pretty powerful incentive to stay clear of them yourself. Suburban kids usually lack this "advantage." This evidence of New York youngsters' hardening antidrug attitudes bucks the national trend. It comes on the heels of nationwide studies that show both an increase in drug use and social acceptability of drugs among adolescents.

The New York study was commissioned by the Partnership for a Drug-Free America, a nonprofit coalition of professionals from the communica-

tions industry. Like other antidrug organizations such as D.A.R.E., the Partnership targets young people; its aim is to decrease demand for drugs by making them socially unacceptable. To that end, the Partnership has created more than 400 antidrug ads that have aired nationwide; if you have a television, you've probably seen one.

One of the purposes of the New York study was to assess the effectiveness of the Partnership's two-year-old TV ad campaign targeting urban youth. These specially designed ads, in English and Spanish, go beyond the usual drugs-are-bad message and depict ordinary kids in ordinary situations saying no to drugs.

The goal of the Partnership's ad campaign—to give young people the tools to reject drugs—is identical to that of Nancy Reagan's "Just Say No" crusade in the 1980s, when, not coincidentally, drug use plummeted. Discouraging casual drug use was a key element of the national antidrug strategy then and it worked. This, along with the rising numbers of drug users today, makes us still skeptical of the Clinton Administration's antidrug policy, whose principal focus is on treatment for hard-core addicts.

The success rate of treatment programs is highly uncertain. One of the few things we

know for sure is that success comes slowly and at a high cost. Just consider Mr. Gooden's case. As a major league baseball player, he has had access to the Cadillac of treatment programs, but that hasn't kept him from an apparent relapse. That's not to say that we shouldn't treat addicts, but it probably does mean that treatment shouldn't be unlimited or oversold.

Drug-fighting resources aren't infinite; it's crucial to target programs that work. As the Partnership for a Drug-Free America's ad campaign shows, children respond well to the antidrug message; they want society's support in resisting drugs. That's a message the government should be sending, too.

**'LONG WAY HOME'**

Text of a TV ad by Partnership for a Drug-Free America



Scene: A child with a bookbag running through urban backyards.

Child: "My teacher tells us to just say no. Policeman says the same thing. They should walk home through here. 'Cause the dealers are scared of police. But they're not scared of me. And they don't take no for an answer."

Voiceover: "To Kevin Scott and all the other kids who take the long way home, we hear you. Don't give up."

## THE EDITORIAL PAGE

"USA TODAY hopes to serve as a forum for better understanding and unity to help make the USA truly one nation."

—Allen H. Neuharth  
Founder, Sept. 15, 1982



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Karen Jurgensen  
Editor of the  
Editorial Page

Thomas Curley  
President and Publisher

# Good news on drugs

Just when hopes for success in the drug war looked darkest, a light has flickered on.

Urban kids, particularly African-Americans, are getting the anti-drug message, says a report released Tuesday by the Partnership for a Drug-Free America.

In the largest U.S. study ever on urban youth and drugs, independent researchers tracked 15,000 New York City grade-school children during 1992 and 1993.

Among the findings: Urban children view drug dealers negatively and see drugs themselves as too scary to be tried. About 85% said they would walk away if offered drugs, up 7% from 1992.

The reason: Kids in inner cities witness the devastation of crack. Many have attended funerals of their friends. Dodged bullets. Seen dead bodies. And gone hungry because food money was spent on drugs. They want to avoid the grief of the older generation.

But equally important, they're bombarded with an anti-drug message. Where do they get it? Everywhere. About 83% credit schools, 84% their parents and grandparents, 70% TV commercials.

Public service messages lend a powerful force, notably the Partnership for a Drug-Free America's ads targeting urban youth.

You've seen them. They compare drug users' brains to a frying egg and depict drug

dealers as the losers and criminals they are. They work.

The report's findings also puncture many a stereotype. Bottom line: Poor black kids hold stronger anti-drug attitudes than any other ethnic group, and the gap may be widening. They're a success story we can build on, not a failure to be swept aside.

Other research bolsters the point.

An earlier Partnership study found that black high school students are 20% less likely to use cocaine, crack or marijuana than white teens.

And the University of Michigan's Monitoring the Future Project found that black high school students report the lowest rates of use for virtually all drugs — licit and illicit.

This trend away from mind-altering substances also applies to alcohol. About 32% of white high school seniors are heavy drinkers, compared to 11% of black seniors, the Michigan study shows.

All this is good news.

Kids are hearing and heeding the anti-drug message in the very areas where the tragedy of drugs is most vivid. Areas given up by some as hopeless.

They are not.

The kids in them are not.

This new evidence suggests a decade of effort is paying off.



## In America

BOB HERBERT

# When Kids Say 'Enough!'

Elba Clark is 13 years old and lives in Crown Heights, Brooklyn. She just finished the eighth grade. Much of her summer will be spent doing volunteer work at a neighborhood nursing home. In her spare time she likes to jump rope, and every now and then the delightful vision of a double-dutch championship will slip into her head, and that will make her smile.

As she is a child in a big, big city, there is a certain dissonance to the music of Elba's daily life. She is frightened, for example, by the frequent gunfire in the neighborhood. "The shooting and the arguing scare me," she says, "but I pretend like it doesn't scare me because I don't want to scare my brother. I just want to calm him down and keep it to myself."

Like most inner-city children, she is familiar with death. Two years ago an uncle was murdered. "He was into drugs," she says. "He was taking a lot of drugs and getting skinny and everything. He owed a man some money and one day he was at the corner and he didn't have the money. He got shot and died."

There were other troubles. But Elba Clark's story, a hopeful one; is really about evolving attitudes among inner-city children who are struggling fiercely, and often without much help, to surmount the trouble in their lives.

Elba was a featured speaker yesterday at a press conference held by the Partnership for a Drug-Free America. The Partnership released a study that shows that children in New

teen-agers is increasing.

The study (and related research) seems to indicate that big-city kids in large numbers are saying enough is enough. They have experienced too many drug-related horrors, too many friends dead and parents incarcerated, too many red-eyed drug-crazed felons terrorizing the neighborhood, too many aunts and uncles wasting away from AIDS, too many nights without dinner because the grocery money was spent on crack.

A lot of kids have seen more than enough to be repelled by the idea of drugs.

And then there is the intensive anti-drug advertising campaign, sponsored by the Partnership, that has targeted inner-city youngsters across the United States. Creative and plain-spoken ("Don't do drugs — don't die and go away."), the ads have had a big impact. Actual drug use among inner-city kids is down, and proportionately fewer African-American kids use drugs than whites. The Partnership's campaign, still under way, is believed to have played a significant role in these trends.

The study released yesterday was the largest ever done on urban youth and drugs in the U.S. It found a growing awareness among inner-city children of the tremendous risks associated with drugs. It also found a sharp increase (30 percent in one year) in the number of preteens who would encourage others not to use drugs; a 22 percent decrease in the number of preteens who viewed drug dealers as a "good friend," and an 11 percent drop in the number of children who saw drug use as a positive way to build friendships with older kids.

This shift in attitudes is important. Inner-city kids are under tremendous pressure to take drugs. In addition to peer pressure, which can be relentless, there is the temptation to use drugs as an escape from the pain and grief that are so much a part of the lives of children in the ghetto. The decision to use drugs is made early, sometimes real early. A child growing up with an anti-drug attitude is more likely to resist.

"I hate it," Elba said in an interview. "It messed up my uncle. It messed up my cousin. The majority of my friends don't do drugs. They know how crazy it is out here. But there are some who try to get me to smoke a little weed or snort a little cocaine. I don't. I try to teach my friends that it's cool to follow the rules."

Over the past several years a hideous cloak of degradation has been draped over the lives of America's inner-city children. The Partnership's study seems to indicate that a growing number of kids, fed up and unable to count on their elders, are trying to throw off that cloak all by themselves. □

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Inner-city children are growing more opposed to drugs.

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York City, and especially poor African-American children, are growing more and more opposed to the use of drugs. This is occurring at a time when, nationally, drug use among

# School Poll Finds Harsher View of Drugs

By JOSEPH B. TREASTER

Running counter to a national trend, a survey released yesterday suggests that the attitudes of New York City schoolchildren are hardening against drugs.

The survey of more than 15,000 children in public and parochial schools last year showed an increase in the perceived risk of taking drugs, as well as sharp decreases in the perceived benefits, compared with a similar poll the previous year.

Ninety percent of the children said taking drugs would make you "feel bad about yourself," up from 85 percent in 1992, when such a survey was first taken. On the other hand, only 16 percent said taking drugs would make them feel more grown up, down from 19 percent in 1992.

## 'Drugs Mess You Up'

In a small playground in Jackson Heights, Queens, Ricky Kuril, a third-grader who goes to nearby Public School 69, said yesterday that he wanted nothing to do with drugs. "Drugs can mess you up a lot," he said, "and sometimes you can die."

Abraham Alshawash, a sixth grader, stopped shooting baskets in the park and said he had learned a lot about drugs from his teachers and police officers who came to his school. "Drugs are disgusting," he said. "I wouldn't try them."

Mayor Rudolph W. Giuliani, Schools Chancellor Ramon C. Cortines and police officials said they found the survey results encouraging.

"In this case," Mr. Giuliani said, "we should look to the children as role models because they clearly have their priorities straight on turning away from drugs."

John Miller, the deputy police commissioner for public information, said, "The idea that there's a light at the end of the tunnel, that kids who would be looking at buying, selling and using drugs within the next decade are thinking otherwise, is a signal that perhaps this won't be the ever-growing problem that it has been."

Drug experts suggested that the views of New York schoolchildren were a result of the anti-drug programs in city schools, which are among the most extensive in the country, and the widespread broadcasting of a series of anti-drug television commercials created to reach elementary-school children.

But Vincent Giordano, who is in charge of anti-drug education in the New York Schools, said that the city is likely to have to cut back in its anti-drug programs this year because of a sharp reduction in Federal financing for drug prevention. Federal money for the public schools, he said, will

drop to \$6 million from \$11.5 million in the 1994 fiscal year and funding for parochial schools will fall to \$2 million from \$4.5 million.

For the last two years, researchers at the University of Michigan have found a softening of attitudes against drugs among eighth graders as well as high school and college students nationwide. Along with the increased acceptance of drugs, the researchers, who have been charting drug habits among high school students for more than 25 years, have also noted an increase in the use of marijuana and LSD.

The survey in New York, conducted by Audits and Surveys Worldwide, one of the largest market research companies in the country, did not ask about drug use, but was limited to questions about the feelings of children in the second through the sixth grades about drugs and people who use them. It was commissioned by the Partnership for a Drug-Free America, a coalition of broadcasting, publishing and advertising organizations.

In the survey, the highest percentage of children, in the 80's range, said they had learned about the harm of drugs from school and their parents and grandparents. But the source of information that showed the greatest rise in influence over the year was the Partnership's television commercials. Seventy percent of the children cited them as a source in the latest survey, as against 66 percent in the first round of questioning.

A new series of advertisements, begun about a year ago and put together by 30 advertising agencies, consists of brief vignettes of city life, showing young people as they make their way through drug-infested neighborhoods. Time after time they turn away from drugs and the life style of drug dealers.

Though the children surveyed in New York were younger than those in the Michigan studies, Dr. Lloyd Johnston, the chief researcher for the Michigan group, said it seemed "reasonable to assume that similar changes would have been occurring in New York City."

A major factor in the difference in New York, he said, was the television commercials produced by the Partnership for a Drug Free America.

But he said he thought young people in New York City were perhaps more receptive to the television messages than they might be elsewhere because of the strong anti-drug programs in the schools.

In most school systems around the country, Mr. Johnston said, anti-drug education is offered to students at one particular grade during their school career.

But Mr. Giordano said that in New York, classes warning of the hazards

of drugs begin in kindergarten and run through the senior year.

During the school year, he said, each of the roughly one million public school students in the city get six to eight anti-drug classes running 45 minutes apiece. In addition, he said, there are group and individual counseling sessions for students who have been experimenting with drugs or doing things like skipping school and disrupting classes that have proven to be predictors of drug use. Some schools, he said, also have after-school programs in sports and the arts that seek to fill the time that might otherwise be filled with drugs.

The New York City Police Department also sends police officers into the schools to lecture against drugs and offered eight-week courses in 29 of the city's 32 school districts last year.

The Board of Education started its program 22 years ago, Mr. Giordano said. And the police department program was started in 1984, under then Police Commissioner Benjamin Ward.

"To be effective," Mr. Giordano said, "the drug prevention message has to be repetitive and consistent."

He said the new series of commercials by the Partnership for a Drug Free America as well as earlier films and posters they had provided to the schools, worked perfectly to reinforce the message being propagated in the classroom.

# New York Newsday

EDITION

## City Teens Buck National Drug Trend

By Raja Mishra

STAFF WRITER

City teens are doing more than just saying "no." They're becoming more intolerant of drug dealers and users, a survey released yesterday shows.

The survey, conducted by the Partnership for a Drug-Free America, interviewed 15,000 New York kids, half in 1992, half in 1993. The latter batch showed a stronger tendency to perceive drugs and drug dealers in a negative light.

These results are peculiar when compared with a national trend of softening antidrug attitudes and rising teen drug use. The partnership's researchers believe that a citywide TV, print and radio ad campaign could be credited.

"It reaches inner city kids in a style and language they can understand," said Ginna Marston, director for research and strategic development for the partnership.

Psychologists tailored the ad campaign to three

age groups: 6- to 8-year-olds pre-teens and young teens.

Elba Clark-Daniels, this year's valedictorian of JHS 269 in Brooklyn, starred in a new ad.

"My cousin used to deal because his friends did, but now he's in jail," she said, though still skeptical about the ads. "... For some of my friends, it doesn't matter how many commercials they see because their friends influence them. For some of them, it's just in one ear and out the other."

# Advertising Age

July 11, 1994

## Helping stem drug use

Partnership's ads show influence on urban kids

By Rachel Rosenthal

NEW YORK—Inner-city drug use is on the decline, and the Partnership for a Drug-Free America says its award-winning anti-drug campaign is one reason why.

A survey conducted for the non-profit group shows that in a year's time, the campaign's 30 ads helped increase awareness of risks of drug use, deglamorize the image of drug dealers and improve drug-resistance skills among children and preteens in New York.

The partnership's Inner City Initiative began in September 1992 and is still running. A number of agencies created ads for the campaign, broadcast in both English and Spanish.

"The research has national implications and tells us that advertising has a key role to play in reaching kids who are at risk in America," said Steve Dnistrian, VP of the partnership. "It also tells us that advertising can make a difference in educating kids about drugs.

The partnership is best known for its "This is Your Brain on Drugs" TV spot, featuring an egg frying in a pan. That commercial, however, wasn't part of its inner-city work.

The \$100,000 survey, conducted at cost by Audits & Surveys, monitored attitudes toward drug use



Two spots—"Who Wants" and "Long Way Home"—brought the Grand Effie award to the Partnership for a Drug-Free America.

before the campaign's kickoff and a year after. It was conducted using anonymous questionnaires developed with help from a child psychologist.

Audits & Surveys interviewed

7,288 New York elementary school children for the survey in 1992 and 8,319 more during the follow-up research late last year.

In the two-part survey, the number who said they "might want to try drugs" fell 29%; those who said doing drugs would make them more "cool" dropped 17%; and the number who said doing drugs would make them feel poorly about themselves increased 6%.

The margin of error is 3 percentage points.

Ginna Marston, exec VP-director of research and strategic development at the partnership, said the campaign, featuring real children, met the Inner City Initiative's goals: to bolster individual resistance, diminish the allure of drug-dealing and offer positive alternatives to drug use.

In fact, this year the partnership's ad effort was the first public service campaign to be honored with the Grand Effie, the prestigious annual award for advertising effectiveness given by the New York chapter of the American Marketing Association.

The spots that captured the award were "Who Wants," created by Burrell Communications Group, Chicago, and "Long Way Home," by Goodby, Silverstein & Partners, San Francisco. □

# The Sunday Oregonian

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JULY 10, 1994

## Renew anti-drug work

**W**hen kids think a drug is risky, their willingness to use it goes down. The University of Michigan, which tracks high school seniors and their drug use, noted a striking trend in the late 1980s and early 1990s. As more kids perceived marijuana as a risky drug, the numbers who used it regularly went down, to a low of 11.9 percent in 1992.

But the 1993 figures showed an alarming change. For the first time in eight years regular use of marijuana went up, and the risk 12th-graders associated with it went down.

Those trends are more than just lines on a graph. They are arrows pointing to the need for government, educators, community leaders, the media and parents to renew their commitment to the anti-drug campaign.

As anti-drug messages have faded from the headlines, drug use has crept back up. The Partnership for a Drug Free America, the people who created the ad that used frying eggs to symbol-

ize drug use, tracked the number of drug stories on network news shows. They fell from 518 in 1989 to 66 in 1993.

Stephen D. Dnistrian, vice president for the partnership, told The Oregonian that its analysts see a direct correlation between media exposure of anti-drug messages and drug use. They worry because they see programming with anti-drug messages, such as the story line in which a "Beverly Hills 90210" regular gets hooked on drugs, being replaced by more accepting attitudes about drugs, as in a recent "Roseanne" episode in which Roseanne and Dan smoke a joint.

Effective education and public awareness can change the way people — even teen-agers — look at drugs. The drop in drug use during the 1980s proves it.

But those attitudes need constant reshaping. The media, teachers and especially parents must continue to reinforce the anti-drug message. Too much has been gained to let teen-agers again put their brains back in the frying pan.

# Chicago Tribune

Tuesday, June 14, 1994

## Unselling drugs

Ads make a dent in kids' attitudes

By Nancy Millman  
SPECIAL TO THE TRIBUNE

### Advertising

**A** sad truth about urban life today is that although most kids are anti-drug in their attitudes, they are afraid their environments make them more vulnerable to falling into drug use, and they say they're made to feel awkward about their anti-drug resolve.

That is a sampling of findings in a study of 7,000 New York City school children as young as 2nd grade that laid the foundation for a national ad campaign to fight drug use among inner-city kids.

Talking to this group about drugs is different from addressing the general market, says Steve Dnistrian, spokesman for Partnership for a Drug Free America. "We don't need to teach kids about the dangers of drugs. They see that every day," he said.

Last week the partnership, an 8-year-old pro bono coalition of ad agencies and media companies, won the top award from the American Marketing Association for 1993 advertising that demonstrated effectiveness in achieving its marketing goals. One of the winning commercials was created by Chicago's Burrell Advertising, which specializes in communications to black audiences. The other spot was by Goodby, Silverstein & Partners in San Francisco.

If advertising can work to sell

products, it can work just as well to unsell them, the partnership believes. The strategy for unselling urban children on drugs revolves around several elements: de-glamorizing the role of drugs and the drug dealer, increasing the perception of risk, building self-esteem and increasing social disapproval of peers who use drugs.

Burrell's commercial, a variation on Nancy Reagan's "Just say no," demonstrated that there are lots of ways to tell people offering drugs to buzz off. One crucial element, says Burrell, senior art director Ed Zimkus, is to "be sure that it feels real to the kids."

The spot shows city kids rebuffing drug dealers in school and on the street, and ends with a rejected young pusher alone on a rooftop. Interspersed are fuzzy, black-and-white back-alley scenes of drug transactions, made to look scary and undesirable.

Last fall, after the commercials had run for about a year, a second New York study took place to measure the effectiveness of the advertising, all of which runs as public-service announcements at the discretion of the media. The results will be released next month, but Dnistrian disclosed a few examples of improvement the group believes are attributable to advertising:



One of the fuzzy images in the Burrell Communications Groups' anti-drug spot aimed at kids who perceive drug dealing as glamorous.

■ The number of 4th and 5th graders who believed drug dealers had many friends declined from 22 percent before the ads to 18 percent after.

■ The number of 2nd and 3rd graders afraid they would be persuaded to try drugs dropped from 18 percent to 15 percent.

■ 82 percent of 4th and 6th graders said they would walk away from drug dealers after they saw the ads, compared to 78 percent before.

Since the Partnership for a Drug Free America was launched, it has garnered much support from media companies, averaging at its peak in 1990 \$1 million a day in free media time and space to run its messages. That number has declined in recent years to about \$840,000 a day, or

nearly \$307 million a year, just below what Coca-Cola Co. spends.

During the same period, regular drug use in the U.S. declined by 50 percent, according to National Institute for Drug Abuse figures.

The partnership thinks it has played a contributing role.

"When our media weight started to decline as other things vied for public-service attention, two key drug attitudes started to decline as well," Dnistrian said. Studies showed less of a perception of risk and lower social-disapproval attitudes for drug use.

The latest figures from the drug-abuse institute reflect an "uptick in adolescent drug use," he said. "When kids see drugs as not dangerous and hip, they're gonna use."

# The Record

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May 9, 1994

## Teen drug use rising

**W**ITHOUT much public attention, there appears to be a slow but dangerous increase in the acceptance by teenagers of the use of illegal drugs. At least one national organization established to combat drug use attributes the change to a lessening of media attention to the dangers of drug use.

In the wake of the arrest last week of five Leonia students on marijuana-related charges, Bergen County Prosecutor John Fahy voiced belief that students today can easily get drugs in any school in his county. Passaic County Prosecutor Ronald Fava said that following a decrease in drug use by teens from 1985 to 1992, "we have lost some of those gains. I don't think we are better off than we were two years ago."

The research seems to back him up. A February study of 51,000 high school and 8th-grade students by the National Institute on Drug Abuse indicates they believe ex-

perimenting with drugs is not dangerous. And the national organization, Partnership for a Drug-Free America, has released a poll showing that marijuana use among 8th-, 10th-, and 12th-grade students across the nation rose from 11.9 percent to 15.5 percent from mid-1992 to mid-1993. Before 1992, marijuana use among these age groups had been dropping sharply.

What's causing the change? Nobody can say for sure, but the Partnership sees a direct correlation between the decrease of media attention to drugs' dangers and a growing acceptance among teenagers of drug use. For example, the Partnership says that network television in 1989 carried 518 stories about the perils of drug use, compared with 66 stories in 1993.

One thing we know for sure: The increase of drug use among teenagers is cause for concern. School officials, teenagers, and especially parents need to be vigilant.

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**The dangers  
of drugs are  
downplayed.**

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# The Dallas Morning News

May 20, 1994

## We need that fried egg again; drug abuse hasn't gone away

The Eastern Market on Capitol Hill is a great gathering place for the diverse crowds that make Washington, D.C., so interesting.

The outdoor marketplace and the historic buildings off Constitution Avenue attract thousands of visitors each weekend. Some come in polo shirts and khaki shorts with their faithful golden retrievers at their sides. Others are there in flowing African robes and sandals looking for rare herbs and vegetables that aren't readily available elsewhere.

The whole setting has such a peaceful feeling that you almost expect people to lock arms and sing a few verses of "We Are the World." Fortunately, they don't.

But in the midst of this happy throng at the Eastern Market one recent weekend were a couple of college age kids selling T-shirts. Emblazoned on the front of the shirts was the slogan, "Just say N2O."

The word play on Nancy Reagan's anti-drug campaign a decade ago was clever. These young entrepreneurs had found a legal way to tap into one of America's popular highs — nitrous oxide.

For those who don't keep a running glossary on drugs of choice, nitrous oxide is a non-flammable gas often used as an anesthetic. The high from inhaling nitrous oxide comes from making the heart beat irregularly. The low comes from dying when an overdose of the gas causes cardiac arrest.

As many as 60 young people in the United States died last year from taking too strong a blast from various inhalants, according to the International Institute for Inhalant Abuse.

But those statistics are a little too gloomy for a sunny day at Eastern Market. So the T-shirts kept selling amidst all of fresh vegetables, carved figurines and handmade jewelry.

The message in this tranquil setting seemed all too clear to me: Drugs are fun again. It's all right to make jokes about them. We're tired of worrying about this problem.

Unfortunately, my suspicions have been confirmed by the Partnership for a Drug-Free America. The partnership reported a sharp increase in the use of marijuana, LSD, stimulants and inhalants among high-school students. A steady downward trend in teen drug usage turned around in 1991 and has continued to rise.

At the same time, the prominent anti-drug campaign by the Partnership for a Drug-Free America has become more and more difficult to find during the 1990s.

Remember those ads where the brain of someone

### HENRY TATUM

on drugs was compared to an egg frying in a skillet? At one time, it seemed you couldn't turn on the TV without seeing that vivid image. Now, the ads are rarely seen.

That's because the number of the partnership's ads broadcast on network television has declined by 20 percent since 1990. The organization's dependency on the kindness of the networks has proved to be costly.

With so many other major events happening, the TV networks no longer seem to be as interested in providing public service announcement time for downer ads about drugs and their impact.

"The fact that kids across the country are not seeing as many of our ads is not the sole reason that drug use is up," said partnership chairman James E. Burke. "But it's certainly a contributing factor."

The Partnership for a Drug-Free America and other organizations also are concerned that there has been a major decrease in drug-related stories on the ABC, CBS and NBC evening news. Since 1989, there has been an 83 percent decline in network news coverage of the drug issue, according to the Center for Media and Public Affairs, a private monitoring group.

Five years ago, the Bush administration's war on drugs was receiving front-page coverage. Today, public attention is focused elsewhere. The drug war moved to the back burner during the Persian Gulf conflict and never regained the prominent position it once enjoyed.

So, the folks at the Partnership for a Drug-Free America aren't really going to be surprised when they hear that T-shirts promoting nitrous oxide are selling well in a popular Washington marketplace.

What has to be shattering, however, is this nation's refusal to face up to such an all encompassing dilemma. People would rather think about something else rather than think about drugs.

As long as that attitude prevails, enterprising merchants will continue to find ways to make jokes about familiar anti-drug slogans. And teenagers will continue to die laughing.

*Tatum is an associate editorial page editor of The Dallas Morning News.*



## OPINION USA

"USA TODAY hopes to serve as a forum for better understanding and unity to help make the USA truly one nation."

—Allen H. Neuharth  
Founder, Sept. 15, 1982



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**Thomas Curley**  
President and Publisher

# Black teens are leaders in saying no to drugs, cigarettes

Want to teach society how to stop using illegal drugs, alcohol and tobacco?

Then study young, inner-city blacks. They are leading a trend of declining drug use.

Major studies show they have the lowest rates of use for virtually all drugs — licit and illicit. The trend, hailed as a public health success, is also one of the nation's best-kept secrets. "We are studying young blacks' behavior for clues to helping others kick their bad habits," says Gary Giovino, chief of epidemiology for the U.S. Office on Smoking and Health.

While this image of black youth as disciplined non-drug users runs counter to head-



**BARBARA REYNOLDS**  
COLUMNIST

lines and TV reports, look at the facts.

► Smoking: In 1976, about 38% of both white and black

high school seniors smoked; in 1992, about 32% of white seniors smoked, but only 8.2% of blacks, says last week's U.S. Surgeon General's Report.

► Cocaine and crack. In 1986, 13.5% of white seniors used coke, compared to 5.8% of blacks. Now 0.8% of black seniors use, compared to 3.1% of whites, says Partnership for a Drug-Free America.

► Alcohol: About 32% of white seniors are heavy drinkers, compared to 11% of black seniors, says the University of Michigan's Monitoring the Future Project.

These low numbers hold despite higher black school dropout rates. The smoking decline comes amid intense

cigarette ads in black areas and as more inner-city stores illegally sell loose cigarettes, a subject in the Feb. 25 issue of *The Journal of the American Medical Association*.

"It's tragic to put a black face on drugs instead of studying the increases among middle-class whites. As long as it's seen as a black problem, it will never be solved. We need to learn from blacks how they are making so many right choices," says Tom Hedrick, president of Partnership for a Drug-Free America.

What explains this spectacular trend?

On smoking, experts cite rising cigarette costs, anti-smoking ads and a pro-health

attitude. On drugs, they cite ads, such as the one equating drug use with frying your brain, and a heightened awareness of the risks of drugs and resulting violence in the inner city.

Another strong factor, researchers say, is that black youth are more committed to religion and more likely to belong to strict fundamentalist denominations. "Ministers preaching against drugs and putting in anti-drug programs shouldn't stop. It's working," says John Wallace, a University of Michigan sociologist.

Isn't it strange that bad news about black youth travels fast, but good news barely crawls?



LEFT: SKOOG FORBES - WOODFIN CAMP

**Staying clean:** Hastings with son Alex, 7, and daughter Kenyatta

# Good News on Drugs From the Inner City

**Crack Wars:** Amid the ravages of addiction, black kids and teens are turning off, not on

BY CARROLL BOGERT

**J**ESSIE HASTINGS FIGURES THERE'S something wrong with her family. She says her mother, father and one sister have all been on drugs. Her other sister was, too, until she went through a crack-rehab program a couple of years ago. Jessie, 26, has been clean for a few years. She lives on welfare in southwest Philadelphia with her boyfriend and her five children. Is there any hope, in this violent, crack-infested neighborhood, that her kids won't become addicts too? Surprisingly, yes. Jessie's eldest daughter, Kenyatta, 8, swears that she'll never touch drugs. "They're dangerous," she says emphatically. "They can kill you." Her grade school has regular drug-prevention classes—something Jessie never had, though she says. "I wish I did."

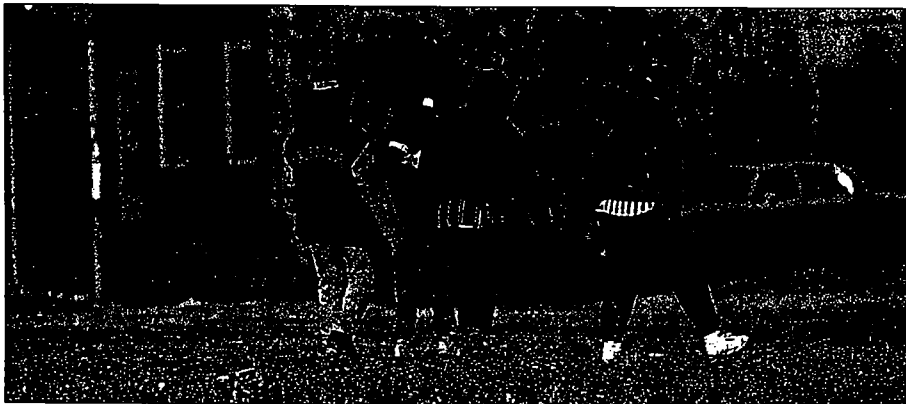
In its stereotype of the desolate inner city, the public has overlooked one stunning fact: black teenagers, who have seen the horrors of addiction firsthand, are using drugs less now than they did two decades ago (when the major surveys began). What's more, proportionately fewer black

teenagers use drugs than do whites or Hispanics. They're at least 20 percent less likely to use cocaine or marijuana than whites, and for some groups 80 percent less likely. Last week the University of Michigan's Monitoring the Future survey released 1993 figures showing that marijuana, LSD and amphetamine use is creeping up again among high-school students (chart) after a long decline. That's reason for concern. But it shouldn't obscure the good news: although hundreds of thousands of people are still using crack, relatively few of them are young people. "I don't know hardly anybody my age who does crack," says Twanda Sadler, 17, of north Philadelphia. "You just don't see it."

One thing above all has persuaded these kids not to get involved in crack: bitter experience. Crack use leaped upward in the mid-1980s, and many of its early converts have teenage children now. They have the wisdom of firsthand observation. "I see this stuff all the time," says Herbie, 17, whose father was addicted and whose west Philadelphia neighborhood is loaded



PHOTOS BY LEIF SKOOGFÖRS - WOODFIN CAMP



**'Don't die':**  
Ama Jones  
vows not  
to do crack,  
kids try to  
steer clear of  
dealers  
and users

"Pray," says one. "Write poetry," says another. One girl says her family was evicted from their house because her mother spent the rent money on drugs. "The main thing you can do is talk about it," she says. But Rubin knows she's missing a lot of the kids who need her most: "The kids who do drugs don't come to school, because they can't function." Overbrook High School has 3,000 kids. A dozen or so visit Rubin.

**Who's selling:** Ghetto kids know their neighborhoods intimately—partly because they have so few opportunities to leave them. They know who's buying and who's selling, and on which street corners. They see younger kids selling to older users. They know the dealers are not always using drugs themselves (they need to keep their heads clear for business). But children frequently overreport the amount of drug use in their own neighborhoods and schools, probably because they feel so overwhelmed by it. Even if statistics show that crack use is not spreading to younger kids, the neighborhood is still full of the drug, and more violent than ever. "In the past few years, some people I know have gotten killed," says Jason Turner, 21, of north Philadelphia. "So it's hard to say things have gotten better."

Moniya Chambers, a middle schooler in north Philly, asked why she doesn't use drugs when so many people around her do, readily answers, "I think I'm too im-

portant." Someone has clearly taught her that answer. Unfortunately, as she and her peers get older, other influences may be more powerful. Many kids report that it's possible to refuse drugs and still be considered "cool" in school. Still, drug dealers have more money than anyone else in sight. With the black family disintegrating, and with older drug users depending on younger suppliers, teenage dealers wield often unchecked authority in the neighborhood. Standing up to them takes more than an earnest desire to say "no" to drugs. But some kids have the mettle. "The whole point is that you don't want to get into those things that hold you back," says Theresa, whose alcoholic mother tried to rip up her college applications because she didn't want to "be lonely." Theresa went ahead and applied; she's going to college in the fall. ■

with crack houses and crackheads. "That's exactly why I would never do it," Ama Jones, a 13-year-old in north Philly, says crack addicts "look terrible. I don't want to look like that." Larry, 15, admits to smoking some marijuana, but he would never try crack: "Your face gets all sucked in and you look like a zombie."

Some kids even help get their own parents off drugs. Christina, 16, told her crack-addict mother, "If you want me back, you've got to clean yourself up." Her mother is in a treatment program now, and Christina is living with her grandmother. Ed Cox Jr., a drug-prevention counselor in the Ferguson Elementary School in north Philly, says some of his kids go home and say to their parents, "Mr. Cox says you shouldn't be doing that." Not all parents take kindly to the message, of course, and Cox has to be politic. "I tell the kids, 'Just because someone in your family does it doesn't make it all right.'"

**Empty vials:** In Philadelphia's tough black neighborhoods, the anti-drug message starts in kindergarten. When Cox asks a class of 21 first graders, "How many people here have seen a cap?" every hand in the room goes up; streets around the school are littered with these empty crack vials. "Do we pick these up?" asks Cox. The class shouts back in unison, their voices shrill with childish disdain, "No!" Cox advises visitors, when leaving the school, to avoid one side street where the dealers hang out. Is that the kind of thing he tells his kids? "No, that's the kind of thing they tell me."

The propaganda is everywhere. Neighborhood community centers are "drug-free zones"—and kids generally don't bring drugs onto the premises. Black ministers

preach against drugs (though many complain that the powerful black church is "behind the curve" on the drug issue, since few congregations sponsor their own drug-prevention programs). TV commercials urge kids, "Don't do drugs. Don't die and go away." Some kids dismiss the ads as "corny," but studies show that nearly three quarters of black eighth and 10th graders nationwide have seen them. "That's incredibly high recall," says Ginna Marston of the Partnership for a Drug-Free America, which produces the ads. "It's in the same category as major advertisers like McDonald's or Nike."

Still, by high school the bathrooms are beginning to stink of marijuana smoke. Listening to counselor Sheila Rubin lead a role-playing session at Overbrook High in west Philly, you hear the usual litany of inner-city woes: broken homes, addicted parents, empty lives. One boy acts out his father: "What's wrong with you, boy, don't you know how to say hello?" A girl plays her mother: "Why are you always standing there looking so dumb?" Rubin asks the kids what they can do about all the anger in their homes.

## Teens on Drugs

Blacks report the lowest drug use among teenagers. The news about teens in general, though, is not good. After more than a decade of decline, the popularity of drugs—particularly marijuana—is on the rise.

### Teenage Annual Drug Use

|                   | IN PERCENT |      |        |
|-------------------|------------|------|--------|
| Alcohol           | 1992       | 1993 | change |
| 8th grade         | 53.7       | 51.6 | -2.1   |
| 10th grade        | 70.2       | 69.3 | -0.9   |
| 12th grade        | 76.8       | 76.0 | -0.8   |
| LSD               |            |      |        |
| 8th grade         | 2.1        | 2.3  | +0.2   |
| 10th grade        | 4.0        | 4.2  | +0.2   |
| 12th grade        | 5.6        | 6.8  | +1.2   |
| Marijuana/Hashish |            |      |        |
| 8th grade         | 7.2        | 9.2  | +2.0   |
| 10th grade        | 15.2       | 19.2 | +4.0   |
| 12th grade        | 21.9       | 26.0 | +4.1   |
| "Uppers"          |            |      |        |
| 8th grade         | 6.5        | 7.2  | +0.7   |
| 10th grade        | 8.2        | 9.6  | +1.4   |
| 12th grade        | 7.1        | 8.4  | +1.3   |

SOURCE: MONITORING THE FUTURE STUDY, THE UNIVERSITY OF MICHIGAN

# The Power to Change What's 'Cool'

**F**ORGET BLABBY STATE TROOPERS AND RAZORBACK S&L operators in hot pants. The ultimate rim shot for Leno, Letterman and the rest is the United States government trying to be hip about sex. The new radio and TV public-service announcements (PSA) on condoms constitute a Full-Employment Act for Talk Show Hosts. If the debut is any indication, it's the feds who should be using some protection. One of the first spots announced and quickly withdrawn last week by the Centers for Disease Control and Prevention featured a rock star—Anthony Kiedis of the Red Hot Chili Peppers—who turned out to have once been convicted of indecent exposure and sexual battery. Another radio spot, in which a condom is noisily placed over a microphone, is a ripoff of a parody originated by Rush Limbaugh, the noted anti-condomite. It's a long way from "Don't Be a Litterbug."

The problem with all the snickering is not just that 200,000 Americans have already died of AIDS, but that unlike so many government programs, these ads—which also preach abstinence—may actually save lives. And even if they don't sharply change behavior among gay men and IV drug users (the main at-risk groups), they will likely help curb other sexually transmitted diseases and unwanted pregnancies. Because Republican administrations were so afraid of condom campaigns, the evidence isn't in yet here. But look at Africa, where nonprofit groups are entering the war against AIDS. According to the Washington-based Population Services International, 900,000 condoms were sold in Zaire in 1988. By 1991, with condom ads on TV, that number had reached 18 million, a twentyfold increase in three years.

If anything, Americans are more susceptible than Zairians to media-induced behavior modification, especially the at-risk kids who—conveniently enough—watch a disproportionate share of television. In recent years, attitudes toward smoking, drugs and drunk driving have changed more quickly in the United States than anywhere. Obviously, the words and pictures on the air must be complemented by organizational commitment on the ground. The press must be willing to set aside its world-weariness and join the crusade. And the country must be ready to hear the message, or it won't get through. But the potential of well-crafted media campaigns to blast huge holes in social problems is seriously underappreciated.

Perhaps the best-known model is the transformation of smoking behavior. It's easy to forget just how acceptable cigarettes were throughout the culture until the 1960s. Now it's a furtive habit. Television and Hollywood do their part, with only newspapers and magazine ads (including those in *NEWSWEEK*) still playing the glamour game. Even accounting for slow progress among the

young, the basic change is striking. We've gone from a country where roughly half of all adults smoked to one where less than a third do.

One of the great untold success stories of recent years is the effect of a huge, coordinated media campaign on the use of illegal drugs. Between 1985 and 1992, the number of Americans who regularly used drugs declined 50 percent, from 23 million to 11.4 million. Drug use among blacks is down 58 percent. Many factors contributed to the decline, including the sudden death of basketball star Len Bias in 1986. But public-service ads created and placed by the Partnership for a Drug-Free America clearly made a huge difference, not so much for the roughly 6 million hard-core drug users as for young recreational users influenced by definitions of what's cool.

The same is true of the "designated driver" campaign, which had little impact on alcoholics but proved tremendously successful overall. Since 1989, alcohol-related auto deaths are down a full 25 percent, after staying flat for a few years. (A raise in the drinking age in many states was also a large factor.) Unlike the traditional Ad Council PSAs, which are routinely pre-empted on local stations, the network ads on drunk driving were carried in prime time and widely absorbed. So were the designated-driver themes inserted in popular TV sitcoms. The challenge now, says Jay Winsten, director of the Center for Health Communication at the Harvard School of Public Health

(which spearheaded the campaign), is sustaining the success. As the anti-drug activists also find, when the campaign becomes old news, the bad numbers inch up again.

That's the real issue facing the media this year on violence. How to keep the momentum of outrage from fading? Daily or weekly death tolls in newspapers and TV newscasts are one way to institutionalize the crusade, just as Walter Cronkite once kept the Iranian hostage crisis front and center with a nightly sign-off ("The 346th day of captivity for the American hostages . . ."). On another level, Winsten is now planning a designated-driver-style campaign against violence, complete with a new slogan inserted in ads and sitcoms. It's a good bet that a couple of years from now we'll look back on the "Squash It!" campaign as a major contributor to reduced teen violence. ("Squash it!" is apparently the latest street lingo for backing away from potentially violent disputes—sort of the "chill out" of the '90s.)

After attacking violence (even the verbs are tricky on this one), the nonprofits, the media and the government should move on to teen pregnancy, the root of so many other social pathologies. Then: stop. Or public-service media campaigns, tremendously valuable if tightly focused, will expand to the whole litany of social causes and become a real joke, instead of just an easy one.



Condom ad: Powerful—despite the jokes

# Partnership for a Drug-Free America

"CAFETERIA" :30

DEAA-1954



KIDS VO: I look different...



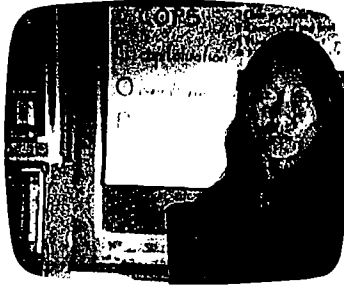
I wish people



liked me more.



Why do I have to be like this?



Why do I have to be like this?



Strange...



I have these thoughts. Wish I were...



Taller.



Cooler. Stronger.



Everybody else gets high.



I just don't want to.



I think a lot of kids smoke pot.



I feel like...



I'm the only one who doesn't.



Why do I have to be so...



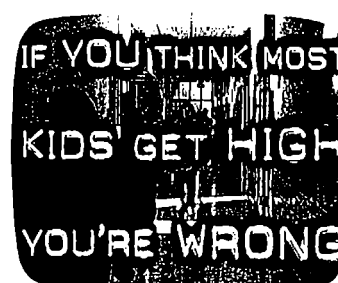
Different.



Different.



Different.



(MUSIC)

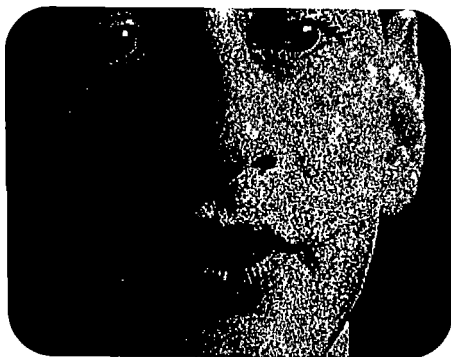


Partnership for a Drug-Free America  
Maybe we're not as different as we think.

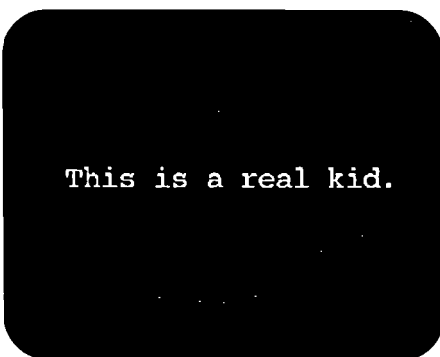
# Partnership for a Drug-Free America

"RUSSELL/ALONE" :30

DEAA-2015



RUSSELL: I burnt myself out on marijuana.



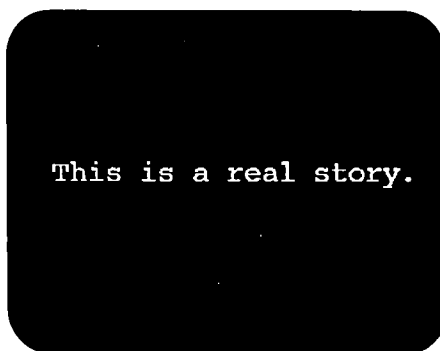
I took a wood burning kit which is similar to a soldering iron



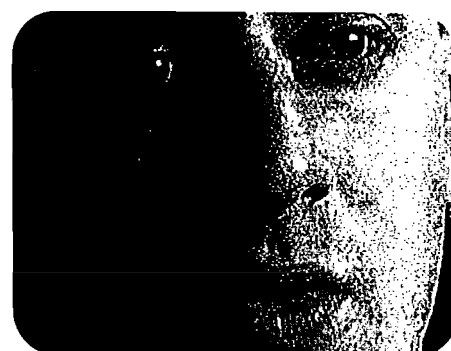
and I burned the word "alone" into my arm.



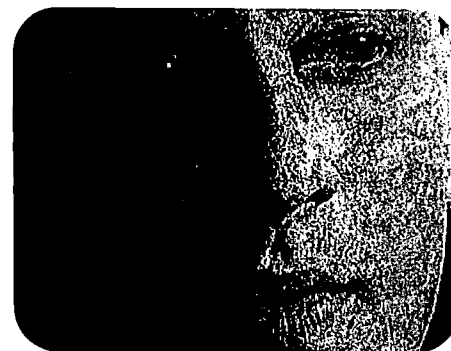
Part of me wanted to die because if I imagined that if I were dead—



I could somehow see



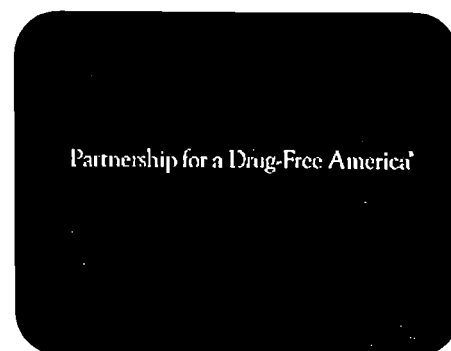
out of my casket anybody who was at my funeral—



if anybody was crying, who was there.



That's how sick I was.

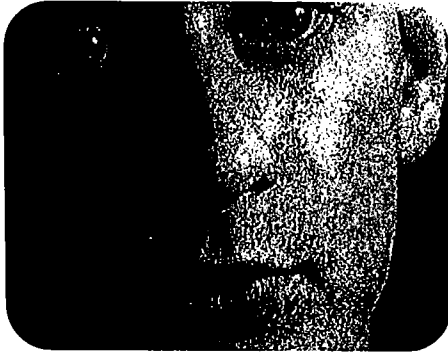


That's how lonely I felt.

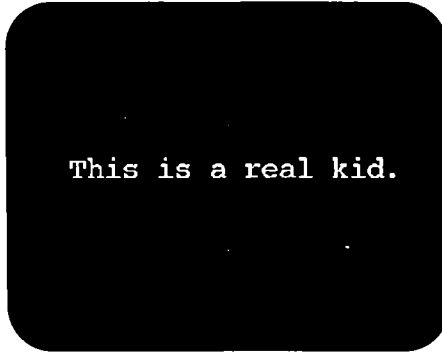
# Partnership for a Drug-Free America

"RUSSELL/KICKED OUT" :30

DEAA-2115



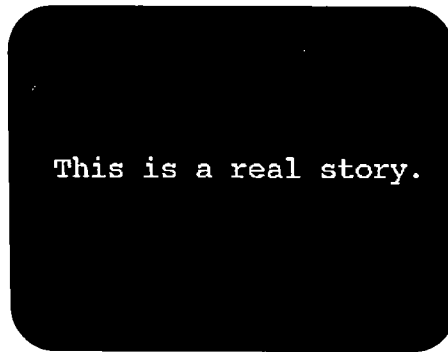
RUSSELL: Marijuana got me kicked out of my house.



My mother overheard a phone conversation and threw me out of the house.



She constantly asked me, 'Russell, what's wrong?'



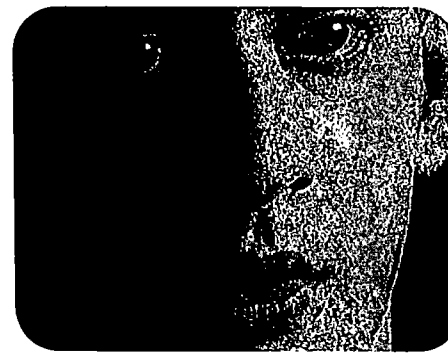
What's the matter with you.



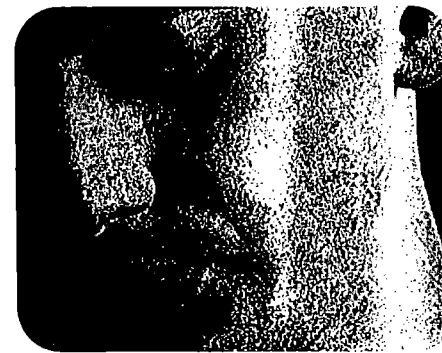
Stop getting high. That's what's the matter with you.



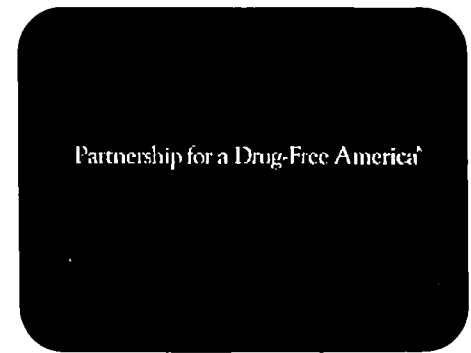
Stop hanging out with those losers. That's what's the matter with you.



Go to school, maybe you'll feel better.'



Of course, I didn't listen to her

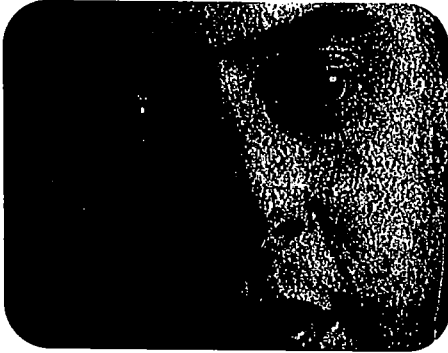


and I regret it.

# Partnership for a Drug-Free America

"RUSSELL/GUITAR" :30

DEAA-2035



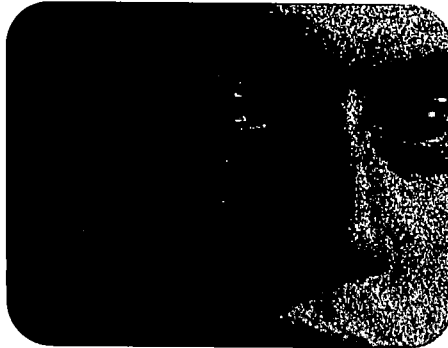
RUSSELL: I loved marijuana

This is a real kid.

and I did it every day and every night, all day and all night.



I was a musician and I swore to myself that I would never sell



any of my musical equipment and my guitar equipment, my studio equipment

This is a real story.

-I would never sell that for anything.



And when I was in Sam Ash on Route 4 in Jersey, selling, hocking guitar equipment



so I could cross the GWB and go into Manhattan



and cop marijuana,

Partnership for a Drug-Free America

I knew I had a problem.



# Partnership for a Drug-Free America

"ALEX/STRAIGHT 'A' STUDENT" :30

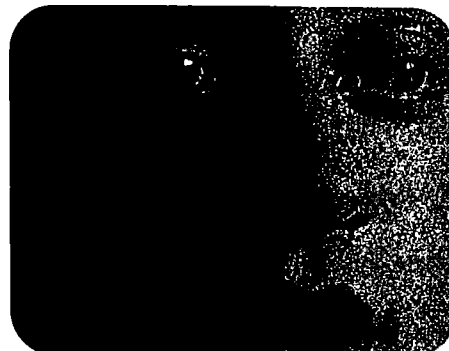
DEAA-2135

Marijuana cost me  
a lot of things.

ALEX: Marijuana cost me a lot of things.



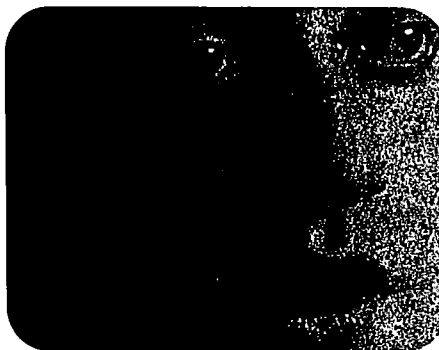
You know, I use to be a straight A student.



I was liked by all my neighbors, you know. I never really caused any trouble.

...I was always  
the good kid.

I was always a good kid. You know, I'm grown up. I was alright.



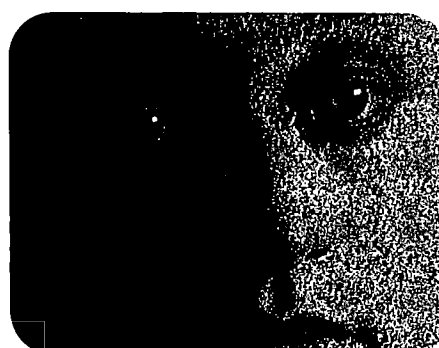
Before I knew it I was getting thrown out of my house.



It was crazy to think what really happened to me.



I was a good kid, straight A student.



The next thing I knew I was getting thrown out of my house.



Partnership for a Drug-Free America

You know, I just became a total loser.

# Partnership for a Drug-Free America

"ALEX / I'LL BE ALRIGHT" :30

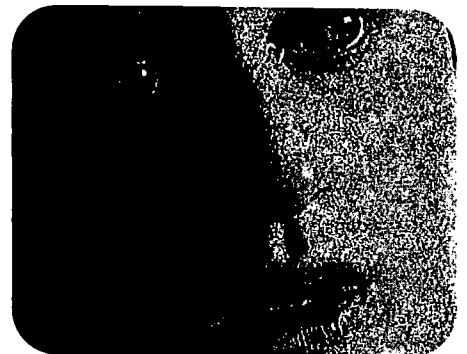
DEAA-2055

This is a real kid.

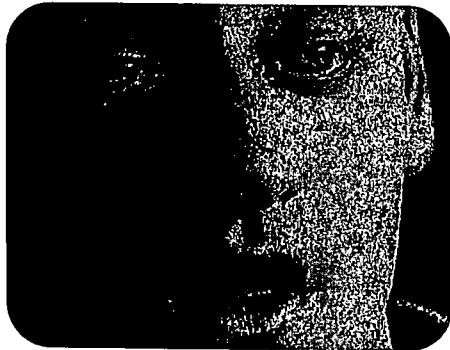
ALEX: I'll be alright. I just smoke a little weed here and there, you know.



I told her, "Mom, don't worry about it, I'll be okay."



I only smoke weed once in a while, you know."



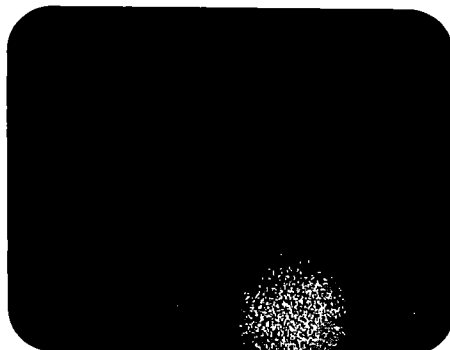
I told her, "Yeah, a lot of my friends, they're the problem ones, not me. I'm not like them, Ma."

This is a real story.

I just hang with them because they're cool."



I always thought that I wasn't as bad—I never thought



that I was just like them or be like them.



After a while I became just like, you know, them...

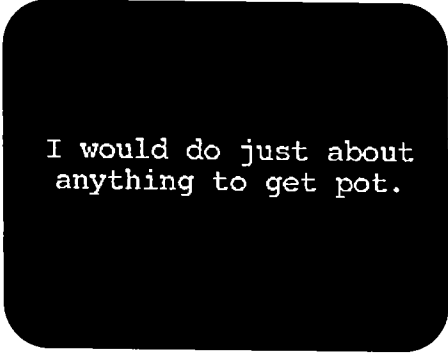
Partnership for a Drug-Free America

or worse.

# Partnership for a Drug-Free America

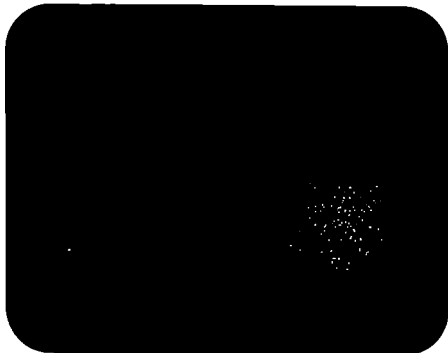
"ALEX/LIE TO HER FACE" :30

DEAA-2155

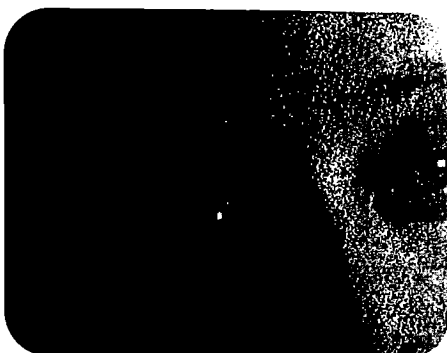


I would do just about  
anything to get pot.

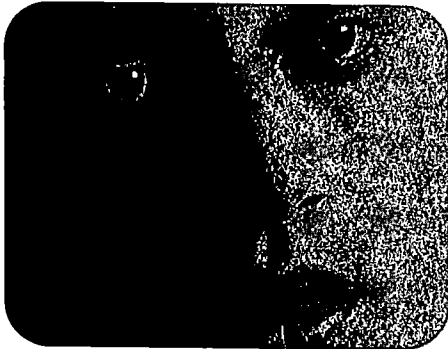
ALEX: I would do just about anything to get pot.



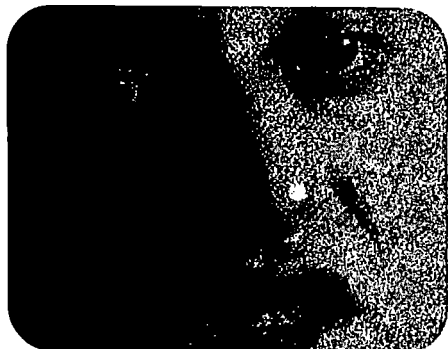
I stole jewelry from my Mom,



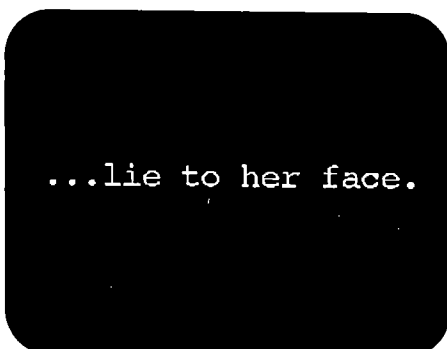
you know. Stole her money.



I was doing a lot of shop lifting, you know.

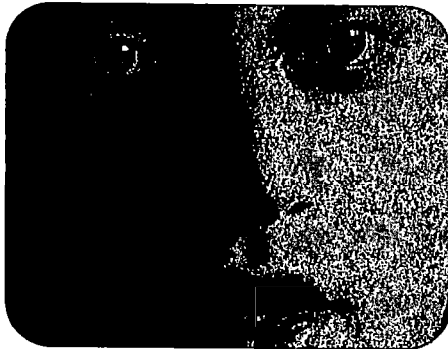


My Mom would just like, you know, "Where are you going today?" I would just lie to her, dead in her eye.

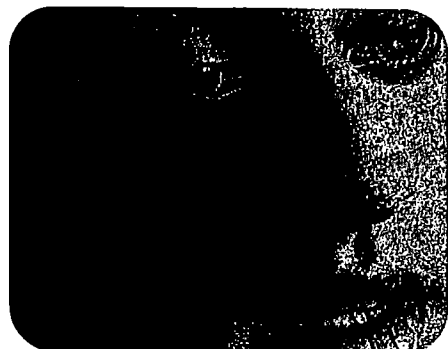


...lie to her face.

Lie to her face every day.



Came home one day from school and my bags were packed



and she said, "If you keep smoking, you're gone."

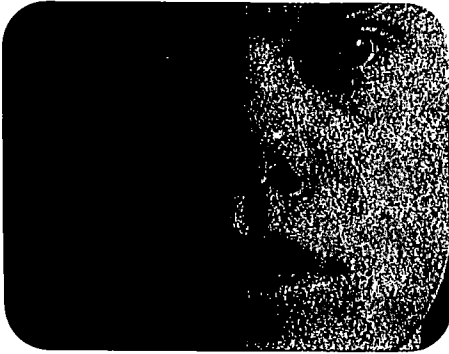


Partnership for a Drug-Free America

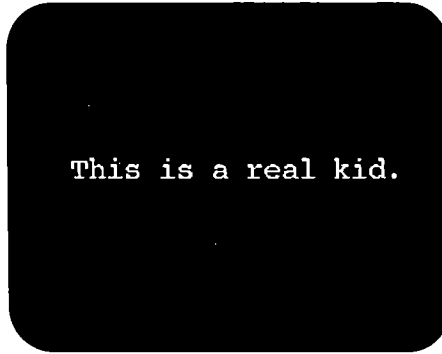
# Partnership for a Drug-Free America

"ROB/NEVER BE ME" :30

DEAA-2075

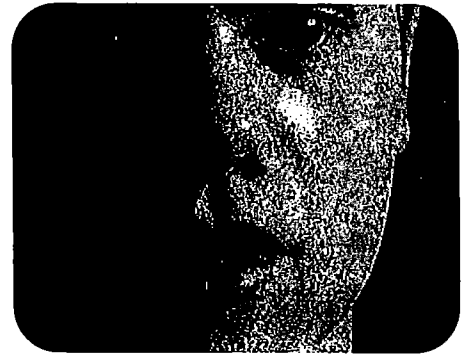


ROB: If I hadn't stopped smoking pot, right now I would probably be dead.

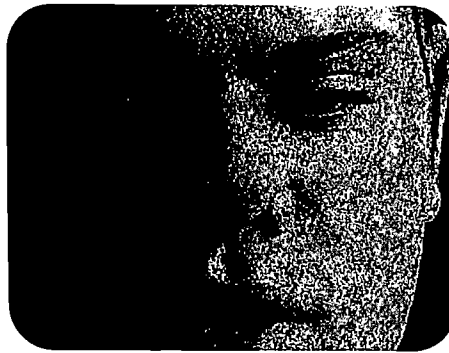


This is a real kid.

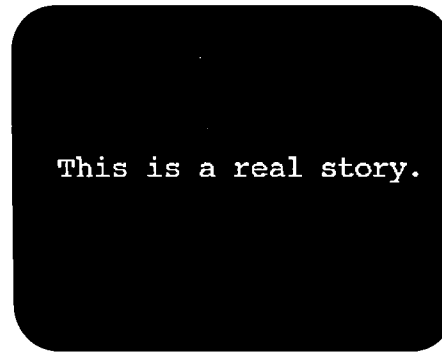
I was just like everyone else—I was a normal kid and I used to say,



"Pot is never going to do anything to me.

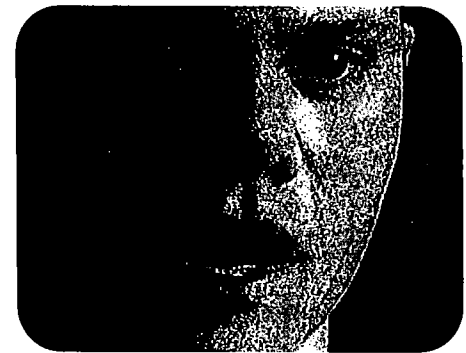


Or getting high isn't going to do anything to me I'm in control."

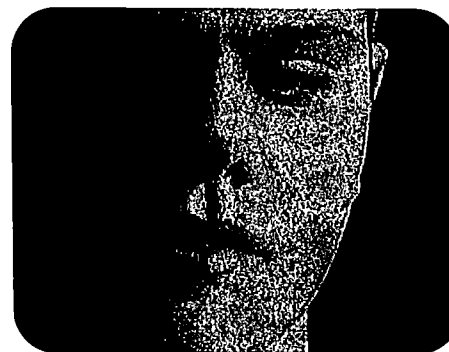


This is a real story.

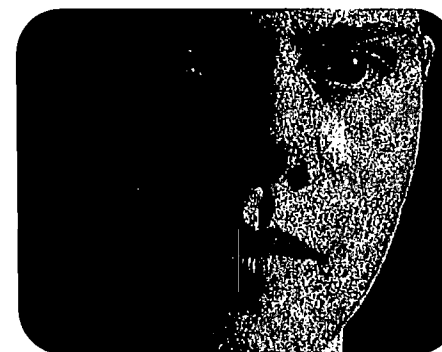
And you know I used to think I was a tough guy.



And I was just like everyone else.



I used to watch the commercials and say to myself, oh that will never be me, never be me, you know,



and it is me.



Partnership for a Drug-Free America

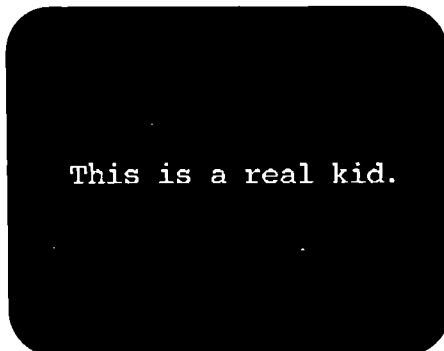
# Partnership for a Drug-Free America

"ROB/HOSPITAL" :30

DEAA-2175



ROB: If I hadn't stopped smoking pot, right now I'd probably be dead.



Once I started smoking pot I didn't care anymore.



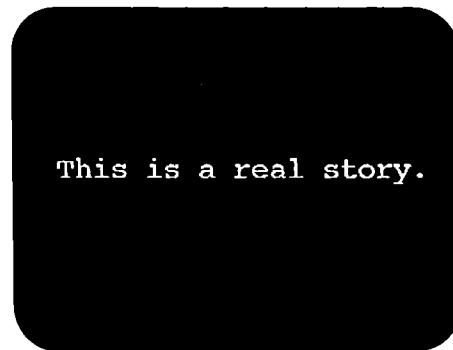
I didn't care about any consequences or what would happen to me.



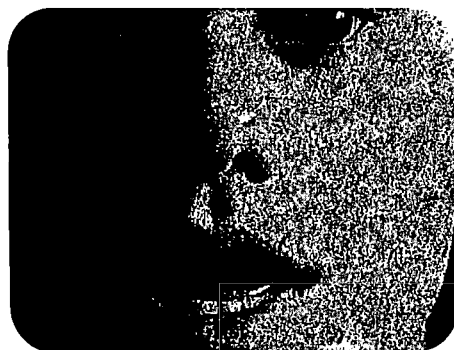
I just started taking other drugs on top of it and I ended up in the hospital, I overdosed.



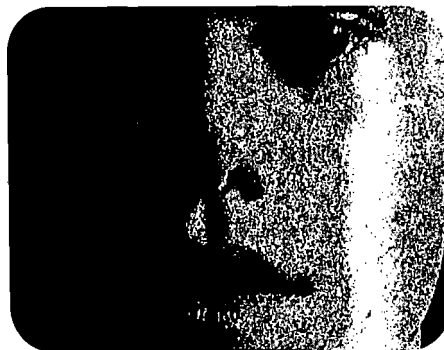
You know, I had an IV in my arm,



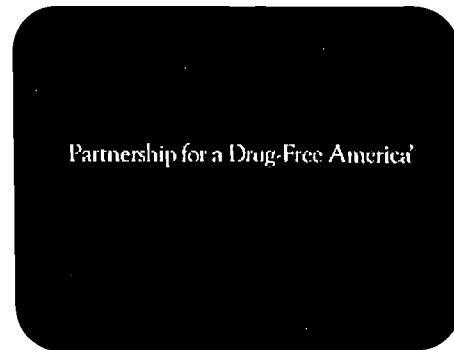
strapped down to a hospital bed with a heart monitor.



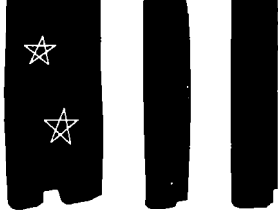
I said that night, I'll never do drugs again,



I'll never smoke pot, I'll never do nothing.



I woke up and I sold my mother's VCR to go and get pot.



## PARTNERSHIP FOR A DRUG-FREE AMERICA

**EMBARGOED FOR RELEASE**  
**January 23, 1995 @11am EST**

**For further information:**

Steve Dnistrian/PDFA 212/973-3504  
Florence Carney/PDFA 212/973-3502  
Pat Wheeler/ONDCP 202/395-6792

***WITH POTENTIAL MARIJUANA CRISIS RE-EMERGING,  
PARTNERSHIP LAUNCHES MASSIVE ADVERTISING BLITZ ON POT***

*After steady declines in marijuana use, leading indicators show  
alarming increases in consumption, crime & emergency room data*

*Real kids star in hard-hitting TV messages about marijuana;  
Push for widespread airtime on networks, TV stations*

**NEW YORK, Jan. 23rd** -- Pointing to national data indicating a re-emerging crisis with marijuana in the United States, the Partnership for a Drug-Free America -- joined by leading drug experts -- today released a major, new, national advertising blitz on marijuana.

"The disturbing trends building today tell us we are losing thousands -- and potentially millions -- of teenagers to drug abuse," said James E. Burke, chairman of the private-sector Partnership for a Drug-Free America. "A growing number of teenagers see marijuana as no big deal, and that attitude is gaining momentum and driving this problem."

Joined by Dr. Lee Brown, director of the White House Office of National Drug Control Policy; Dr. Lloyd Johnston, a leading expert on teenage drug use; and Allen Rosenshine, chairman and CEO, BBDO Worldwide, one of the world's largest advertising agencies, the Partnership unveiled the first series of ads in what will be a major new push by PDFA to reach teenagers about the dangers of marijuana. The ads will begin airing around the country in the coming weeks.

Burke, Brown, Johnston and Rosenshine pointed to alarming

- more -

statistical increases related to marijuana across the country:

- o **The number of teenagers using marijuana is up sharply and gaining momentum -- i.e., In just three years, the number of 13-year-olds using marijuana has doubled;**
- o **the number of teen arrestees testing positive for marijuana is up dramatically across the U.S.;**
- o **emergency-room episodes related to hash or marijuana have jumped significantly;**
- o **and, since the 1970s, the potency of marijuana has increased by close to three-fold.**

While overall teen drug use remains far below peak levels witnessed in the late 70s and mid-80s, a serious erosion in anti-drug attitudes -- which is driving consumption increases -- is not likely to cease in the short run.

#### ***National trends: marijuana***

**Consumption:** One in four teenagers has now tried illegal drugs before reaching high school, according to an annual survey on adolescent drug use in America<sup>1</sup>, released last month in Washington. The survey found dramatic increases in the number of teenagers using marijuana.

Between 1979 and 1991, marijuana use among teenagers declined steadily. Past year marijuana use (any use during the 12 months prior to the survey) among high school seniors, for example, peaked at 50.8 percent in 1979, declined to 21.9 percent in 1992, but has increased since then to 30.7 percent.

Over the past two to three years, past year use of marijuana almost doubled among 8th graders (to 13 percent), grew by two-thirds among 10th graders (to 25 percent), and increased by four

- more -

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<sup>1</sup> "Monitoring the Future," conducted by the University of Michigan's Institute on Social Research, for the National Institute on Drug Abuse. MTF is conducted by social scientists Lloyd D. Johnston, Patrick M. O'Malley and Jerald G. Bachman.

tenths among 12th graders (to 31 percent). (Monitoring the Future summary enclosed.)

Shifting drug-related attitudes among adolescents are driving usage and experimentation upward, according to the survey. Students report associating less risk and greater social acceptability of most illicit drugs.

"The rapid expansion in the number of students using marijuana increases the pool of young people who will be willing to consider using other drugs," said Dr. Lloyd Johnston of the University of Michigan, the lead investigator of the survey.

*(A study on gateway drugs, conducted by the Center on Addiction and Substance Abuse at Columbia University, found that children who use marijuana are 85 times more likely to use cocaine than non-marijuana users. Study summary enclosed.)*

**Crime:** The Department of Justice reports sharp increases in the number of teen arrestees testing positive for marijuana. From the latest data collected in 12 major urban areas, the national median of arrested/detained teens testing positive for marijuana jumped from 16.5 to 26 percent between 1992 and 1993.<sup>2</sup> (Among teens testing positive for cocaine, the national median actually declined between 1992 and 1993, from 8 to 6.5 percent, respectively.) "Increases in the levels of marijuana use are dramatic," says the Justice Department report that tracks the data. "These increases come after a long period of relatively low levels of marijuana use in juvenile...samples." (Justice Department report enclosed.)

**Emergency-room episodes:** Data from the Drug Abuse Warning Network, released last month in Washington, found a 22 percent increase in the number of emergency room episodes related to marijuana or hashish. (Latest DAWN release enclosed.)

- more -

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<sup>2</sup> 1993 Annual Report on Juvenile Arrestees/Detainees: Drugs and Crime in America's Cities. National Institute of Justice, research brief. US Department of Justice, Office of Justice Programs.



"Collectively, these numbers paint a troubling picture about marijuana use in this country," said Richard D. Bonnette, president & CEO of PDFA.

"While our efforts to reduce marijuana use have succeeded among adults, it is clear from the findings in the recent Monitoring the Future report and other studies that our youth are not getting the message," said Lee Brown, Ph.D., director of the White House Office of National Drug Control Policy. "Our youth need to know, and their parents need to understand, that smoking marijuana is dangerous. The marijuana smoked today is many times more potent than the marijuana that was smoked 10 or 20 years ago.

"The physical and mental dangers resulting from smoking marijuana are well documented," Brown said. "That is why President Clinton and I are committed to finding ways to prevent and reduce marijuana use."

### ***A renewed focus on marijuana***

The Partnership unveiled 13 new 30-second television ads today, the first of what will be a new, major focus on marijuana by PDFA. The effort features a new generation of ads, based on extensive qualitative and quantitative research into the current "teen marijuana market" -- a complex market of teen "consumers" who view marijuana in different ways, based on personal experience. (See attached research and strategy summary.)

Teenagers most likely to use marijuana are not as receptive to physiological warnings about the drug, according to the research, but they are worried about messing up their lives as a result of smoking pot. Adapting this finding into the ads, many of the messages feature actual teenagers telling personal, powerful stories about marijuana use messing up their lives. In one of the ads, a teenage boy shares this story:

*"I loved marijuana. I did it every day and every night, all day and all night. My life revolved around it. I said -- and I said it for years -- that it was not gonna happen to me. I'll never sniff cocaine.... 15-years-old, I sniffed cocaine. I'll never smoke crack... 16-years-old, I smoked crack. I'll never do this, I'll never do that.... I did it."*

"If there are ways to talk compellingly to teenagers about marijuana, this work is unquestionably one of the most persuasive ways to do it," said Allen Rosenshine, chairman and CEO, BBDO Worldwide, and co-chairman of the Partnership's Creative Review Committee. "That's the strength and brilliance of this work: These testimonials don't look or feel like PSAs. They look and feel like friends telling you something you really need to hear.

"Sometimes, the best advertising isn't advertising at all," he said, "especially for a target audience that's as media savvy as teenagers are today."

(See attached "Creative Credits" for a complete listing of advertising agencies and executives responsible for the new ads.)

The new messages, delivered to television networks today, will be distributed to every television station in the country's top 40 media markets via media/marketing executives in those cities who are PDFA volunteers. Additional messages on marijuana are now being developed by PDFA in cooperation with the National Institute on Drug Abuse.

### ***A plea for broadcast time and parental involvement***

The Partnership called on networks and local television stations across the country to air the new ads frequently.

"This work can have a significant impact if it's aired and aired frequently," the Partnership's Bonnette said. "But we understand that advertising isn't enough. Parental involvement is critical. Every parent in this country who has a teenager -- and especially baby-boomer parents who've smoked marijuana themselves -- has got to realize that behind these statistics are real kids. Before these trends build any further, parents need to talk with

their children about marijuana."

All ads created for the Partnership are donated by leading advertising agencies; broadcast time and print space are donated as well. Currently, media donations (broadcast time/print space) to the Partnership's national campaign total approximately \$825,000 a day, down from the \$1 million a day it received in 1991.

"The entire anti-drug movement has lost a significant 'share of voice' in America," Bonnette said. "Just a few years ago, teenagers were hearing loud, resounding, consistent messages about drugs from everywhere -- the news media, television shows, movies, music videos and even from our ads. When this level of exposure on the drug problem diminished, attitudes about drugs slowly began changing for the worse." Also having a detrimental impact on drug-related attitudes has been the glamorization -- and "normalization" -- of marijuana use in select music, television shows and movies.

"It's more important than ever to keep these messages in front of our young people," Bonnette said. "These ads carry a message kids need to hear, in a voice we believe can reach them. No one spot -- and no single advertising campaign -- will solve this problem, but we know that loud, resounding, frequent messages about drugs can have an impact."

The Partnership continues to produce new PSAs about drugs and drug dealing, targeting both suburban and inner city populations. Later this year, PDFA plans to release new ads about inhalant abuse -- a growing area of concern among teenagers -- as well as new spots about heroin aimed at young adults.

- end -

*Best known for its national anti-drug advertising campaign, the Partnership for a Drug-Free America is a private, non-profit coalition of professionals from the communications industry, whose collective mission is to reduce demand for illicit drugs in America through media communication. To date, more than \$1.8 billion in broadcast time and print space, and 400 anti-drug ads, have been donated to the Partnership's national campaign, making this the largest public service advertising campaign in history.*

# The Miami Herald

JOHN S. KNIGHT (1894-1981)

JAMES L. KNIGHT (1909-1991)

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*Senior Managing Editor*

## Losses on the drug front

**I**llegal drugs are gaining again, just where this nation can least afford it: among its teenagers. So say the disturbing results of a new survey by the University of Michigan's Institute for Social Research.

Clearly the anti-drug messages from schools, parents, law enforcers, and governments are being subverted by more-effective signals from elsewhere. When paired with the stresses that too many young people face, and their impressions of their own invulnerability, drugs can weave an alluring snare.

So long as parents turn to pills and alcohol for relief and solace, movies and song lyrics glamorize marijuana and cocaine, and dealers are easier to locate than treatment beds, youth will turn to drugs. As voices of authority continue to waffle about drugs in their own pasts, their get-tough message will ring hollow.

The University of Michigan survey of almost 50,000 students found that one in four high school sophomores, and one in three seniors, admitted smoking marijuana at least once in the past year. The first is an increase of six percentage points, the second, an increase of four points. In addition, there was a marginal increase in the use of cocaine, heroin, hallucinogens, and stimulants.

The latest — and not wholly inculcable — scapegoat for this has been the entertainment industry, scored by critics for glorifying illicit drug use. However,

### TEEN USE UP

**Although a new study finds an alarming increase in teen drug abuse, Dade's story is brighter.**

many on the front lines of the community drug fight urge a harsher look elsewhere for sources of the problem.

Marilyn Wagner Culp, executive director of the Miami Coalition for a Safe and Drug-Free Commu-

nity, says that entertainment's siren song is infrequently mentioned at national anti-drug meetings. Rather, she sees general back-pedaling nationally, a softening in the firm stance of government, law enforcers, and parents as the general issue of crime supersedes a specific alarm over drugs.

Fortunately, Ms. Culp spends her labors here, in the one major urban area in the country where drug use among students has actually *declined*. What's making the difference? Top-to-bottom cooperation among schools, governments, law enforcement, the private sector, and the community to bring sustained anti-drug messages into students from elementary through high school.

Indeed, at a time when Partnership for a Drug-Free America is having a harder time getting media outlets across the country to donate air time and news space for its anti-drug ads, Miami outlets in 1993 gave Partnership ads the largest amount of air and news play.

Though South Florida has some deeply entrenched drug problems, its areas of progress deserve to be emulated elsewhere — and supported and expanded here at home.

## 12th Graders' Illicit Drug Use Near 50%, Up 3.2%

By RONALD J. OSTROW  
TIMES STAFF WRITER

WASHINGTON—In another sign of resurging drug use by young Americans, an authoritative national survey released Monday found that nearly half of all high school seniors have tried illicit drugs—an increase of 3.2% over last year.

The sharpest increase was in marijuana use, with the number of 12th graders who use the drug daily jumping to 3.6%, up by half from the 1993 level, according to the 20th annual survey by the University of Michigan's Institute for Social Research.

"We are losing precious ground we had gained," said Health and Human Services Secretary Donna Shalala. The survey, funded by HHS' National Institute on Drug Abuse, tracked an expansion of drug use by young Americans into the late 1970s, a substantial decline lasting through 1991, and a resurgence since then.

Shalala, joined by Education Secretary Richard W. Riley and federal drug czar Lee P. Brown, blamed "drug glorification messages" for much of the increase and said that the primary cause is that "fewer young people believe that marijuana is harmful."

"We need anti-drug messages that are every bit as pervasive and

strong as the pop culture images that tell our youth drugs are OK," Shalala said. Displaying T-shirts bearing pro-drug use slogans and symbols that her staff purchased in the Georgetown neighborhood where she lives, Shalala said: "Increasingly, drug glorification messages are creeping back into our popular culture."

Lloyd D. Johnston, the survey's principal investigator, said there also has been a decline in peer disapproval of drug. "If the softening of attitudes and peer norms continues unabated, we can expect to see continued increases in drug use among our children," Johnston said.

Shalala said that clear scientific evidence shows "marijuana is a dangerous drug that can have acute and hazardous effects, including the impairment of learning, memory, perception, judgment and complex motor skills, including skills needed to drive."

Unless young people are educated to the dangers, the problem will grow rapidly, Riley said. Nearly 7 million more young people will enter the nation's school system over the next 10 years, a 14% increase. The number of 14- to 17-year-olds will jump 20%.

"The potential for trouble is enormous," Riley said. "We need to turn around this new 'no sweat' attitude about drugs that seems to

be gaining hold among some of our young people."

While use of marijuana has changed the most markedly in the 1990s, other illicit drugs—including LSD and other hallucinogens, inhalants, stimulants, barbiturates and, this year, cocaine and crack—rose gradually as well.

"Most disturbing is that for the third year in a row, we are seeing statistically significant increases in marijuana use for 8th grade students," Shalala said. "We're talking about 13 year olds."

In a related report, the Substance Abuse and Mental Health Services Administration reported that drug-related emergency room cases increased 8% last year over 1992.

The data, compiled by the Drug Abuse Warning Network, showed a 31% increase in heroin-related emergency room visits, a 22% increase in those tied to marijuana and hashish and a 53% increase in "speed," or methamphetamine cases.

"The report suggests that we continue to have a large group of aging habitual drug users who are experiencing more and more drug-related medical problems and, as a result, have become dependent on hospital emergency rooms for medical services," said Nelba Chavez, administrator of the substance abuse agency.

# Use of Drugs By Teenagers 'Getting Worse'

## *Marijuana Smoking Up Sharply, Study Finds*

Associated Press

One in four schoolchildren has used illegal drugs before reaching high school, according to researchers who say drug use among American youngsters is "getting worse at a fairly rapid pace."

A University of Michigan study released yesterday found that while use of illegal drugs, particularly marijuana, continued to rise among all teenagers this year, the trend was most disturbing among younger children.

Among eighth-graders, 25 percent acknowledged use of illicit drugs at some point in their lifetimes, a figure that rose to 35 percent when inhalants were included. Both figures were up about 3 percentage points from 1993.

"We're not just here to sound the alarm. We're here to issue a call to action," said Donna E. Shalala, secretary of the Department of Health and Human Services. "We have a chance—right here and now—to lock arms and send a powerful anti-drug message to our children.

"But the real work has to be done in our communities and in our homes, with parents leading the way," she said.

Michigan's Institute for Social Research began studying teenage drug abuse rates in 1975. It tracked an expansion of drug abuse into the late 1970s, a substantial decline that lasted through 1991, and a resurgence since then.

Lloyd D. Johnston, one of three researchers who conducted the study, linked this rise to the message young people are getting about drugs. "They are hearing much less about the dangers of drugs and see-

ing more glamorization of drugs," he said.

Johnston pointed to findings that 35 percent of eighth-graders, almost 43 percent of 10th-graders and almost half of 12th-graders have used illegal drugs, including inhalants, all up from recent years.

The report found that the rise in marijuana use was the most striking. Among eighth-graders, 13 percent said they had smoked marijuana in the past year, double the rate in 1991, and 17 percent reported ever having smoked marijuana, up from 10 percent in 1991. The increase in marijuana use during the past year was from 26 percent to 31 percent for high school seniors.

In the report, Johnston said he believed greater marijuana use increases the pool of young people willing to consider other drugs.

Almost 7 percent of seniors acknowledged use of LSD in the past year, while 3.6 percent said they had used cocaine and 2 percent crack cocaine.

About 52,000 students from 420 public and private secondary schools filled out questionnaires for the survey, released yesterday by Shalala, Education Secretary Richard W. Riley and Lee Brown, director of the White House's Office of National Drug Control Policy. The overall margin of error was 1 to 2 percentage points.

Use of inhalants—which has been rising intermittently since the early 1980s—is highest during early adolescence. Inhalants can include legal products found around the home, such as glue and cleansers.

One out of every five or six students at each grade level has tried an inhalant, the study said, but current use is highest among eighth-graders.

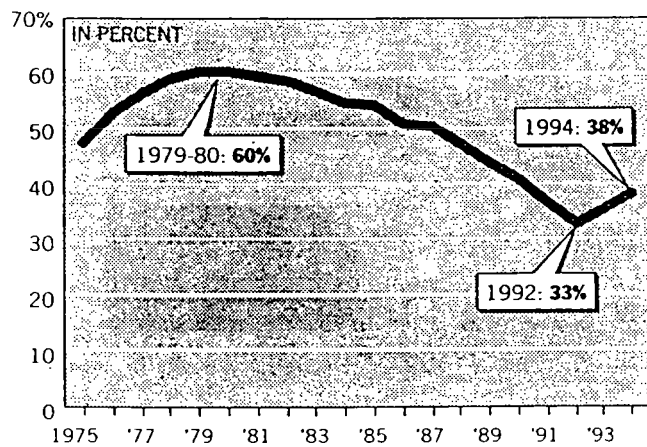
Although alcohol consumption was down in earlier studies, there was no decline at any grade level in 1994, according to the study. Half of 12th-graders and one-quarter of eighth-graders said they had had alcoholic drinks in the past 30 days.

The yearly study is funded by a series of grants from the National Institute on Drug Abuse.

## MARIJUANA AND ALCOHOL USE AMONG TEENS

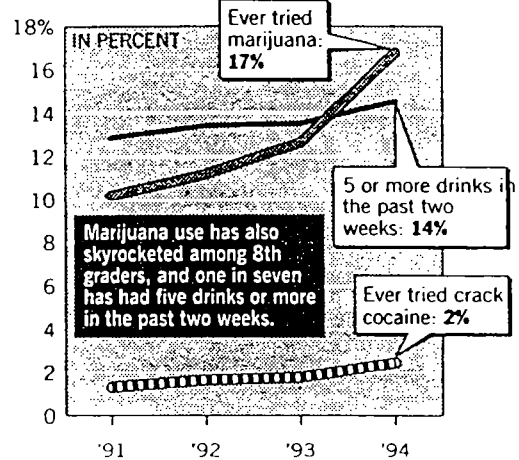
**M**arijuana use exploded in the 1970s, declined steadily for the next decade and has crept up again in recent years.

### 12TH GRADERS WHO HAVE EVER TRIED MARIJUANA OR HASHISH

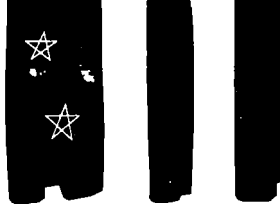


SOURCE: University of Michigan Institute for Social Research

### 8TH GRADERS AND DRUGS, ALCOHOL



THE WASHINGTON POST



## PARTNERSHIP FOR A DRUG-FREE AMERICA

### ***SELECT LEADING NATIONAL INDICATORS ON DRUG USE IN AMERICA***

-- *"Monitoring the Future,"* conducted by the University of Michigan's Institute on Social Research, for the National Institute on Drug Abuse. MTF -- an annual survey on adolescent drug use in America -- is conducted by social scientists Lloyd D. Johnston, Patrick M. O'Malley and Jerald G. Bachman.

-- *1993 Annual Report on Juvenile Arrestees/ Detainees: Drugs and Crime in America's Cities.* National Institute of Justice, research brief. US Department of Justice, Office of Justice Programs.

-- *Statement on marijuana potency* by Alan Leshner, Ph.D, director, National Institute on Drug Abuse.

-- *Drug Abuse Warning Network* (drug-related emergency room visits), Substance Abuse and Mental Health Services Administration, US Department of Health and Human Services, press release, December 12, 1994.



# The University of Michigan

## News and Information Services

December 8, 1994  
Contact: Diane Swanbrow  
Phone: (313) 747-4416

412 Maynard  
Ann Arbor, Michigan  
48109-1399

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Drug use continues to climb  
among American teen-agers, as attitudes  
and beliefs about the dangers of drugs soften.

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FOR RELEASE AT 11:00 A.M. EST, MONDAY, DECEMBER 12, 1994.

EDITORS: Results of this survey will be released at a news conference on Dec. 12 at 11:00 a.m. at the Hubert H. Humphrey Building in Washington, D.C. Participating in the release of results will be Secretary of Health and Human Services Donna E. Shalala, Secretary of Education Richard W. Riley, Director of the Office of National Drug Control Policy Lee P. Brown, and the principal investigator of the Monitoring the Future study, Lloyd D. Johnston. For further information on the study, contact Dr. Johnston at (313) 763-5043.

ANN ARBOR---Reporting on their twentieth national survey of American high school seniors, and their fourth national survey of 8th and 10th grade students, scientists at the University of Michigan Institute for Social Research have found that illicit drug use among American secondary school students continued to rise in 1994.

Marijuana. The rise in illicit drug use, which began at least three years ago for 8th graders and two years ago for the older students, has been particularly pronounced in the case of marijuana. Over the past two to three years, annual use of marijuana (any use during the 12 months prior to the

survey) doubled among 8th graders (to 13%), grew by two-thirds among 10th graders (to 25%), and grew by four-tenths among 12th graders (to 31%). In addition, active daily use of marijuana climbed by even larger proportions, reaching 3.6% among high school seniors in 1994--up by half from the 1993 level (See Table 1).

The study. The Monitoring the Future study, which is conducted at the University of Michigan's Institute for Social Research under a series of research grants from the National Institute on Drug Abuse, has provided key measures of drug use among American young people since 1975. It tracked an expansion of the drug use epidemic into the late 1970s, a subsequent turnaround and substantial decline which lasted through 1991, and now a resurgence in use since 1991. It also has provided important evidence about what factors have driven these changes. The study is conducted by University of Michigan social scientists Lloyd D. Johnston, Patrick M. O'Malley, and Jerald G. Bachman.

Other Drugs. While marijuana has had the most dramatic turnaround in the 1990s, a number of other illicitly used drugs have been rising gradually as well. These include LSD, other hallucinogens taken as a class, inhalants, stimulants, barbiturates, and this year, cocaine and crack. (See Table 1.)

The researchers note, however, that the increases in the use of these other drugs have been quite gradual and that many of the 1993-1994 changes do not reach statistical

significance, even though they continue a longer-term trend that is significant.

"Despite substantial progress against illicit drug use in earlier years, it remains an appreciable problem among American young people," notes Johnston. "Over a third of all 8th graders have used some illicit drug, including inhalants, while over 40% of all 10th graders, and nearly 50% of all 12th graders have done so. Furthermore, it is a problem which is getting worse at a fairly rapid pace."

Johnston believes that the rapid expansion in the numbers of students using marijuana increases the pool of young people who are willing to consider using other drugs, and that this helps to explain the rising proportions using them.

Inhalants. Johnston is also concerned about the gradual rise in inhalant use which has been occurring intermittently since the early 1980s, including the past two or three years. "Inhalant use is highest during early adolescence and, in addition to being quite a dangerous practice in its own right, can help establish an early pattern of using drugs to get high," observes Johnston. One in every five or six students at each grade level has tried an inhalant, but current use is highest among the 8th graders. In fact, until the large increase in marijuana use this year, inhalants constituted the most widely used class of drugs among 8th graders.

"Because this class of volatile substances is comprised mostly of legal products found around the home, it has received less attention than it should." Johnston adds, "It has become an important part of the drug abuse problem, particularly among the country's younger adolescents."

Attitudes and Beliefs. Over the past 20 years, the University of Michigan investigators have accumulated a substantial body of evidence that the likelihood of using a drug is directly affected by how dangerous students believe its use to be. "During the 1980s, increasing concern about the dangers of marijuana use seemed to drive a substantial decline in use," Johnston states. "Fewer people initiated use, and more of the users quit, as the proportion of seniors seeing a great risk in regular use rose steadily, from 35% in 1978 to 79% in 1991." Since 1991, however, there has been a steady and accelerating decline in perceived risk, with only 65% now reporting a great risk associated with regular marijuana use.

In addition to the dangers associated with using drugs, the attitudes of peers also seem to be an important determinant of drug use. "Peer norms often appear to shift with changes in the perceived dangers of a drug, the most obvious case in recent years being the decline in the acceptability of cigarette smoking in the general population," adds Johnston. In the case of marijuana, the proportion of high school seniors who disapproved of even trying it rose dramatically between 1978 and 1992, from 33%

to 70%. But then, a year after perceived risk began to decline in 1991, peer disapproval also began to fall, dropping from 70% in 1992 to 58% in 1994. "In other words," states Johnston, "the decline in perceived risk predicted the decline in peer norms as well as the increase in actual use, both of which began a year later." Among the 8th and 10th graders the amount of risk perceived to be associated with marijuana use is also declining rapidly (See Table 6).

The proportions of students saying there is a 'great risk' associated with the use of a number of drugs other than marijuana, including LSD, cocaine, and crack, have also been significantly declining. While some of these declines appeared to halt in 1994 among the seniors, they continued among the 8th and 10th graders (See Table 6.) Similarly, peer disapproval among 8th and 10th graders is continuing to decline with regard to LSD, cocaine, and crack. The great majority, however, still disapprove of the use of these drugs (Table 8).

Indications for the Future. Asked to comment on what the future holds with regard to illicit drug use, Johnston states, "If the softening of attitudes and peer norms continues unabated, we can expect to see continued increases in drug use among our children. These factors proved critical in bringing about the downturn in use that began nearly fifteen years ago [See Figures 2 and 4], and they are still critical to keeping drug use contained today.

"For the foreseeable future, American youngsters will be aware of the psychoactive potential of many drugs and, in general, will have relatively easy access to them. In the absence of reasons not to use, many are going to try them and a significant number will get into trouble with them.

"We need to be more aware of, and concerned about, the messages that are reaching young people with regard to drugs. Those in the media and entertainment industries have a particular responsibility to be more constructive in the messages and role models that they present to young people. Youngsters growing up today are getting considerably more mixed messages about drugs than those who grew up in the late 1980's, and their behavior reflects this. They are hearing much less about the dangers of drugs and seeing more glamorization of drug use."

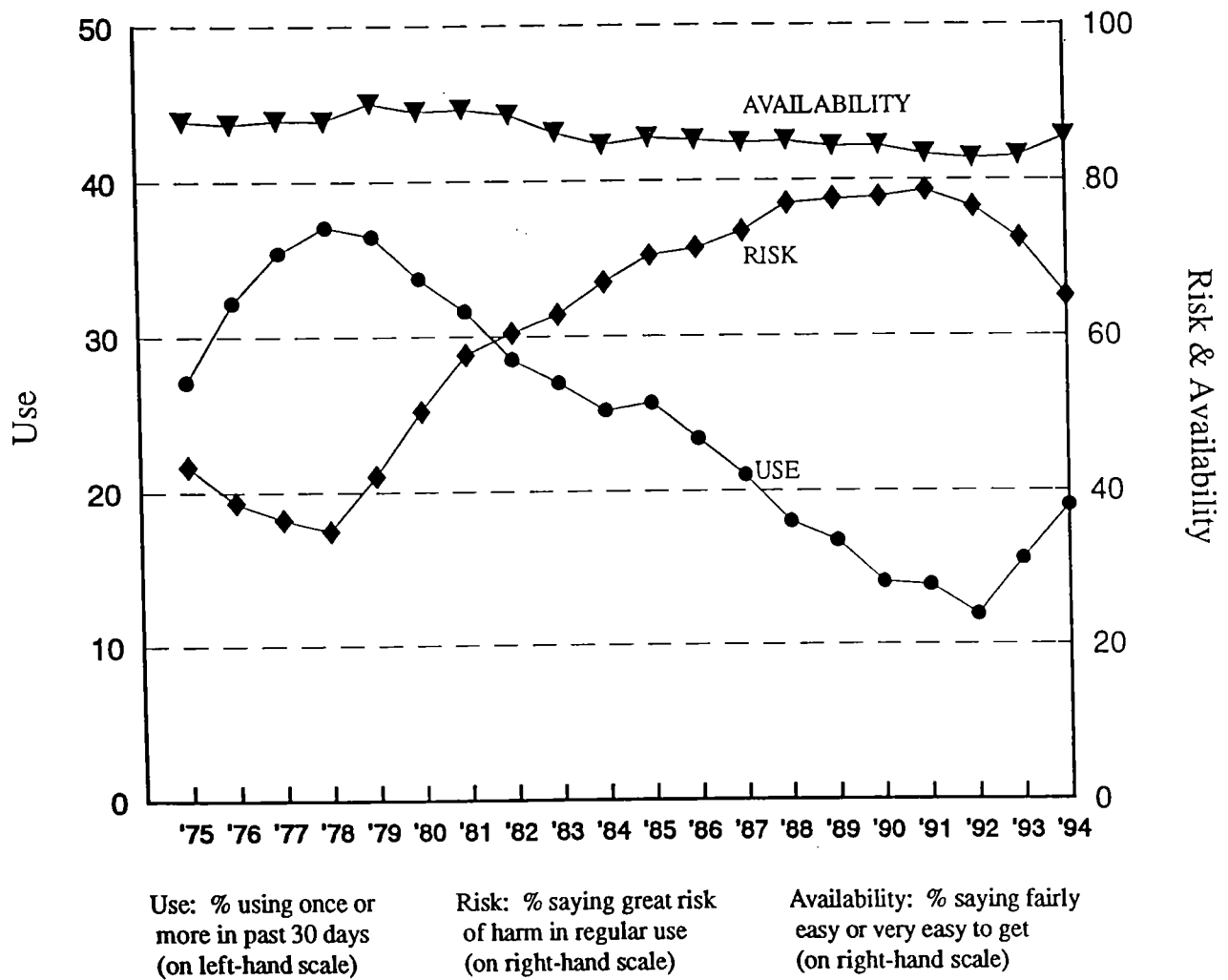
Alcohol. Although there had been some earlier decline in alcohol use among high school seniors, in 1994 there was no decline at any grade level. In fact, while none of the changes was statistically significant, all three grades showed some upward drift in current drinking, binge drinking, and drunkenness (See Table 1). "Drinking rates remain high for American teenagers," Johnston observes. "When we ask whether they have had five or more drinks in a row during the prior two-week period, one in seven 8th graders say they have, nearly one in four 10th graders, and more than one in every four 12th graders. Further, much higher proportions are active drinkers at some level."

\* \* \* \* \*

The study, titled "Monitoring the Future," was also widely known as the National High School Senior Survey. It has been conducted under a series of research grants from the National Institute on Drug Abuse. Surveys have been carried out each year since 1975 by the University of Michigan's Institute for Social Research. In 1994, the sample of seniors comprised about 16,000 students in 139 public and private high schools nationwide, selected to be representative of all seniors in the continental United States. They completed self-administered questionnaires given to them in their classrooms by University of Michigan personnel in the spring of the year. Beginning in 1991, similar surveys of nationally representative samples of eighth- and tenth-graders have been conducted annually. The 1994 eighth grade sample contained about 18,000 students in 150 schools, and the tenth grade sample contained 16,000 students in 130 schools. In all, approximately 50,000 students in about 420 public and private secondary school are now surveyed annually.

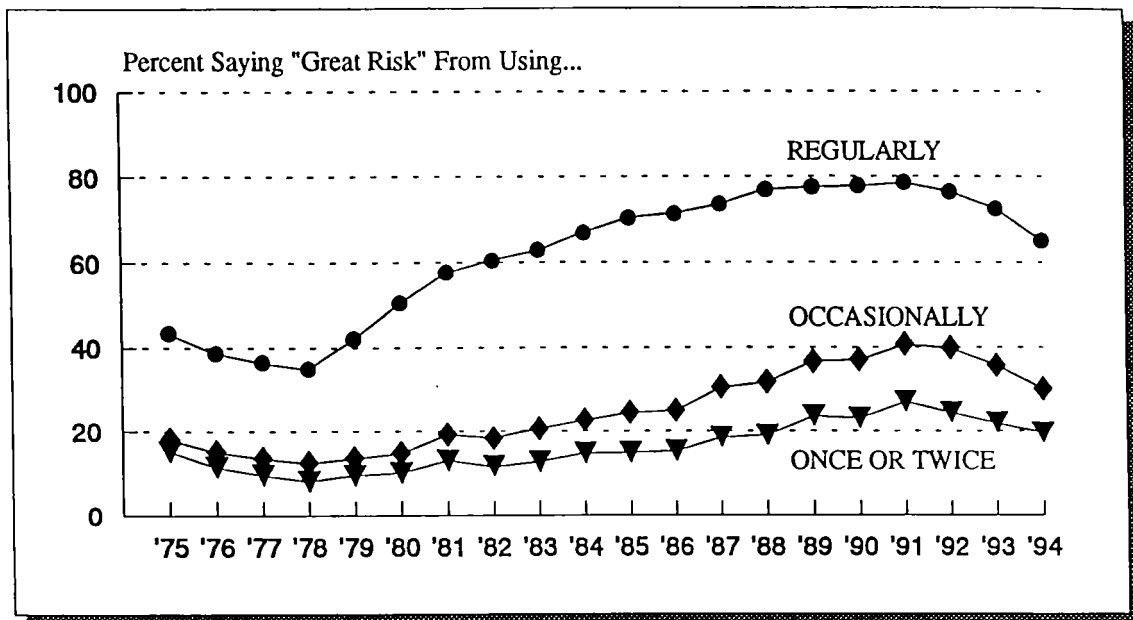
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Marijuana: Trends in Perceived Availability,  
Perceived Risk of Regular Use,  
and Prevalence of Use in Past Thirty Days for Twelfth Graders

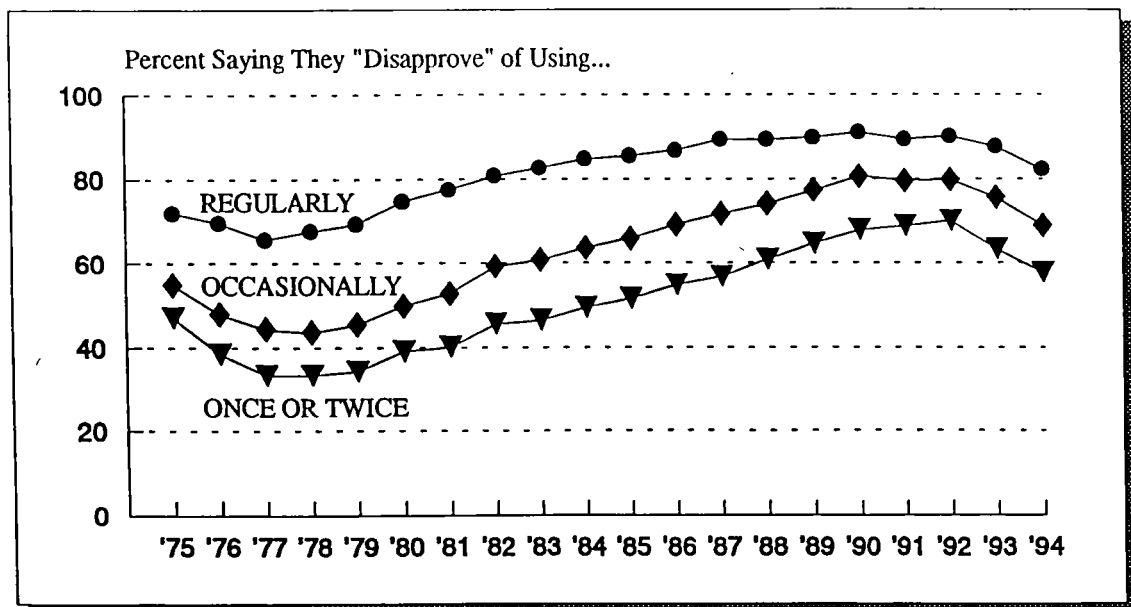




## Trends in Perceived Harmfulness and Disapproval of Marijuana Use for Twelfth Graders

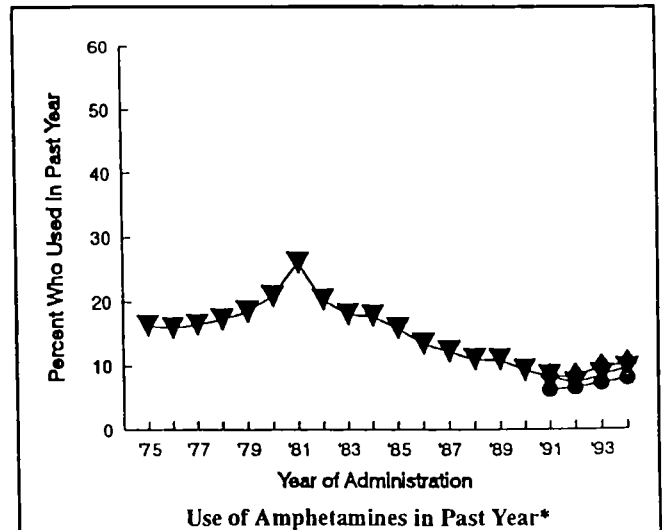
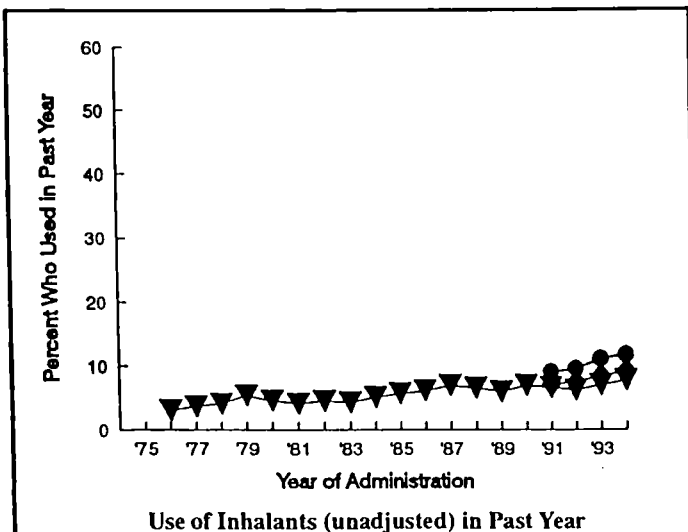
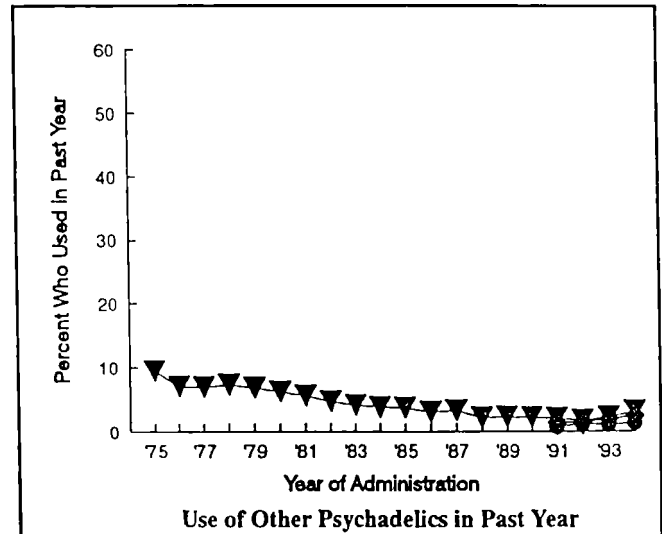
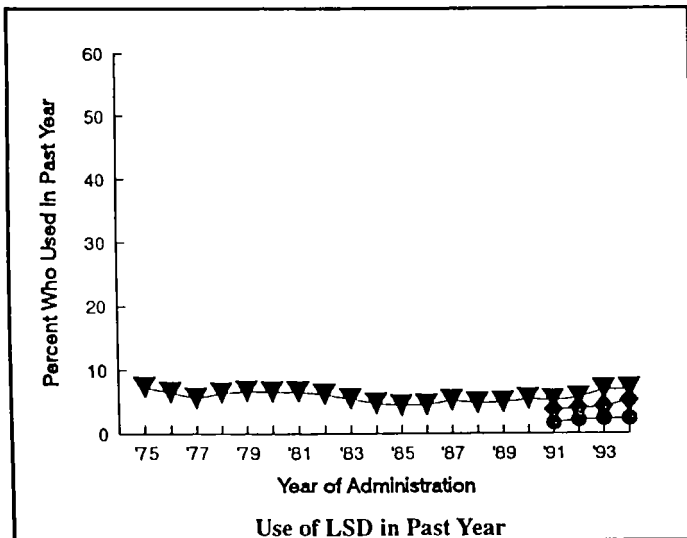
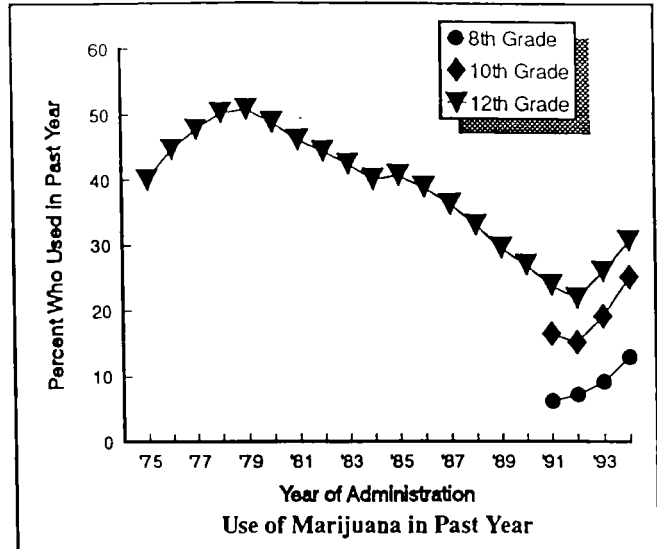
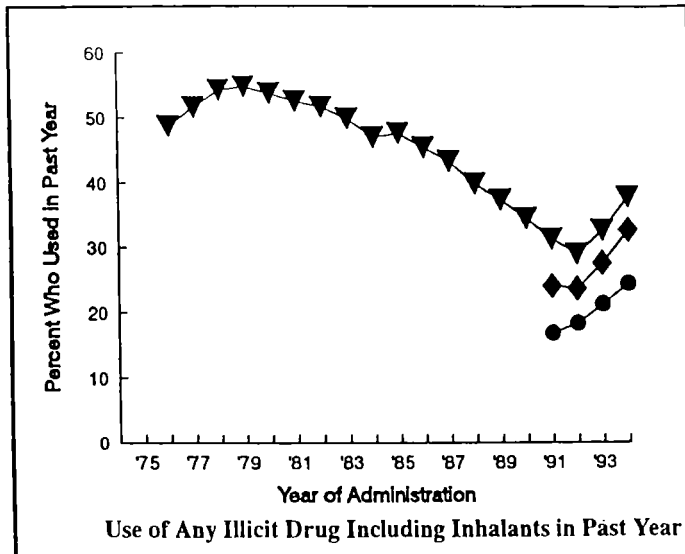


Perceived Harmfulness

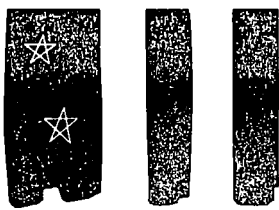


Disapproval

## Trends in Annual Use of Selected Drugs by Grade, 1975-1994



\*Beginning in 1982, the question about stimulant use (i.e., amphetamines) was revised to get respondents to exclude the inappropriate reporting of non-prescription stimulants. The prevalence dropped slightly as a result of this methodological change.



## PARTNERSHIP FOR A DRUG-FREE AMERICA

**FOR IMMEDIATE RELEASE**

December 12, 1994

**For more information:**

Steve Dnistrian 212/973-3504

Florence Carney 212/973-3502

**STATEMENT OF JAMES E. BURKE, CHAIRMAN,  
PARTNERSHIP FOR A DRUG-FREE AMERICA,  
ON RESULTS OF 1994 "MONITORING THE FUTURE" SURVEY  
ON ADOLESCENT DRUG USE IN THE UNITED STATES**

NEW YORK, Dec. 12 -- While drug use among adolescents in America is down dramatically from the late 70s and mid-80s, there has now been a disturbingly sharp increase in the number of 8th, 10th and 12th graders who use marijuana. Use of most other illicit drugs is drifting upward as well, albeit less dramatically. And all increases are being driven by erosions in anti-drug attitudes -- specifically, the risk and social disapproval teens associate with drugs. Teenagers are increasingly viewing drugs as less dangerous, and more acceptable.

Understanding the long-term implications of these findings is critical. This is not a statistically insignificant blip in the data. Rather, it is the strongest indication yet that we could be at the beginning of a new trend of increasing drug use among youth in America. And if this is the case, immediate action is needed to reverse this trend.

Drug use among our youth declined steadily over the last decade. In 1991, a disturbing change emerged in the data: Young teens reported seeing less risk and more social acceptability in some drugs. This is exactly what drove an increase in drug use among these adolescents the following year. In 1992, we witnessed similar erosions in anti-drug attitudes among older teens (10th and 12th graders). In this year's data, the erosion in anti-drug attitudes among all age groups has continued, and is the leading reason why more kids are initiating drug experimentation.

There are a number of reasons why teen attitudes about drugs are softening. Certainly, there has been much less widespread media attention about drugs and drug abuse -- fewer news stories, fewer television storylines about drugs, fewer anti-drug ads. Conversely, we're seeing drug use -- and specifically marijuana use -- talked about positively in rock and rap music, in television programming and in other areas like fashion. Research indicates that this type of media attention, or lack thereof, has a demonstrable impact on teenagers' attitudes about drugs, and subsequently, on drug consumption itself.

As HHS Secretary Donna Shalala said so eloquently today, there is one -- and only one -- thing that can be done **right now** to prevent this increase in drug use from further building into a trend. And it involves every parent in this country.

To parents we say: If you haven't done so already, the time to talk to your kids about marijuana and drugs is **NOW** -- right now, today, tonight when you get home from work. If you've already talked to your children about drugs, it may be time for a refresher. As Secretary Shalala said, the teenagers reflected in this study are somebody's children -- maybe your own. If parents do this -- and we ask them to do so today -- the entire country could take one giant step toward saving some kids who may otherwise be lost to drugs and drug addiction.

*Best known for its national anti-drug advertising campaign, the **Partnership for a Drug-Free America** is a private, non-profit coalition of professionals from the communications industry, whose collective mission is to reduce demand for illicit drugs in America through media communication. To date, more than \$1.8 billion in broadcast time and print space, and 400 anti-drug ads, have been donated to the Partnership's national campaign, making this the largest public service advertising campaign in history*



# National Institute of Justice

*Research in Brief*

*Jeremy Travis, Director*

## Drug Use Forecasting

# 1993

ANNUAL REPORT ON  
JUVENILE ARRESTEES/DETAINEES:

Drugs and Crime in America's Cities

# Drug Use Forecasting 1993 Annual Report on Juvenile Arrestees/Detainees

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## Methodology

Data on male juvenile arrestees and detainees are collected in 12 DUF sites throughout the United States. Ten of these sites also collect data on female juvenile arrestees and detainees; however, given the small sample size across a majority of the DUF female juvenile facilities, these data are not presented here.

Each quarter, local DUF staff obtain voluntary and anonymous urine specimens and interviews from juvenile arrestees and detainees who have been in the facility for not more than 48 hours. Response rates are consistently high, with more than 90 percent consenting to be interviewed and approximately 80 percent agreeing to provide a urine specimen.

All urine specimens are sent to a central laboratory for analysis for 10 drugs: cocaine, opiates, marijuana, PCP, methadone, benzodiazepines, methaqualone, propoxyphene, barbiturates, and amphetamines. All positive results for amphetamines are confirmed by gas chromatography to eliminate those caused only by over-the-counter medications. For most drugs, urinalysis can detect use within the previous 2 to 3 days; use of marijuana and PCP can sometimes be detected over a longer period of time.

Catchment areas vary across sites. In nine sites, the catchment area is the county that contains the city. (The city of Denver is Denver County in its entirety.) In St. Louis and Washington, D.C., the catchment area is only the city, excluding the surrounding county. In Los Angeles, the catchment area comprises parts of the city and county.

## DUF Research Advisory Board:

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The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, Bureau of Justice Statistics, Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime.

## New Feature

Beginning with this report, a guide to DUF site data tables will be included with each DUF publication. This new feature, which is intended to be used as a reference tool, details the data presented on each site page. The guide for data presented in this report appears on page 19.

# Drug Use Forecasting 1993 Annual Report on Juvenile Arrestees/Detainees

## *From the Director of NIJ*

Drug use among juveniles represents one of our country's most significant challenges. Since 1990, NIJ's Drug Use Forecasting (DUF) program has recorded trends in drug use among a specific group of high-risk juveniles: those arrested or detained by the criminal justice system.

The publication of this first separate Juvenile Annual Report of DUF data for 1993 reflects the urgency of the problems of juvenile drug use and crime. This report offers data useful for better understanding of the dimensions of drug use among youthful offenders.

Increases in the percentage of young arrestees testing positive for marijuana were striking in 1993. In several cities, levels of marijuana use were at least twice the 1992 rates. In others, increases of 10 percent or more were recorded. DUF data on multiple drug use suggest that many of these juveniles use marijuana in addition to other drugs such as cocaine.

The report includes other valuable information for collaborative efforts at both the Federal and the local levels. Local policymakers can use the data in creating drug education and treatment programs for these young people. The DUF program also gives NIJ a valuable mechanism for working with other Federal agencies that address juvenile drug use.

We welcome the comments of practitioners and researchers in exploring the implications of DUF data for public policy and programs. Such dialog is essential to NIJ in translating research findings into action.

*Jeremy Travis*  
NIJ Director

## **1993 DUF Report on Drug Use Among Juvenile Arrestees/Detainees**

In 1993, 12 DUF sites collected quarterly data from male juvenile arrestees/detainees. Total sample size for the year ranged from 301 to 452. Ten sites also collected data from female juvenile arrestees/detainees, but because sample sizes are small, these data are not included in this report.

Aggregation of quarterly data for the entire year yields a useful summary profile of drug use among these juvenile arrestees/detainees. These data can be compared to results for 1992 to provide an assessment of changes in levels of drug use.

## **Overall Drug Use Among Juvenile Male Arrestees/Detainees**

- At most sites, drug use among juvenile arrestees/detainees continues to be limited primarily to marijuana and cocaine.
- In general, the 1993 juvenile data show *broad increases* in the extent of marijuana use and only *minor changes* in cocaine use.

For several years, DUF data have established marijuana and cocaine as the two drugs most commonly used among juvenile arrestees/detainees. While levels of cocaine use remain largely unchanged at most sites, sharp increases in marijuana were reported across all sites.

### **Use of marijuana:**

- In 1993, all 12 sites reported an increase in the percentage who tested positive for marijuana.

Increases in the levels of marijuana use are dramatic. In 1993, the percent positive for marijuana ranged from 14 to 51 percent with a median value of 26 percent; in 1992, the range was from 5 to 38 percent with a median of 16.5 percent. Portland, St. Louis, and San Antonio reported 1993 rates of

marijuana use that were at least twice the 1992 rate. Cleveland, Denver, and Washington, D.C., reported increases of 10 percent or more. These increases come after a long period of relatively low levels of marijuana use in juvenile DUF samples.

### **Use of cocaine:**

- With a few exceptions, levels of cocaine use were largely unchanged from 1992 to 1993.

Little or no change was observed in the overall percent positive for cocaine across the sites. Data for 1993 revealed a range of percent positive for cocaine of 2 to 18 percent with a median of 6.5 percent. In 1992, the range across the sites was 2 to 13 percent with a median of 8 percent. Rates of cocaine use increased at only three sites: Cleveland (up 5 percent), Portland (up 2 percent), and Los Angeles (up 1 percent). Seven sites reported rates that were unchanged from 1992 or decreased by 1 or 2 percent.

### **Use of opiates:**

- Opiate use among juvenile male arrestees/detainees remains at very low levels.

In 1993, none of the 12 sites reported percentages of opiate use above 2 percent. These results are comparable with findings from 1992.

### **Use of at least one drug:**

- For 1993, each of the 12 sites reported that a higher percentage of juvenile male arrestees/detainees were positive for at least one drug, compared with results for 1992.

Across the 12 sites, the 1993 percent positive for use of at least one drug ranged from 18 to 54 percent with a median of 33 percent. By comparison, 1992 data showed a range of 11 to 40 percent, with a median value of 25 percent. At most sites, the increase in the overall measure of drug use appears to be the result of an increase in marijuana use.

# Drug Use Forecasting 1993 Annual Report on Juvenile Arrestees/Detainees

## Multiple drug use:

- Nine of the 12 sites reported small increases in the percentage who tested positive for two or more drugs.

The percentage of juvenile male arrestees/detainees positive for multiple drugs in 1993 ranged from 1 to 14 percent with a median value of 7.5 percent. These values are comparable to data from 1992, and most sites reported only small increases in the percentage who tested positive for multiple drugs. However, the data suggest that, among many juveniles, the use of marijuana is occurring *in addition to* rather than instead of cocaine and other drugs.

## Drug Use and School Attendance

The tables in the report show urinalysis results for juvenile male arrestees/detainees at each site by school attendance. An examination of these tables reveals important information about the relationship between drug use and school attendance. (See the Guide to DUF Site Data Tables on page 19 for comments on measuring school attendance.) Across sites, patterns of cocaine use distinguish arrestees/detainees who are in school from those who are not in school. The groups are not so distinct in their use of marijuana, however.

- Those arrestees/detainees who attended school were less likely than those not attending school to test positive for cocaine.

Most sites reported sharp distinctions in patterns of cocaine use by school attendance. At 9 of the 12 sites, cocaine use among juvenile arrestees/detainees who reported attending school was less than half the rate of cocaine use among those *not* attending school. The biggest differences between the two groups occurred in Los Angeles (11 percent positive for cocaine among those in school compared with 46 percent among those not in school), Portland (2 percent

compared with 10 percent), San Jose (3 percent compared with 9 percent), and Washington, D.C. (6 percent compared to 17 percent). Among those juveniles attending school, the percentage who tested positive for cocaine ranged from 1 to 17 percent. Among those not attending school, percentages of cocaine use ranged from 3 to 46 percent.

- Marijuana use was prevalent throughout the sample of juveniles. At many sites, the rate of marijuana use among those attending school approached the level reported for those not in school.

Rates of marijuana use were not dramatically different among those attending school and those not attending school. Among those in school, the percentage who tested positive for marijuana ranged from 12 to 52 percent. These values are comparable to the percentages for those not in school, which ranged from 16 to 51 percent.

The graphs for the sites confirm that the rates of marijuana use are generally higher than the rates of cocaine use, both for those juveniles in school and those not in school.

## Use of Cocaine and Marijuana by Offense Categories

The table on the back cover of the report shows urinalysis results for cocaine and marijuana for specific offense categories, for each site. Predictably, highest rates of drug use occur among those arrested for drug-related offenses. However, other categories of offense yield substantial rates of drug use as well. In future reports, NIJ will examine in detail the relationship between drug use and specific types of criminal activity, especially violence.

## Conclusions

The rise in the percentage of juvenile arrestees/detainees who tested positive for

recent use of marijuana is undoubtedly the most striking finding of this report. This escalation occurs as rates of cocaine use remain level or moderate only slightly. Measures of multiple drug use suggest that, for many of these juveniles, marijuana has not replaced cocaine as the drug of choice; rather, it is used in addition to cocaine.

Respondents who tested positive for marijuana use exhibited different patterns of school attendance than did those who tested positive for cocaine: greater percentages of those testing positive for marijuana reported to be in school than did cocaine users. These findings reveal a population with multiple risks. The link between drug use and other criminal activity has been traced for several years through the DUF data. Additional analysis of these data now reveal a link between drug use and patterns of school attendance.

Further research is important to discover the dynamics of the increase in marijuana use among juvenile arrestees/detainees. In addition, understanding the implications of drug use for educational attainment is critical to developing and delivering drug abuse intervention programs for juveniles already involved in the criminal justice system.

The findings in this report underscore the importance of providing intervention programs for youthful offenders. The data reveal a significant proportion of juvenile arrestees/detainees who are using illegal drugs, are faltering in their school attendance, and have been caught up in the criminal justice system under suspicion of a criminal act. Their appearance at a detention center is perhaps best viewed not as the final indictment of the individual but as the last best chance to intervene in the life of a young person facing several related risks.

*Thomas E. Feucht, Ph.D.*  
DUF Program Director



# Birmingham

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Arrestees and detainees from Jefferson County, which includes Birmingham.

### DUF Sample Size

Juvenile Males: 389

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 2              |
| 13-14 | 18             |
| 15-16 | 42             |
| 17-18 | 37             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 87             |
| White    | 12             |
| Hispanic | *              |
| Other    | 0              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 4              |
| Burglary                   | 5              |
| Destruction of Property    | *              |
| Drug Sale/Poss.            | 9              |
| Family Offense             | 0              |
| Flight/Bench Warrant       | 5              |
| Fraud/Forgery              | *              |
| Homicide/Mans.             | 2              |
| Larceny/Theft              | 8              |
| Probation/Parole Violation | 7              |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 14             |
| Robbery                    | 7              |
| Sex Offense                | 2              |
| Status Offense             | 2              |
| Stolen Property            | 7              |
| Stolen Vehicle             | 10             |
| Traffic Offense            | *              |
| Weapons                    | 14             |
| Other                      | 2              |

### School Attendance<sup>a</sup> (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 3              |
| Currently in School     | 71             |
| Currently Not in School | 26             |

Source: National Institute of Justice/Drug Use Forecasting Program

\* Less than 1%.

<sup>a</sup> Data based on voluntary self-reports.

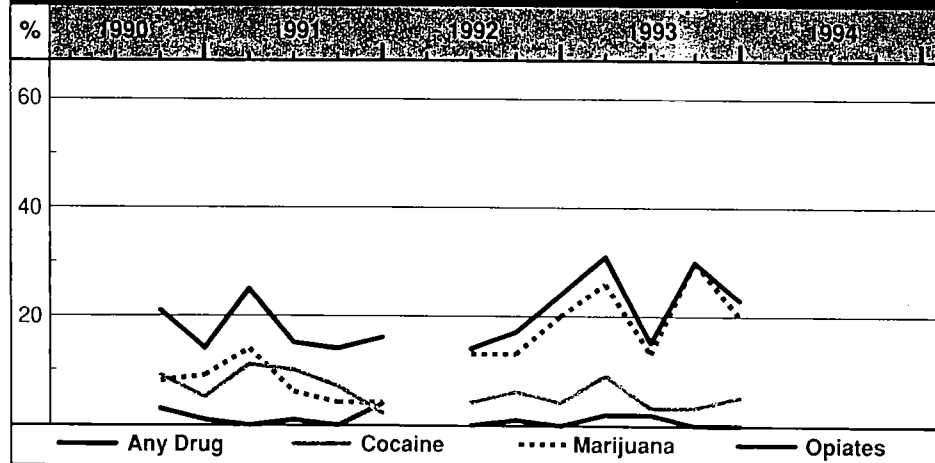
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 24         | **                | 10    | 19    | 39    | 24                 | 28    | **       | **    |
| Cocaine        | 5          | **                | 3     | 5     | 7     | 6                  | 0     | **       | **    |
| Marijuana      | 22         | **                | 8     | 16    | 36    | 22                 | 26    | **       | **    |
| Opiates        | 1          | **                | 0     | 1     | 1     | 1                  | 0     | **       | **    |
| Multiple Drugs | 5          | **                | 1     | 4     | 8     | 6                  | 2     | **       | **    |

\* Less than 1%.

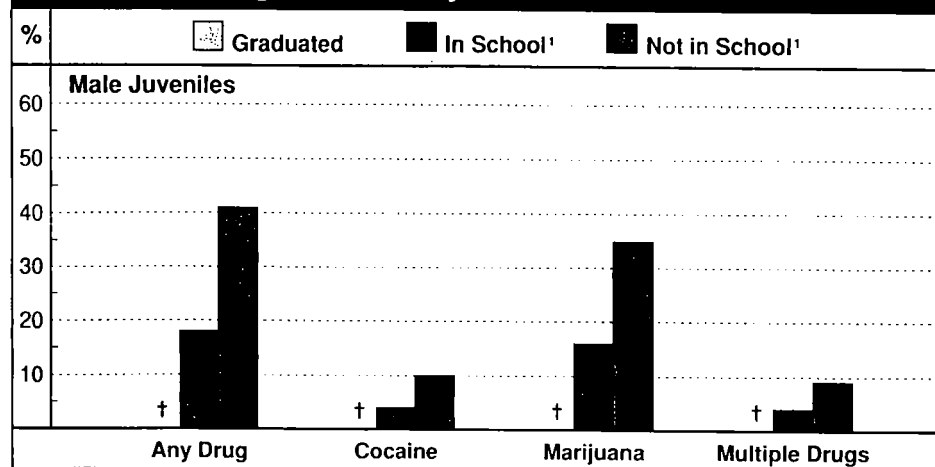
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Gaps on graph represent periods when data were not collected. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

<sup>†</sup> Data based on voluntary self-reports. <sup>†</sup> Less than 20 cases.

# Cleveland

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Detainees from Cuyahoga County, which includes Cleveland.

### DUF Sample Size

Juvenile Males: 329

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | *              |
| 13-14 | 18             |
| 15-16 | 44             |
| 17-18 | 37             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 79             |
| White    | 18             |
| Hispanic | 3              |
| Other    | *              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 10             |
| Burglary                   | 7              |
| Destruction of Property    | 4              |
| Drug Sale/Poss.            | 20             |
| Family Offense             | *              |
| Flight/Bench Warrant       | 0              |
| Fraud/Forgery              | 0              |
| Homicide/Mans.             | 1              |
| Larceny/Theft              | 2              |
| Probation/Parole Violation | 18             |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 1              |
| Robbery                    | 10             |
| Sex Offense                | 3              |
| Status Offense             | 2              |
| Stolen Property            | 13             |
| Stolen Vehicle             | 1              |
| Traffic Offense            | 0              |
| Weapons                    | 6              |
| Other                      | 2              |

### School Attendance\* (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 2              |
| Currently in School     | 86             |
| Currently Not in School | 12             |

Source: National Institute of Justice/ Drug Use Forecasting Program

\* Less than 1%.

† Data based on voluntary self-reports.

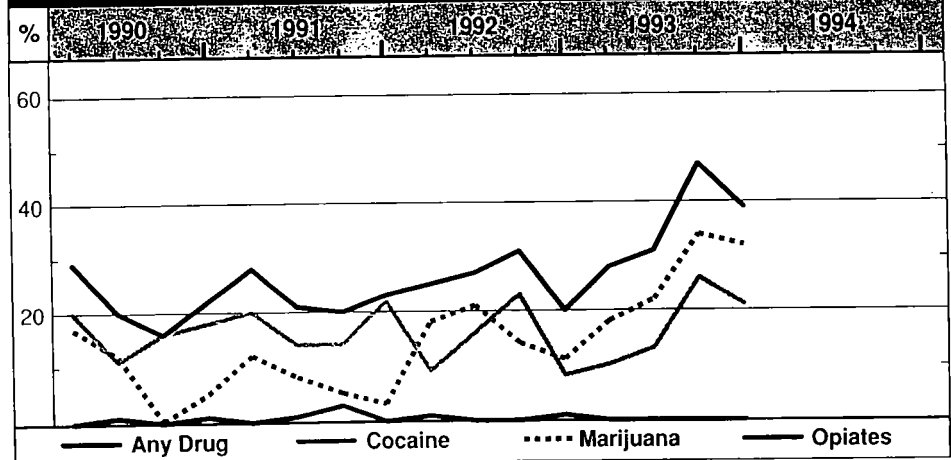
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 36         | **                | 18    | 33    | 48    | 39                 | 26    | **       | **    |
| Cocaine        | 18         | **                | 10    | 13    | 26    | 22                 | 2     | **       | **    |
| Marijuana      | 27         | **                | 14    | 24    | 36    | 28                 | 22    | **       | **    |
| Opiates        | 0          | **                | 0     | 0     | 0     | 0                  | 0     | **       | **    |
| Multiple Drugs | 11         | **                | 7     | 6     | 19    | 14                 | 0     | **       | **    |

\* Less than 1%.

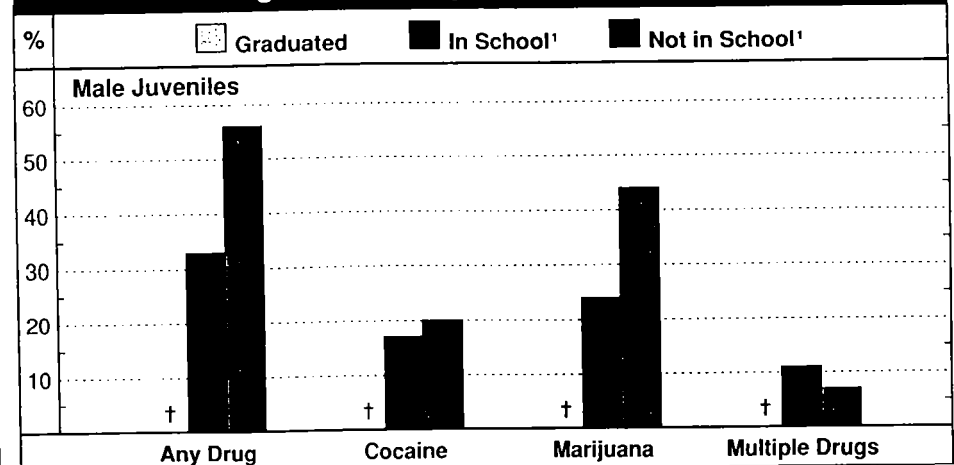
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

† Data based on voluntary self-reports. † Less than 20 cases.

# Denver

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Arrestees and detainees from Denver County, which is the city of Denver.

### DUF Sample Size

Juvenile Males: 452

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 2              |
| 13-14 | 20             |
| 15-16 | 44             |
| 17-18 | 34             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 37             |
| White    | 10             |
| Hispanic | 50             |
| Other    | 3              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 4              |
| Burglary                   | 3              |
| Destruction of Property    | 1              |
| Drug Sale/Poss.            | 4              |
| Family Offense             | 1              |
| Flight/Bench Warrant       | 41             |
| Fraud/Forgery              | 0              |
| Homicide/Mans.             | 1              |
| Larceny/Theft              | 1              |
| Probation/Parole Violation | 13             |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 4              |
| Robbery                    | 1              |
| Sex Offense                | 2              |
| Status Offense             | 3              |
| Stolen Property            | 0              |
| Stolen Vehicle             | 6              |
| Traffic Offense            | 2              |
| Weapons                    | 5              |
| Other                      | 6              |

### School Attendance<sup>a</sup> (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 2              |
| Currently in School     | 68             |
| Currently Not in School | 31             |

Source: National Institute of Justice/Drug Use Forecasting Program

<sup>a</sup> Less than 1%.

<sup>b</sup> Data based on voluntary self-reports.

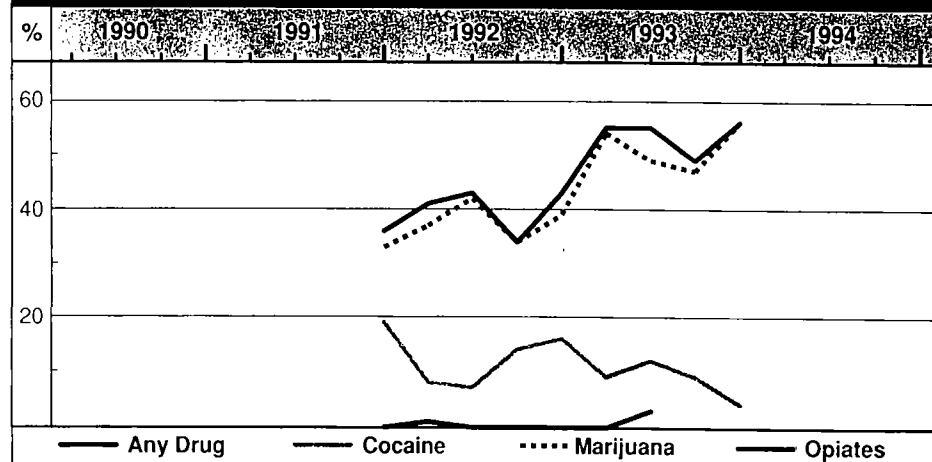
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 54         | **                | 35    | 57    | 66    | 57                 | 44    | 54       | **    |
| Cocaine        | 8          | **                | 4     | 8     | 13    | 13                 | 0     | 7        | **    |
| Marijuana      | 51         | **                | 35    | 54    | 62    | 54                 | 44    | 51       | **    |
| Opiates        | *          | **                | 0     | 1     | 1     | *                  | 0     | 1        | **    |
| Multiple Drugs | 8          | **                | 6     | 7     | 11    | 13                 | 0     | 5        | **    |

\* Less than 1%.

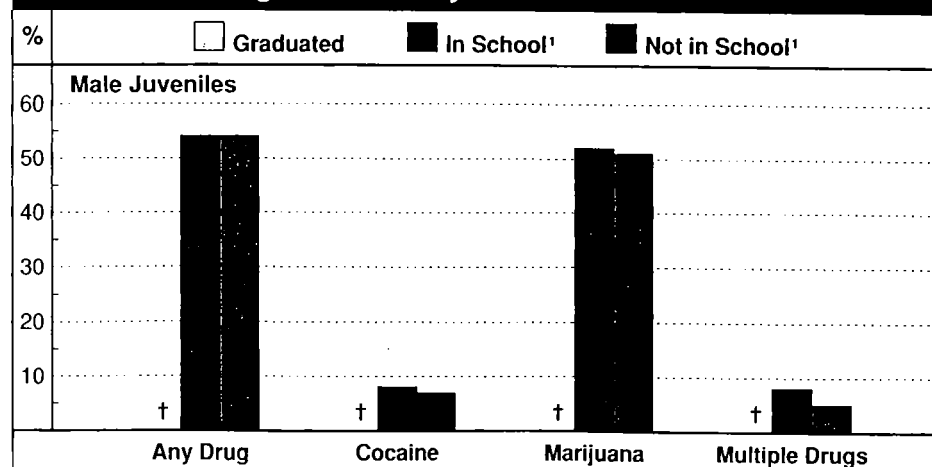
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

<sup>†</sup> Data based on voluntary self-reports. <sup>‡</sup> Less than 20 cases.

# Los Angeles

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Detainees from three select Los Angeles city and county facilities.

### DUF Sample Size

Juvenile Males: 426

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | *              |
| 13-14 | 14             |
| 15-16 | 49             |
| 17-18 | 36             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 24             |
| White    | 16             |
| Hispanic | 57             |
| Other    | 3              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 8              |
| Burglary                   | 5              |
| Destruction of Property    | 5              |
| Drug Sale/Poss.            | 6              |
| Family Offense             | *              |
| Flight/Bench Warrant       | 6              |
| Fraud/Forgery              | *              |
| Homicide/Mans.             | 3              |
| Larceny/Theft              | 2              |
| Probation/Parole Violation | 24             |
| Prostitution               | 0              |
| Public Peace/ Disturbance  | *              |
| Robbery                    | 12             |
| Sex Offense                | 3              |
| Status Offense             | 2              |
| Stolen Property            | 1              |
| Stolen Vehicle             | 12             |
| Traffic Offense            | *              |
| Weapons                    | 6              |
| Other                      | 4              |

### School Attendance<sup>a</sup> (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | *              |
| Currently in School     | 94             |
| Currently Not in School | 6              |

Source: National Institute of Justice/  
Drug Use Forecasting Program

\* Less than 1%.

<sup>a</sup> Data based on voluntary self-reports.

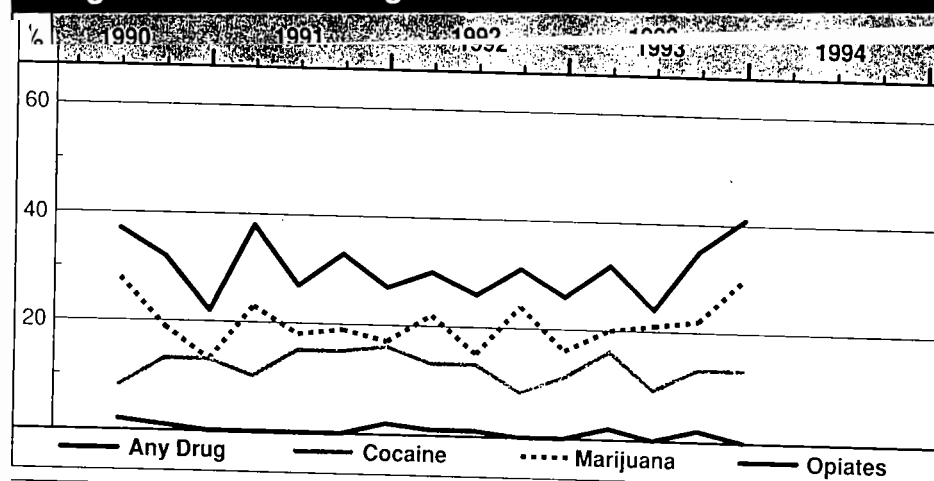
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 34         | **                | 20    | 35    | 39    | 25                 | 35    | 37       | **    |
| Cocaine        | 13         | **                | 7     | 12    | 18    | 3                  | 3     | 20       | **    |
| Marijuana      | 24         | **                | 14    | 26    | 26    | 20                 | 30    | 24       | **    |
| Opiates        | *          | **                | 0     | 1     | *     | 1                  | 0     | 1        | **    |
| Multiple Drugs | 10         | **                | 5     | 9     | 14    | 5                  | 11    | 12       | **    |

\* Less than 1%.

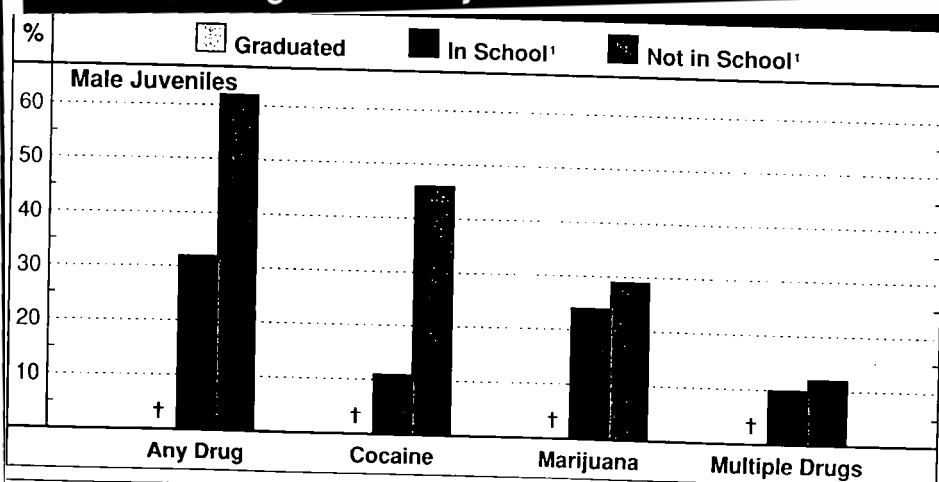
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

<sup>†</sup> Data based on voluntary self-reports. <sup>‡</sup> Less than 20 cases.

## Catchment Area:

Detainees from Maricopa County, which includes Phoenix.

## DUF Sample Size

Juvenile Males: 375

## Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 3              |
| 13-14 | 18             |
| 15-16 | 46             |
| 17-18 | 33             |

## Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 10             |
| White    | 37             |
| Hispanic | 50             |
| Other    | 2              |

## Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 16             |
| Burglary                   | 7              |
| Destruction of Property    | 4              |
| Drug Sale/Poss.            | 7              |
| Family Offense             | 2              |
| Flight/Bench Warrant       | 4              |
| Fraud/Forgery              | *              |
| Homicide/Mans.             | 0              |
| Larceny/Theft              | 9              |
| Probation/Parole Violation | 10             |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 3              |
| Robbery                    | 3              |
| Sex Offense                | 2              |
| Status Offense             | 5              |
| Stolen Property            | 1              |
| Stolen Vehicle             | 17             |
| Traffic Offense            | 0              |
| Weapons                    | 7              |
| Other                      | 3              |

## School Attendance<sup>a</sup> (%)

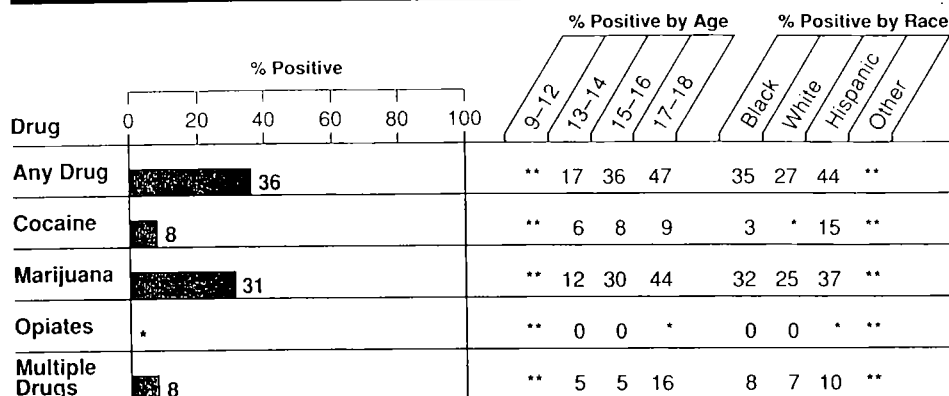
| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 3              |
| Currently in School     | 65             |
| Currently Not in School | 32             |

Source: National Institute of Justice/Drug Use Forecasting Program

\* Less than 1%.

<sup>a</sup> Data based on voluntary self-reports.

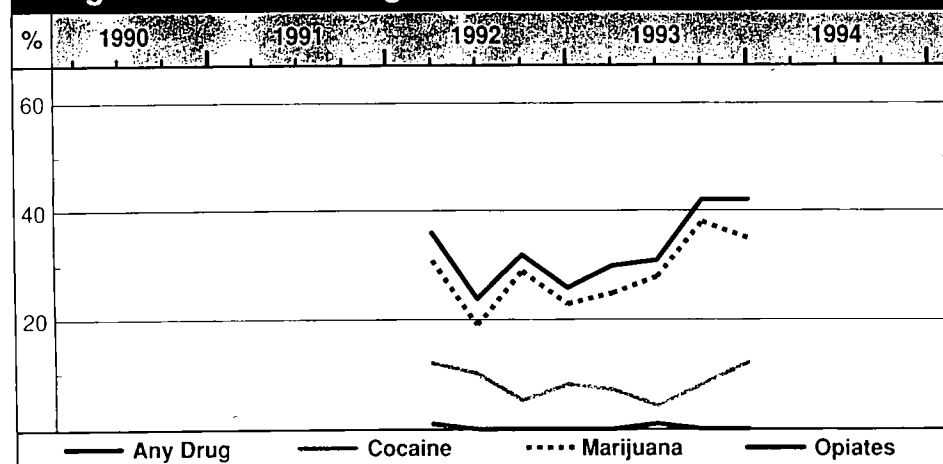
## Drug Use by Male Juvenile Arrestees/Detainees



\* Less than 1%.

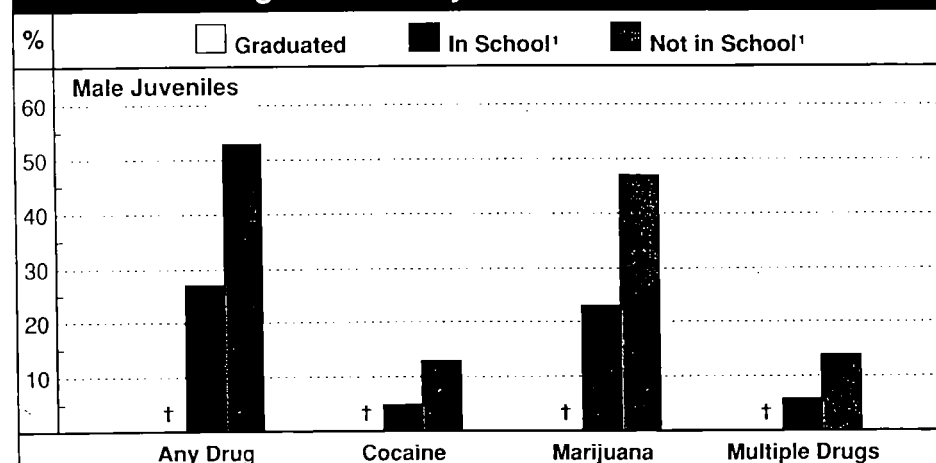
\*\* Less than 20 cases.

## Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

## Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

<sup>†</sup> Data based on voluntary self-reports. \* Less than 20 cases.

# Portland

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Detainees from Multnomah County, which includes Portland.

### DUF Sample Size

Juvenile Males: 353

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 1              |
| 13-14 | 22             |
| 15-16 | 50             |
| 17-18 | 27             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 31             |
| White    | 50             |
| Hispanic | 12             |
| Other    | 7              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 10             |
| Burglary                   | 5              |
| Destruction of Property    | 1              |
| Drug Sale/Poss.            | 5              |
| Family Offense             | 2              |
| Flight/Bench Warrant       | 8              |
| Fraud/Forgery              | *              |
| Homicide/Mans.             | 2              |
| Larceny/Theft              | 6              |
| Probation/Parole Violation | 4              |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 6              |
| Robbery                    | 5              |
| Sex Offense                | 4              |
| Status Offense             | 17             |
| Stolen Property            | *              |
| Stolen Vehicle             | 19             |
| Traffic Offense            | 0              |
| Weapons                    | 2              |
| Other                      | *              |

### School Attendance\* (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 2              |
| Currently in School     | 74             |
| Currently Not in School | 24             |

Source: National Institute of Justice/Drug Use Forecasting Program

\* Less than 1%.

† Data based on voluntary self-reports.

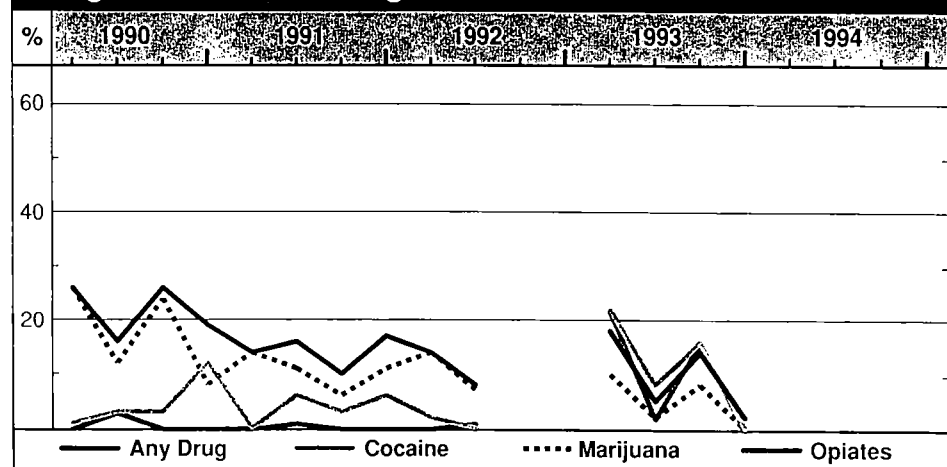
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 18         | **                | 6     | 15    | 34    | 23                 | 15    | 26       | 0     |
| Cocaine        | 4          | **                | 0     | 2     | 11    | 6                  | 1     | 14       | 0     |
| Marijuana      | 14         | **                | 4     | 12    | 26    | 20                 | 12    | 10       | 0     |
| Opiates        | *          | **                | 0     | 0     | 1     | 0                  | 0     | 2        | 0     |
| Multiple Drugs | 2          | **                | 0     | 1     | 6     | 5                  | *     | 5        | 0     |

\* Less than 1%.

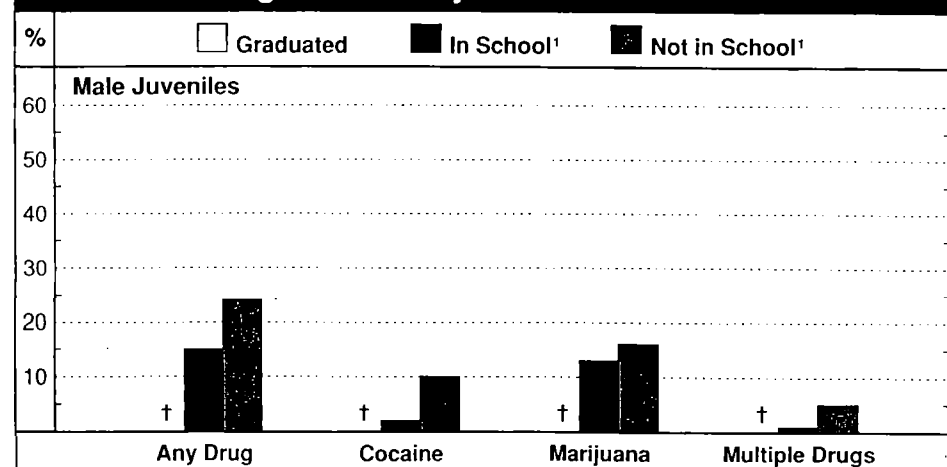
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Gaps on graph represent periods when data were not collected. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

† Data based on voluntary self-reports. † Less than 20 cases.

# St. Louis

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Detainees from the city of St. Louis.

### DUF Sample Size

Juvenile Males: 327

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 5              |
| 13-14 | 26             |
| 15-16 | 62             |
| 17-18 | 7              |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 90             |
| White    | 10             |
| Hispanic | 0              |
| Other    | 0              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 16             |
| Burglary                   | 7              |
| Destruction of Property    | 20             |
| Drug Sale/Poss.            | 14             |
| Family Offense             | 0              |
| Flight/Bench Warrant       | 2              |
| Fraud/Forgery              | 0              |
| Homicide/Mans.             | 1              |
| Larceny/Theft              | 5              |
| Probation/Parole Violation | 7              |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 2              |
| Robbery                    | 6              |
| Sex Offense                | 2              |
| Status Offense             | *              |
| Stolen Property            | 1              |
| Stolen Vehicle             | 5              |
| Traffic Offense            | 0              |
| Weapons                    | 8              |
| Other                      | 4              |

### School Attendance<sup>a</sup> (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | *              |
| Currently in School     | 89             |
| Currently Not in School | 11             |

Source: National Institute of Justice/  
Drug Use Forecasting Program

\* Less than 1%.

<sup>a</sup> Data based on voluntary self-reports.

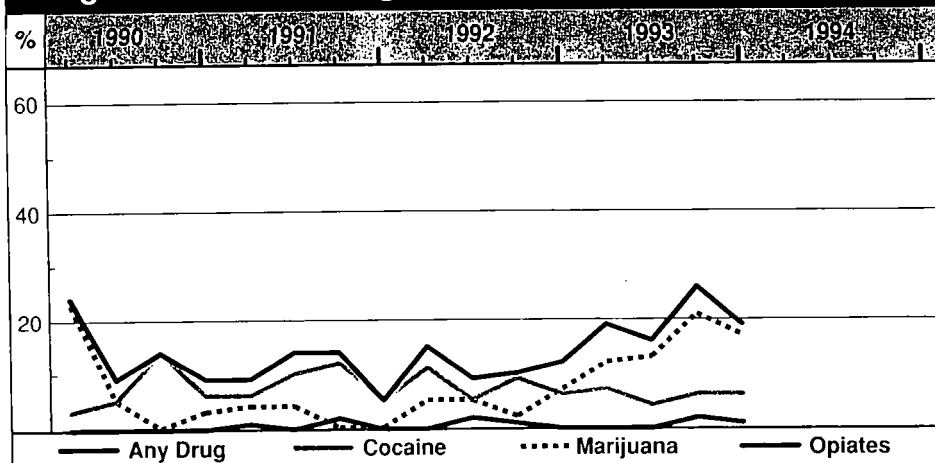
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 20         | **                | 10    | 26    | 17    | 20                 | 23    | **       | **    |
| Cocaine        | 6          | **                | 2     | 8     | 0     | 6                  | 3     | **       | **    |
| Marijuana      | 16         | **                | 8     | 20    | 17    | 15                 | 19    | **       | **    |
| Opiates        | *          | **                | 0     | 2     | 0     | 1                  | 0     | **       | **    |
| Multiple Drugs | 2          | **                | 1     | 4     | 0     | 2                  | 0     | **       | **    |

\* Less than 1%.

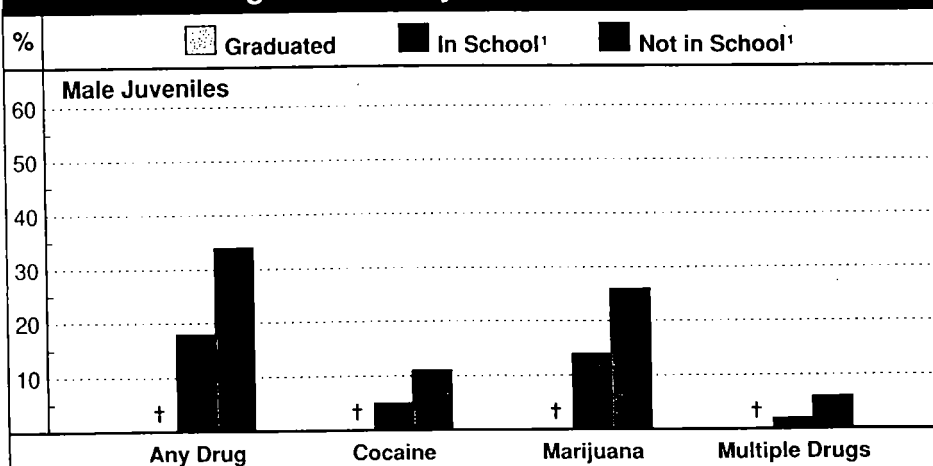
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

<sup>†</sup> Data based on voluntary self-reports. <sup>‡</sup> Less than 20 cases.

# San Antonio

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Arrestees and detainees from Bexar County, which includes San Antonio.

### DUF Sample Size

Juvenile Males: 323

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | *              |
| 13-14 | 29             |
| 15-16 | 60             |
| 17-18 | 10             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 12             |
| White    | 12             |
| Hispanic | 75             |
| Other    | 1              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 7              |
| Burglary                   | 11             |
| Destruction of Property    | 1              |
| Drug Sale/Poss.            | 12             |
| Family Offense             | 2              |
| Flight/Bench Warrant       | *              |
| Fraud/Forgery              | 0              |
| Homicide/Mans.             | 2              |
| Larceny/Theft              | 19             |
| Probation/Parole Violation | 2              |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 12             |
| Robbery                    | 2              |
| Sex Offense                | *              |
| Status Offense             | 7              |
| Stolen Property            | 0              |
| Stolen Vehicle             | 12             |
| Traffic Offense            | *              |
| Weapons                    | 6              |
| Other                      | 3              |

### School Attendance\* (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | *              |
| Currently in School     | 80             |
| Currently Not in School | 19             |

Source: National Institute of Justice/ Drug Use Forecasting Program

\* Less than 1%.

\* Data based on voluntary self-reports.

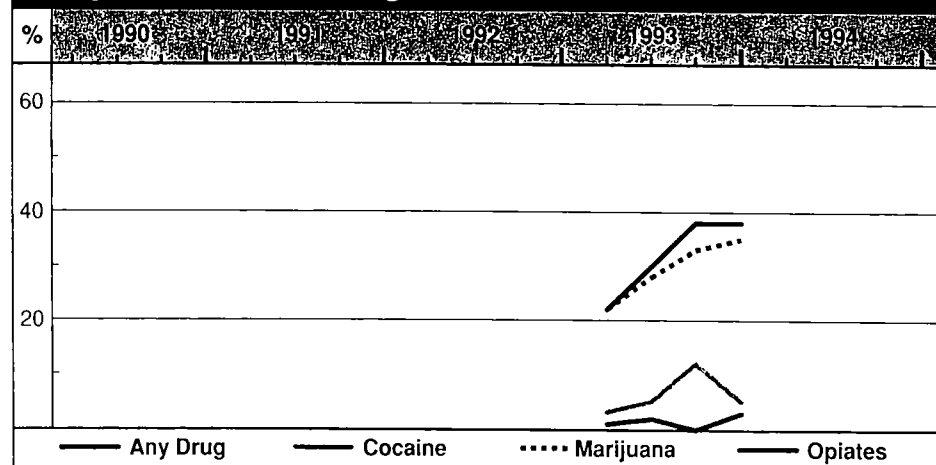
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 32         | **                | 22    | 37    | 33    | 24                 | 26    | 35       | **    |
| Cocaine        | 7          | **                | 3     | 10    | 0     | 8                  | 3     | 8        | **    |
| Marijuana      | 30         | **                | 22    | 33    | 33    | 24                 | 26    | 32       | **    |
| Opiates        | 2          | **                | 0     | 3     | 0     | 0                  | 0     | 2        | **    |
| Multiple Drugs | 7          | **                | 3     | 10    | 3     | 19                 | 3     | 7        | **    |

\* Less than 1%.

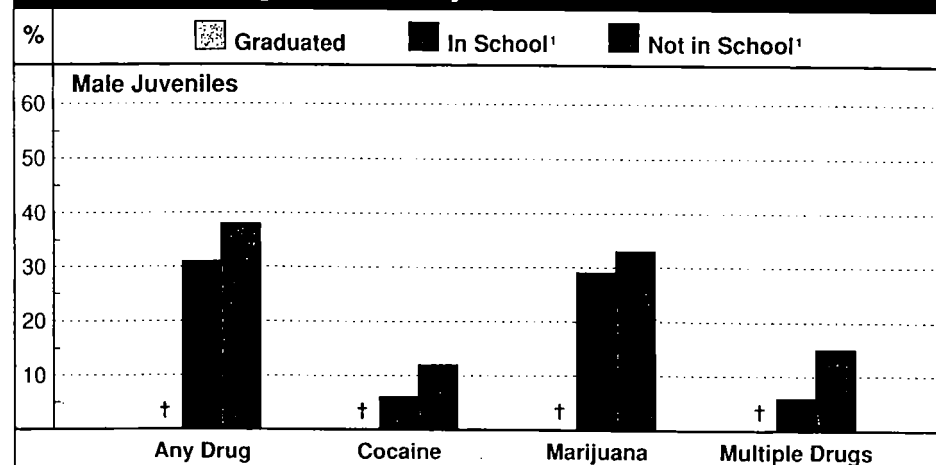
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

† Data based on voluntary self-reports. † Less than 20 cases.



# San Diego

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Detainees from San Diego County, which includes the city of San Diego.

### DUF Sample Size

Juvenile Males: 412

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 3              |
| 13-14 | 23             |
| 15-16 | 43             |
| 17-18 | 31             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 23             |
| White    | 23             |
| Hispanic | 42             |
| Other    | 12             |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 12             |
| Burglary                   | 15             |
| Destruction of Property    | 4              |
| Drug Sale/Poss.            | 6              |
| Family Offense             | *              |
| Flight/Bench Warrant       | 2              |
| Fraud/Forgery              | 1              |
| Homicide/Mans.             | 1              |
| Larceny/Theft              | 6              |
| Probation/Parole Violation | 7              |
| Prostitution               | 0              |
| Public Peace/ Disturbance  | 4              |
| Robbery                    | 6              |
| Sex Offense                | 1              |
| Status Offense             | 8              |
| Stolen Property            | 3              |
| Stolen Vehicle             | 8              |
| Traffic Offense            | *              |
| Weapons                    | 8              |
| Other                      | 6              |

### School Attendance\* (%)

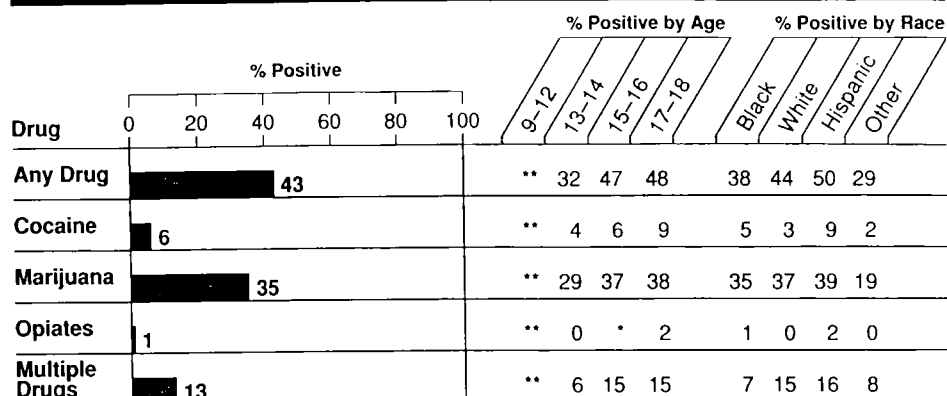
| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 2              |
| Currently in School     | 74             |
| Currently Not in School | 24             |

Source: National Institute of Justice/ Drug Use Forecasting Program

\* Less than 1%.

\* Data based on voluntary self-reports.

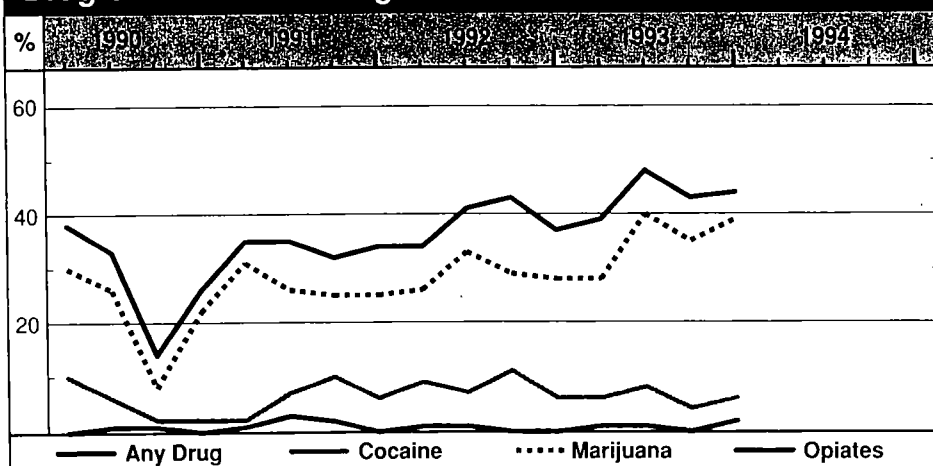
### Drug Use by Male Juvenile Arrestees/Detainees



\* Less than 1%.

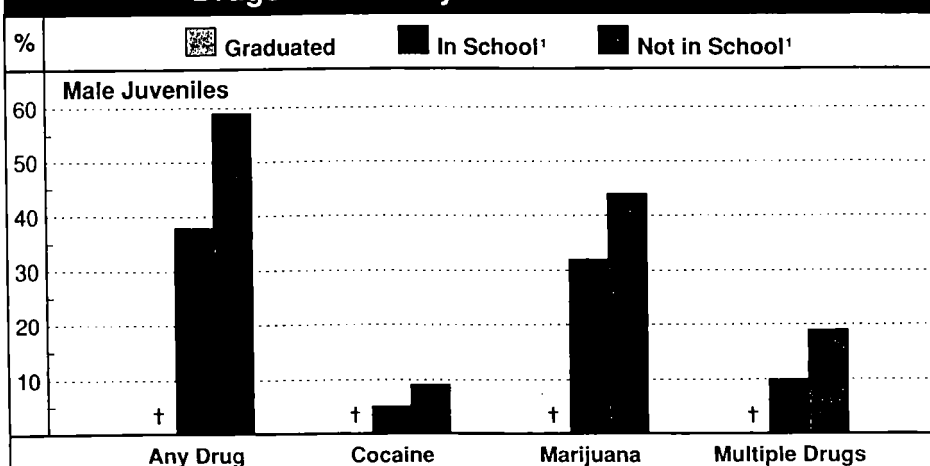
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

<sup>1</sup> Data based on voluntary self-reports. \* Less than 20 cases.

# San Jose

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Detainees from Santa Clara County, which includes San Jose.

### DUF Sample Size

Juvenile Males: 369

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 3              |
| 13-14 | 21             |
| 15-16 | 44             |
| 17-18 | 32             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 9              |
| White    | 25             |
| Hispanic | 52             |
| Other    | 14             |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 20             |
| Burglary                   | 3              |
| Destruction of Property    | 6              |
| Drug Sale/Poss.            | 3              |
| Family Offense             | *              |
| Flight/Bench Warrant       | 5              |
| Fraud/Forgery              | *              |
| Homicide/Mans.             | 1              |
| Larceny/Theft              | 4              |
| Probation/Parole Violation | 10             |
| Prostitution               | 0              |
| Public Peace/Disturbance   | 3              |
| Robbery                    | 2              |
| Sex Offense                | 2              |
| Status Offense             | 10             |
| Stolen Property            | 2              |
| Stolen Vehicle             | 6              |
| Traffic Offense            | *              |
| Weapons                    | 8              |
| Other                      | 14             |

### School Attendance\* (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 1              |
| Currently in School     | 77             |
| Currently Not in School | 22             |

Source: National Institute of Justice/ Drug Use Forecasting Program

\* Less than 1%.

\* Data based on voluntary self-reports.

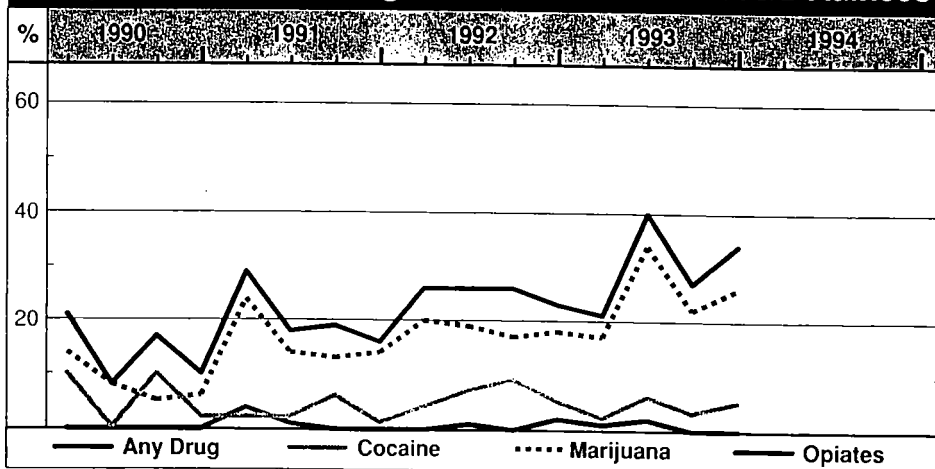
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 30         | **                | 22    | 31    | 37    | 26                 | 32    | 34       | 20    |
| Cocaine        | 4          | **                | 1     | 6     | 4     | 0                  | 3     | 4        | 10    |
| Marijuana      | 25         | **                | 21    | 23    | 32    | 24                 | 28    | 28       | 10    |
| Opiates        | *          | **                | 1     | 1     | 0     | 6                  | 1     | 0        | 0     |
| Multiple Drugs | 6          | **                | 3     | 5     | 10    | 3                  | 10    | 6        | 0     |

\* Less than 1%.

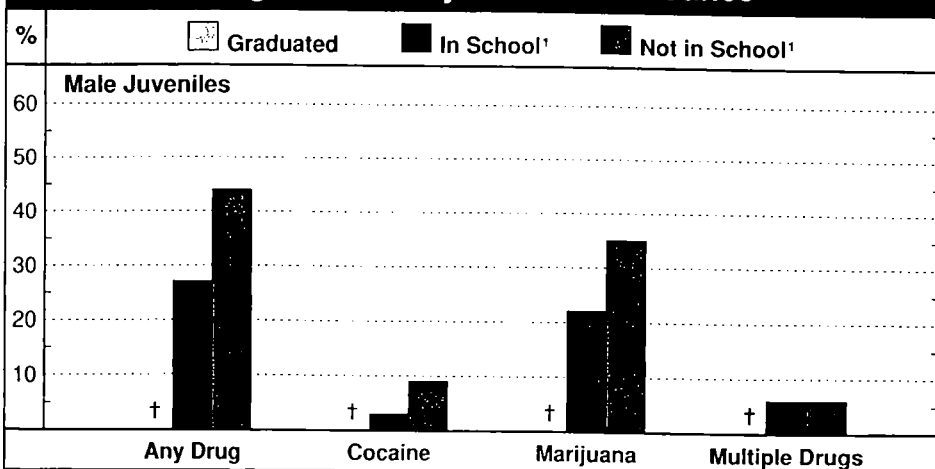
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

† Data based on voluntary self-reports. † Less than 20 cases.

# Washington, D.C. 1993 Drug Use Forecasting Program Findings

## Catchment Area:

Detainees from the District of Columbia.

## DUF Sample Size

Juvenile Males: 301

## Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 2              |
| 13-14 | 16             |
| 15-16 | 48             |
| 17-18 | 35             |

## Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 96             |
| White    | 1              |
| Hispanic | 4              |
| Other    | 0              |

## Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 16             |
| Burglary                   | *              |
| Destruction of Property    | 2              |
| Drug Sale/Poss.            | 24             |
| Family Offense             | 0              |
| Flight/Bench Warrant       | 7              |
| Fraud/Forgery              | 0              |
| Homicide/Mans.             | 1              |
| Larceny/Theft              | 1              |
| Probation/Parole Violation | 1              |
| Prostitution               | 1              |
| Public Peace/Disturbance   | 4              |
| Robbery                    | 8              |
| Sex Offense                | 2              |
| Status Offense             | 3              |
| Stolen Property            | *              |
| Stolen Vehicle             | 11             |
| Traffic Offense            | 2              |
| Weapons                    | 13             |
| Other                      | 4              |

## School Attendance\* (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 1              |
| Currently in School     | 87             |
| Currently Not in School | 12             |

Source: National Institute of Justice/  
Drug Use Forecasting Program

\* Less than 1%.

\* Data based on voluntary self-reports.

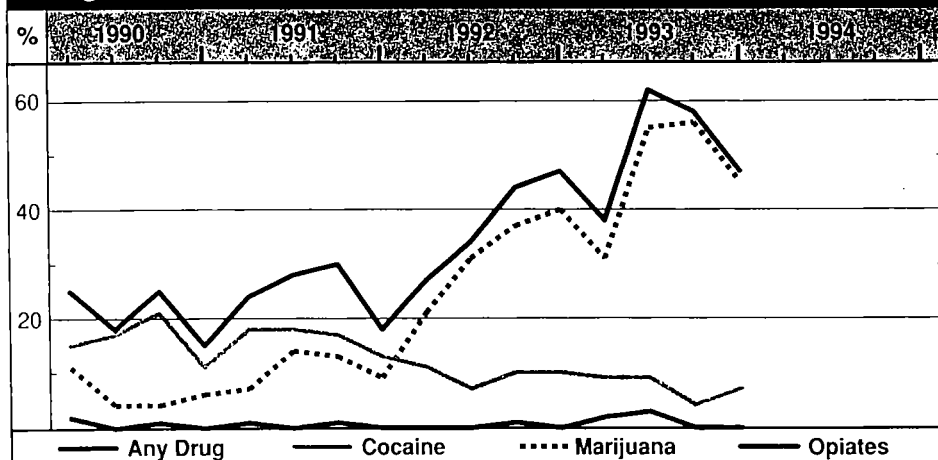
## Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 51         | **                | 19    | 57    | 59    | 52                 | **    | **       | **    |
| Cocaine        | 7          | **                | 0     | 7     | 13    | 7                  | **    | **       | **    |
| Marijuana      | 47         | **                | 19    | 52    | 54    | 48                 | **    | **       | **    |
| Opiates        | 1          | **                | 0     | 1     | 2     | 1                  | **    | **       | **    |
| Multiple Drugs | 14         | **                | 2     | 15    | 19    | 14                 | **    | **       | **    |

\* Less than 1%.

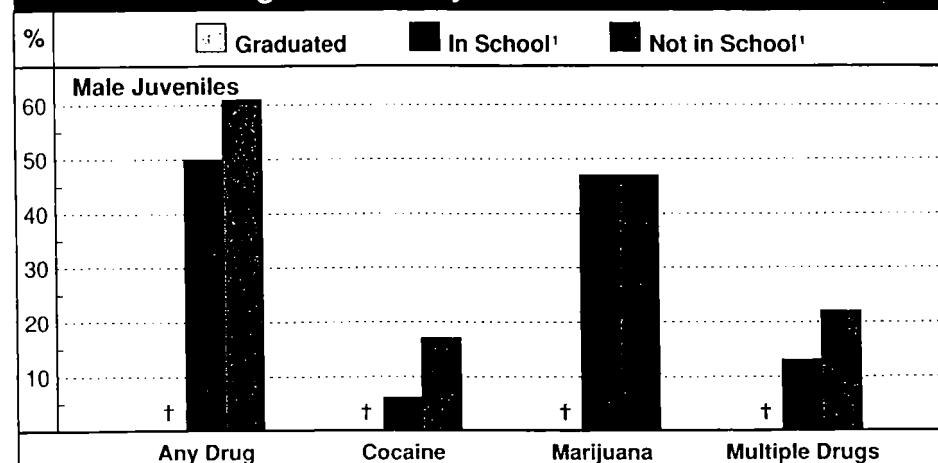
\*\* Less than 20 cases.

## Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Gaps on graph represent periods when data were not collected. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

## Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

† Data based on voluntary self-reports. † Less than 20 cases.

# Guide to DUF Site Data Tables

Pages 5 through 16 of this report contain one-page summaries of essential data from each of the twelve DUF sites that collected juvenile male arrestee/detainee data. The summary for each site is composed of two parts. On the left side of the page, the 1993 DUF data are described by catchment area, sample size, age, race, category of offense at arrest, and school attendance. On the right side, urinalysis results are presented in percentage distributions, bar charts, and line graphs. At the top right, urinalysis results for the 1993 samples of juvenile male arrestees/detainees are shown for specific drugs by age and race. Below this, line graphs show urinalysis results for the series of quarterly DUF data collection at the site beginning in 1990. At the bottom right of each page, bar graphs depict the percent positive for drugs among arrestees/detainees with respect to their school status.

**Catchment area and sample size.** Catchment areas for DUF collection vary across sites. In nine sites, the catchment area for juvenile DUF is the entire county. In St. Louis and Washington, D.C., the catchment area is the entire city, and in Los Angeles, the catchment area comprises parts of the city and county.

Sample size for the site indicates the number of juvenile male arrestees and/or detainees who completed the DUF interview and provided a urine specimen. (No distinction

is made in the report between arrestees and detainees.) The sample is the total across four quarterly collection periods in 1993. For some results in the tables, sample size is reduced slightly due to missing data.

**Age, race, and charge at arrest.** For each site, percentage distributions by age, race, and offense at arrest are shown for the 1993 sample. Typically, these data are obtained from official booking records at the facility such as a jail log or booking slips. While the maximum age of arrestees/detainees at these facilities is usually 17, some 18-year-olds are encountered. For this reason, the oldest age category reported is 17 through 18.

The percentage distribution of the offense at arrest is a function of the composition of the population of arrestees/detainees at the facility at the time of DUF data collection. No categories of arrestees or detainees are excluded or undersampled.

**Drug use by male juvenile arrestees/detainees.** This bar graph shows the percent of arrestees/detainees found to be urine-positive for drugs at the time of the DUF interview according to EMIT™. The graph shows the percent positive for any of ten drugs (listed at the bottom of each page), for cocaine, marijuana, and opiates, and for multiple drugs. The percent positive for these drugs is also tabulated by age and race. Percentages are not computed where

the number of arrestees/detainees in a category is fewer than 20.

**Drug use trends among booked arrestees.** DUF data collection for juvenile male arrestees/detainees began in 1988 at two sites. By 1990, this effort had expanded to include nearly all the sites reported here. The last site to begin juvenile data collection, Denver, started in 1991. In order to provide comparability throughout the tables, data series are reported beginning with 1990. Gaps in the line graphs represent periods when data were not collected or when sample size was insufficient for monitoring purposes.

**Drugs positive by school attendance.** Urinalysis results for any drug, for cocaine, marijuana, and for multiple drugs are shown by school attendance. Data on school attendance are based upon self-report and do not provide a measure of frequency of attendance or academic achievement. Though some arrestees/detainees have successfully completed their schooling, this number is typically too small, and results in the graph are presented only for those still in school and for those who no longer attend but have not graduated. Juveniles interviewed during summer months are asked if they plan to attend when school resumes in the fall.

# Indianapolis

## 1993 Drug Use Forecasting Program Findings

### Catchment Area:

Arrestees and detainees from Marion County, which includes Indianapolis.

### DUF Sample Size

Juvenile Males: 406

### Age of Booked Arrestees (%)

| Age   | Juvenile Males |
|-------|----------------|
| 9-12  | 6              |
| 13-14 | 25             |
| 15-16 | 45             |
| 17-18 | 24             |

### Race of Booked Arrestees (%)

| Race     | Juvenile Males |
|----------|----------------|
| Black    | 53             |
| White    | 46             |
| Hispanic | *              |
| Other    | 0              |

### Distribution of Charges at Arrest (%)

| Charge                     | Juvenile Males |
|----------------------------|----------------|
| Assault                    | 8              |
| Burglary                   | 7              |
| Destruction of Property    | *              |
| Drug Sale/Poss.            | 6              |
| Family Offense             | *              |
| Flight/Bench Warrant       | 3              |
| Fraud/Forgery              | 0              |
| Homicide/Mans.             | *              |
| Larceny/Theft              | 19             |
| Probation/Parole Violation | 5              |
| Prostitution               | *              |
| Public Peace/Disturbance   | 24             |
| Robbery                    | 1              |
| Sex Offense                | 2              |
| Status Offense             | 7              |
| Stolen Property            | *              |
| Stolen Vehicle             | 8              |
| Traffic Offense            | 1              |
| Weapons                    | 4              |
| Other                      | 1              |

### School Attendance<sup>a</sup> (%)

| Status                  | Juvenile Males |
|-------------------------|----------------|
| Graduated               | 2              |
| Currently in School     | 80             |
| Currently Not in School | 18             |

Source: National Institute of Justice/Drug Use Forecasting Program

\* Less than 1%.

<sup>a</sup> Data based on voluntary self-reports.

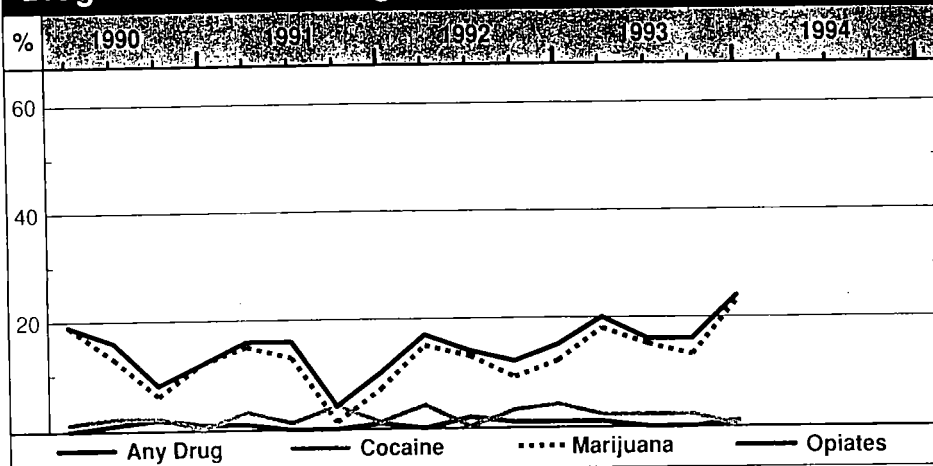
### Drug Use by Male Juvenile Arrestees/Detainees

| Drug           | % Positive | % Positive by Age |       |       |       | % Positive by Race |       |          |       |
|----------------|------------|-------------------|-------|-------|-------|--------------------|-------|----------|-------|
|                |            | 9-12              | 13-14 | 15-16 | 17-18 | Black              | White | Hispanic | Other |
| Any Drug       | 19         | 0                 | 5     | 18    | 42    | 14                 | 26    | **       | **    |
| Cocaine        | 2          | 0                 | 0     | 2     | 2     | 2                  | *     | **       | **    |
| Marijuana      | 18         | 0                 | 5     | 16    | 39    | 12                 | 24    | **       | **    |
| Opiates        | *          | 0                 | 0     | 0     | 2     | 0                  | 1     | **       | **    |
| Multiple Drugs | 3          | 0                 | 1     | 2     | 6     | 2                  | 4     | **       | **    |

\* Less than 1%.

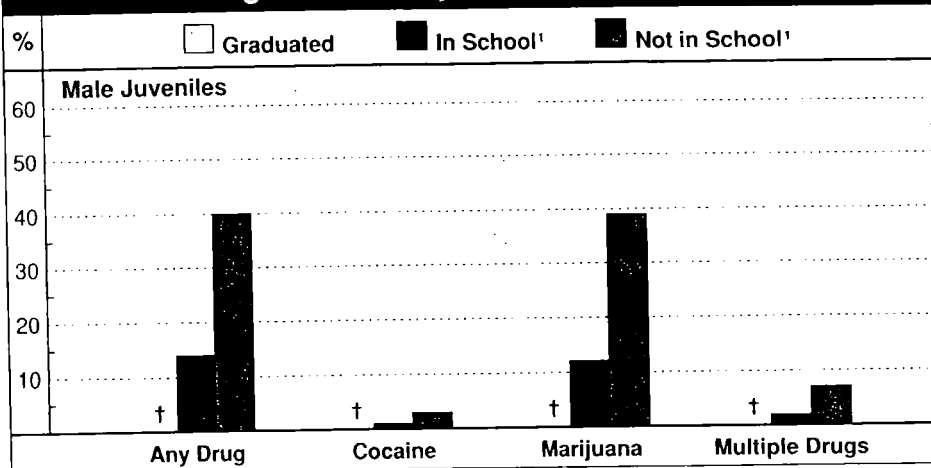
\*\* Less than 20 cases.

### Drug Use Trends Among Male Juvenile Arrestees/Detainees



Note: Positive by urinalysis, January through December 1993. Any Drug includes cocaine, opiates, PCP, marijuana, amphetamines, methadone, methaqualone, benzodiazepines, barbiturates, and propoxyphene.

### Drugs Positive by School Attendance



Note: Positive by urinalysis, January through December 1993.

<sup>†</sup> Data based on voluntary self-reports. <sup>†</sup> Less than 20 cases.

# 1993 Juvenile Arrestees/Detainees Positive by Offense Categories

% Positive for Cocaine

% Positive for Marijuana

| Site             | Violent | Property | Drug | Other | Violent | Property | Drug | Other |
|------------------|---------|----------|------|-------|---------|----------|------|-------|
| Birmingham       | 4       | 1        | 29   | 4     | 19      | 12       | 38   | 30    |
| Cleveland        | 16      | 8        | 36   | 16    | 23      | 26       | 30   | 29    |
| Denver           | 6       | 4        | *    | 8     | 44      | 46       | *    | 53    |
| Indianapolis     | 10      | 1        | 8    | 2     | 19      | 13       | 48   | 16    |
| Los Angeles      | 11      | 8        | 25   | 16    | 21      | 22       | 33   | 26    |
| Phoenix          | 7       | 8        | 24   | 4     | 28      | 26       | 68   | 33    |
| Portland         | 2       | 4        | *    | 2     | 7       | 19       | *    | 13    |
| St. Louis        | 5       | 2        | 21   | 4     | 22      | 7        | 26   | 12    |
| San Antonio      | 4       | 6        | 12   | 7     | 24      | 21       | 62   | 34    |
| San Diego        | 3       | 5        | 29   | 6     | 29      | 37       | 46   | 36    |
| San Jose         | 2       | 5        | 8    | 4     | 24      | 18       | 50   | 27    |
| Washington, D.C. | 4       | 5        | 14   | 5     | 45      | 35       | 63   | 39    |

\* Less than 20 cases

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Office of Justice Programs  
National Institute of Justice

Washington, D.C. 20531

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12888  
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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service  
National Institutes of Health

SEP 29 1994

National Institute on Drug Abuse  
5600 Fishers Lane  
Rockville, Maryland 20857

James I. Burke  
Chairman of the Board  
Partnership for a Drug-Free America  
405 Lexington Avenue  
New York, NY 10174

Dear Jim:

I was pleased to have the opportunity to comment on the remarks of Richard Cowan, national director of the National Organization for the Reform of Marijuana Laws, who said on the "Good Morning America" show (September 7, 1994) that the potency of marijuana has not increased over the past 20 years. I am concerned that these comments understate what we see as increasing dangers from marijuana. The research NIDA has conducted and supported on the potency of confiscated marijuana directly contradicts Mr. Cowan's assertion. This research has found:

1. Overall, cannabis potency has increased about three-fold since the mid-1970s.
2. Sinsemilla, one of the newer and more potent forms of marijuana cultivated by illicit growers, only became readily available during the last decade. It averages in the 6-7 percent potency range compared to 3-4 percent for most of the forms of marijuana. Sinsemilla, however, makes up only a small portion of all marijuana which is confiscated.
3. While the overall average potency of all marijuana confiscated is in the 3-4 percent THC range, occasional samples are obtained that exceed even the sinsemilla potency. For instance, the number of samples confiscated with over 12 percent THC by weight have been increasing over the past five years. Some individual samples have been analyzed that are as high as 25 percent THC by weight.

I hope that this information is helpful to you. If my staff or I can be of further assistance, please let us know.

Sincerely,

Alan I. Leshner, Ph.D.  
Director

# HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOR IMMEDIATE RELEASE  
Monday, Dec. 12, 1994

Contact: Pat El-Hinnawy  
(301) 443-8956

## DRUG-RELATED EMERGENCY ROOM CASES UP NATIONALLY

The Substance Abuse and Mental Health Services Administration today released data showing an 8 percent overall increase in drug-related emergency room cases from 1992 to 1993.

The data from DAWN -- the Drug Abuse Warning Network -- showed no significant changes in several categories including cocaine-related emergency visits, but showed a 31 percent increase in heroin-related emergency room visits, a 22 percent increase in marijuana/hashish-related cases, and a 53 percent increase in "speed" or methamphetamine cases.

Cases related to alcohol-drug combinations, methadone and LSD showed no statistically significant change.

HHS Secretary Donna E. Shalala said, "Nearly half of all heroin- and cocaine-related emergency room visits were for detoxification or for treatment of chronic medical conditions, including AIDS, related to drug use. This shows, in part, that we need to intervene earlier to help people get treatment for drug use in a more effective and less expensive setting than an emergency room -- before they develop chronic medical conditions."

Besides AIDS, the ailments that could lead drug users to emergency rooms include such conditions as chronic active hepatitis, recurring abscesses, neurotic disorders such as anxiety and hysteria, and depressive disorders.

- More -



HHS Assistant Secretary for Health Philip R. Lee, M.D., who is director of the Public Health Service, said, "The DAWN figures show the trap of addiction, and the costly consequences for the individual's health and for society. DAWN shows the importance of education and other steps to prevent drug use, and of early treatment when it occurs."

The overall upward trend in cocaine-related emergency department visits occurring since 1985 appeared to level off in 1993, although six of 21 metropolitan areas surveyed still reported increases from 1992 to 1993, with large increases in Buffalo (57 percent), Miami (36 percent) and Detroit (31 percent).

"The report suggests that we continue to have a large group of aging habitual drug users who are experiencing more and more drug-related medical problems and, as a result, have become dependent on hospital emergency rooms for medical services," said Nelba Chavez, Ph.D., administrator of the Substance Abuse and Mental Health Services Administration, an agency of the Public Health Service. SAMHSA conducts the DAWN survey. "As this population ages, it is likely that we will see more use of emergency rooms by this group. It is imperative that we break this cycle by finding more effective ways of bringing those in need into treatment."

The DAWN survey provides information on the impact of drug use on hospital emergency departments in the United States. It reports the number of episodes in which a person's visit to the emergency department was directly related to the use of an illegal drug or the non-medical use of a legal drug, including suicide attempts. DAWN does not measure the prevalence of drug use, but rather some of its health consequences. In 1993, 508 hospitals provided information on drug-related emergency room visits as part of the DAWN reporting system.

### Demographic characteristics

Age: From 1992 to 1993, the total number of drug-related episodes rose by 12 percent for those aged 35 years and over (from 154,600 to 172,800), by 5 percent for those aged 26 to 34 years (from 133,500 to 140,200), and by 10 percent for persons aged 12 to 17 years (from 46,800 to 51,300). There was no change among persons aged 18-25 years.

In 1993, 37 percent of total drug-related episodes occurred among persons aged 35 years and older, while 30 percent occurred among persons aged 26-34 years.

Race/ethnicity: From 1992 to 1993, total drug-related episodes increased by 13 percent for Hispanics/Latinos (from 42,200 to 47,600) and by 7 percent for whites (from 235,600 to 252,000). There was no change among African-Americans.

Gender: Total drug-related episodes increased by 9 percent for women (from 210,100 to 228,800) and 6 percent for men (from 219,600 to 233,300) from 1992 to 1993. Total drug-related episodes among men and women have been approximately equal since 1988. However, men account for most cocaine- and heroin-related episodes (67 percent and 71 percent respectively).

### Total emergency room visits

This year for the first time, DAWN data were compared by demographic group to data on total emergency room visits for all causes compiled in the National Hospital Ambulatory Medical Care Survey, which was conducted in 1992 by another PHS agency, the Centers for Disease Control and Prevention.

In all, in 1992 there were 570 drug-related episodes for every 100,000 emergency room visits nationwide. African-Americans used emergency rooms for treatment of drug-related problems at a rate of 918 episodes per 100,000 overall visits; Hispanics/Latinos at a rate of 595 per 100,000 visits and whites at 437 per 100,000.

The rate of drug-related episodes among men was 613 per 100,000 total emergency room visits and 522 among women.

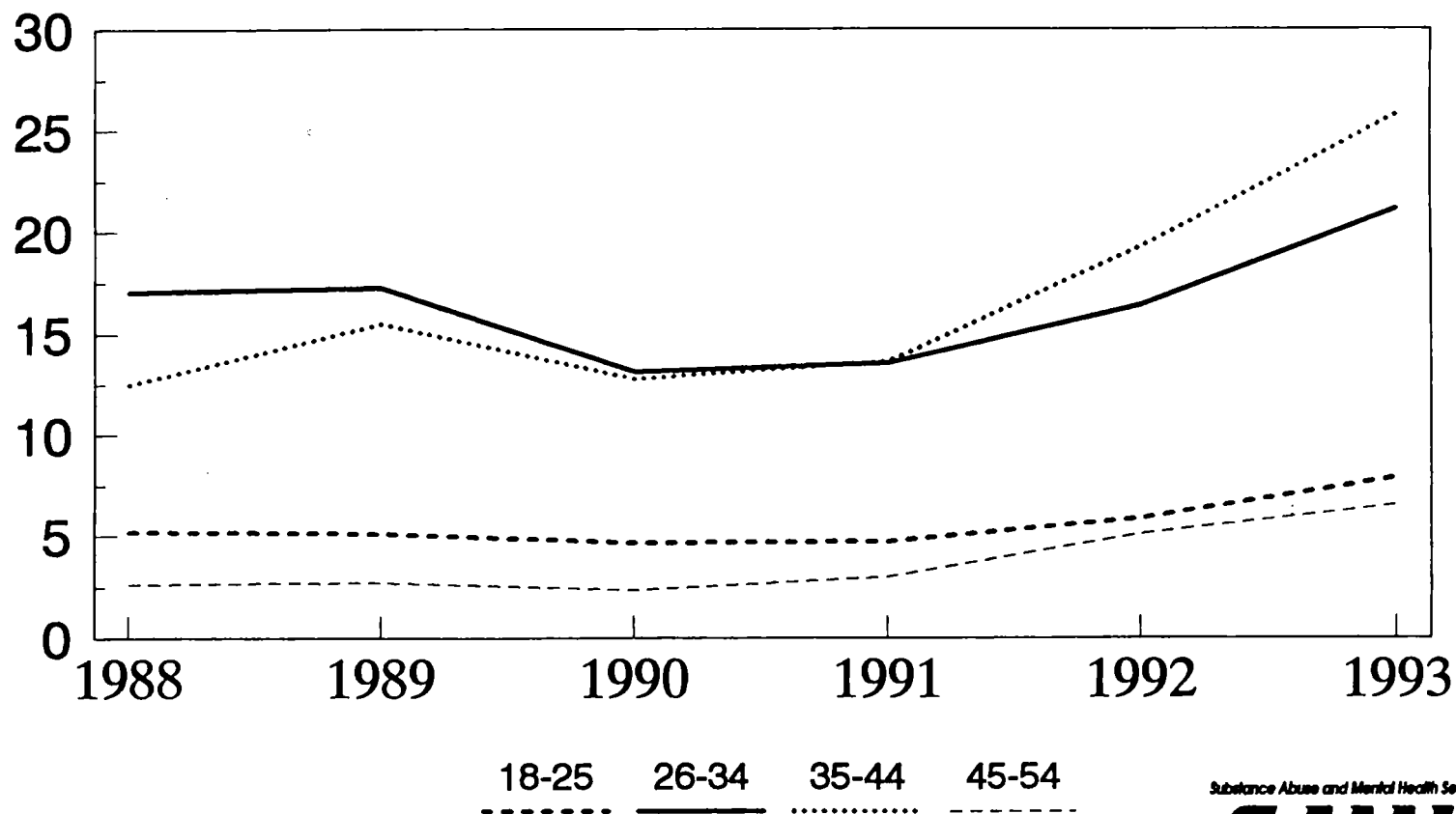
By age, persons in age groups 26-34 and 35-44 both used emergency rooms for drug-related crises at a rate of 944 episodes per 100,000 total emergency room visits.

###

Note: Copies of the 1993 DAWN Advance Report No. 8 are available from the SAMHSA press office, (301) 443-8956.

## Number of Heroin-Related Episodes by Age, 1988-1993

Thousands



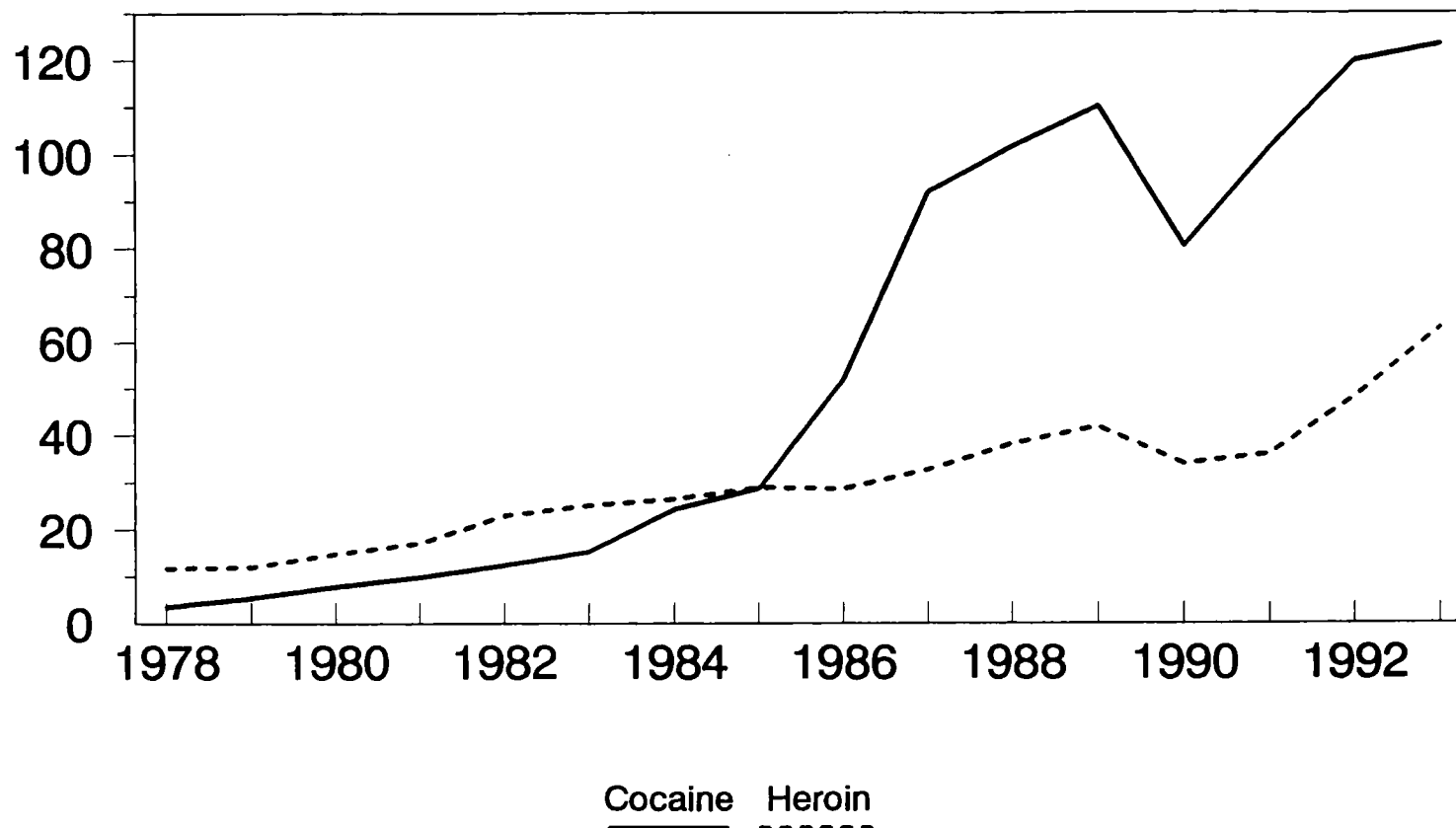
SOURCE: Drug Abuse Warning Network, 1993 Advance Report No. 8

Substance Abuse and Mental Health Services Administration

**SAMHSA**

## Detail of Cocaine- and Heroin-Related Episodes 1978-1993

Thousands



SOURCE: Drug Abuse Warning Network, 1993 Advance Report No. 8

Substance Abuse and Mental Health Services Administration

**SAMHSA**

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## **Clinton Presidential Records Digital Records Marker**

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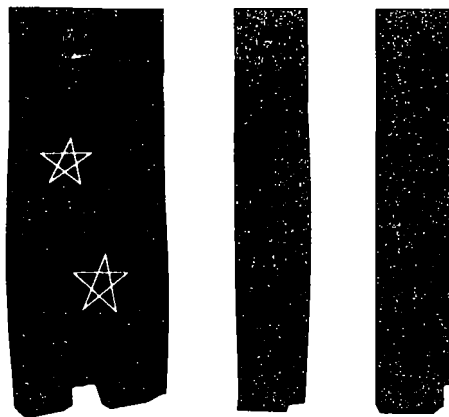
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# PARTNERSHIP

VOLUME 8, ISSUE 3

NEWSLETTER OF THE PARTNERSHIP FOR A DRUG-FREE AMERICA

FALL '94/WINTER '95



*Caruso recording in studio.*

## DAVID CARUSO DELIVERS NEW PSA, "CELEBRITY ENDORSEMENT"

Actor David Caruso has joined forces with Saatchi & Saatchi Advertising to create a new public service announcement for the Partnership. The television message, called "Celebrity Endorsement," broke nationally in early November in 10- and 15-second formats.

The new PSAs feature still photos of various celebrities who have died from drug overdoses. As pictures of Jimi Hendrix, Janis Joplin, John Belushi and River Phoenix appear in the spot, Mr. Caruso's voice-over says: "In advertising, they say one of the surest ways to get your message across is to put celebrities in your commercial." After a long pause, he adds, "We hope they're right."

"We're grateful that one of Hollywood's hottest stars is helping us remind people about the incredibly talented stars we've lost to drug abuse," said Richard D. Bonnette, president and CEO, of the Partnership.

*(Additional new creative on page 5)*

## PARTNER PROFILE

### KEYT-TV & GM SANDY BENTON MAKE SUBSTANCE ABUSE A TOP PRIORITY

If every community had a local television station like KEYT-TV with a general manager like Sandra Benton, winning the war on drugs might be a piece of cake.

Since joining this ABC affiliate in Santa Barbara, California seven years ago, Sandy has made service to the community — and substance abuse — the station's top priorities. And the station's efforts have paid off handsomely—with life-saving results.

According to KEYT, 80 percent of crime in Santa Barbara is drug- or alcohol-related. Substance abuse costs southern Santa Barbara County over \$90 million dollars per year, and one-third of Santa Barbara's women abuse alcohol or other drugs during pregnancy. "If our current pace continues, in two decades, half of our school children will be drug-exposed prior to birth," Sandy says.

Enticed to take action by a local community organization, KEYT, under Sandy's direction, dove into the fight against substance abuse in July 1990 with several programming projects, all designed to raise awareness, spark discussion and bring about local solutions to Santa Barbara's substance

abuse problem.

To bring its viewers timely, relevant information about drugs and alcohol in Santa Barbara county, KEYT established a weekly news segment called "Fighting Back." Airing each Wednesday evening on Channel 3's local newscast, the segment has become a regular part of the station's newscast, bringing viewers a variety of

*continued page 3*



*A KEYT anchor introduces a story about substance abuse on the station's evening broadcast.*

## MORE KIDS VULNERABLE TO POT USE

Over the next one to two years, hundreds — and potentially thousands — of American teenagers may start using marijuana for the first time, according to a new analysis of teen attitudes about drugs.

"The vast majority of young teenagers in America — close to 70 percent of them — are not into drugs," said Ginna Marston, director of research and strategic development at the Partnership. "But a small, vulnerable population of kids are likely to cross the line in the next year or two, and that's disturbing."

Conducted by Audits & Surveys Worldwide for the Partnership for a Drug-Free America, the analysis takes a close look at the drug-related

attitudes of 13- to 15-year-olds in the United States and reveals a small cohort of young teenagers — totaling 12 percent of the sample — now "at risk" of initiating use of marijuana in the very near future.

Though they have not used marijuana in the past year, these at-risk adolescents are showing warning signs and vulnerability to the drug scene, according to the data.

Undertaken by the Partnership to closely examine teen attitudes about marijuana, the study places 13- to 15-year-olds into four general categories based on past, present or potential drug use for the future, as well as on current attitudes about drugs.

*continued page 3*