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ABSTRACT

This report compares current trends in national and Maryland drug abuse rates; reviews social and psychological factors associated with drug abuse; describes the physiological effects of frequently abused substances; reviews the State's drug and alcohol enforcement programs targeted to adolescents; and outlines Maryland's prevention and treatment programs. Highlights of the report include: (1) Maryland's trends in the use of alcohol and drugs in the adolescent population are not always similar to national trends; (2) Maryland adolescent abusers tend to be poly-abusers, combining use of drugs with alcohol; (3) children, adolescents, and young adults contribute disproportionately to arrest statistics in the areas of drug law violations and driving while intoxicated; (4) substance abuse can be defined legalistically or clinically; (5) several social environmental, interpersonal, and behavioral facts are statistically linked to whether an individual will become an experimental user or chronic substance abuser; (6) treatment needs of adolescents differ from those of adults, primarily because adolescents are less likely to be physically dependent and psychiatric help is often employed; (7) numbers of school suspensions for use and possession of dangerous substances are low compared to suspensions for other reasons, but school officials believe that drugs probably contribute significantly to the number of suspensions for behavior and attendance problems; and (8) prevention programs are viewed as integral to anti-substance abuse strategies despite their generally poor track records and uncertainty over the effectiveness of new approaches. (ABL)

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VOLUME 5, NO. 1 JUNE, 1987

THE ABUSE OF DRUGS AND ALCOHOL BY ADOLESCENTS:

AN OVERVIEW

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INTRODUCTION

Drug and alcohol abuse is a major public concern and fuels longstanding debates within public health and political circles. Recently, the drug-induced death of Maryland basketball player Len Bias added emphasis to the President's call for national action. The "War on Drugs" and "Just Say No" are two of the more ambitious ongoing programs to reduce substance abuse.

Development of effective countermeasures and treatments is made more difficult by constant shifts in the patterns of drug abuse. For example, nationwide surveys of 12th graders show a declining abuse of other substances accompanying a growth in frequent use of PCP and cocaine.

This report to the General Assembly gives an overview of the drug and alcohol abuse by adolescents. The report:

- compares current trends in national and Maryland drug abuse rates;
- reviews social and psychological factors associated with drug abuse.
- describes the physiological effects of frequently abused substances;
- reviews the State's drug and alcohol enforcement programs targeted to adolescents, and;
- outlines Maryland's prevention and treatment programs.

EXECUTIVE SUMMARY

We present drug and alcohol abuse data for the nation and for Maryland. This report does not attempt to recommend nor to evaluate existing substance abuse treatment and prevention programs, but aims at a factual presentation about the drug and alcohol abuse problem in Maryland and the programs and resources that exist to combat the problem. It explores trends in drug use and the prevalence of such use, examines why adolescents become initiated into drug use, and explores the patterns of use. Finally, this paper discusses the prevention and treatment programs in operation in Maryland.

Nationally, over 90% of high school students have tried alcohol and over 50% have tried marijuana before graduation. Maryland trends in the use and abuse of drugs and alcohol in the adolescent population are not always identical to national patterns. For example, more Maryland 12th graders report ever trying, currently using, or frequently using substances. Nationally, but not in Maryland, illicit drug use is higher in metropolitan areas than in nonmetropolitan areas. Drug use in non-metropolitan areas in Maryland is at least as prevalent as it is in metropolitan areas.

Maryland abusers under the age of 18 tend to use less opiates (preferring non-opiates) than do older individuals. These adolescents tend to be poly-abusers, combining the use of drugs with alcohol.

Children, adolescents and young adults contribute disproportionately to arrest statistics, accounting for nearly 55% of all arrests for drug law violations and 67% of the arrests for driving while intoxicated. Young adults age 18 to 21 account for a significant portion of the substance abuse violations other than driving while under the influence of alcohol or drugs.

There are two ways of defining substance abuse, the legalistic and the clinical. The former considers all use as abuse; the latter identifies chronic, pathological use as abuse. How the problem is addressed is largely the result of which definition is accepted.

Several social environmental, interpersonal, and behavioral factors are statistically linked to whether an individual will become an experimental user or chronic abuser of substances. Causation is difficult to determine precisely, but initiation paths, or sequences of use and abuse, have been identified. These sequences vary according to intrapersonal and other factors.

Treatment needs of adolescents differ from those of adults, primarily because adolescents are less likely to be physically dependent. Psychiatric help is often employed in adolescent treatment programs since substance abuse in adolescents is more likely to be symptomatic of psychological or behavioral problems.

Numbers of suspensions for use and possession of dangerous substances are low compared to suspensions for other reasons, but school officials believe that drugs probably contribute significantly to the number of suspensions for behavior and attendance problems.

Prevention programs are viewed as integral to anti-substance abuse strategies despite their generally poor track records and uncertainty over the effectiveness of new approaches.

DEFINING DRUG AND ALCOHOL ABUSE

When analyzing drug and alcohol abuse, one's definition of substance "abuse" largely determines the magnitude of the problem. The two primary definitions of substance abuse are the legalistic and the clinical.

The 1986 Maryland Governor's Task Force on Alcohol Abuse by Youth and Young Adults provides an example of the legalistic school, stating: "[d]rug use, other than drugs prescribed by a physician, is illegal regardless of age and is considered abusive. The Task Force considers any alcohol use by underage youngsters and excessive use by young adults to be abusive."

Considerably different is the clinical approach, exemplified by the American Psychiatric Association. The Association defines drug abuse as a "pattern of pathological use that persists for at least a month and that causes impairment in social or occupational functioning in the family, at school or in a work setting." Similarly, Harrison's Principles of Internal Medicine defines alcoholism as "both a chronic disease and a disorder of behavior, characterized in either context by drinking of alcohol to an extent that surpasses the social drinking customs of the community and that interferes with the drinker's health, interpersonal relations, or means of earning a livelihood."

Over 90% of high school students try alcohol and over 50% try marijuana before they graduate. Clinically speaking, these adolescents are not substance abusers. Such use among high school students is clearly illegal, but it is not necessarily abusive from the clinical standpoint. Labeling these adolescent drug users as abusers may set in motion a self-fulfilling prophecy, which serves to criminalize the user, thereby conferring on the individual a "deviant" or "problem" status (Baumrid, 1986). On the other hand, such users cannot be ignored: the chronic user may go undetected, drop out of school, remain completely unidentified and untreated, and ultimately become a substance abuser in a clinical sense. Prevention and intervention or treatment strategies that fail to distinguish between "experimental" users and chronic users of alcohol and/or other illicit drugs may serve to alienate the "experimental user" and not reach the chronic user at all.

Unlike the legalistic framework, the clinical approach recognizes several different types of drug and alcohol users. To substantiate such differentiation, considerable data has been collected. The next section examines this empirical evidence on the trends of drug and alcohol use among different categories of users.

TRENDS IN SUBSTANCE USE

The University of Michigan's Institute for Social Research and the Maryland Department of Health and Mental Hygiene conduct comprehensive surveys to measure the prevalenc of substance use by adolescents nationwide and in Maryland, respectively. As Table 1 shows, Maryland generally follows the national trends. Since 1980, the national and Maryland surveys report increases in "current use" rates of cocaine, PCP and heroin. However, since 1980, Maryland reports increases in "frequent use" of amphetamines, cocaine, hallucinogens, tranquilizers, barbiturates, PCP and heroin, while the National survey reports increases in the frequent use of only cocaine and PCP. Since 1982, both the national and State surveys report increases only in cocaine and PCP use.

Generally, Maryland and national trends are similar. But there are some differences, particularly relating to more Maryland 12th graders reporting ever trying, currently using, or frequently using a variety of substances. Tables 2 and 3 demonstrate that:

- 10.9% of Maryland 12th graders have tried PCP compared with 4.9% nationally (Table 1);

- 5.7% of Maryland 12th graders report using PCP in the 1st month compared with 1.6 nationally; 3.2% of State 12th graders report using heroin within the last month compared to .3% nationwide (Table 2);

- 23.1% of Maryland 12th graders report frequent use of alcohol compared with 5% nationally (Table 3);

- 12.8% of Maryland 12th graders report frequent use of marijuana compared with 4.9% nationally (Table 3);

- 2.2% of State 12th graders report frequent use of cocaine compared with .4% nationally (Table 3); and

- 2.2% of Maryland 12th graders report frequent use of PCP compared with .3% nationwide (Table 3).

Table 1
Percentage of National and Maryland 12th Graders
Reporting Frequent Substance Use

	Nationwide			Maryland		
Substance	1980	1982	1985	1980	1982	1984
Alcohol	6.0	5.7	5.0	30.3	26.9	23.1
Cigarettes	21.3	21.1	19.5	21.8	24.7	22.4
Marijuana	9.1	6.3	4.9	20.7	17.9	12.8
Amphetamines	N/A	.7	.4	2.4	3.9	2.8
Cocaine	.2	.2	.4	1.4	1.7	2.2
Hallucinogens	.1	.1	.1	.9	1.7	1.3
Tranquilizers	.1	.1	.0	1.2	2.0	1.5
Barbiturates	.1	.1	.1	.9	1.6	1.6
PCP	.1	.1	.3	1.2	1.3	2.2
Heroin	.0	.0	.0	1.2	2.9	1.6

Note: Frequent use in the National study means using drugs or alcohol on at least 20 occasions in the past 30 days. For the Maryland study, frequent use means the use of drugs or alcohol several times a week or use more than once a day.

While the national survey documents that illicit drug use is higher in metropolitan areas than nonmetropolitan areas, this pattern does not seem to apply to Maryland. Table 4 reveals that drug and alcohol use among adolescents does not vary significantly with levels of urbanization. The percent of Maryland 12th graders reporting current use of any drug was highest in Baltimore County (41.5%), followed by Carroll (39.2%), Prince George's (36.7%), Harford (35.6%), Calvert (34.4%), Frederick and Wicomico (33.9%) and Baltimore City (33.6%). Montgomery County had the lowest percentage of any subdivision (22.5%).

This same pattern holds for 12th graders reporting frequent use of alcohol. Counties reporting the highest percentages of use were Anne Arundel (29.7%), followed by Caroline (29.5%), Worcester (28.7%), Carroll (28.1%), Allegany (27.3%), and Calvert (26.0%). Baltimore City reported the lowest rate of frequent alcohol use (17.7%).

Table 2
Percentage of National and Maryland 12th Graders Reporting Ever Trying Substances

Substance	Nationwide 1980	Nationwide 1982	Nationwide 1985	Maryland 1980	Maryland 1982	Maryland 1984	Age at First Use
Alcohol 1	93.2	92.8	92.2	87.9	87.1	85.6	13
Cigarettes	71.0	70.1	68.8	58.3	61.9	60.5	13
Marijuana	60.3	58.7	54.2	61.3	62.0	55.6	14
Amphetamines	N/A	27.9	26.2	20.0	28.2	24.7	14
Cocaine	15.7	16.0	17.3	19.7	19.7	19.9	16
Hallucinogens	15.7	15.0	10.3	16.1	15.4	11.7	15
Tranquilizers	15.2	14.0	11.9	17.3	17.9	14.7	14
Barbiturates	11.0	10.3	9.2	12.5	17.1	13.6	14
PCP	9.6	6.0	4.9	13.8	11.6	10.9	15
Heroin	1.1	1.2	1.2	3.6	5.4	5.2	14

1 The Maryland study measures use in the past year, while the National study measures any lifetime use.

Table 3
Percentage of National and Maryland 12th Graders Reporting Current Substance Use (within last month)

Substance	Nationwide 1980	Nationwide 1982	Nationwide 1985	Maryland 1980	Maryland 1982	Maryland 1984
Alcohol 1	87.9	86.8	85.6	87.9	87.1	85.6
Cigarettes	30.5	30.0	30.1	32.0	31.7	29.2
Marijuana	33.7	28.5	25.7	39.0	33.9	30.0
Amphetamines	N/A	10.7	6.8	10.4	13.7	9.8
Cocaine	5.2	5.0	6.7	9.9	10.3	10.7
Hallucinogens	3.7	3.4	2.5	7.5	7.7	5.7
Tranquilizers	3.1	2.4	2.1	7.0	8.7	6.4
Barbiturates	2.9	2.0	2.0	5.5	7.4	5.4
PCP	1.4	1.0	1.6	5.2	4.7	5.7
Heroin	.2	.2	.3	2.4	3.2	3.2

1 Current use for alcohol is the percentage of 12th graders using within the past year.

Methodological considerations may account for some differences observed in use rates between the national and Maryland surveys. No study has identified any factors unique to Maryland culture that would promote increased use of drugs and alcohol among adolescents. Nevertheless, it is generally acknowledged that substance use by Maryland adolescents is higher than the national average.

It is interesting to note that only students currently enrolled in high school were polled by the Maryland survey. Adolescents who have dropped out of school are not reflected in the data. Given that the drop out rate is close to 25%, this may represent a potentially significant number of drug and alcohol users.

Table 4
Percent of Adolescents Reporting Current Use of Drugs and Frequent Use of Alcohol by Subdivision for 1984

	Current Use of Drugs		Frequent Use of Alcohol	
	8th graders	12th graders	8th graders	12th graders
Allegany	10.0	31.4	8.8	27.3
Anne Arundel	20.1	32.6	16.8	29.7
Baltimore City	18.4	33.6	10.3	17.7
Baltimore County	16.8	41.5	8.9	25.4
Calvert	12.7	34.4	10.9	26.0
Caroline	14.6	24.9	13.1	29.5
Carroll	10.3	39.2	4.8	28.1
Charles	11.4	26.0	5.8	21.6
Dorchester	12.5	29.1	6.7	21.2
Frederick	12.5	33.9	7.4	24.3
Garrett	7.4	24.7	7.4	25.1
Harford	13.3	35.6	7.2	23.5
Howard	6.8	30.1	5.6	22.8
Montgomery	8.7	22.5	5.9	20.3
Prince George's	6.8	36.7	6.9	24.7
Queen Anne's	14.2	30.8	7.1	22.9
St. Mary's	12.5	27.7	7.2	22.5
Somerset	10.6	28.6	6.7	25.6
Washington	12.3	27.1	8.1	19.8
Wicomico	17.4	33.9	9.8	24.9
Worcester	15.0	30.8	11.1	28.7
Statewide	12.2	33.3	7.8	23.1

Note: Anne Arundel County did not participate in the 1984 State survey and the rates given are for 1982.

Dysfunctional Users in Maryland

In a 1985 study prepared for the Maryland Alcohol Control/Drug Abuse Administration, John Sheridan identified 153,610 individuals in the State who are dysfunctional chronic users or who are at risk of becoming dysfunctional due to drug abuse. This figure represents 4.7% of the State's population between the ages of 11-65. Contrary to data presented in the National and Maryland surveys, Sheridan's study reveals that the growth [in drug and alcohol abuse] is not only continuing, but is more than likely accelerating. Table 5 outlines the prevalence of opiate, and non-opiate substance abuse by females and males and by those under and over 18.

Generally, the data reveal that males are much more likely to be chronic users than are females and that there is a significantly higher number of abusers over 18 rather than under 18. For adolescents under the age of 18, non-opiate drugs appear to be the drugs of choice. However, as Table 6 demonstrates, adolescents 18 and under are more likely to be "poly-abusers", (e.g., combining the use of drugs with alcohol).

Table 5
Prevalence of Drug Abuse in Maryland

	Opiate		Non-opiate		Total	
	1981	1985	1981	1985	1981	1985
female	8,466	13,442	16,187	31,343	24,653	44,785
male	31,311	37,362	45,511	71,463	76,882	108,825
Under 18	1,703	360	28,106	36,605	29,809	36,965
18 and Over	38,074	50,444	33,592	66,201	71,666	116,645
Total	39,777	50,804	61,698	102,806	101,975	153,610

Table 6
Prevalence of Alcohol and Alcohol/Drug Abuse in Maryland

	Females		Males	
	Under 18	18 and Over	Under 18	18 and Over
Alcohol Abusers	1,316	50,996	11,585	176,147
Drug and Alcohol Abusers	4,628	67,018	27,699	235,456

ANTECEDENTS OF ADOLESCENT DRUG ABUSE

The use of drugs, whether it is occasional, experimental use or frequent and/or chronic use, occurs for a number of reasons. Some explanation can be attributed to experiences occurring during the often misunderstood period of transition from childhood to adulthood. Other reasons for drug use can be attributed to entrenched emotional problems.

The most important determinants of future drug use are social-environmental, intrapersonal, and behavioral factors (Murray and Perry, 1986). Elements of these factors are highlighted below.

Social Environmental Factors:

- family or peer approval, tolerance, and/or pressure
- family or peers as real or perceived models for drug use
- incompatibility between parents and peers
- greater reliance on peers than on parents for social activities
- absence of closeness to parents
- unconventionality of parents
- low educational aspirations for the child by parents
- lack of parental involvement in child's activities
- weak parental controls and discipline in general
- ready access to drugs

Intrapersonal Factors:

- greater value on independence
- low value on achievement
- lower expectations for academic achievement
- greater tolerance of deviant behavior
- lower religiosity
- greater criticism of social institutions
- greater rebelliousness
- lower value on social conformity
- greater receptivity to new ideas and experiences
- greater interest in creativity and spontaniety
- greater expectations of failure
- lower sense of psychological well-being
- lower conformity to social conventions

Behavioral Factors:

- use of other legal or illegal drugs
- various forms of delinquency
- sexual activity
- political activism
- declining academic performance

These factors work together in various ways to foster a tendency toward drug and alcohol use. Certain of these factors in the social environment are conducive to drug use through role models and social support, and access to drugs. However, all adolescents exposed to high risk environments do not choose to experiment or use drugs on a regular basis. Intrapersonal and behavioral factors are critical in determining the response to the environment by the relative value attached to conventional goals and activities, as well as to skills available to the adolescent in pursuing nondrug alternatives. Longitudinal studies suggest that many of these behaviors precede heavy drug use rather than result from it. Demographic factors, other than age and gender, have little effect. Causal direction is not readily determined.

While causal direction is difficult to establish, the paths by which individuals come to use drugs have been identified. Many studies have pointed to sequences of drug use. Typically, adolescents first use cigarettes or alcohol, followed by marijuana and then other illicit drugs. The sequence exhibits some variation between the sexes. Adolescent males are most likely to begin with alcohol, whereas adolescent females may begin with alcohol or cigarettes. Although a sequence has been identified, not everyone who uses cigarettes or alcohol will proceed to marijuana and only a small proportion of those who use marijuana will go on to use other illicit drugs.

The sequence of other illicit drug use after marijuana has not been clearly identified. Other illicit drug use after marijuana appears to vary among cultural or ethnic groups and from one historical period to another. One study of black youths identified the sequence after marijuana use to be cocaine, heroin, barbiturates, amphetamines and psychedelics. Another adolescent sample followed a different sequence, that of pills, psychedelics, cocaine, and heroin.

The initiation into use of most licit and illicit drugs begins early, although the progression through a sequence occurs over an extended period of time. The initiation rate for alcohol begins to increase at age 10, rises quickly after age 12 and peaks at age 18. The rate of initiation for marijuana begins to climb at age 13 and does not begin to drop until age 19-20. Cocaine, on the other hand, shows continuing rates of initiation after age 18. The age of initiation into alcohol or marijuana use is an important factor in determining future substance abuse. Adolescents who begin to use alcohol or marijuana after age 15 are less likely to proceed through a sequence or begin to abuse these substances.

The determinants of drug use and abuse are important to keep in mind when developing treatment and prevention programs. However, awareness of the physiological effects is another important component of these programs. The next section discusses physiology of the most commonly abused substances.

PHYSIOLOGY OF SUBSTANCE USE

Alcohol: Alcohol is a depressant and has its most obvious short-term effect on the central nervous system. Early symptoms of alcohol use are manifested by garrulousness, aggressiveness, excessive activity, and increased excitability of the cerebral cortex. Acute ingestion of alcohol also affects posture, control of speech and eye movements, and motor skills. Additionally, alcohol use impairs the learning process, making it slower and less effective. The ability to form word or figure associations is impaired and the ability to concentrate is reduced. Alcohol impedes judgement.

The long-term health effects of excessive alcohol use include an increased risk of breast cancer and liver disease and of damage to cardiac and skeletal muscle. Long-term excessive use also impedes the ability of the intestinal tract to absorb certain nutrients, contributing to anemia. Excessive use increases one's susceptibility to pancreatitis and can cause lower rates of testosterone production in men.

Marijuana: Marijuana produces effects that are immediate and acute. In low doses, the symptoms are similar to mild alcohol intoxication. In increasing amounts, the effects are similar to those of LSD, mescaline, and psilocybin (mushrooms) and may be disabling for many hours.

Research findings on the negative effects of marijuana are mixed. The National Commission on Marijuana and Drug Abuse documented that "there is little proven danger of physical or psychological harm from the experimental or intermittent use of the natural preparations of cannabis, including the resinous mixtures commonly used in this country...the experimenter and the intermittent users develop little or no psychological dependence on the drug. No organ injury is demonstrable."

Others have linked long-term use of marijuana with lung disease, chromosome damage, reduced reproductive function, and brain dysfunction. The Institute of Medicine has found that marijuana use has acute short-term effects on the cardiovascular, respiratory and nervous systems. There is evidence that marijuana intoxication also impairs the comprehension and retention of newly presented educational materials.

The Committee on Substance Abuse and Habitual Behavior, the Commission on Behavioral and Social Sciences and Education, and the National Research Council note that "it is evident that the full impact of marijuana use on human health will not be clear without careful epidemiological studies involving substantial populations of users - a matter of some decades - even though it is predictable that this drug - like all others - will cause harm in some of its users, particularly in its heaviest adolescent users."

Amphetamines: Amphetamines are stimulants and have significant hypertensive, respiratory-stimulant, and appetite-depressant effects. Toxic signs of use include restlessness, excessive speech and motor activity, tremor, and insomnia. Chronic use may lead to hallucinations, delusions, and changes in thought processes similar to paranoid schizophrenia.

Cocaine: Cocaine is a central-nervous system stimulant, similar in many ways to amphetamines. The most common health complaints of users who generally administer through nasal inhalation is a runny nose, inflammation of the nasal mucous membrane, and more dramatically, a perforated septum from chronic use.

Cocaine raises the user's blood pressure, and constricts the coronary arteries, thereby reducing the supply of oxygen to the heart. When smoked, cocaine also inflicts damage to the lungs. When cocaine is inhaled, it may produce microscopic tears in heart muscle and repress enzymes crucial to the normal functioning of the heart. This can lead to convulsions, stroke, heart attack, and possible death.

Smoking cocaine is much more physically addicting than inhaling cocaine. Dr. Sidney Cohen,a clinical psychopharmacologist at UCLA, reports that chemical dependency on cocaine normally occurs after about 4 years of daily use for the inhaler, while addiction occurs in only 6 weeks for the daily crack smoker or free-baser.

Use of crack and free-base use of cocaine are unique in that the substance is smoked rather than inhaled through the nose. In free-basing, an individual will use ether to "wash" the impurities from cocaine. Once dried, the residue is heated with a torch and smoked. Crack use is less complicated than free-basing. To make crack, cocaine is mixed with baking soda and water and then heated in a pot. This solution is dried and broken into chunks that dealers sell as crack. The crack is then smoked in pipes.

Symptoms of prolonged cocaine addiction include depression, insomnia, loss of sex drive, sinus irritation, and an inability to socialize normally. Withdrawal may produce hallucinations, tremors, and flu-like pains.

Hallucinogens: The most widely used hallucinogens are LSD, mescaline, and psilocybin. Use results in changes in one's perception, the most dramatic being vivid hallucinations, alterations in the shape and color of objects, unusual dreams, and feelings of depersonalization.

The use of hallucinogens may manifest itself in the form of acute panic attacks, long-lasting psychotic states resembling paranoid schizophrenia, or serious injury to the user's critical faculties. Long-term use may lead to nervous system and chromosomal damage.

Tranquilizers: Tranquilizer is a generic name given to the almost 200 different variaties of antipsychotic drugs used mainly for the control of schizophrenia, for the treatment of manic depressives, and to a lesser

extent, for treatment of individuals experiencing psychotic states associated with brain syndromes. Side effects of use can include jaundice, convulsive seizures, orthostatic hypotension, skin reactions, disorientation and hallucinations, and disorders of the motor system.

Barbiturates: Barbiturates are designed to decrease the excitability of nerve cells. The symptoms of mild barbiturate intoxication are similar to alcohol intoxication in that the individual thinks more slowly and is disoriented. The user exhibits moodiness, impairment of judgement, slurred speech, and a drunken gait. Reflexes and vital signs are not affected.

With moderate intoxication, an individual's state of consciousness is more depressed, and is accompanied by impaired deep reflexes and slow, but not shallow breathing. With severe barbiturate intoxication, respiration is slow and shallow, the skin may be blue in color, and deep tendon reflexes may be absent. In earlier hours of a coma, there may be a phase of rigidity in the limbs, hyperactive reflexes, subnormal temperature, a thready and rapid pulse, and blood pressure at the shock level.

Regarding chronic barbiturate intoxication, the addict thinks more slowly, exhibits increased mood changes, and becomes untidy in dress and personal habits. The addict also develops a high tolerance level and shows no signs of intoxication unless a threshold intake level is exceeded. Following the withdrawal of barbiturates, the addict will show initial signs of improvement followed by nervousness, tremor, postural hypotension, weakness, generalized seizures.

PCP: PCP, is an animal tranquilizer that is best known for its ability to produce bizarre and violent behavior in users. PCP use can lead to convulsions, comas, heart and lung failure, and psychotic disorders including paranoid schizophrenia and delusions.

Heroin: Use of heroin, an opiate, is accompanied by a variety of toxic effects. The administration of heroin produces a sense of unusual well-being, referred to in medical writings as the "morphine euphoria." Heroin use also induces unpleasant symptoms such as nausea, vomiting, and faintness. Additionally, heroin has the ability to foster high physiological dependence, which is amplified by a user's increasing tolerance to the drug's effects.

Erik Myers, policy analyst and legal counsel for the Drug Abuse Council, writes that "heroin in a pure form, administered in a sterile manner, is relatively benign in terms of its physiological effects" (p. 233). Serious neurological and infectious complications are a result of mixing heroin with a variety of substances and adulterants, such as quinine, lactose, powdered milk, and fruit sugars, in order to increase the seller's profits. Overdoses usually occur when heroin is consumed in combination with certain other drugs or with adulterants. Hepatitis and endocarditis are brought on by users' failure to observe sterile conditions when intravenously administering the drug.

TREATMENT

There are two main approaches for treating drug and alcohol abusers, each having certain implications for treatment regimens. One emphasizes that the individual abuser, particularly an adolescent, must be stripped initially of his/her self-esteem. This school maintains that the abuser has an inflated sense of self-worth fueled by substance abuse and that this grandiose ego must be deflated before improvement can occur. Conversely, the second approach emphasizes that the individual seeking treatment has absolutely no self-esteem and the purpose of treatment is to rebuild a strong sense of self. Since the individual feels that his/her life is meaningless and worthless, treatment is designed to negate this thinking. Whether one method is more affective than the other has not been determined.

The treatment needs of adolescent abusers differ from those of adults. Unlike adults, adolescents tend to be "poly-abusers", meaning that both drugs and alcohol are used together. For this reason, most treatment programs reflect the dual need of the adolescent abuser. Adolescents usually enter a facility hostile and angry, believing that treatment programs employ brainwashing techniques. Adolescents can not be characterized as classic substance abusers in that they have not reached a "valley" or lowpoint, marked by loss of job, family, home, etc. The adolescent, in contrast to the adult, may not be physically addicted to drugs. Rather, the adolescent may have psychological and behavioral problems that manifest themselves through drug and alcohol use.

Studies have shown that different patterns of drug use during developmental stages have different etiological origins and are associated with varying patterns of behavior (Kandel, 1982; Robins, 1980). For example, Robins' research has shown that experimental use with drugs by adolescents does not appear to be associated with antisocial personality, while drug abuse does appear to be part of a general pattern of rebelliousness and nonconforming behavior. Adolescents may rarely use drugs or alcohol outside of peer networks, while adults are more inclined to be physically dependent. Consequently, psychiatric help is often employed in adolescent treatment programs.

A survey conducted by the Maryland Juvenile Services Administration chronicled the complex needs of the adolescent substance abuser. At the Montrose and Hickey Schools for juvenile offenders, 79% of those surveyed were substance abusers, and more than 76% of the population had major affective disorders. Affective disorders are characterized by acute and chronic anxiety, depression, and mania (manic-depression). Suicidal ideation and attempts were common, and 40% of the residents had received institutional psychiatric care prior to admission.

Treatment needs differ between adolescents and adults in that length of treatment in intermediate residential care varies. Length of treatment also varies between publicly funded facilities and private treatment programs. This is primarily due to the resistance of the adolescent user to treatment. Private facilities generally utilize a 28 day treatment model

for adults, and around 40 days for adolescents. Adolescent treatment in public facilities, on the other hand, is usually based on at least a 6 month referral.

In Maryland, the Alcohol Control Administration (ACA) within the Department of Health and Mental Hygiene is responsible for coordinating treatment programs for adolescents. The ACA and the Drug Abuse Administration fund at least one adolescent drug and alcohol coordinator in each of the 24 local health departments. It is the responsibility of the coordinator to determine the most appropriate level and site of care, inpatient or outpatient. Most treatment occurs in outpatient facilities; until recently, few inpatient residential programs for adolescents were available. Criteria for admission to drug and alcohol counseling programs include both chemical dependency and use or potential use of drugs. Parental consent is not required for admission to a program. Appendix I lists the 40 public and private facilities identified by the Maryland Drug Abuse Administration that provide inpatient and outpatient care to adolescents. These 40 facilities also provide over 2500 outpatient treatment slots, a portion of which are utilized by adolescents. Five facilities have a total of 114 residential beds available for adolescents.

For fiscal year 1986, the Alcohol Control Administration reports that 3150 adolescents were assessed by local health department staff. Of these adolescents, 2120 were referred to outpatient programs and approximately 211 were referred to residential treatment programs. The Juvenile Services Administration (JSA) may also refer adolescents who have committed criminal offenses to drug and alcohol treatment programs. In fiscal year 1986, JSA referred 209 adolescents to inpatient and outpatient treatment programs.

CURRENT MARYLAND LAWS REGULATING ALCOHOL AND SUBSTANCE ABUSE

Education

Section 7-409 of the Education Article, Annotated Code of Maryland, requires the State Board of Education to develop and implement a program of drug education in the public schools. Drug education programs must begin before the sixth grade in each public school and must be taught by teachers who are trained in the area of drug education. The State Board is directed to establish standards to determine how a teacher is to be considered "trained in the field of drug education" and the drug education program is to be coordinated with other State agencies responsible for drug abuse education and control.

Provision is made in section 7-410 to protect the rights of students seeking information to overcome any form of drug abuse (defined as the misuse or unlawful use of a drug, drug dependence, or drug addiction). Specifically, if a student seeks help from a teacher, counselor, principal or other professional educator any written or oral statement made by a student, or any conclusion or observation derived from such a statement, is not admissable in any proceeding against the student.

Similarly, section 7-411 of the Education Article requires the State Board to develop and implement a program of health education that is specifically directed at the abuse of alcohol. This program may be incorporated into the school's drug education program.

Section 7-307 allows a principal, assistant principal or school security guard to make a reasonable search of a student on the school premises if the individual has a reasonable belief that the student is in possession of an item for which possession is a criminal offense. Searches must be made in the presence of a third party. Officials have the right to search the school including students' lockers provided that the right to search is previously announced or published.

Two opinions regarding searches have been issued by the Attorney General. The first, issued in 1980, holds that "the use of drug detecting dogs in the hallways of public schools does not constitute a search..." (65 Op. Attorney General 201 (1980)). However, if the dog singles out a particular locker the police must obtain a search warrant before searching the inside of the locker The second opinion, regarding the search of a student on school grounds by a school official, allows such a search when there is a reasonable belief that contraband will be found and that resonableness can be somewhat less than probable cause. "Reasonable cause to believe" may be substituted for probable cause because the official acts in loco parentis. However, the opinion cautions that "the intent to which the Fourth Amendment applies to student searches is not entirely settled." (67 Op. Att'y Gen. 147(1982)).

Insurance

Benefits for the treatment of alcoholism are mandated by §490F of Article 48A, Annotated Code of Maryland. Under the law, any group contract issued on an expense incurred basis, including those issued by a nonprofit health service plan, must provide the following minimum benefits:

1. Seven days of emergency care or detoxification in an acute general hospital or nonhospital detoxification facility;

2. 30 days inpatient care in a Type C or D facility; and

3. 30 outpatient visits at a certified alcoholism treatment facility.

Additionally, any group major medical contract that provides benefits for hospitalization and medical care must provide benefits for alcoholism treatment that are equal to at least half of the above listed benefits. The law also provides that coverage may be limited to 120 combined inpatient days and visits during the covered person's lifetime; and under group major medical contracts benefits may be limited to not less than $1,000 during any calendar year or benefit period.

Interestingly, there are no mandated benefits for the treatment of drug abuse. Rather, the law requires that nonprofit health service plans and insurers who issue group or blanket health insurance coverage offer an option to provide benefits for treatment of drug abuse if an initial enrollment of at least 25 subscribers is expected under the new or expanded group contract (Article 48A, §354R and 477S).

Optional benefits to be offered in any 12 month period include:

1. At least 21 days of inpatient treatment in a hospital or residential treatment facility; and

2. Under major medical policies coverage in an outpatient facility licensed by the Department of Health and Mental Hygiene. Coverage must include 80 percent of the cost of care but is not required to exceed $1000 in any 12 month period.

Health

Title 9 of the Health-General Article establishes the Drug Abuse Administration for the purpose of providing a comprehensive program to provide rehabilitation and after care services, to protect society from the social contagion of drug dependence, and to meet the need of drug abusers for medical, psychological and vocational rehabilitation without undue interference with liberty (Section 9-102).

Responsibilities of the director of the Administration, carrying out the provisions of Title 9, include surveying and analyzing the needs of the state for prevention, diagnosis, and treatment of drug abuse, revising the comprehensive drug abuse control plan, and disseminating information concerning available services and facilities.

The law also provides for a state advisory council and for county advisory councils. The State Advisory Council's purpose is to advise the Governor, the Secretary of Health and Mental Hygiene, and the Drug Abuse Administration on revising Maryland's comprehensive drug abuse control plan; to assist in the promotion, development, and coordination of drug abuse programs with federal, state, local and private agencies; and to evaluate existing and planned program facilities of the Administration.

Every county is required to establish a drug abuse advisory council and intercounty councils are permitted. County advisory councils have similar duties to the State Advisory Council; however, their primary focus is at the local level. In some respects they operate similarly to health systems agencies in that they are responsible for commenting on applications of county drug abuse programs for state or federal grants and they help to set priorities for the allocation of funds. County advisory councils also advise the Director of the Administration on the progress of local programs and on needed improvements to programs.

Because the Administration is responsible for coordinating facilities and services, a person or public body must be certified by the Administration before a program or facility may offer treatment. Qualifications and standards are found in regulations. Additionally, Title 9 provides procedures for the voluntary commitments of an individual, commitments of inmates, and of individuals who have not been charged or convicted of a crime. The law also provides that other individuals may petition the Administration for the commitment of an individual that is believed to be a drug addict; petitions must be filed with the district court or circuit court for the county where the alleged drug addict resides. Individuals may be discharged when the Administration believes that the individual has refrained from the use of unauthorized drugs,or while an outpatient the individual has complied with the rules and regulations of the Administration for at least 2 consecutive years, and has complied with the conditions of release.

Title 8 of the Health-General Article establishes the Alcoholism Control Administration (ACA) in the Department of Health and Mental Hygiene for the purpose of removing publicly intoxicated individuals from the criminal system and creating a modern public health program for the prevention, detection, and treatment of alcoholism (Section 8-102).

The Director is required to report to the Assistant Secretary for Mental Health, Mental Retardation, Addictions, and Developmental Disabilities and is responsible for developing and encouraging alcoholism programs in the public and private sector, advising the Governor on the most effective way to coordinate the efforts of State public agencies to deal with the problems of alcoholism and alcoholics, gathering statistics and distributing information on alcoholism (Section 8-204).

Section 8-304 establishes a State Advisory Council on Alcoholism Control in the ACA that consists of 25 members appointed by the Governor. The purpose of the State Advisory Council is to advise the ACA on the best way to implement the state comprehensive intoxication and alcoholism control plan, advise the ACA and Governor on the spending of funds for alcoholism programs, and to be a strong advocate for a comprehensive approach to fighting alcohol abuse.

Each county is required to establish an alcohol advisory council for the purpose of reviewing the local alcoholism services and treatment facilities available, recommending areas in need of improvement, helping the State set funding priorities, and generally acting as a county advocate for alcoholism programs (Section 8-312).

Section 8-401 requires that the ACA periodically advise the Governor on the state comprehensive intoxication and alcoholism control plan to be included as part of the state plan for health planning and development. Section 8-402 requires that in coordination with the community mental health centers, the state have treatment and rehabilitation programs that include detoxification centers, inpatient extended care facilities, and outpatient aftercare facilities.

Sections 8-501 through 8-511 outline alcoholism treatment guidelines, ranging from the actual admission of the individual to a detoxification center to admission to an outpatient center. Provisions exist to protect the patient's liberty and preserve confidentiality.

ENFORCEMENT

The Maryland State Department of Education has developed guidelines which are intended to help school administrators, guidance personnel, teachers and other employees resolve situations involving substance use and abuse. Generally, the guidelines refer to departmental policy in the areas of educational program development, teacher training, students' rights, referral and treatment, emergency health care, the role of the school staff and the manner in which the policy should be enforced. The guidelines, including the guidelines relating to enforcement, are designed to serve as minimum standards. Full development of the policy is left to the discretion of the various school systems in the state resulting in wide variation in program content and in the enforcement of the Department's general alcohol and drug policy.

Under the Department's guidelines, the principal of a school is primarily responsible for reporting illegal drug behavior to law enforcement officials and other designated administrative officers. (COMAR 13A.08.01.07) School employees are required to report any illegal activities or suspicions of illegal activity to the principal. Departmental policy requires that personnel materials explicitly state that all school employees report these behaviors. In the event that certain patterns emerge that indicate the development of systematic drug distributions and sales, policy dictates that school officials defer completely to local law enforcement personnel. School officials are advised not to place themselves in the position of acting as investigators, detectives, etc. In these cases local law enforcement agencies place undercover agents in schools and the usual law enforcement investigation is conducted.

A number of sections of the Maryland Annotated Code and the Code of Maryland Regulations govern the use and abuse of alcohol and illegal drugs in Maryland schools (See Appendix III). If violations occur, local law enforcement personnel can be contacted and the student(s) can be remanded to the custody of the police. The policy guidelines require that students' legal rights be ensured whenever disciplinary action is taken as a result of a violation of the Department's alcohol and drug policy.

Suspension is the most common disciplinary action for alcohol and drug violations. Generally, in the case of suspension, parental accompaniment is required before a student is readmitted to school. In the case of expulsion, appeal is possible; however, appeal to the county board does not stay the decision of the county superintendent to initiate suspension or expulsion proceedings. The decision of the county superintendent remains in effect until the county board has heard the appeal, and its decision is final.

Due process concerns in suspension and expulsion proceedings are addressed pursuant to a 1975 Supreme Court ruling [Goss vs. Lopez (419 US 565-1975)]. These guidelines include timely notification of suspension or expulsion proceedings, timely hearings, timely notice of the charges and an opportunity for the student to present his version of events.

During the 1984-85 academic year, a total of 57,064 students were suspended. Since public school enrollment for the year was 665,838 students; approximately 9% of all Maryland students were suspended. Table 7 below demonstrates school-related suspension in Maryland public schools.

Table 7 School-Related Suspensions in Maryland Public Schools

	1978-79		1980-81		1984-85	
Suspension Offense	# of Offenses	% of Total	# of Offenses	% of Total	# of Offenses	% of Total
1) Attendance-Related	9,088	9.3	9,463	9.6	8,043	8.3
2) Dangerous Substances						
Alcohol	1,341	1.4	1,321	1.3	768	.8
Drug	3,702	3.8	2,693	2.7	1,621	1.7
Smoking	6,900	7.1	5,564	5.6	4,475	4.6
	11,943	12.2	9,578	9.7	6,864	7.1
3) Behavior Related	76,672	78.5	79,571	80.7	82,335	84.7
TOTAL	97,703		98,612		97,242	

Note: Percentages may not total correctly due to rounding errors. These figures represent the actual number of suspensions, not the number of students suspended.

The percentage of suspensions specifically for dangerous substances is low relative to other reasons for suspension. However, school officials note that drug related behavior probably contributes significantly to suspensions in the categories of attendance and behavior problems. Interestingly, suspension strictly related to dangerous substances has decreased since 1979 while suspensions for behavior problems have increased 10% over 7 years.

When a violation occurs, Section 7-307 of the Education Article allows certain school officials to make a reasonable search of a student or the student's locker if there is reasonable belief that the student is in possession of an item for which possession is a criminal offense. These searches may result in arrests by local law enforcement officials. COMAR 13A.08.01.07 regulates arrests in public schools.

Under Maryland law a child is generally defined as a person under the age of 18. The law provides for the separate adjudication in juvenile court of persons under 18. However, if children 14 or older commit certain crimes, which if committed by an adult would be punishable by death or life

imprisonment, the juvenile court does not have jurisdiction. The juvenile court also does not have jurisdiction when a child 16 or older violates a provision of the Transportation Article or other traffic law (except an act that prescribes a penalty of incarceration); a child 16 or older violates a law governing the use or operation of boats (except an act that prescribes a penalty of incarceration); a child 16 or older commits robbery or attempted robbery with a dangerous or deadly weapon. If a child is charged with two or more violations of the Maryland Vehicle Law, or other traffic law, or the State Boat Act, allegedly arising out of the same incident and which would result in the child being brought before both the juvenile court and a court exercising criminal jurisdiction, the juvenile court has exclusive jurisdiction over all of the charges. In all other situations the detention, adjudication, disposition, and commitment in juvenile cases are governed by Title 3, Subtitle 8, Juvenile Causes, in the Courts and Judicial Proceedings Article. Juvenile cases are usually heard in juvenile court. If a juvenile is adjudged delinquent the juvenile is remanded to the custody of the Juvenile Services Administration. The Juvenile Services Administration has the responsibility for developing programs for the predelinquent and delinquent child whose behavior tends to lead to contact with law enforcement agencies.

The Juvenile Services Administration's mission is to promote the mental, physical, and social development of children by providing programs of prevention, treatment and rehabilitation consistent with a child's needs and protection of the public interest. The Juvenile Services Administration (JSA) serves as the central administrative agency for juvenile intake, detention authorization, investigation, probation, protective supervision and aftercare services and houses the State's juvenile diagnostic, training, detention, and rehabilitation institutions.

Most of the referrals to JSA are made by the courts. Local law enforcement agencies, schools, parents and the Social Services Administration account for the remainder. Referrals to JSA in FY 1984 totaled 37,084. Total referrals to JSA in FY 1985 were 38,303. Table 8 shows the sources of the referrals.

Table 8. Referrals to Juvenile Services Administration

Source of Referral	FY 1984 Number of Referrals	FY 1984 % of Referrals	FY 1985 Number of Referrals	FY 1985 % of Referrals
Police and courts	29,574	79.7	30,597	79.9
Department of Ed.	2,200	5.9	2,387	6.2
Parents or relatives	1,667	4.5	1,659	4.3
Social Services	1,323	3.6	1,354	3.5
Citizens	1,127	3.0	1,209	3.2
Special Police, etc.	456	1.2	446	1.2
Others	737	2.0	651	1.7
	37,084	99.9	38,303	100.0

Note: Percentages may not total to 100% due to rounding error.

Removing a child from the family home requires a court decision. The criteria for placing an individual into either residential or day-treatment are background, previous treatment and previous offenses. A standardized assessment team looks at every child who is at risk of being removed from his or her home. The team designs a treatment plan for each individual child, and also reports and recommends to the court, at deposition, the possible services needed, type of placement, or the possibility of commitment.

Services provided by JSA include medical directives that attempt to meet the immediate medical needs of individuals, suicide prevention, probation work and drug and alcohol treatment. The JSA also provides educational services and special education for the developmentally disabled child. Other services include transportation services from the institution to court and recreational services. Funding community youth service bureaus, coordinating local services directed at individualized needs and providing aftercare services for the individual's transition from institution to society are also an integral part of JSA's activities.

Table 9 shows the cases handled by Juvenile Services Administration by region and major reason for referral in fiscal year 1985. Cases for which substance abuse was the major reason for referral comprised approximately 12% on average of the JSA caseload in FY 1985. Narcotics violations represented 55.6% of all substance abuse violations as a major reason referred to JSA. Alcoholic beverage violations accounted for 44% of cases referred to JSA for substance abuse violations. In Baltimore City, narcotics violations account for nearly 92% of the referrals to JSA for substance abuse violations while in Caroline, Queen Anne's, and St. Mary's Counties, narcotics violations account for at least 70% of the referrals. Alcoholic beverage violations in the Western Maryland region (Allegany, Garrett, and Washington Counties), account for 83.5% of the substance abuse violations referred to JSA, with referrals for that reason accounting for nearly 94% of all referrals in Washington County. In Talbot, Montgomery, Carroll and Howard, alcoholic beverage violations account for at least 70% of the referrals to JSA for substance abuse violations. Substance abuse violations in Worcester County represented as much as 28% of the juvenile caseload for the period; in Carroll County, substance abuse accounted for nearly 26% of the caseload.

In 1986, the Juvenile Services Administration collaborated in a study with the Mental Hygiene Administration in the Department of Health and Mental Hygiene using Fiscal Year 1984 data to assess the need for mental health services for residents of the Montrose and Hickey Schools and to recommend models for the delivery of mental health service within those institutions. While the purpose of the study was to address programming concerns in the mental health area for delinquent youths, the study also uncovered interesting findings with respect to substance abuse violations among Maryland's delinquent youth population.

The study group was composed of juveniles housed at the Montrose and at the Charles G. Hickey Schools, two residential juvenile facilities operated

by JSA. At Montrose, the total population for the period was 288; 218 males and 70 females. Sixty nine percent of the population consisted of 14 and 15 year olds. Approximately 29% were white and 70.6% were black. At Hickey, the total population, consisted of 432 males. Sixty-three percent of this population were 16 and 17 year olds; 29.1% were white and 70.2% were black. The study sample numbered 58 youths. The subject selection methodology employed a random sampling in which every third committed admission at each school was selected for inclusion in the study sample. Fifty percent of the subjects met criteria for a main diagnosis of drug abuse. Comparing Montrose and Hickey subjects, heroin was the only drug for which use differed significantly between the two subject populations. Heroin abuse was significantly more frequent for the Hickey subjects. Generally, marijuana and alcohol were the most frequently abused substances.

The study noted a trend which indicated a greater number of white drug abusers (64%) compared to blacks (39%). No significant association was noted between drug abuse and the sex of the subjects. Drug abuse was not associated with the number of commitments or detentions in JSA facilities experienced by the subject sample.

The study clearly demonstrates the pervasiveness of drug abuse as a major disorder in the JSA residential institutions. Apparently, this finding parallels other studies that have been performed. It should be noted here that juveniles who are finally committed to the residential facilities of the JSA are individuals who were not "reached" through the community services conducted by the JSA. While this study documents the necessity for collaboration and coordination of state diagnostic and treatment services to the same adolescent population by different agencies, the study results make a good case for strengthening those JSA services at the community level (i.e. substance abuse prevention programs) to decrease the number of youths for whom substance abuse is also a psychiatric disorder.

The public school system does not maintain data on arrests and convictions among its students; however, the data reported to the Federal Uniform Crime Report system from Maryland suggests the parameters of the size of the substance abuse problem and places this particular problem in perspective with other juvenile crime. The 1985 Uniform Crime Report (UCR) for crime in Maryland indicates the number of times Maryland youths were arrested for a specific offense (See Table 10). Table 11 demonstrates the extent to which children, adolescents and young adults contributed to the total arrests for a number of substance abuse violations. Drug abuse and driving while intoxicated accounted for nearly 55% of the arrests, while violations of the state's liquor laws resulted in 67% of the arrests. Nearly a third of all arrests for substance abuse violations were concentrated in this population. Young adults (18-21 year olds) contributed most heavily in the group. Table 12 demonstrates that more than a quarter of all arrests in the young adult population were for substance abuse violations compared with slightly more than 10% of all juvenile arrests that were for substance abuse. Nearly 16% of the arrests for the 9-to-21 year old group were for substance abuse.

Table 13 compares young adults and juveniles to each other and to the "all ages" grouping arrests by offense category. Again, young adults (18-to-21 year olds) contributed most heavily to the numbers of arrests for substance abuse among the 9-to-21 year olds. They accounted for a little more than half of the arrests for all substance abuse, nearly 86% of the arrests for DWI, nearly 50% for liquor law violations and 46% for drug abuse. Juvenile arrests (9 years and under through age 17) as a percentage of all arrests are under 20% in all categories and total substance abuse accounts for less than 10%. While the figures are high for each offense category (except for DWI), when juveniles are compared to young adults the contribution attributed to the juvenile group remains significantly less than those violations attributed to the young adult population.

These data suggest that children and adolescents as a group are not as heavily involved in substance abuse as are young adults 18 to 21 years old. For this reason, prevention and intervention strategies aimed at very young children and adolescents may significantly curtail future illegal involvement.

TABLE 9 REFERRALS TO JUVENILE SERVICES ADMINISTRATION FOR SUBSTANCE ABUSE, FY 1985

	NARCOTICS VIOLATIONS	ALCOH.BEV VIOLATION	TOTAL ALL SUBSTANCE ABUSE	GRAND TOTAL ALL CASES FROM COUNTY	SUBSTANCE ABUSE AS % OF GRAND TOT	NARCOTICS AS % ALL SUBSTANCE ABUSE	ALC. BEV. AS % ALL SUBSTANCE ABUSE
SOUTHERN EASTERN SHORE							
DORCHESTER	12	26	38	368	10.3%	31.3%	68.4%
SOMERSET	5	11	16	129	12.4%	31.3%	68.8%
WICOMICO	13	12	25	388	6.4%	52.0%	48.0%
WORCESTER	97	46	143	504	28.4%	67.8%	32.2%
SUBTOTAL	127	95	222	1389	16.0%	57.2%	42.8%
NORTHERN EASTERN SHORE							
CAROLINE	7	3	10	212	4.7%	70.0%	30.0%
CECIL	61	62	123	807	15.2%	49.6%	50.4%
KENT	3	10	13	137	9.5%	23.1%	76.9%
QUEEN ANNE'S	14	4	16	192	9.4%	77.8%	22.2%
TALBOT	8	27	35	187	18.7%	22.9%	77.1%
SUBTOTAL	93	106	199	1535	13.0%	46.7%	53.3%
EAST CENTRAL MD.							
BALTIMORE	229	283	512	4726	10.8%	44.7%	55.3%
HARFORD	75	45	120	1256	9.6%	62.5%	37.5%
SUBTOTAL	304	328	632	5982	10.6%	48.1%	51.9%
WESTERN MARYLAND							
ALLEGANY	15	15	30	508	5.9%	50.0%	50.0%
GARRETT	9	11	20	168	11.9%	45.0%	55.0%
WASHINGTON	10	146	156	836	18.7%	6.4%	93.6%
SUBTOTAL	34	172	206	1512	13.6%	16.5%	83.5%
ANNE ARUNDEL	123	90	213	3383	6.3%	57.7%	42.3%
MONTGOMERY	104	410	514	2803	18.3%	20.2%	79.8%
PRINCE GEORGE'S	308	177	485	5815	8.3%	63.5%	36.5%
BALTO. CITY	1115	99	1214	10957	11.1%	91.8%	8.2%
SOUTHERN MD.							
CALVERT	42	32	74	601	12.3%	56.8%	43.2%
CHARLES	54	52	106	981	10.8%	50.9%	49.1%
ST. MARY'S	23	8	31	384	8.1%	74.2%	25.8%
SUBTOTAL	119	92	211	1966	10.7%	56.4%	43.6%
WEST CENTRAL MD.							
CARROLL	61	169	230	887	25.9%	26.5%	73.5%
FREDERICK	57	132	189	1180	16.0%	30.2%	69.8%
HOWARD	29	108	137	895	15.3%	21.2%	78.8%
SUBTOTAL	147	409	556	2962	18.8%	26.4%	73.6%
TOTALS	2474	1978	4452	38304	11.6%	55.6%	44.4%

TABLE 10 1985 UCR CRIME IN MARYLAND: JUVENILE AND YOUNG ADULT ARRESTS FOR SUBSTANCE ABUSE

	9 & UNDER	10-12	13-14	15	16	17	JuvTotal	18	19	20	21	T(18-21)	T(9 - 21)	All Ages
DRUG ABUSE	4	31	342	530	850	1107	2864	1122	1278	1258	1280	4938	10666	19550
DWI ARRESTS	0	0	2	13	70	221	306	538	772	1038	1330	3678	4290	30913
LIQUOR LAWS	0	2	58	108	234	334	736	370	388	342	291	1391	2863	4267
TOTAL SUB-STANCE ABUSE	4	33	400	651	1154	1662	3906	2030	2438	2638	2901	10007	17817	54730
ALL ARRESTS	1042	3068	8697	7443	8408	9095	37753	8446	9367	9509	9995	37317	112823	209399

TABLE 11 THE EXTENT TO WHICH A SPECIFIC AGE CATEGORY CONTRIBUTED TO A SPECIFIC OFFENSE CATEGORY

	9 & Under	10-12	13-14	15	16	17	JuvTotal	18	19	20	21	T(18-21)	T(9-21)
DRUG ABUSE	0.02%	0.16%	1.75%	2.71%	4.35%	5.66%	14.65%	5.74%	6.54%	6.43%	6.55%	25.26%	54.56%
DWI ARRESTS	0.00%	0.00%	0.01%	2.71%	4.35%	5.66%	14.65%	5.74%	6.54%	6.43%	6.55%	25.26%	54.56%
LIQUOR LAWS	0.00%	0.05%	1.36%	2.53%	5.48%	7.83%	17.25%	8.67%	9.09%	8.01%	6.82%	32.60%	67.10%
TOTAL SUB-STANCE ABUSE	0.01%	0.06%	0.73%	1.19%	2.11%	3.04%	7.14%	3.71%	4.45%	4.82%	5.30%	18.28%	32.55%

TABLE 12 JUVENILE AND YOUNG ADULT SUBSTANCE ABUSE ARRESTS AS A PERCENTAGE OF ALL JUVENILE AND YOUNG ADULT ARRESTS

	JUVENILE	YOUNG ADULT	JUVENILE & YOUNG ADULT
DRUG ABUSE	7.59%	13.23%	9.45%
DWI ARREST	0.81%	9.86%	3.80%
LIQUOR LAW	1.95%	3.73%	2.54%
TOTAL SUB-STANCE ABUSE	10.35%	26.82%	15.79%

TABLE 13 JUVENILE AND YOUNG ADULT ARRESTS AS A PERCENTAGE OF ARRESTS FOR AN OFFENSE CATEGORY

	JUVENILE ARRESTS AS A % OF ALL ARRESTS	JUVENILE ARREST AS A % OF JUVENILE & YOUNG ADULT ARREST	YOUNG ADULT ARREST AS % OF ALL ARRESTS	YOUNG ADULT ARREST AS % OF JUVENILE & YOUNG ADULT ARRESTS
DRUG ABUSE	14.65%	26.85%	25.26%	46.30%
DWI ARREST	0.99%	7.13%	11.90%	85.73%
LIQUOR LAW	17.25%	25.71%	32.60%	48.59%
TOTAL SUB-STANCE ABU	7.14%	21.92%	18.28%	56.17%

available to every student. Only Allegany and Frederick counties indicate that their programs' availability is limited because teacher training had not been completed in all geographical areas within their jurisdictions. A final similarity between school districts is that many incorporate drug and alcohol education into their health curricula and several adopted versions of national programs into their local curricula.

The greatest variation among school districts occurs in requirements for drug and alcohol education in high school. Two counties (Garrett and Worchester) have no drug education program in high schools. Baltimore City and some other school districts consider alcohol and drug education to be an elective for most or all of the high school years. Other districts such as Howard and Anne Arundel County integrate a drug and alcohol education program into their respective health curricula throughout high school.

The attached chart also shows various programs/curricula offered at elementary, middle and high school grade levels. At the elementary level, DHMH sponsors a puppet show, "Kool Pat and Little Mo", displaying peer resistance techniques. The Maryland Department of Education also assists in the preparation of local drug and alcohol units and "Say No" clubs (i.e. peer resistance programs for elementary grades).

Several well developed curricula are available for middle school age children. Grants available statewide through the Drug and Alcohol Abuse Administration encourage schools statewide to offer Project SMART (Self Management and Resistance Training), a 15 session curriculum for 6th or 7th graders. In addition, the Department of Education supports the development of leadership teams. These teams, in both middle and high school, are composed of students and representatives of the family, school and community who are trained to help other adolescents to cope with drug and alcohol problems. Under the acronym of "SHOP" (Students Helping Other People) in middle school and "MADART" (Maryland Alcohol/Drug Action Resource Teams) in high school, the Department has established 37 "SHOP" teams in 10 counties and 3. "MADART" teams in 11 counties.

In addition to school-based prevention programs, State monies have also been made available to community-based prevention programs. DHMH supports a high school program, "ACTION for Youth", in which volunteers assist teens at community centers and other neighborhood locations. "Action for Youth" also operates two prevention resource centers for distributing newsletters and lending training manuals, films, and other materials to prevention groups. The Juvenile Services Administration operates Youth Service Bureaus statewide to provide counseling and vocational guidance to troubled adolescents.

APPENDIX I
TREATMENT PROGRAMS WITH AN ADOLESCENT COMPONENT

Central Maryland	Ages Served	Residential Beds	Outpatient Slots
Focus on Family 650 Richie Highway Severna Park 21146 647-8121	21-under		50
Open Door 33 Parole Plaza Suite 201 Annapolis 21401 224-7265	any age		105
Baltimore Adolescent Treatment Program c/o Francis Scott Key Medical Center 4940 Eastern Ave. Baltimore 21224 955-0149	13-18		56
Echo House 1705 West Fayette St. Baltimore 21223 947-1700	12-over		112
Harbel Youth Services 5807 Harford Rd. Baltimore 21224 444-2100	18-under		100
The Counseling Center Jones Falls Community Corporation 914 West 36th St. Baltimore 21211 243-5431	any age		80
Liberty Medical Center 730 Ashbu[illegible]ton St. Baltimore 21216 362-7983	any age		137

	Ages Served	Residential Beds	Outpatient Slots
Treatment Resources for Youth 21 West 25th St. Baltimore 21218 366-2123	18-under		69
Community Counseling and Resource Center 10400 Ridgeland Rd. Cockeysville 21030 628-6120	any age		120
Epoch House East 307 Eastern Blvd. Baltimore 21221 574-2500	any age		95
Epoch House West 22 Bloomsbury Ave. Catonsville 21228 744-5937	14-over		98
Epoch House Central Painters Mill Executive Office Park Suite 50-1 Owings Mills 21117 363-8800	14-over		25
First Step Youth Services 8303 Liberty Rd. Baltimore 21207 521-4141	21-under		35
X-Cell Spring Grove Hospital Center Catonsville 21228	13-17	12	
Harford County Drug Abuse Program 119 South Hays St. Bel Air 21014 879-2404	any age		44 methadone-35
Howard Academy For Boys 846 Hoods Mill Rd. Cooksville 21723 854-6677	13-18	9	6

	Ages Served	Residential Beds	Outpatient Slots
Oakview Treatment Center 3100 North Ridge Rd. Ellicott City 21043 461-9922	14-over	40	
Alternatives and Counseling Programs Substance Abuse Treatment and Family Services 8500 Colesville Rd. Silver Spring 20910 565-7729	18-under		100
Another Path 14901 Broschart Rd. Rockville 20850 251-4525	13-18		40
Second Genesis 14701 Avery Rd. Rockville 20853 656-1545	14-18	40	
Bowie - DICAP 1522 - K Pointer Place Bowie 20716 249-3390	any age		47
DICAP Administrative Office and Southern Region Counseling Center Dyer Health Center Clinton 2073. 868-8800	any age		55
Palmer Park Counseling Center - DICAP 7711 Barlowe Rd. Palmer Park 20785 772-5414	any age		55
DICAP - Suitland Counseling Center 5210 Auth Rd. Suite 100 Suitland 20746 899-294	any age		80

	Ages Served	Residential Beds	Outpatient Slots
Eastern Shore			
Caroline Counseling Center P.O. Box 10 104 Franklin St. Denton 21629 479-1882	any age		28
Cecil County Health Department Alcohol and Drug Center 207 North Street Elkton 21921 398-5106	any age		50
Dorchester County Addiction Program Woods Rd. and Rt. 50 Cambridge 21613 228-7714 ext. 182	any age		25
Publick House Kent County Health Department 100 Morgnec Rd. Chestertown 21620 778-2616	any age		25
Addiction Services Somerset County Health Department P.O. Box 129 Westover 21871 651-0882	any age		62
Talbot County Health Department P.O. Box 480 Easton 21601 822-6650	any age		25
Wicomico County Health Department Drug Abuse Program 300 West Carroll St. Salisbury 21801 742-3784	any age	methadone-37	86

	Ages Served	Residential Beds	Outpatient Slots
Worcester County Health Department Alcohol and Other Drug Services P.O. Box 249 Snow Hill 21863 632-1100	any age		45
Southern Maryland			
New Leaf Counseling Center Stoakley Rd. P.O. Box 980 Prince Frederick 20678 535-3003	any age		60
The Horizon Center Charles County Health Department P.O. Box 1726 La Plata 20646 870-3335	any age		125
Walden/Sierra St. Andrews Church Rd. California 20619 863-3661	any age		100
Western Maryland			
Junction, Inc. 98 North Court St. P.O. Box 206 Westminister 21157 848-6100	any age		93
Project 103 Frederick County Drug Abuse Treatment Services 540 West South St. Frederick 21701 694-1775	any age		97

	Ages Served	Residential Beds	Outpatient Slots
Lois E. Jackson Unit c/o Thomas Finan Center Country Club Rd. P.O. Box 1722 Cumberland 21502 777-2290	13-18	13	
Garrett County Mental Health, Community Rehabilitation and Addictions Center 253 North Fourth St. Oakland 21550 334-8111 ext. 29	any age		25
Division of Addictions Washington County Health Department 1302 Pennsylvania Ave. Hagerstown 21740 791-3240	any age		77
State Totals		114	2504

The total number of residential beds and outpatient slots for each treatment facility is reflective of the age group served. For a facility that services any age group, a portion of the residential beds and outpatient slots are available for adolescents.

Unless noted, all outpatient slots employ drug-free treatment methods.

APPENDIX II

MARYLAND STATE DEPARTMENT OF EDUCATION February 1987

ALCOHOL & OTHER DRUG CURRICULA & PREVENTION PROGRAMS IMPLEMENTED IN THE PUBLIC SCHOOLS OF MARYLAND

COUNTY	Grade Level for Initial Instruction in Drug & Alcohol Education	Type of Curriculum Used & Grades of Instruction	Is Curriculum Taught in Every School, to Every Student?	Monitoring of Instruction	Self Management & Resistance Training (Project SMART)	MD. Alcohol & Drug Action Resource Team (MADART)	Students Helping Other People (SHOP)
Allegany	Kindergarten	Here's Looking At You 2000 K-6 Integrated in Grades 9+11 with local curriculum in science	Offered In Every School (All Teachers Not Yet Trained)	Supervisor Observation of Teachers	7 Junior Highs Grade 7	1 County Wide Team	10 Middle & High Schools
Anne Arundel	Kindergarten	Local Curriculum Integrated K-12	Yes	Supervisor Observation of Teachers			
Baltimore City	Kindergarten	Local Curriculum in Health Education K-8 Health Electives 9-12	Yes	Supervisor Observation of Teachers	24 Middle Schools Grade 6		
Baltimore County	Kindergarten	Local Curriculum Integrated K-8 Health Requirement Grade 11	Yes	Supervisor Observation of Teachers			
Calvert	Kindergarten	Local Curriculum Integrated K+2+4	Yes	Supervisor Observation of Teachers	--		
Caroline	Kindergarten	Local Curriculum Integrated K-6 Science Grades 7-10 Electives Grades 11+12	Yes	Supervisor Observation of Teachers			

County	Grade Level for Initial Instruction in Drug & Alcohol Education	Type of Curriculum Used & Grades of Instruction	Is Curriculum Taught in Every School, to Every Student?	Monitoring of Instruction	Self Management & Resistance Training (Project SMART)	MD. Alcohol & Drug Action Resource Team (MADART)	Students Helping Other People (SHOP)
Carroll	Kindergarten	Local Curriculum includes Quest & Al-Co-Hol Integrated in K-5, Science 6-8, Health Requirement Grade 9	Yes	Supervisor Observation of Teachers		1 High School	3 High Schools
Cecil	Grade 1	Local Curriculum integrated Grades 1-5 Required Health Grade 9 Health Electives Grades 10-12	Yes	Supervisor Observation of Teachers	6 Middle Schools Grade 6 1 Junior High Grade 7		
Charles	Kindergarten	Local Curriculum & Here's Looking at You 2000 K-8 & 10	Yes	Supervisor Observation of Teachers	3 Middle Schools Grade 6		
Dorchester	Kindergarten	Local Curriculum integrated K-5 Units in Grades 6-8 Required Health Grade 9	Yes	Supervisor Observation of Teachers	3 Middle Schools Grade 6	1 High School	5 High Schools & Middle Schools
Frederick	Kindergarten	Here's Looking At You Two Grades K-12 integrated in Science Health in Grades 7&8	Yes Where teachers have been trained	Supervisor Observation of Teachers	4 High Schools Grades 9-12	3 High Schools	2 High Schools
Garrett	Kindergarten	Seattle Project K-3 MD. Alcohol & Abuse Program Grade 4 Berkley Project Gr. 5	Yes	Supervisor Observation of Teachers			

County	Grade Level for Initial Instruction in Drug & Alcohol Education	Type of Curriculum Used & Grades of Instruction	Is Curriculum Taught in Every School, o Every Student?	Monitoring of Instruction	Self Management & Resistance Training (Project SMART)	MD. Alcohol & Drug Action Resource Team (MADART)	Students Helping Other People (SHOP)
Harford	Kindergarten	Local Curriculum integrated K-12 Required Health Gr. 9	Yes	Supervisor Observation of Teachers	5 Middle Schools Grade 6		
Howard	Kindergarten	Local Curriculum in Health Education K-12	Yes	Supervisor Observation of Teachers	10 Middle Schools Grade 6	5 High Schools	8 High Schools & Middle Schools
Kent	Grade 1	Local Curriculum integrated in Science Grades 1-3, Health Grade 5, Quest Grade 6 Health Electives Grades 7-9	Yes	Supervisor Observation of Teachers			
Montomery	Kindergarten	Local Curriculum K-7 Integrated in Science, Grade 8 Physical Education, Grades . 12 Electives	Yes	Supervisor Observation of Teachers Survey	16 Middle & Junior High Schools Grade 7	13 High Schools	9 High Schools
Prince George's	Kindergarten	Local Curriculum in Health Education K-6 Science Grade 7 Health Electives Gr. 9-12	Yes	Supervisor Observation of Teachers Survey	28 Middle Schools Grade 7	1 High School	
Queen Anne's	Grade 1	Local Curriculum integrated in Science Grades 1 & 3, Health Grades 6, 8, and 10	Yes	Supervisor Observation of Teachers	3 Middle Schools Grade 6		
St. Mary's	Grade 5	Local Curriculum Integrated in Science Grade 5, and in Grades 7 and 10	Yes	Supervisor Observation of Teachers	2 Middle Schools Grade 5		

County	Grade Level For Initial Instruction in Drug and Alcohol Education	Type of Curriculum Used & Grades of Instruction	Is Curriculum Taught in Every School, to Every Student?	Monitoring of Instruction	Self Management and Resistance Training (Project SMART)	Maryland Alcohol Drug Action Resource Team (MADART)	Students Helping Other People (SHOP)
Somerset	Grade 2	Local Curriculum intergrated in Science in Grades 2, 4-7, and Health Grade 8, Science Grade 9	Yes	Supervisor Observation of Teachers			
Talbot	Grade 2	Local Curriculum Grades 2-5, Required Health Grades 6-8 and Elective Grade 9	Yes	Supervisor Observation of Teachers	Included in Local Curriculum	2 High Schools	
Washington	Kindergarten	Starting Early Program K-6, Grade 7 Project SMART, Grade 8 Al-Co-Hol, Grades 9+10 Elective Health	Yes	Supervisor Observation of Teachers	8 Middle Schools Grade 7		
Wicomico	Kindergarten	Local Curriculum integrated K-3 Health 4-6 Required Health Grade 8 Required Health Grade 10	Yes	Supervisor Observation of Teachers		1 County Wide High School Team	
Worcester	Kindergarten	Local Curriculum Integrated K-8	Yes	Supervisor Observation of Teachers			

Appendix III

LAWS REGARDING ILLEGAL ALCOHOL/DRUG ACTIVITY IN MARYLAND'S PUBLIC SCHOOLS

Criminal Violations

The following actions are violations of Article 27, Annotated Code of Maryland.

1. It is unlawful to distribute (to transfer with or without the exchange of money) any drug which is defined as a controlled, dangerous substance. This crime is a felony and is punishable on the first conviction by a maximum of 20 years imprisonment if a narcotic drug is involved. (Section 286)

2. It is unlawful to possess (to have control over) any drug defined as a controlled dangerous substance. This crime is a misdemeanor and punishable on the first conviction by a maximum of four years imprisonment. Possession of marijuana is punishable on the first conviction by a maximum of one year imprisonment. (Section 287).

3. It is unlawful to distribute or possess controlled paraphernalia. "Paraphernalia" includes hypodermic syringes, pipes, roach clips, needles, or other instruments used to administer drugs, as well as gelatin capsules, glassine envelopes, and other packaging or equipment intended to be used in the distribution of drugs. This crime is a misdeameanor and punishable on the first conviction by a maximum of two years imprisonment. (Section 287A).

4. Second and subsequent convictions under Maryland's drug laws are punishable by a maximum of double the sentence for first conviction of that offense. (Section 293)

5. When any person is convicted of a first offense under Maryland's drug laws, the court in its discretion may place the defendant on probation without finding a verdict of guilty. Upon successful completion of the term of probation by the defendant, the court shall discharge the proceedings and order all criminal records be expunged. (Section 292)

Unless locally approved by the county board of education, a person may not drink or possess any alcoholic beverage on the premises of any public school. (Article on Education, §26-103.

The following actions violate public school law or bylaw:

1. Pupils are prohibited from using intoxicants in any form on the school premises. (Bylaw 13A.08.01.04)

2. Teachers are prohibited from using intoxicants in any form on the school premises. (Bylaw 13A.07.03.04)

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