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DRUG ABUSE, A SOURCE BOOK AND GUIDE FOR TEACHERS.

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THIS SOURCEBOOK CONTAINS INFORMATION TO HELP TEACHERS INSTRUCT ABOUT DRUGS AND DISCOURAGE DRUG ABUSE. THE INFORMATION IS APPLICABLE TO ANY GROUP OR GRADE LEVEL BUT IT IS PRIMARILY DIRECTED AT A K-12 PROGRAM. THE CONTENT HAS BEEN SELECTED, ORGANIZED, AND PRESENTED IN TERMS OF PRESUMED TEACHER NEED AND IS NOT INTENDED FOR DIRECT PUPIL USE. INFORMATION HAS BEEN DRAWN FROM MEDICAL, LEGAL, GOVERNMENTAL, AND OTHER SOURCES AND HAS BEEN ADAPTED FOR EDUCATIONAL USE. EXCESSIVE USE OF SCIENTIFIC TERMINOLOGY HAS BEEN AVOIDED. THE MATERIAL IS DIVIDED INTO THREE MAJOR DIVISIONS. PART 1 DEALS WITH (1) DANGEROUS SUBSTANCES INCLUDING BARBITURATES, AMPHETAMINES, VOLATILE CHEMICALS, MARIHUANA, LSD, AND NARCOTICS, AND (2) THE PEOPLE WHO BECOME DEPENDENT UPON THESE DRUGS. PART 2 DEALS WITH LEGISLATION AND OTHER SOCIETAL EFFORTS TO CONTROL AND SOLVE THE PROBLEMS OF DRUG ABUSE. PART 3 SURVEYS EDUCATIONAL PROBLEMS AND SUGGESTS GUIDELINES FOR THE DEVELOPMENT OF INSTRUCTIONAL PROGRAMS DESIGNED TO PREVENT DRUG ABUSE. ALSO INCLUDED ARE DEFINITIONS OF KEY TERMS, DRUG ABUSE JARGON, OBJECTIVE TEST ITEMS, AND SELECTED REFERENCES. (DS)

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DRUG ABUSE: A Source Book and Guide for Teachers 1967

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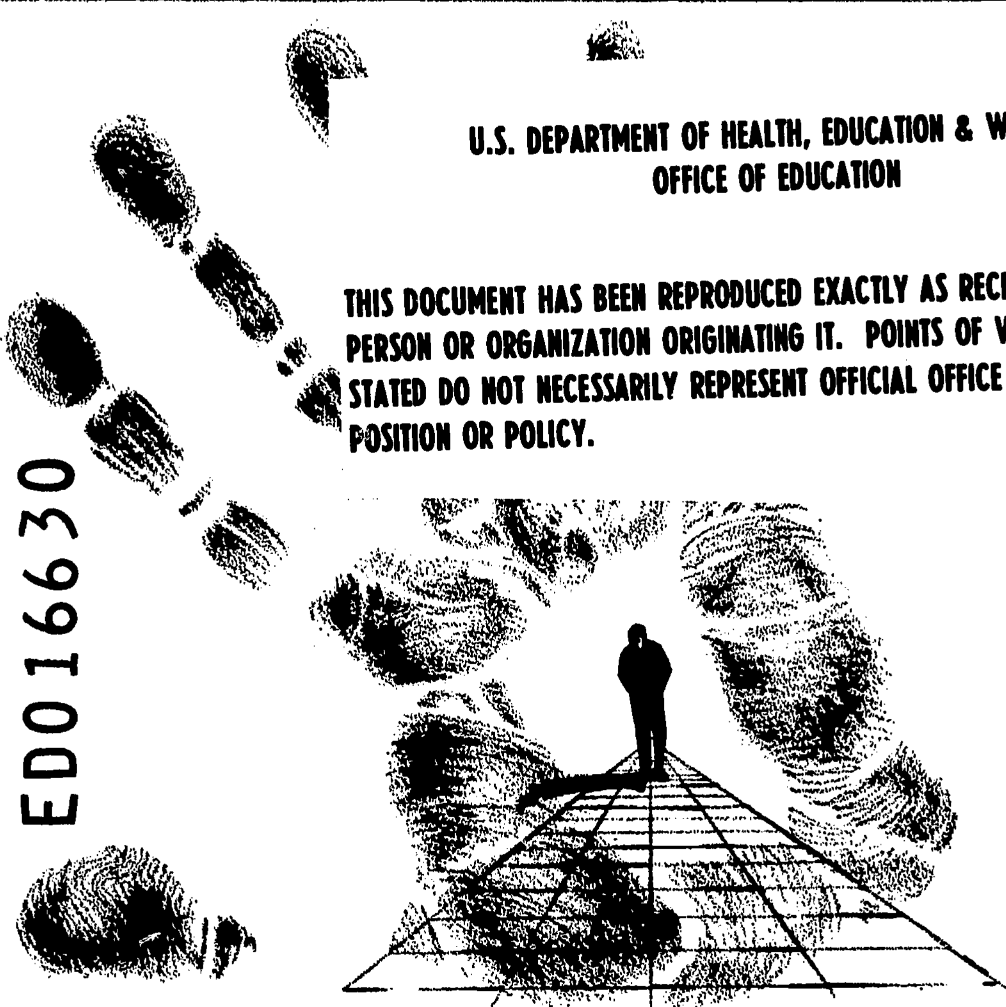

DRUG ABUSE

A Source Book and Guide for Teachers

CALIFORNIA STATE DEPARTMENT OF EDUCATION
MAX RAFFERTY-Superintendent of Public Instruction
Sacramento 1967

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DRUG ABUSE

A Source Book and Guide for Teachers

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FOREWORD

Generally, the label DANGEROUS means that a threat exists to the welfare and even the life of human beings. However, no danger exists until human beings enter the scene. Even then, the danger is held to a minimum if those who enter the scene are informed regarding how to handle the situation and if they act intelligently on the basis of the information. Knowledge and intelligent action are therefore the greatest safeguards society has at its command.

No substance—not even opium, marihuana, or LSD—is dangerous in and of itself. But the improper use of nearly any substance can be dangerous, and the use can be especially dangerous if it involves taking the substance into the body for the express purpose of making the body, or any part of it, function abnormally.

The improper use of drugs by an ever-increasing number of young people poses a problem of major concern to our society. In fact, this problem has now reached such proportions that we must take any steps that are required to solve the problem. These steps can be taken through legislation and law enforcement, guidance by parents and other adults, and education. But to be most effective, all the forces that are responsible for taking these steps must act in unison, and each of them must move forcefully.

I, therefore, urge every school to utilize the information in this publication as a basis for developing an instructional program that is designed to inform all pupils regarding the dangers that result from the improper use of drugs. Let us do all that we can to help pupils develop the qualities of self-respect that are essential to each person's success as a citizen who meets his responsibilities well and lives life to its fullest. And I urge every school to conduct an inservice education program that is designed to provide opportunity for every teacher to have the preparation he needs to offer the high quality instruction required in this special program.

Superintendent of Public Instruction

PREFACE

This publication replaces *Narcotics: The Study of a Modern Problem,* published by the California State Department of Education in 1952. At that time narcotic use constituted the tragic central core of the drug abuse problem in which only a few adolescents were involved, and these were generally members of the lower socioeconomic groups. Today innumerable types of drugs and other substances are being recklessly experimented with by an ever-increasing number of adolescents from all socioeconomic levels of society. Arrests of California juveniles under eighteen years of age for drug offenses increased from 1,325 in 1962 to approximately 4,600 in 1966, or 245 percent in five years.[1] This information must be interpreted as meaning that drug abuse by adolescents will continue to increase unless steps are taken, which are more effective than those taken in the past, to control drug abuse, and, if possible, to eliminate it.

The problem of drug abuse is serious and immensely complex. Strenuous governmental efforts to control the supply of dangerous substances have not produced the necessary results. Stringent laws and severe penalties have failed to prevent (1) the promotion of the use of dangerous substances; and (2) the sale of dangerous substances to youth, even on school grounds. Adult society, through its widespread acceptance of self-administered drugs and its wholesale use of various chemical euphoriants, is setting a bad example for children and youth. Advertising is all too often a purveyor of the idea that pills are the best answer to many of man's problems. The press and other mass media of communication all too often sensationalize drug abuse and, in so doing, make it appear attractive. It is obvious, then, that the problem of drug abuse has not been solved by legislation and that society is not only failing to check the spread of drug abuse but in some ways may even be promoting such abuse. Increasingly, therefore, government officials, professional people, and other citizens are looking toward education as the best hope for stamping out the uniquely modern affliction of drug abuse among youth.

California law requires that instruction about "narcotics" be given in every public school in the state. California schools have been providing this instruction, but the sharp rise of the drug abuse problem in the state indicates that the instruction, along with all other steps that have been taken to control drug abuse, has not produced the desired results and that the instruction given and all other measures taken should be strengthened.

[1] From a report made by Attorney General Thomas C. Lynch and presented to the California State Board of Education in its February, 1967, meeting in San Francisco.

It is a basic premise of this source book for teachers that instruction about narcotics is only part of the total approach which is necessary if the schools are to make a real contribution to the solution of the drug abuse problem. Instruction about narcotics must be expanded to cover instruction about the many substances available for abuse by children and youth, and instruction in general must be supplemented by concerted efforts to develop young people who are capable of resisting pressures toward experimenting with dangerous substances.

Every teacher has some responsibility for the prevention of drug abuse among his pupils. In part, this can be assumed by providing instruction directly related to drug abuse; in part, by guiding young people in the development of their resources for physical, mental, and social well-being. Knowledge about dangerous substances is, for many adolescents, inadequate as a deterrent to drug abuse. Knowledge must be reinforced by the capacity to meet life's challenges and enjoy life's rewards without recourse to drugs. Therefore, education relative to drug abuse demands increasing attention to the physical, mental, and social well-being of pupils. The ultimate solution, if one exists, to the problem of drug abuse rests not in the control of drugs but in the development of human beings who are resistant to drug abuse. In the final analysis, education about drugs may be deemed successful only if it leads the young person to say "NO" when he is confronted with the possibility of drug abuse.

This source book contains basic information designed to help teachers fulfill their double role of instructing about drugs and reinforcing human beings against drug abuse. The material is presented under three major divisions: Part One deals with dangerous substances and the people who become entangled in their use; Part Two delineates the problems of society in its efforts to control and solve the problem of drug abuse; and Part Three surveys educational problems and suggests guidelines for the development of programs of instruction designed to prevent drug abuse by young people.

The content has been selected, organized, and presented in terms of presumed teacher need. Information drawn from medical, legal, governmental, and other sources has been adapted for educational use. Ultrascientific terminology has been avoided.

Teachers should not attempt to "cover" all the information presented herein; rather, they should utilize the information as a basis for classroom instruction and for extending and enriching their own knowledge and understanding of drug abuse. The content is planned for teacher—*not pupil*—consumption. Teachers are urged to use it with wisdom, restraint, and professional discretion.

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State Agencies

Several state agencies with direct responsibility for law enforcement pertaining to good health practices assigned members of their staffs to assist the Narcotics Education Project Advisory Committee and also made members of their staffs available as members of the committee. The name of each of these agencies and that of the person who represented the agency follow:

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Part One

Young People Abuse Drugs

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Chapter I

INTRODUCTION

A drug is any substance, other than food, which affects body structure or function. Thousands of drugs are available, and many of these—insulin, morphine, digitalis, penicillin, the barbiturates, and the like—are well known for their use in the prevention and treatment of disease, the alleviation of suffering, or the saving of human life. Properly used, drugs are of inestimable value to mankind.

Because drugs are chemicals with various possible effects upon the body, society has taken steps to safeguard the public against their indiscriminate use. Drugs are manufactured under carefully controlled conditions; their effects are investigated before they are released for distribution; and the great majority of them are made available to the public only through members of the medical profession in accordance with ethical practices recommended by the American Medical Association. Some substances, such as heroin, which are known to have extremely dangerous effects, are legally outlawed from general use in the United States.

DRUG ABUSE[1]

Despite the precautionary measures taken by society, the abuse of certain drugs is a problem of growing concern in California, as in the United States as a whole. For the purposes of this publication, a drug may be said to be abused when it is obtained illegally and self-administered to the possible detriment of the individual, of society, or of both. Drugs obtained legally are also subject to abuse, but such abuse by young people is the exception rather than the rule.

The drugs commonly abused fall into two main categories: (1) depressants, such as opium and its derivatives and the barbiturates, which decrease the vital activity of the body, inducing a lethargic or soporific state; and (2) stimulants, such as the amphetamines and cocaine, which heighten organic activity, inducing excitement and sleeplessness. Certain other drugs are difficult to categorize since they do not produce

[1] Certain important terms that are commonly used today in relation to drugs and drug abuse are defined in the special section, "Definitions of Key Terms," on pages 109–10 of this source book.

uniform reactions. Marihuana, for instance, acts unpredictably, sometimes appearing to depress and at other times to stimulate body functions. Volatile chemicals, such as those found in model airplane glue and gasoline, are foreign substances to which the body shows a toxic reaction.

The term "narcotic" applies medically to any drug that induces profound sleep, lethargy, and relief of pain. This term, however, is used most frequently in connection with the opiate family—opium and its derivatives, morphine and heroin. Legally the term "narcotic" covers all substances listed in the statutes for which heavy penalties are imposed for their illegal use.

DRUG DEPENDENCE

Closely associated with the abuse of drugs is the complex phenomenon of drug dependence. Drug dependence is defined by the World Health Organization's Expert Committee on Addiction-Producing Drugs as "a state arising from repeated administration of a drug on a periodic or continuous basis." [2] According to this definition, the characteristics of dependence vary with the agent involved, and this must be made clear by designating the particular type of drug dependence in each specific case—for example, drug dependence of the morphine type, of the cocaine type, of the cannabis (marihuana) type, and the like.

The term "drug dependence" is now recommended by the Expert Committee as a substitute for "drug addiction" and "drug habituation." [3] "Drug dependence" refers to drug involvement in general. The use of this term makes it possible to describe the nature of such involvement in relation to each drug or type of drug.

As a person becomes dependent upon a drug, his ability to control his use of that drug decreases. The degree to which he becomes dependent is determined by his characteristics and needs and by the nature of the drug and the extent to which it is consumed. In other words, individuals differ in their susceptibility to drug dependence, and drugs differ in their capacity to cause dependence. Both psychological and physiological factors are therefore important considerations in analyzing a person's susceptibility to drug dependence.

Psychological Factors in Drug Dependence

The psychological factors in drug dependence are recognized by the World Health Organization's Expert Committee under the headings of "desire" and "psychic dependence." Desire for a drug may vary from a persistent, but not overpowering, wish for the drug to an undeniable compulsion to take the drug and to obtain it by any means.

[2] *Thirteenth Report*, WHO Expert Committee on Addiction-Producing Drugs. World Health Organization Technical Report Series, No. 273. Geneva: World Health Organization, United Nations, 1964, p. 9.
[3] *Ibid.*

Psychological dependence on the effects of a drug is invariably related, in the words of the Expert Committee, to "a subjective and individual appreciation of those effects."[4] In other words, the individual takes a drug because of values which are peculiar to his particular orientation in life; that is, the drug gives him certain sensations or reactions which he enjoys. The term "euphoria" is often used in this connection. It implies an exaggerated sense of well-being, artifically induced.

The person who gets satisfaction from his first use of a drug tends to make repeated use of the drug. Through continued repetition he may find it necessary to utilize the drug as an instrument in his adjustment to life, relying upon it for fulfillment which others achieve without the help of drugs. When this occurs, he is psychologically dependent upon the drug. This type of dependence is the least amenable to cure because the individual, in his deep involvement with drugs, may have lost the interest, the drives, and the motivations which lie at the root of normal living.

Physiological Factors in Drug Dependence

Any distinction between the psychological and physiological aspects of drug dependence is, to a certain extent, artificial. The so-called physiological aspects of drug dependence, tolerance and physical dependence, are widely recognized; yet, the biochemical nature of these conditions and their relation to the psychological aspects of drug dependence are far from clear. A vast amount of research is needed on the nature of drug dependence.

Tolerance. Tolerance is a condition in which body cells protect themselves against toxic substances by developing resistance to them. Tolerance is manifested when repeated doses of the same amount of a drug become diminishingly effective and progressively larger doses are required to secure the desired effect.

Physical Dependence. Physical dependence is a condition in which the body has adjusted to the presence of a drug and, when forced to function without the drug, reacts with a characteristic illness, called "abstinence syndrome" or "withdrawal illness." Although the nature of this physical revulsion has been recognized for years, the cause of the revulsion has never been scientifically established. The theory of "homeostasis" is widely held.[5] This theory relates both tolerance and withdrawal illness to the action of forces that try to keep the body's processes in balance. When a person takes a drug that has a depressant effect, his autonomic nerve centers, according to this theory,

[4] *Ibid.*, pp. 13–15.
[5] *Narcotic Drug Addiction.* Public Health Service Publication No. 1021, Mental Health Monograph No. 2. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1943, p. 4.

try to compensate for the drug's effect through changes in the activity of the central nervous system. If the person wishes to experience the depressant effect of the drug, he must take more of it in order to overcome these compensatory forces. When he stops taking the drug, these factors are suddenly released and the body undergoes the period of readjustment called "withdrawal illness."

The physiological aspects of drug dependence may be overcome by appropriate medical treatment. Therefore, the claim by the drug user that he is physically dependent upon a drug although representing a need that may be *bona fide* at the onset of withdrawal symptoms, appears from a long-range point of view to be a rationalization, rather than a reason, for his continued use of the drug. The long-term psychological factors are more compelling than the immediate physiological factor in the maintenance of drug dependence.

FACTORS IN DRUG ABUSE

Drug abuse takes various forms, occurs in various degrees, and involves various people: the child who experiments with model airplane glue; the adolescent who seeks excitement through smoking "reefers"; the college student who takes amphetamines to keep himself awake at examination time; the juvenile delinquent who has had miscellaneous drug experiences and is now using heroin; the adult who toys with suicide by taking an excessive dose of sleeping pills; the "intellectual" who seeks mystical experience through the use of hallucinating drugs; the youth or adult who takes "a trip" on LSD; and the person who administers himself a neighbor's prescription drug are all practicing drug abuse. Although these practices differ in their legal, medical, and social implications, they illustrate various patterns of drug abuse which are current in modern society. And illegal, excessive, or unwise use of drugs is always dangerous.

In most instances the person who practices drug abuse has chosen to do so. But once the choice has been made, he is on a dangerous course which leads all too rapidly to drug dependence. Once drug dependence is established, the person has lost his freedom, one of man's greatest treasures, one for which he has struggled, suffered, and died. The person who abuses drugs to the point of dependence surrenders his freedom of choice and action to a master from which escape is excruciatingly difficult and often impossible. It is therefore vital that every young person know the seriousness of a decision to use drugs and be aware of the possible consequences of such a decision.

All too frequently, vital decisions are made in terms of emotional and social pressures rather than in the light of knowledge and wisdom. For the young person the decision to abuse a drug may be prompted by his need to belong, not to society as a whole which views drug abuse as rep-

rehensible, but to a small group of his peers which may accept some form of drug abuse as normal. The pressure to conform may be too great for the individual to withstand.

Major efforts of society must be directed against this pressure if the epidemic of drug abuse by young people is to be curtailed. Instruction about drugs is useless unless it is accompanied with guidance that helps young people assume responsibilities leading to normal adulthood. The young person who has been motivated by his parents or by his teacher to appreciate, develop, and utilize his own resources has received a primary insulation against temptations to drug abuse. The one who has learned to make independent and responsible decisions is armed against the persuasions of others. And the one who feels that he plays some significant role in school, family, club, or church has little need to accept drug abuse as the price he must pay for acceptance by his peers.

Drugs are inert chemicals until they are used by people. The development of human beings capable of withstanding pressures toward drug abuse should be the primary goal of the teacher who takes responsibility for this important aspect of education.

Chapter II

DANGEROUS DRUGS

Joe, aged thirteen, a junior high school pupil, staggered into the street in front of a car at a busy intersection in a large California city. The car ground to a halt a few inches from him. The driver reported that the boy appeared drunk; his eyes were dilated and his speech was thick. Joe, it turned out, was indeed intoxicated, but not from alcohol. He was under the influence of dangerous drugs, or, as he termed them, "pills." [1]

Jane and Sally, aged fifteen, high school students in the same city, were found unconscious in a vacant lot. Witnesses had seen two boys and a girl drag them from an automobile and leave them in the lot. The girls were taken to a hospital, one of them in critical condition. Examination showed that they were under the influence of dangerous drugs. Both girls testified that they had started taking pills at parties "out of curiosity" and had subsequently purchased them from friends at school. Jane said she was unaware of any danger from taking pills. Sally said she took them because "everyone else was doing it." [2]

The police stopped a car containing three teenagers because they were violating the curfew law and were speeding. Ted, the seventeen-year-old driver, appeared rational when the officers stopped him; but in the course of their conversation he lost consciousness and was taken to a hospital, where he lapsed into a coma. One companion told the police that Ted had swallowed 12 pills just before he was stopped. Each of his companions had also taken a sizable dose. Ted was in critical condition and remained so for several days.[3]

Ted's use of pills is of special interest because he was driving a car when he was stopped by the police. A person driving under the influence of drugs is comparable to a person driving under the influence of alcohol in that he creates a serious driving hazard. His reaction to the drug may be sudden and extreme; in Ted's case it was loss of consciousness.

[1] *Final Report of the Special Study Commission on Narcotics.* Submitted to the Governor. Sacramento: State of California, June, 1961, p. 68.

[2] *Ibid.*, pp. 68–69.

[3] *Ibid.*, p. 70.

The case of Frank is noteworthy for a different reason. At the age of eighteen he bludgeoned his mother and his sister to death. At his trial he contended he had been "high on pills"; they gave him "an urge to kill," he said.[4]

Joe, Jane, Sally, and Ted are typical of large numbers of young people who experiment with dangerous drugs, except that these experimenters were apprehended. Frank, fortunately, is not typical, but his case is significant in representing the ever-present possibility of violent and irresponsible action on the part of those under the influence of pills. The pills used by these teenagers were amphetamines and barbiturates legally termed "dangerous drugs." These are medicinal drugs with important medical uses. They are dangerous when abused and are therefore available only on prescription. The dangerous drugs differ legally from the narcotics in the lighter penalties imposed by law upon those convicted of their possession, sale, or use. In California most dangerous drug offenses are punishable as misdemeanors with light penalties and fines, except that selling or furnishing dangerous drugs to a minor or using a minor as an agent is punishable as a felony.

Some young people who become involved in dangerous drug abuse have a history of delinquent behavior, school failure or dropout, and experimentation with other drugs. Others have good records as students and citizens, and they experiment with drugs in ignorance of the hazards involved. They may have seen their parents use barbiturates or amphetamines prescribed by physicians. They may have been enticed by advertising into an acceptance of self-administered pills, capsules, and liquids as a means of altering mental and physical states. Many of them may consider the use of such substances to be socially acceptable, as in fact it appears to be among certain groups in our society today. The fact that the use of these drugs, except upon medical prescription, violates the law may be unknown to some young people and known but disregarded by others.

The teenager who uses dangerous drugs may feel compelled to do what he thinks others in his group are doing; he is afraid he will not be accepted by his group. He values excitement and feels that he can enjoy life more if he is "high"; adventure to him resides in pills and capsules and the internal sensations they produce.

Such a teenager is dependent and essentially insecure. He lacks a sense of personal worth. Most young people find the security and acceptance they need through achievement in school work or athletics or through membership in organizations or clubs. The one who turns to drugs has failed to develop himself through legitimate and socially accepted activities. The school has failed to reach and to help him. Drugs offer him temporary escape from feelings of inadequacy and a

[4] *San Diego Union*, August 15, 1964, pp. 1-2.

sense of belonging in a group of his peers. Usually he doesn't know the danger involved in the indiscriminate use of the dangerous drugs, nor is he aware of the seriousness of the problem as a whole.

THE NUMBER OF JUVENILE DANGEROUS DRUG USERS

It is believed that the cases of dangerous drug abuse that come to the attention of the police or other authorities represent only a fraction of the large numbers of young people who are toying with dangerous drugs today. According to the California Bureau of Criminal Statistics, the data on juvenile arrests are far less accurate and less complete than those on adult arrests. "Most juvenile arrestees," they report, "are not fingerprinted, formal arrest reports frequently are not submitted, and many of the reports are extremely brief and incomplete." [5] Often, too, according to the bureau, the citation may read merely "suspicion of narcotics" or "delinquency," making the categorization of the offense all but impossible. Arrest statistics are nevertheless of interest in indicating changing trends in drug use and in providing bases of comparison between age groups.

From the California arrest statistics covering juvenile state drug law violators from 1960 through 1966 (see Table 1), it is evident that the percentage of dangerous drug violations rose sharply from 1960 through 1962 and declined thereafter. It is also evident that, starting in 1964, dangerous drug arrests were spectacularly surpassed by marihuana arrests. From statistics giving the breakdown by age of the juvenile dangerous drug users arrested in 1966 (see Table 2, page 12), it is evident that perceptible dangerous drug use started in the early teens and increased rapidly to a peak between the ages of sixteen and seventeen and declined thereafter.

OFFICIAL CONCERN OVER THE DANGEROUS DRUG PROBLEM

In his address in September, 1962, opening the White House Conference on Narcotic and Drug Abuse, President John F. Kennedy said:

> One problem meriting special attention deals with the growing abuse of non-narcotic drugs, including barbiturates and amphetamines. Society's gain will be illusory if we reduce the incidence of one kind of drug dependence, only to have new kinds of drugs substituted. The use of these drugs is increasing problems of abnormal and social behavior, highway accidents, juvenile delinquency, and broken homes. . . . The sooner effective devices for preventing the abuse of these drugs are implemented, the less severe the problem will be.[6]

[5] *Drug Arrests and Dispositions in California*. Bureau of Criminal Statistics. Sacramento: California State Department of Justice, 1963, p. 63.

[6] *Proceedings*, White House Conference on Narcotic and Drug Abuse, September 27 and 28, 1962. Washington, D.C.: U. S. Government Printing Office, 1963, p. 4.

TABLE 1

Arrests of California Juveniles Under Eighteen Years of Age for Drug Violations, January, 1960, Through December, 1966

Arrests by year	Area of violation				Total†
	Dangerous drugs	Marihuana	Narcotics	Other*	
1960					
Number	503	677	157	284	1,621
Percent	31.0	41.7	9.6	17.7	
1961					
Number	694	269	131	167	1,261
Percent	55.0	21.3	10.4	13.2	
1962					
Number	887	248	80	106	1,321
Percent	67.1	18.8	6.1	8.0	
1963					
Number	657	503	92	176	1,428
Percent	46.0	35.2	6.4	12.3	
1964					
Number	633	*1,224	101	*47	2,005
Percent	31.5	61.0	5.0	2.4	
1965					
Number	948	1,623	60	60	2,691
Percent	35.2	60.3	2.2	2.2	
1966					
Number	898	3,869	109	158	5,034
Percent	17.8	76.9	2.16	3.12	

Sources of data: Publications compiled by the Bureau of Criminal Statistics, including *Drug Arrests in California*, Advance 1966. Sacramento: California State Department of Justice.

* Other violations include prescription violations, possession of narcotic paraphernalia, the use of marihuana (as categorized prior to 1964), and the like.

† Prior to 1964, arrests for the use of marihuana were included in "Other" violations; thereafter, they were included in "Marihuana" violations. The sudden change in the number of arrests in 1964 over those of previous years is thus accounted for.

TABLE 2

Arrests of California Juveniles Under Eighteen Years of Age for Drug Violations, 1966, According to Year of Birth and Range of Age

Year of birth	1948	1949	1950	1951	1952 and later	
Age range[1]	17–18	16–17	15–16	14–15	14 and under	
Area of violation	Number of arrests					Total
Dangerous drugs	169	311	232	130	56	898
Marihuana	888	1,595	898	367	121	3,869
Narcotics	30	61	14	4	0	109
Other	33	56	43	15	11	158
TOTAL	1,120	2,023	1,187	516	188	5,034

Source of data: *Drug Arrests in California*, Advance 1966. Compiled by the Bureau of Criminal Statistics. Sacramento: California State Department of Justice, p. 10.
[1] Age figures have been adjusted on the basis that persons born in 1948 are in the age range of seventeen to eighteen; those born in 1949, in the age range of sixteen to seventeen; and so forth.

In another address at the conference, Governor Edmund G. Brown of California pointed to a sharp increase in the use of dangerous drugs and reported huge shipments from American manufacturers to druggists in Mexico, saying, "Those drugs were not shipped to Tijuana to meet a market in Mexico. They were sold openly and without prescriptions to Americans, including teenagers, who brought them back into California."[7]

The production of these drugs has reached astronomical proportions in the United States; an estimated nine billion barbiturate and amphetamine capsules and tablets are manufactured every year, and about half of these are being diverted from legal channels at various points in their progress from manufacturer to ultimate consumer. Drug counterfeit plants have been discovered which produce imitation dangerous drugs under shocking conditions and with undeterminable constituents.[8] Organized criminal rings conduct enormously profitable dangerous drug bootleg operations, in the course of which the price of one of the dangerous drugs may skyrocket from $1 per thousand wholesale on the legal market to $30 to $50 per thousand on the illegal market, and finally

[7] *Ibid.*, p. 14.
[8] *Fact Sheet: Drug Abuse Control Amendments of 1965, Public Law 89-74—Eighty-ninth Congress.* Washington, D.C.: Food and Drug Administration, U. S. Department of Health, Education, and Welfare, 1965, p. 4.

to $100 to $250 per thousand (10 to 25 cents apiece) when retailed to the ultimate consumer.[9]

The need for more stringent controls over the manufacture, distribution, and illegal use of the dangerous drugs has long been recognized. In 1965 the Drug Abuse Control Amendments (to the Federal Food, Drug, and Cosmetic Act) were enacted by Congress and signed into law by President Johnson. This new federal law applies not only to barbiturates and amphetamines but also to various other substances, such as tranquilizers and hallucinogens, which have a potential for drug abuse and are frequently used interchangeably with barbiturates and amphetamines. Narcotics are not included under these provisions because they are covered under the narcotics laws.

Under the provisions of the federal law, only certain groups are allowed to handle these drugs (manufacturers, druggists, hospitals, physicians, research laboratories, and the like) and these are required to register and to maintain records which are available for inspection by the Food and Drug Administration. More stringent controls are placed upon prescription orders and the refilling of prescriptions. Illegal possession of dangerous drugs with intent of sale is prohibited, and severe penalties are provided for those over eighteen years of age who sell or give drugs to anyone under twenty-one years of age. Food and Drug Administration inspectors are given appropriate authority to deal with violations of this law.

The California law is more stringent than the federal law in that it makes even the possession of dangerous drugs, without medical prescription, a misdemeanor.

THE BARBITURATES

The barbiturates are a large family of drugs derived from barbituric acid, which was developed in Germany in the nineteenth century. Since then innumerable barbiturates have been synthesized and prepared for medical use under trade names such as Seconal, Amytal, and Nembutal. These drugs are available in liquids, tablets, capsules, and various other forms.

Effects on the Central Nervous System

The barbiturates are central nervous system depressants (also referred to as sedatives, or hypnotics) which in small doses act on the brain to produce drowsiness. They are commonly known as "sleeping pills." They are used medically for the relief of nervousness, tension, and anxiety, and in various other conditions in which sedation or anesthesia are indicated. The individual members of the barbiturate family differ from each other primarily in speed of action and duration of effect.

[9] *Ibid.*

When used in prescribed therapeutic amounts under medical supervision, these drugs are helpful to mankind. When self-administered or taken in excessive amounts, they are dangerous. Their depressant effect on the central nervous system may result in mental disorientation and physical incapacity. A person under their influence may appear to be intoxicated. His judgment and motor coordination are impaired. His reaction time, visual perception, and attention are affected by even small doses of the drug.

In California, every year several hundred deaths occur which are attributable to the excessive or unwise ingestion of barbiturates. Some of these deaths are accidental and some are intentional. A person who is in a depressed emotional state should not have more than a minimal supply of sleeping pills available because of the danger of suicide.

Barbiturate Abuse

The adolescent may first hear of the barbiturates under such names as "yellowjacket," "redbird," "red devil," "rainbow," or "blue heaven" —names indicative of the various colored capsules in which they are housed. He may learn that by taking pills orally or by injecting the drug intravenously, he can enjoy the sensation of being "high" much as he could by taking alcohol but not have any of the telltale odor. But he may not learn that some of the barbiturates will cause unconsciousness when taken in sufficient quantity or injected directly into the bloodstream.

Most serious today is the practice, widely used by juveniles, of combining barbiturates with alcohol. This combination is dangerous because the barbiturates interfere with the body's normal disposition of alcohol, and the two drugs, working together, have a total effect greater than the sum of their individual effects. The practice of ingesting even moderate amounts of barbiturates and alcohol in combination is extremely dangerous and sometimes results in death.[10] The experimenter may use stimulant drugs to antagonize the depressant effect of alcohol and barbiturates. The use of this combination is also extremely dangerous and frequently fatal.

Barbiturate Dependence

Irresponsible use of the barbiturates may cause drug dependence. The characteristics of barbiturate dependence, as described by the World Health Organization's Expert Committee, include (1) a strong desire or need to continue taking the drug (or another with similar properties); (2) a tendency to increase the dose, partly owing to the development of tolerance; (3) psychic dependence on the effects of the drug; and

[10] "Dependence on Barbiturates and Other Sedative Drugs," prepared by the AMA Committee on Alcoholism and Addiction, *Journal of the American Medical Association*, CXCIII (August, 1965), 675.

(4) physical dependence on the effects of the drug.[11] Barbiturates are thus totally addicting drugs.

Although the onset of barbiturate dependence is likely to be slower than that associated with opiates, dependence on barbiturates is severe and withdrawal exceedingly difficult and prolonged. The abstinence syndrome may entail *grand mal*-type epileptic convulsions and hallucinations or may result in death.

The use of barbiturates often opens the way to the use of other drugs. Ordinarily, the adolescent who experiments with barbiturates experiments also with amphetamine.

AMPHETAMINE

Amphetamine is most commonly available as amphetamine sulfate, a whitish powder available in various forms—tablets, ampules, capsules, and solution. Amphetamine and its chemical variants are marketed under various trade names such as Benzedrine, Dexedrine, and Tuamine.

Effects on the System

Amphetamine is a central nervous system stimulant best known for its ability to combat fatigue and sleepiness. It also is sometimes used to curb the appetite and has thus played a role in weight reduction for some people who are incapable of exercising self-control over their food intake. Applied externally to nasal membranes, amphetamine exerts a constricting effect on the blood vessels and was, until abused, a standard ingredient of various commercial nasal sprays and inhalants. Such sprays are no longer available except on prescription.

Amphetamine Abuse

Amphetamine is a valuable drug when used under medical supervision, but, like all drugs, it is dangerous when abused. In the argot of the illegal user, amphetamine pills may be termed "bennies," "dexies," or "pep pills." Self-administered in larger than therapeutic amounts, amphetamine may induce feelings of euphoria, exaggerated alertness, and actual intoxication. Amphetamine is abused in many ways.

Abuse by Drivers. Notorious is the abuse of amphetamine by some truck drivers, particularly wildcat operators, who, in making long hauls, dose themselves with this drug to keep awake for long periods rather than to take the time required to get the sleep they need. Coupled with lack of sleep, amphetamine may cause hallucinations and distort the driver's image of the highway, thus causing erratic and hazardous driving behavior. Their use has resulted in many accidents. In one ac-

[11] *Thirteenth Report*, WHO Expert Committee on Addiction-Producing Drugs. World Health Organization Technical Report Series, No. 273. Geneva: World Health Organization, United Nations, 1964, pp. 13–14.

cident a bus and a truck collided, nine people were killed, and a large number were seriously injured. The truck driver was found to have been under the influence of a large dose of amphetamine. In addition, he had not had any sleep for 49 hours.[12] Not only a truck driver, but any person who uses amphetamine to stay awake while he is driving may react to the initial stimulus of the drug with aggressiveness and self-confidence, only to "black out" suddenly when the effect wears off. California law prohibits all persons from driving while they are under the influence of narcotics or dangerous drugs.

Abuse by Students. Amphetamine abuse by college students during examination periods has become a significant problem.[13] To the student who is behind in his studies, amphetamine, usually obtained illegally, offers the possibility of remaining awake and alert all night. The student may not know that the use of amphetamine leads to tension, anxiety, and finally to a desire for sleep. However, this does not lessen the possibility that the effect of the drug may wear off suddenly and unpredictably and that the student will fall uncontrollably asleep the next morning while he is taking his examination. He may attempt to prolong his period of wakefulness by increasing the dose, unaware that excessive amounts of amphetamine causes intoxication. In this instance the student may remain awake, but fill his examination book with gibberish. Or, excessively stimulated by amphetamine, he may resort to the illicit use of barbiturates or tranquilizers.[14]

Abuse by Athletes. The use of drugs in professional and intercollegiate athletics to secure improved performance came into prominence after World War II, filtering down even to high school athletes. In the late 1950s the American Medical Association sponsored research to measure the influence of amphetamine on athletic performance. The results of this and later research were conflicting, some claiming improved performance, others reporting no improvement of performance or deteriorated performance.

The ethical standards governing American sports preclude the use of amphetamine to enhance motor performance. Such use of drugs constitutes drug abuse and should be avoided in all instances. And responsibility for avoiding it must be assumed by athletes as well as by their coaches and trainers. In California, supplying a dangerous drug to a minor by anyone other than a member of the medical profession is an act punishable as a felony.

Abuse by Adolescents. The use of amphetamine by young people for a "thrill," "lift," or "kick" is dangerous. Among confirmed users oral

[12] *Final Report* to the Governor, *op. cit.*, p. 66.
[13] Joseph F. Sadusk, Jr., "Size and Extent of the Problem," Symposium: Nonnarcotic Addiction, *Journal of the Americal Medical Association*, CXCVI (May, 1966), 708.
[14] *Ibid.*

ingestion of amphetamine pills may be replaced by intravenous injection of large doses of amphetamine in solution. Frequently, the use of amphetamine opens the door to use of other drugs. Sharon's case illustrates this point.

Sharon had always been overweight, and while she was in her middle teens her doctor prescribed amphetamine as an accessory to a reducing program. Sharon enjoyed the stimulation she felt after taking her medication and wanted more pills than her doctor prescribed. She found that a friend of hers knew where to get them. Through him she not only kept herself supplied with amphetamine, but she also learned about barbiturates and often alternated stimulants and depressants "just for the kick." Soon her friend introduced her to a group who came together to smoke marihuana, and Sharon became a regular marihuana smoker.

She was nineteen when she first tried heroin, and soon she was a regular user. By this time she had left her family, people of education and comfortable circumstances who resided in a large city, and was on her own. And within a short time afterwards she had resorted to prostitution to support her habit. After more than five years on heroin, she was arrested for possession of narcotics, tried, and released on a technicality. As a result of this arrest, Sharon took stock of herself and entered a voluntary rehabilitation program. She had continued drug-free for almost a year at the time she recounted her story.

Sharon had a message for young people: "Don't begin!"

Sharon's admonition emphasizes the important point that the initial decision whether to use a drug is crucial. The young person who decides to use drugs illegally is taking a step which profoundly alters the course of his life and which may lead eventually to the loss of his freedom of choice in respect to the use of drugs.

Amphetamine Dependence

Dependence on amphetamine is characterized, according to the World Health Organization's Expert Committee, by (1) desire or need to continue taking the drug; (2) consumption of increasing amounts to obtain greater excitatory and euphoric effects or to combat more effectively depression and fatigue, accompanied in some measure by the development of tolerance; (3) psychic dependence on the effects of the drug; and (4) general absence of physical dependence so that there is no characteristic abstinence syndrome when the drug is discontinued.[15] Amphetamine users do not develop total dependence, but they may develop psychological dependence upon the drug, a condition which is exceedingly difficult to overcome. Many amphetamine users derive satis-

[15] *Thirteenth Report, op. cit.,* pp. 14–15.

faction from the drug and therefore take larger and larger amounts or seek comparable satisfaction from other drugs, as illustrated in Sharon's case.[16]

OTHER HARMFUL DRUGS

There are various other types of drugs which are actually or potentially injurious to man, the effects of which range from mild to severely damaging. Certain of these are classed as hallucinogens—substances that cause hallucinations. In very recent years LSD (or LSD [25]), developed as a semisynthetic drug and known to be partly hallucinogenic, has received widespread publicity. Great concern has been expressed over this drug because it has been found to be one of the most powerful of modern chemicals and therefore exceedingly dangerous to the human body. Although LSD can be thought of as a dangerous drug, its nature, its menace to society, and the urgent need for its control have taken on such important implications that it warrants discussion in a separate chapter. Therefore, Chapter V, "LSD," is devoted entirely to this subject.

[16] Philip H. Connell, "Clinical Manifestations and Treatment of Amphetamine Type of Dependence," Symposium: Nonnarcotic Addiction, *Journal of the American Medical Association*, CXCVI (May, 1966), 719.

Chapter III

VOLATILE CHEMICALS

Inhalation of vaporized volatile chemicals, except those developed for medicinal purposes and used only as prescribed by a physician, is a dangerous practice that should be discouraged. This practice can probably be best discouraged by making known its harmful effects and by including in the educational program such other information as will be beneficial in helping students become fortified against the practice.

THE GLUE SNIFFER

A youth named Mac appeared suddenly on the railroad tracks outside a metropolitan area in California and assumed a fighting stance in front of a northbound freight. Fortunately the engineer was able to stop the train in time to avoid hitting him. Some weeks later Mac repeated the escapade and again escaped unscathed. Both times he was "high on glue." [1]

Louis was a big boy for his sixteen years; he was over six feet tall. He had been well behaved until one night in 1963. His family had gone to bed, and he suddenly went berserk. He appeared nude in the room where his younger brother was sleeping and bashed his brother's head with a long steel knife sharpener. Then he went into the bedroom where his mother and father were sleeping and bashed their heads with the same implement. He did not kill them, but he wounded them seriously. When the police came, he was sitting in the living room, incoherent, disoriented, and unaware of what he had done. Police learned he had been sniffing glue for some time and had sniffed three tubes that evening.

Phil was sniffing glue before he was eleven. He had repeated the fifth grade and was doing poorly in the sixth. He sometimes walked in his sleep, and he had great difficulty waking up in the morning. His father had disappeared when he was five, and his mother had been working at night since that happened. Phil's mother and the school nurse knew

[1] Gene Luther (Los Angeles Police Department), "The Case Against Glue-Sniffing," *Southern California Juvenile Officers Association Bulletin*, September, 1961. Mimeographed reprint of Luther's article, Reference Bulletin No. 10. San Diego: San Diego County Probation Department, 1961.

about Phil's habit and obtained medical attention for him. He was found to be physically normal, but his achievement at school continued to decline. He was frequently absent from school and frequently away from home. By the time he was twelve, he was smoking a pack of cigarettes a day and was being considered for placement in a foster home because of emotional problems.[2]

The cases of Mac and Louis illustrate the behavior of the glue sniffer. The pattern of such behavior may range from that of mild intoxication to that of total disorientation, which may take the form of violence. Phil's case exemplifies the background of the chronic glue sniffer, who usually has a history of emotional problems brought on by family disruption. In case after case the parents are separated, one parent is dead, or parental disharmony exists. Frequently the glue sniffing is merely an episode in a long sordid history of minor delinquencies such as truancy and petty thievery.

Sometimes the child or young adolescent is led into glue sniffing simply because he has selected the wrong friends. In this case he is likely to engage in glue-sniffing parties with others, as in the case of 15 boys who were apprehended in the act of inhalation. They sniffed glue for "kicks," some reported. "It made things quiet" around them.[3] More frequently it seems that the glue sniffer prefers to sniff alone, as in the case of fifteen-year-old Ben whose mother, during a two-month period, found 50 empty glue tubes in the house, along with rags, socks, and similar articles wadded up and congealed with glue.[4]

The Nature of Glue and Its Effects on the System

The glue used by glue sniffers is a form of plastic cement prepared for the construction of model boats or airplanes and available in grocery, drug, novelty, hobby, and dime stores throughout California. Plastic cements vary in chemical composition depending on the specific formula used by the manufacturer, but all of these cements contain highly volatile organic solvents—substances considered in industry to be safe when inhaled in low vapor concentration but known to be dangerously toxic when inhaled in high concentration. Toluene is a prime constituent of most glues and of plastic cements. Used properly by a responsible child or adolescent, glue and plastic cements are safe. They become dangerous, however, when misused. In California the sale of glue to minors is restricted by law. Glues with a toluene base are purchasable only with kits of hobby materials.

[2] Helen H. Glaser and Oliver N. Massengale, "Glue Sniffing in Children: Deliberate Inhalation of Vaporized Plastic Cements," *Journal of the American Medical Association*, CLXXXI (July, 1962), 300–303. (Also available as a reprint: Reference Bulletin No. 21, San Diego County Probation Department, San Diego.)

[3] Martin L. Barman, Norman B. Sigel, Donn B. Beedle, and Roger K. Larson, "Acute and Chronic Effects of Glue Sniffing," *California Medicine*, C (January, 1964), 19–22.

[4] Glaser and Massengale, *op. cit.*, 302.

The effects of glue sniffing are comparable, except in degree, to the effect of a general anesthetic upon the body. The glue sniffer first experiences a tingling sensation in his head—a lightness and an exhilaration known to him as a "jag." If he continues to inhale the glue, he will experience a state similar to alcoholic intoxication. He will feel dazed and may repeatedly lose contact with reality in periods he refers to as "flash-outs." At such times his speech becomes slurred and his gait unsteady. If he prolongs the inhalation, he may become disoriented, commit irresponsible acts, and ultimately lapse into a coma.

The solvents contained in glue cause a temporary depression of the central nervous system and affect the mucous membranes of the nose and throat, causing them to become swollen and inflamed. There is evidence also of the development of temporary blood abnormalities, including anemia, among glue sniffers.[5]

Certain of the organic solvents present in plastic cements are capable of damaging the brain, of affecting liver and kidney action, and of interfering with the blood-forming function of the bone marrow. In some instances glue sniffing has led to mental deterioration, acute liver damage, and death.[6] Although the small amount of research done to date has not determined definitely the effects upon the human system of inhaling volatile chemicals, it is safe to conclude that the practice of glue sniffing is dangerous under all circumstances and should be discouraged.

Dependence on Airplane Glue

Evidence exists that habitual glue sniffing leads to the development of tolerance and psychic dependence. One tube may suffice to produce a mild intoxication in the beginner, but with the development of tolerance it may take several tubes to produce similar results in the experienced sniffer. For example, in a case reported to the California Assembly Committee on Public Health, a nineteen-year-old youth admitted sniffing from 15 to 20 tubes a day.[7]

In another case a nineteen-year-old youth who had been using glue for two years came to the attention of the police because he was threatening to commit suicide. He had developed a psychic dependence on glue and was despondent because he could not free himself of this habit. He found it necessary to inhale glue almost continuously to maintain his "high" feeling. He admitted he could not stop and begged for help. He was afraid he would do something wrong while under the influence of glue. In fact, he had threatened his family on several occasions, according to a report of the San Diego County Sheriff's Department.

[5] Jacob Sokol, *Southern California Juvenile Officers Association Newsletter*, July, 1962.
[6] Glaser and Massengale, *op. cit.*, 301.
[7] "Teen-Ager Menace as Glue Sniffer," *San Diego Union*, March 24, 1963, Sec. B, p. 2.

Another glue sniffer, arrested twice, doubted that he could "quit sniffing." [8] In the words of one glue sniffer, "Once you start, it's hard to lay off. You shake and shiver at night when you're off the stuff."

The glue sniffer who is apprehended early is fortunate because his habit may be checked. The adolescent who continues to use volatile chemicals is likely to extend his practice to other forms of drug abuse.

The Extent of Glue Sniffing

Under California law glue is not classified as either a narcotic or a dangerous drug. If the glue sniffer is arrested, the reason for the arrest is probably a local ordinance prohibiting glue sniffing, or some offense such as burglary, truancy, intoxication, or disorderly conduct. Hence, the statistics on narcotic and drug arrests compiled annually by the California Bureau of Criminal Statistics do not reflect arrests for glue sniffing. Since most cases of glue sniffing probably never come to the attention of juvenile authorities or the police, it is exceedingly difficult to determine how much glue sniffing is done in California.

The cases of glue sniffing which are identified and reported make it evident that the practice is increasing. In a recent three-year period, 600 cases were reported in Los Angeles. In the first five months of 1966, almost 100 cases of glue sniffing came under the jurisdiction of the Los Angeles Probation Department.[9] Acts of violence, sometimes culminating in death, frequently accompany glue-sniffing episodes. Recently, 15 deaths directly or indirectly attributable to glue sniffing have been reported in Los Angeles.[10] Typically, those arrested for aberrant behavior caused by glue sniffing are likely to have also practiced inhalation with substances such as paint thinner and lacquer.[11]

THE GASOLINE SNIFFER

Sarah was twelve and one-half years old when she was brought to a pediatrician because of various vague symptoms and sensations. For the preceding two years, it was learned, she had been sniffing the fumes from a five-gallon can of gasoline whenever she felt depressed. A few months before she was brought to the pediatrician, Sarah had a bout of gasoline sniffing that resulted in her being unconscious. Sarah was examined medically and found not to have been affected physiologically by the sniffing she had done.

During psychiatric treatment, however, it appeared that she was psychologically dependent upon gasoline fumes and would revert to sniffing the fumes after treatment. Her home situation was disturbed, and she

[8] Luther, *loc. cit.*
[9] *Inhale, Exhale: The New Terror*. Film, 16 mm, black and white. Written by Lee Berg. Los Angeles: Stanley Brady Productions.
[10] Reported by Jacob Sokol in an address given at the University of California, Los Angeles, Institute, "The Drug Takers," June 11–12, 1966.
[11] Glaser and Massengale, *op. cit.*, 301.

appeared to have turned to gasoline sniffing as an escape from unhappiness and deprivation. Other cases of gasoline sniffing follow a similar pattern although there is often better prognosis for recovery than in Sarah's case.[12]

Effects on the System

The hydrocarbons in gasoline—notably butane, hexane, and pentane—affect the central nervous system, causing mild to severe symptoms of intoxication, depending upon the susceptibility of the individual and the volume of fumes inhaled. Mild symptoms resemble those of alcoholic intoxication. In extreme cases, however, delirium, coma, seizures, or death may occur. Symptoms appear rapidly and are exaggerated upon exposure to fresh air. The incidence of gasoline sniffing is believed to be much higher than is commonly realized.

CONTROL OF GLUE AND GASOLINE SNIFFING

Nonintoxicating solvents may be developed to replace the intoxicating ones now present in airplane glue. However, the intoxicating volatile solvents probably never will be eliminated from gasoline, kerosene, lighter fluid, paint and lacquer thinners, marking pencil fluid, and innumerable similar substances available to the general public today. Injudicious use of any of these substances is dangerous, and deliberate misuse by irresponsible persons is an ever-present possibility. Control of the sniffing of volatile chemicals must necessarily be focused not upon products but upon potential users. The most powerful force available for this control appears to be education.

[12] James J. Lawton and Carl P. Malmquist, "Gasoline Addiction in Children," *Psychiatric Quarterly*, XXXV (July, 1961), 557.

Chapter IV

MARIHUANA

In the mid-1930s, when marihuana first sprang into prominence in the United States, Harry J. Anslinger, then United States Commissioner of Narcotics, wrote as follows:

> The sprawled body of a young girl lay crushed on the sidewalk the other day after a plunge from the fifth story of a Chicago apartment house. Everyone called it suicide, but actually it was murder. The killer was a narcotic known to America as marihuana, and to history as hashish. It is . . . as dangerous as a coiled rattlesnake.[1]

The Commissioner accused marihuana of causing "a sweeping march of addiction" and called for Congress to pass a law, for no federal law existed, to curb the growing of, sale of, or possession of marihuana. In discussing the use of marihuana, he wrote: "How many murders, suicides, robberies, criminal assaults, holdups, burglaries, and deeds of maniacal insanity it causes each year, especially among the young, can be only conjectured." [2]

In the mid-1960s an article appeared in the *New York Times* about a demonstration in the city of New York by a small band of young men and women against legal restrictions on the use of marihuana.[3] These demonstrators belonged to a group that originated in San Francisco under the banner of an organization called "Lemar" (*Le*galize *Mar*ihuana). The members of this group claimed that marihuana had been proven nonaddicting and that it was therefore not harmful. "Smoke pot," the placards carried by the group in New York proclaimed. "It's cheaper than liquor." Leaflets passed out by the members said, "Given the facts, who except the powerful liquor, pep pill, nicotine, and medical lobbies would dare raise a voice against marihuana?" One woman stated, "Marihuana is a gentle, beautiful thing."

What are the facts about marihuana? Is it, as Commissioner Anslinger claimed, a cause of violence and death? Or is it, as its proponents proclaim, harmless and benign? Is it an addicting drug to be classed with

[1] Harry J. Anslinger with Courtney Ryley Cooper, "Assassin of Youth," *The American Magazine*, CXXIV (July, 1937), 18.

[2] *Ibid.*

[3] "Demonstration Held to Protest the Law Against Marihuana," *New York Times*, December 28, 1964, p. 23.

heroin in its propensity to cause deep psychological and physical dependence, or is it nonaddicting and "therefore not harmful"? Should its use be restricted by strong laws, or should legal bans against the drug be lifted? Is it "a coiled rattlesnake," or is it "a gentle, beautiful thing"?

Actually, the truth about marihuana appears to lie somewhere between these two extremes. Narcotic experts today view the use of marihuana with somewhat less alarm than it was viewed by Commissioner Anslinger in the 1930s. On the other hand, no responsible authority would subscribe to the views put forth by the proponents of the drug. Knowledge of the effects of marihuana on the body and mind and of the social implications of its use provides the basis required to form sound judgments.

THE NATURE OF MARIHUANA

The term "marihuana" applies in general to the Indian hemp plant, or more specifically to the resinous substance present in the flowering tops of the unpollinated female *Cannabis sativa*. This plant is an annual that grows from four to eight feet high or higher, with five to seven long, slender, serrated leaves fanning outward from the central point like fingers on an outstretched hand. The plant has been known and apparently has been used for its drug effects for several thousand years. This plant is presumed to be a native of central Asia; but long before the time of Christ, its habitat had been extended to the Orient and the Near East. Today the marihuana plant grows wild or can be grown in almost every region of the world. In fact, it thrives so well under a variety of conditions that efforts of various nations to prevent its growth have not been wholly successful. In the course of its long history, cannabis has had many names, such as the following: "hashish" (Arabia); "kif" (North Africa); "dagga" (South Africa); "ganja," "charas," and "bhang" (India); "ma jen" (China); "diamba" or "maconha" (South America); and now "marihuana" (North America).[4]

Although marihuana may be taken into the body in several ways—by chewing the leaves, by sniffing it in powder form, by mixing it with honey for drinking, by making it into candy for eating—in the United States it is assimilated most frequently by smoking. The flowering tops of the plant are cured by drying, "manicured" by crushing, and rolled into "cigarettes" wrapped in crude brown paper with the ends folded or twisted. Marihuana users may refer to these cigarettes as "reefers," "sticks," "weeds," or "joints" and to marihuana itself as "Mary Warner," "tea grass," "hay," "weed," or "pot." Sometimes the marihuana is combined with tobacco. The marihuana smoker learns to

[4] H. B. M. Murphy, "The Cannabis Habit: Review of Recent Psychiatric Literature," *Bulletin on Narcotics* (United Nations), XV (January–March, 1963), 15.

use a special technique of slow, deep inhalation in order to achieve maximum vaporization and absorption of the resin in the smoke. The lighted marihuana cigarette has a distinctive odor similar to that of dried alfalfa or hay.

EFFECTS ON THE SYSTEM

Although marihuana is legally classed as a narcotic by both federal and state laws, its action on the body is less clearly defined, less uniform, and less predictable than that of the opiates or of alcohol, with which it is sometimes compared. Marihuana is a potent drug which has an intoxicating effect on the body. This effect is highly complex and unreliable, depending on the geographical sources of the marihuana, the social milieu in which it is smoked, and the personality of the smoker. Variations in processing the marihuana produce variations in dosage which enhance the unpredictability of the drug effect. Because of its ability to cause mental phantasy, distortion, and exaggeration as well as emotional and physiological exhilaration, marihuana is sometimes classed as a hallucinogen. At the White House Conference on Narcotic and Drug Abuse, it was pointed out that lack of adequate research has left great gaps in our knowledge about marihuana and its effects upon those who use it.[5]

Marihauana, like alcohol, acts almost entirely upon the central nervous system, affecting motor control, perception, and judgment and releasing inhibitions which normally stand guard over behavior. Marihuana ordinarily produces an initial stimulation, during which the smoker becomes emotionally unstable, exhilarated, talkative, and giggly. This stage is followed by a period of depression, during which he may become drowsy and lose contact with reality as he drifts into a euphoric state. To the marihuana smoker time and space are distorted; sights and sounds are exaggerated. He becomes intoxicated and he may walk unsteadily, see fuzzily, and act stupidly. He is liable to be highly suggestible; he is apt to experience a false sense of courage which may induce irresponsible and dangerous behavior.

Because there is a general resemblance between the effects of marihuana and the effects of alcohol upon the human system, marihuana smokers sometimes use this resemblance in an effort to rationalize the legalization of marihuana use. Obviously the sordid record of violence, criminality, accident-causation, and social degradation associated with the abuse of alcohol gives but scant support to the concept of legalizing a drug which appears to possess an even greater potential for personal and social disruption.

[5] *Proceedings*, White House Conference on Narcotic and Drug Abuse, September 27 and 28, 1962. Washington, D.C.: U. S. Government Printing Office, 1963, p. 166.

MARIHUANA AND CRIME

In extreme cases the use of marihuana may result in violence or other forms of criminality; in fact, the word "assassin" is derived from the Arabic word *hashshashin* or hashish-user. (Hashish is the concentrated resin from *Cannabis indica*, a close relative of *Cannabis sativa*.) Little research has been done on the relation between marihuana use and criminality in the United States. It is assumed, however, with respect to "marihuana crimes" and other aberrant behavior associated with marihuana use, that marihuana, through the relaxing of inhibitions, frees the individual to act out preexistent urges which normally would be suppressed.

In a study by a psychiatrist of several thousand crimes in three West African countries, significant percents of those convicted of various crimes (murder—50.6 percent, assault and battery—31.1 percent, sex offenses against women—26 percent, false pretense—46.8 percent, burglary —70 percent, culpable driving—53.5 percent) were found to have a history of cannabis use. The author makes the following statement relative to his findings:

> The relationship of cannabis to crime and anti-social behavior is complex and elusive. Not only do people commit crime under the influence of cannabis, but, indeed, a large number of non-habitual offenders are led to the use of cannabis, because without it they cannot effectively operate. Its use, under these circumstances, produces a relief from fear and anxiety, and replaces passivity with aggressivity.[6]

MARIHUANA DEPENDENCE

The World Health Organization's Expert Committee characterizes drug dependence of the marihuana type as (1) a desire (or need) for repeated administration of the drug on account of its subjective effects, including the feeling of enhanced capabilities; (2) little or no tendency to increase the dose, since there is little or no development of tolerance; (3) a psychic dependence on the effects of the drug; and (4) absence of physical dependence.[7]

Marihuana dependence, as analyzed by the Expert Committee, does not include either tolerance or physical dependence. Since these two physical elements of drug dependence are those ordinarily identified with "addiction," the proponents of marihuana are correct in claiming that marihuana is "nonaddicting." Marihuana dependence, however, does rest upon the two psychological elements of dependence—desire and psychic dependence—and these are the most compelling and the least

[6] T. A. Lambo, "Medical and Social Problems of Drug Addiction in West Africa," *Bulletin on Narcotics* (United Nations), XVII (January–March, 1965), 3–13.

[7] *Thirteenth Report*, WHO Expert Committee on Addiction-Producing Drugs. World Health Organization Technical Report Series, No. 273. Geneva: World Health Organization, United Nations, 1964, p. 15.

reversible aspects of drug dependence. The claim of "Lemar" members that marihuana is "nonaddicting" and "therefore not harmful" appears to be based on ignorance of or indifference to the seriousness of psychological dependence upon a drug. This form of dependence, once established, is exceedingly difficult and often impossible to break because the individual involved seeks characteristically to duplicate and deepen his original experience with the drug, thus reinforcing his dependence on the drug. In the words of Ausubel:

> Despite the claims of [marihuana] users that they can voluntarily discontinue use at any time without experiencing undue suffering or craving, their behavior indicates otherwise . . . . Confirmed users bitterly resent deprivation and readily admit their future intentions to return to the drug as soon as conditions permit.[8]

PATTERNS OF MARIHUANA USE

Although each young person who involves himself in drug abuse of any sort does so for essentially unique reasons and under essentially unique circumstances, certain patterns emerge which shed light on the motivation of young people in general toward drug abuse as a whole. Consider, for instance, the testimony of one young man at a hearing of the United States Senate Subcommittee to Investigate Juvenile Delinquency in the United States.

"How did you get started?" a Senator asked.

"By going to a party with some friends that I didn't know at the time were using narcotics," answered the youth, "and then in order to be with that group I went ahead and started smoking marihuana. After marihuana I experienced the pills, many different kinds of pills." [9]

Or consider the testimony of a young woman who had started taking amphetamines and barbiturates in college. She said she had begun smoking marihuana out of curiosity, "wanting to belong, the glamor, the thrills that go along with it." [10]

In case after case, among young people the use of marihuana or of dangerous drugs is engendered by curiosity regarding their effects, by the desire for some special form of adventure or excitement, and by an urge to become part of a group through doing what others in the group are doing (or by fear of being rejected by the group because of *not* doing what others are doing).

Because early experiences with drugs can be disagreeable and frightening, the beginning user must be strongly motivated to pursue the course he has chosen. In the case of marihuana, according to Becker,

[8] David P. Ausubel, *Drug Addiction: Physiological, Psychological, and Sociological Aspects.* New York: Random House, Inc., 1958, p. 97.

[9] *Juvenile Delinquency*—Part 12: *Narcotic and Dangerous Drug Abuse in the State of California.* Hearings Before the Subcommittee to Investigate Juvenile Delinquency for the Committee on the Judiciary, United States Senate, Eighty-seventh Congress, August 6 and 7, 1962. Washington, D.C.: U. S. Government Printing Office, 1963, p. 2779.

[10] *Ibid.*, p. 2778.

the beginner must first learn the special techniques necessary for deriving satisfaction from marihuana smoking. Then he must learn from others what sensations he should expect and must attempt to perceive these sensations in himself. Finally, he must learn to enjoy these sensations, much as a person learns to enjoy oysters or some other food which is strange to him. The user, according to Becker, is socially motivated to become a regular marihuana smoker.[11]

Ausubel, on the other hand, believes that the regular marihuana user has a personality predisposition which motivates him to accept the use of marihuana. The drug plays an adjustive role in his life; otherwise he would abandon its use. Ausubel describes the habitual marihuana user as "an immature, emotionally unstable individual, unable to meet the demands of reality or to endure deprivation, frustration, and discipline." For persons of this type, according to Ausubel, marihuana has an adjustive value "because it generates a sense of well-being and adequacy and restores damaged feelings of self-confidence." [12]

In addition to social and psychological motivations toward marihuana use, various cultural influences may also come into play. Among certain Mexican-American populations of southern California, for instance, marihuana use appears to constitute a subcultural pattern which serves, in part, to tide the adolescent user over a period of particular stress and strain brought about by the differences between Mexican and American cultures and the necessity of adjusting to both.

Marihuana smoking is essentially a sociable activity. Those who indulge in it usually do so with others at so-called "pot parties" or "tea parties." They share experiences with others in a world which becomes peculiarly their own, a world in which internal sensation is more immediate and more important than external reality; they share in a world of "kicks." In this world of "kicks," the young person may gain a sense of belonging with others, a sense heightened by the clandestine nature of the activity in which all are engaging together. He may rejoice in a new sense of freedom because under the influence of marihuana his responsibilities seem remote and his problems appear no longer pressing. He may gain, perhaps for the first time, a sense of adjustment to life—an adjustment which is, of course, fallacious because it is based on escaping from, rather than facing up to, reality. Thus, in relation to society as a whole, marihuana smoking is an antisocial activity, a manifestation, usually, of rebellion against society.

It is often said that marihuana use leads to heroin use, but this is a misleading statement. Marihuana use, for many young people, opens the door on the whole world of drugs, introducing them to the values and

[11] Howard S. Becker, "Becoming a Marihuana User," *American Journal of Sociology*, LIX (November, 1953), 235-42. See also Howard S. Becker, *Outsiders: Studies in the Sociology of Deviance*. New York: The Free Press of Glencoe, Inc., 1963, pp. 41–78.
[12] Ausubel, *op. cit.*, p. 99.

experiences associated with this world. Once he is a part of the drug user's world, the individual seeks the particular drug experience which gives him the greatest satisfaction. Thus he is likely to experiment with LSD, with amphetamine and the barbiturates, and possibly also with heroin. Most heroin users have in their background a history of marihuana use, but it is apparent from statistics today that many marihuana smokers do not proceed to heroin use. Many remain marihuana smokers, forming a "pothead" culture of their own which frowns on the use of narcotics.

STATISTICS ON JUVENILE MARIHUANA SMOKERS

Table 1 (page 11) shows that arrests of young people in California for marihuana offenses, after declining in the early 1960s, increased sharply in 1963 and continued to increase through 1966, greatly outstripping the arrests for dangerous drug offenses among juveniles. The use of marihuana thus emerges as the most serious juvenile drug offense in California at the present time. Table 2 (page 12) shows the number of California juveniles arrested in 1966 for various violations of the laws pertaining to dangerous drugs, marihuana, and narcotics, according to the ages of the offenders. Available figures on adult arrests indicate a high sustained rate of marihuana use throughout young adulthood. Obviously, however, only a portion of those who use marihuana at any age period are reflected in arrest statistics.

AVAILABILITY OF MARIHUANA

There is no recognized medical use of marihuana in the United States and little such use elsewhere in the world, except in certain parts of India and Pakistan where primitive systems of medicine prevail. Nonmedical use in the United States is controlled under the provisions of the Marihuana Tax Act of 1937, which placed under rigid control the production, preparation, and distribution of *Cannabis sativa*. Hence, there is practically no legal domestic growth of the plant in this country. The use of marihuana is a clandestine activity involving the use of contraband material secured through criminal contacts and punishable as a felony anywhere in the United States.

In recent years vigorous efforts on the part of the United Nations Commission on Narcotic Drugs have resulted in curtailing the production of marihuana in many countries. There is, nevertheless, considerable cultivation of the plant throughout the world and a tremendous volume of illicit international traffic. In the 15 years from the close of World War II to 1960, the volume of production, as represented in seizures reported to the Economic and Social Council of the United

Nations, increased from approximately 45,000 pounds a year to more than 1,800,000.

Huge quantities of marihuana are smuggled into the United States across international borders—practically all of it from Mexico. Generally it crosses the border by automobile, concealed in the door and body panels, or in special compartments built under the floor or in the fenders. The California market is supplied mainly through the border points of San Ysidro and Calexico.

Evidence of this illicit traffic may be gleaned from the local newspapers from time to time. Typical are reports in the *San Diego Union* of February 13 and 15 and March 11, 1964, on marihuana shipments of 150, 330, and 204 pounds, respectively, seized at or subsequent to entry at the San Ysidro border station. In January, 1964, a shipment of 550 pounds of marihuana was seized from a truck attempting to cross the border near Calexico.[13] Since one pound of marihuana yields approximately 1,000 cigarettes, with a retail value of from 50 cents to $1.50 apiece, the marihuana in these four seizures alone has a market value of approximately one million dollars. Smuggling marihuana into the United States is a big criminal operation, one that is supported by every citizen who purchases a marihuana cigarette.

SOME CONCLUSIONS ABOUT MARIHUANA

Because they have heard that marihuana smoking does not result in physical dependence or because they are not concerned about the possibility of permanent damage to body tissue, some young people may maintain that such smoking is only an innocent pastime. Several points, however, should be made clear in this connection:

1. Marihuana is a potent intoxicant. A person under its influence is irresponsible, and there is considerable possibility that he may inflict harm upon himself or others.
2. Occasional use of marihuana may lead to its regular use and to the development of psychological dependence on the drug. Once established, psychological dependence is exceedingly difficult to break.
3. Continued heavy use of marihuana may cause serious mental disorders.
4. The use of marihuana introduces the young person to a world of "kicks" from which he may find it difficult to extricate himself. Acceptance of this world militates against his adjustment to the real world and opens the door to involvement with other drugs.
5. The marihuana user is engaging in a criminal activity punishable as a felony. A crime of this magnitude can scarcely be viewed as an innocent pastime.

[13] *San Diego Union,* February 15, 1964.

ERIC

The World Health Organization, in a study on cannabis prepared for the United Nations Commission on Narcotic Drugs, pointed up unequivocally the danger of the drug "from every point of view, whether physical, mental, social, or criminological." [14] Certainly the experts who made this study would have discovered the values of marihuana if any existed. But since they did not, everyone should accept the information reported as providing the best available advice and should avoid the use of marihuana.

[14] "The Cannabis Problem: A Note on the Problem and the History of International Action," *Bulletin on Narcotics* (United Nations), XIV (October–December, 1962), 30. See also United Nations document E/CN.7/L.91.

Chapter V[1]

LSD

The use of a new drug, LSD[25] (d-lysergic acid diethylamide tartrate), commonly referred to as LSD, became widely publicized in 1966. Most newspapers, magazines, and television networks featured one or another aspect of LSD. It was publicized as a "consciousness-expanding" drug—one that increased creativity in such fields as music and art. An experience with LSD was called "a trip." The impression was also given that the use of this new drug would solve a variety of sexual problems as well as other problems of living.

At the same time that LSD was being publicized as a panacea for many of man's problems, increasing numbers of persons began to arrive at psychiatric clinics and medical emergency rooms throughout the country with symptons that followed LSD ingestion. Many required psychiatric hospitalization, some for several months. A number of suicides were reported following LSD use, and users began to tell of "bad trips."

As the dangers of LSD became recognized, a wave of hysteria began to sweep the nation. The one legal manufacturer of the drug stopped production of LSD early in 1966 and gave its remaining supply of the drug to the National Institute of Mental Health and to a small number of authorized investigators who were to continue their research on a limited basis. The company producing the drug had sponsored most of the authorized research projects on LSD, but this sponsorship was terminated when the company discontinued manufacture of the drug. Legitimate research projects (approved by the federal Food and Drug Administration) dropped from 70 to 9, with 12 investigators. Individual investigators must submit "investigational new drug plans" to the Food and Drug Administration if they wish to continue or to begin research projects utilizing LSD. The great need for additional research

[1] The material in this chapter has been adapted, unless otherwise noted, from speeches given by J. Thomas Ungerleider, M.D., and Duke D. Fisher, M.D., at conferences on drug abuse sponsored by the California Attorney General in Los Angeles, September, 1966, and in San Francisco, October, 1966. Dr. Ungerleider is Assistant Professor and Dr. Fisher is Psychiatric Resident, both in the Department of Psychiatry, University of California Medical Center, Los Angeles, California.

was stressed at Senate subcommittee hearings on LSD which were conducted in Washington, D.C., during May, 1966.[2]

Laws were passed in an attempt to control the use of LSD. The federal Drug Abuse Control Amendments of 1965 made possession of LSD for sale or manufacture illegal. The State of California went a step further, making even the *possession* of LSD and similar drugs illegal. This law became effective October 6, 1966. Approximately ten other states in the nation have now enacted laws similar to the one California adopted.

HISTORICAL FACTORS

For thousands of years man has known that certain substances, when taken into the body, could affect the mind in such a way as to cause a person to have visions or hallucinations. Even today man is in frequent contact with innumerable substances such as morning glory seeds, nutmeg, and Jimson weed or Datura, which, when taken into the body, have a hallucinogenic effect. The Mexican Indians have long used the sacred mushroom to produce visions and hallucinations, and Indians in our own Southwest have used the peyote cactus for this purpose. In recent years the drug known as psilocybin, derived from the sacred mushroom, and the drug known as mescaline, derived from the peyote cactus, have been studied experimentally to determine whether either of these derivatives serves any useful purpose; but neither has been found to do so.

LSD, which is related to psilocybin and to mescaline but is many times stronger, was synthesized by Albert Hofmann, a chemist with the Sandoz Research Laboratories in Switzerland, in 1938. Since 1943, when its perception-altering properties were accidentally discovered by Dr. Hofmann, it has been the subject of special scientific interest. Research on LSD was confined to Europe until the early 1950s.

At the Senate subcommittee hearings on LSD in 1966, James L. Goddard, M.D., Commissioner of the federal Food and Drug Administration, stated that representatives of Sandoz Pharmaceuticals of Switzerland had contacted the Food and Drug Administration in 1953 to discuss the feasibility of clinical investigations of LSD in the United States. Under the drug regulations then in existence, such discussions were not required; however, the Sandoz firm recognized that major problems had arisen and could still arise from research dealing with LSD and its very special hallucinogenic properties. Sandoz representatives told officials of the Food and Drug Administration that the great power of LSD, contained in very small doses, led them to believe it should be available only to qualified research psychiatrists. The agency agreed

[2] *Organization and Coordination of Federal Drug Research and Regulatory Programs: LSD.* Hearings Before the Subcommittee on Executive Reorganization of the Committee on Government Operations, United States Senate, Eighty-ninth Congress, May 24, 25, and 26, 1966. Washington, D.C.: U. S. Government Printing Office, 1966.

and required that LSD be labeled as an investigational drug in this country and be delivered only to persons who would certify that they were properly qualified to investigate the drug and that they would use it solely for purposes of investigation.[3] From 1953 to 1963, experimental investigations with LSD took place in the United States.

In 1962 the Kefauver-Harris drug amendments were enacted by Congress. Under these amendments a drug still had to be proved safe, but it also had to be proved effective for the proposed conditions of its use before it could be marketed commercially. The investigational use of LSD which had been completed up to that time—in Europe as well as in the United States—did not establish either safety or efficacy for LSD. The drug was still regarded as new, and the federal Food and Drug Administration did not—and still does not—approve it for marketing. As Dr. Goddard stated in May, 1966, "Twenty years have passed since it [LSD] was first explored for its effects upon the mind. Over a decade of experimentation has taken place in this country. An estimated 2,000 papers have entered the scientific archives on the properties of LSD. Nevertheless, the drug still has no place in medical practice. It is still an investigational agent that can be handled only under the most carefully controlled conditions." [4]

Somehow over the years LSD escaped from the laboratory, where it had been the subject of careful scientific inquiry, and became invested with an aura of magic, seemingly offering a panacea for many of men's problems. The "joys" of LSD were first described by Aldous Huxley in his *Doors of Perception* in 1954.

Abuse of LSD was not recognized as a problem until about 1961 and was not widespread even as late as 1963. The federal Food and Drug Administration carried out its first criminal investigations of the nonmedical and illegal uses of LSD in 1961, and between 1961 and 1965 some 350 investigations concerning LSD took place. Under the drug abuse control amendments passed by Congress in 1965, investigations are continuing, and at an accelerated rate. Along with law enforcement, educational programs on the dangers of LSD are being developed by the Food and Drug Administration. Dr. Goddard observed at the Senate hearings, "I should emphasize that we feel one of the major weapons available to us [in bringing illegal use of the drug under control] that has not been exploited as yet is the development of a vigorous program in the educational area." [5]

THE NATURE OF LSD

LSD, although odorless, colorless, and tasteless, is one of the most potent drugs known. According to Stanley F. Yolles, M.D., Director,

[3] *Ibid.*, p. 60.
[4] *Ibid.*, p. 63.
[5] *Ibid.*, p. 68.

National Institute of Mental Health, "the usual dose is about 100–200 micrograms or one-fifteenth to one-thirtieth millionth of an ounce."[6] Lysergic acid, the precursor of LSD, is a constituent of ergot, a fungus that grows on rye.

Although LSD is widely described as hallucinogenic, this description is not entirely accurate. Persons who see and hear things after an LSD ingestion usually perceive actual objects or sounds as accentuated or distorted, or both; that is, faces melt away, bodies merge with walls, solid items pulsate, and so forth. These are illusions rather than true hallucinations, although sometimes the latter do occur. An illusion is a perceptual distortion of something that is seen; a true hallucination is seeing a nonexistent image. The term "psychedelic," or "mind manifesting," was coined by Osmond in 1957. It is applied to LSD and similar drugs in an effort to describe certain drugs in terms of perceptual changes.

The mechanism by which LSD affects the human mind is still unknown. Nevertheless, there are many theories concerning this. Sidney Cohen, M.D., psychiatrist-administrator with the Veterans Administration Hospital in Los Angeles, has provided the following hypothesis: "It appears that LSD interferes with the sorting and coding of incoming information, permitting an overflow of sensation and a lessening of intactness of the self."[7]

LSD DEPENDENCE

According to the factors involved in drug dependence,[8] LSD does not cause physical dependence with withdrawal symptoms but does cause severe psychological dependence. Desire to continue taking the drug is present, and LSD users, in contrast to users of hard narcotics, often develop a missionary or proselytizing quality. There are reports of mothers who have given LSD to their infants, brothers who encourage their sisters to take LSD, users who urge close friends to take LSD, and even individuals who have taken their life savings and purchased LSD in order to give it to complete strangers.

LSD users develop a subjective "appreciation" of the effects of the drug. In other words, they respond to the drug because it provides certain sensations or reactions which they enjoy. They come to utilize the drug as an instrument in their adjustment to life, relying on it for fulfillment which others achieve without the help of drugs. Users who urge others to take LSD often say that using LSD is the only way to find oneself.

[6] *Ibid.*, p. 29.
[7] *Ibid.*, p. 144.
[8] See Chapter I, pages 4–6, for a discussion of drug dependence.

EFFECTS OF LSD

Many doctors and other qualified professional personnel have been making careful studies of the effects of LSD upon the human system. Although this work is continuing and much is yet to be done, important information has already been gathered.

Physiological Effects

LSD has few physiological effects. The most objective one is dilation of the pupils of the eyes. Users often wear sunglasses, even at night, to keep light out of their eyes. Although chronic brain damage is unproven to date, chronic changes do show on electroencephalograms. Dr. Ungerleider and Dr. Fisher recently observed *grand mal* seizures in a previously nonepileptic person after ingestion of LSD.[9] Dr. Cohen, in his 1966 testimony in Washington, D.C., also referred to reports of *grand mal* seizures after use of LSD.[10]

Psychological Effects

Psychological effects include distortion of perceptions, intensification of sensations, illusions, distortion of time sense, true hallucinations, and delusions. Following are some examples of these effects:

A girl in high school who had ingested LSD cut all the flexor tendons in her wrist when she looked in the mirror and saw her face begin to dissolve. A man who had been restrained from diving off a cliff explained that he thought the ocean waves breaking on the rocks were a huge silk scarf and he wanted to dive into it. A young man, after ingesting LSD for the first time, became convinced that he had to offer human sacrifice and was prevented from throwing his girl friend off the roof of a Hollywood hotel. One young person appeared at a hospital requesting surgery for a brain tumor; when questioned about his self-diagnosis, he said he had crawled into the left side of his brain and had seen the tumor on the right side. A young man who thinks he is an orange sits in his apartment, afraid that if anyone touches him he will "turn into orange juice"; friends bring him LSD and food.

LSD is an idiosyncratic drug in that every individual has a different reaction to it. It is an error to call LSD a "consciousness-expanding" drug inasmuch as it actually diminishes consciousness; if anything, it is an "unconsciousness-expanding" drug because it allows things inside a person to flood the sensory awareness.

An unusual effect of LSD is that a person can have a recurrence of symptoms, in all their original intensity, many months after taking LSD without having taken any more of it during that period of time. Professional observation of LSD users has thus far covered the span of

[9] J. Thomas Ungerleider and Duke D. Fisher, "The Problems of LSD[25] and Emotional Disorder," *California Medicine*, CVI (January, 1967), 50.

[10] Senate Subcommittee Hearings on LSD, *op. cit.*, p. 151.

one year, and symptoms are still recurring. Observation will continue in order to determine the length of time during which symptoms recur.

Acute Side Effects

Four major types of acute symptoms have been identified after LSD ingestion. These are (1) illusions and hallucinations; (2) anxiety, often to the point of panic; (3) severe depression with suicidal thoughts and attempts; and (4) confusion, often to the point of not knowing where one's self is. The occurrence of these symptoms is *totally unpredictable;* some users experience them the first time they take LSD, others the twentieth, fortieth, or sixtieth time. Symptoms are frequently severe enough to indicate the need for psychiatric hospitalization. A number of suicides committed by persons who were under the influence of LSD have been reported; in several instances the individuals had jumped from second and third story windows.

Examples of some acute side effects follow:

A young man under the influence of LSD left a party and took a walk along a busy street. Suddenly he stepped into the path of an oncoming car, an arm upraised, and shouted, "Halt!" Death was instantaneous. A married college student took LSD and enjoyed the effects of the drug. A few weeks later he took another "dose" and for three weeks thereafter remained very frightened because of recurrent visual hallucinations of animals crawling around the room. Time would stop completely, then start again. He was unable to sleep, afraid to close his eyes because the condition would intensify. During the first week, he walked the streets with his wife. "I would have killed myself if I didn't have her," he stated. The fourth week he was treated by a physician, and the temporal and visual distortions gradually subsided over a two-week period. Another man, who had taken LSD for the first time, became intensely suspicious of the two people who were with him and of everything they did. Convinced they were plotting an attack upon him, he proceeded to defend himself by assaulting them. One of them, who had not taken LSD, fled; the other, who had taken the drug, was severely beaten. "The rest of the story is unclear, but the battered victim fled or was thrown out of a fourth floor window."[11]

Because of a rapid increase noted by the Neuropsychiatric Institute, University of California Medical Center, Los Angeles, in the number of its LSD "problem cases" handled in late 1965 and early 1966, a study of these cases was made by the institute.[12] None of the persons studied had received LSD from laboratory, scientific-experimental, psychiatric, or therapeutic sources. All had obtained the drug from illegal sources.

[11] *Ibid.*, p. 150.

[12] J. Thomas Ungerleider, Duke D. Fisher, and Marielle Fuller, "The Dangers of LSD: Analysis of Seven Months' Experience in a University Hospital's Psychiatric Service," *Journal of the American Medical Association*, CXCVII (August, 1966), 389-92.

The study sample included those cases in which a psychiatric resident saw the patient, as well as cases referred by the medical emergency room and the student health service. The sample included 25 patients who were subsequently admitted to the hospital and 45 for whom other dispositions had been made—a total of 70 patients during the seven-month period. The diagnoses of the 70 LSD users were as follows: 19 (27 percent), psychotic; 15 (21 percent), neurotic; 13 (18 percent), suffering from character disorder; 7 (10 percent), suffering from addiction; 8 (12 percent), given miscellaneous diagnoses (adjustment reaction of adolescence, borderline condition, and the like); and 8 (12 percent), given multiple diagnoses. Six of those receiving multiple diagnoses were identified as psychotic, and these findings brought the total for all psychotic pateints to 25 (36 percent). Some of the characteristics of the group will be described shortly in the section, "Patterns of Use."

Chronic Side Effects

In addition to the study of patients seen at the Neuropsychiatric Institute, Dr. Ungerleider and Dr. Fisher observed LSD users in the community. Users had heard of the institute's interest and wanted to show the staff "the great experience that LSD provided." These persons were invited to sessions in both southern and northern California—some held in private homes, some in scenic outdoor surroundings, and some in "kick-type" Hollywood parties. The doctors observed the ingestion of LSD by individuals and by groups of from two to three to 50 or 60 persons, and the doctors talked to persons who had taken LSD over a period of time.

One effect of LSD identified very frequently was a dramatic change in the user's value system. Professional people, including physicians and lawyers, were no longer interested in their work; for example, a man who, three years before, had been an international lawyer in New York spent two years wandering around the desert with a pack on his back contemplating the experiences of LSD. Students who had been academically successful prior to taking LSD lost interest in studying and in future careers and dropped out of school. Artists and writers turned from their usual subjects and preferred to think, write, talk, and dwell on LSD. Observations were made of persons who did not want to study or work to find out if LSD would motivate them to become more active. Student users believed they "learned better," but investigation did not support this belief. In fact, many dropped out of school; some indicated they dropped out "because they knew so much."

Distortion of perception is another side effect of LSD. Users have a subjective feeling of improvement; yet there is objective loss of function. For example, the drummer in a particular band began using

LSD and believed his playing had improved greatly; however, the business manager sought treatment for him because his playing had deteriorated. A law student stated that LSD had given him such new insight and opened such new horizons that he felt his legal studies were dull and boring by comparison. He speculated at length, while lying in his room during and between LSD trips, about giving the world's leaders LSD so they would love and not hate. Several LSD users believed that they had extrasensory perception, that they could "pick up vibrations" from other people, and that, by casual inspection, they could tell if someone else had used LSD. However, objective tests showed that their ability to discriminate was below normal and that their powers of observation had actually been decreased by LSD.

Users often say LSD increases their ability to love—to get closer to other people. Some even ascribe the term "love parties" to gatherings where LSD is taken. However, observation shows that users become highly introspective, completely engulfed in their own internal sensations. Ungerleider and Fisher reported the following: "Several LSD sessions we have attended were filled with excited individuals proclaming their feeling of being especially close to various other people in the room. Nevertheless, we were impressed with the number of monologues that were taking place at the sessions. Very few of the participants were at all interested in or relating to others. On the other hand, they seemed to be enjoying their highly introspective experience. . . ." [13] These authors stated at a recent conference that almost all the LSD users they talked to said that "sex was not important."

LSD users seem to develop a more primitive way of handling their feelings in response to the "normal anxieties" that most people face. Instead of getting angry, anxious, or depressed as do most people when they encounter stress, the LSD user often hallucinates, becomes paranoid, or perceives people as caricatures. As previously mentioned, users frequently experience their psychotic or other symptoms in their original intensity as much as a year after using the drug and without taking the drug again. The drug thus provides a type of "psychotic defense" for people who have a great deal of difficulty tolerating the anxiety and stress of everyday living.

PATTERNS OF USE

Prior to the legal ban on LSD, a limited amount of information had been obtained regarding the patterns and extent of its use from studies of persons who had sought medical help and from studies of its use in community groups. Subsequent to the passage of laws forbidding the use of LSD except for authorized investigational research, it has become

[13] Ungerleider and Fisher, "The Problems of LSD [25] and Emotional Disorder," *op. cit.*, 54.

difficult to ascertain precisely how LSD is being used and to what extent it is being used. Nevertheless, whatever evidence has been gathered in the past two years on the illicit use of LSD and other hallucinogenic drugs points to (1) changing patterns of use; (2) greatly increased use; and (3) use by younger persons.[14]

Richard Blum, consultant to the President's Commission on Law Enforcement and Administration of Justice, recently stated the following:

> . . . with regard to LSD I would suggest that essentially a typical historical pattern is being followed, modified of course by our hectic and peculiar times. It was introduced by prestigeful persons; first doctors and university research workers; then by leading artists and writers. It is hailed as having great medical and religious potentials, most of which seem to be ascribed to the drug itself, its chemical magic, rather than to the users' hopes or fears or to suggestions coming from the environment. Its use, as our work suggests, spreads from socially important people to the socially less important; it spreads from the old to the young. Right now [May, 1966] for example, we find its use in high schools; five years ago that did not seem to be the case.[15]

Questions are often asked as to whether users of LSD make use of other drugs. In the previously described study at the Neuropsychiatric Institute, University of California, Los Angeles, the following drug history was obtained in regard to 70 patients with adverse reactions to LSD: In the period of *more than six weeks* prior to their being seen, 25 of the patients (36 percent) had used marihuana, 8 (11 percent) had used amphetamines, 4 (6 percent) had used heroin, and 4 (6 percent) had used barbiturates. Drugs taken in the six weeks prior to the evaluation included marihuana, used by 14 of the patients (20 percent); tranquilizers, used by 4 (6 percent); and amphetamines, used by 4 (6 percent). A total of 33 of the patients (47 percent) had taken no drugs other than LSD, and 6 (9 percent) had taken a combination of drugs during the six-week period. In terms of LSD itself, 16 patients had taken it within a week prior to the psychiatric evaluation; 26, one to six weeks prior; 20, more than six weeks prior; and for 8 patients no data were available. One patient had taken LSD more than 60 times prior to being seen; 20 had taken it only once; and the frequencies of other patients ranged between.[16] Other reports indicate that many persons who use LSD also use a variety of other drugs.

Kinds of LSD Users

At a 1966 conference on drug abuse in schools and colleges, Sidney Cohen, M.D., described several groups of LSD consumers.[17] Based on

[14] Senate Subcommittee Hearings on LSD, *op. cit.* (These three factors are discussed in numerous places in the federal publication.)
[15] *Ibid.*, p. 122.
[16] Ungerleider, Fisher, and Fuller, *op. cit.*, 390–91.
[17] Sidney Cohen, M.D., Chief of Psychiatric Services, Wadsworth Veterans Administration Hospital, Los Angeles. Address on LSD given at the Conference on Drug Abuse in Schools and Colleges, sponsored by the California Attorney General, San Francisco, October 25–26, 1966.

his personal experience in psychiatry and certain assumptions drawn from this experience, Dr. Cohen's descriptions provide some indications of the varied reasons and mixtures of reasons that people have for taking LSD.

First, Dr. Cohen identified the "LSD explorers," who have heard about the sensory awareness produced by the drug and are curious to experience it. The "social LSD takers" comprise another group. These are the people who live in a subculture which consists mainly of persons using LSD. In order to remain in the group and to be able to contribute to its conversation, they take LSD as a "social potion."

Another group takes LSD for hedonistic reasons—for "kicks" or "highs." They have heard it brings on a state of great pleasure and fun and want "a piece of it." In this group also are people who are dissatisfied with reality. Either they are uncomfortable in it or they find it defeating and frustrating, and therefore they want to interrupt reality with periodic LSD "trips." Dr. Cohen stated that many persons in this group are students. "By student," he said, "I mean way down to the junior high level." While this group wishes to interrupt reality on a periodic basis, a related but much more extreme group adopts flight from reality *as a way of life*. Persons in this category take LSD to avoid or evade most or all the stresses of life. They use LSD withdrawal as a means of continuous escapism and are described as "really confused, psychotic individuals." [18]

Another group consists of persons who are hoping for the "magic pill" that will "cure" them of what they are. As Dr. Cohen stated, "these are the emotionally immature, the inadequate, the prepsychotic individual who is managing—who is functioning fairly well but who feels a strangeness about himself." These people are looking for some miraculous cure through the use of LSD. Another group identified by the doctor is the artistic group. Artists are people who perennially want to see things differently, "and they've done things throughout history in an effort to change their perception." It is known that "drugs have been one traditional means [of changing perception] . . . and LSD is a natural for them." Persons taking LSD for religious purposes fall into another group. Some individuals in this category are completely overwhelmed by the "out-of-the-body" state. To the uncritical, this experience apparently provides answers to questions about the universe and solutions to one's personal problems. Dr. Cohen observed: "They come back and thereafter make this [LSD] a way of life because it is not only a way to live but to believe. . . . My own opinion, if you wish it, is that these people are seriously misguided. . . . To think that the compulsive repetition of this chem-

[18] *Ibid.*

ically induced state is the way to live is one of the most serious hang-ups, and in fact the greatest complication of all." [19]

Persons who take LSD accidentally form another group. There are records of children who get into the family stockpile of sugar cubes (impregnated with LSD) and who experience an LSD reaction. There are also individuals who, without their consent, are given LSD. Dr. Cohen stated: "Deliberately giving LSD to a person without his consent is a sin, if anything is sinful, because it's a violation of the human mind. A person who suddenly sees things changing—walls, colors, patterns, faces—and has no reason to explain such changes, thinks he is going mad and may actually become disorganized. Some very adverse effects have occurred under this condition, including . . . suicides. This should be the first commandment of LSD education—one never persuades anyone to take the drug nor does one give it without a person's informed consent." [20]

Still another group of people exposed to LSD consists of those who have been given the drug experimentally during research projects. Physicians conducting research have expressed concern about possible adverse effects of LSD. In regard to this group, Dr. Cohen made the following statement:

> . . . We believe that we can screen out the high-risk LSD candidates and, although we have had some difficulties, can cope with them if we behave responsibly toward the individual. The incidence of these difficulties in an experimental situation is minimal, and we are willing to accept the rare risk and deal with it. Whether a person to whom we have given LSD goes on to a pattern of promiscuous LSD taking is something we didn't have to concern ourselves with three or four years ago. There was no non-medical way to obtain LSD. Now we do have to wonder about the possibility . . . which makes the life of the experimenter just a little more difficult.[21]

LSD "Promotion"

"Pushers" of LSD, in contrast to pushers of other drugs, have not had to "hook" potential users. Newspapers, television, radio, and persons using LSD have "glorified" the drug so that all the pusher needs to do is to have supplies available. Two or three years ago, persons could obtain LSD through friends. Now the procurement of the drug is becoming a business transaction. Dr. Cohen stated: "I can report to you that in at least one city organized crime is passing LSD through the same channels as narcotics. This may be a future development. There's big money in it, and why should young kids make a million dollars a year when more knowledgeable gentlemen with extensive organizations could take over that business." [22]

[19] *Ibid.*
[20] *Ibid.*
[21] *Ibid.*
[22] *Ibid.*

THE ADOLESCENT AND LSD

LSD and similar hallucinogenic drugs seem to have particular attraction during adolescence. It is at this time in their lives that young people are most curious as to "who they are" and "what they want to do with their lives." They are searching for identity; they have many conflicts. They often rebel against their parents and other adults. They are looking for fun, are exploring new things, and are responsive to the persuasion of their peers. They criticize old standards and seek to improve themselves and society. Many adolescents have heard that LSD is the "only way to find oneself"—that it provides "a magic solution" to problems; thus many turn to the drug. In addition to the hazards of the drug itself, this appeal poses a real danger, since one of the important tasks of adolescence is developing the ability to resolve the conflicts of "growing up."

LSD is a highly potent drug currently used by many school-age youth. Its use creates many adverse side effects; however, because it has been glamorized by various means, it holds a special appeal for the adolescent. Against this background the teacher must motivate youth to think critically about the effects of harmful drugs on individuals and on society. Facts about LSD and similar drugs must be presented in an objective manner. This need for objectivity was underscored by Richard Blum when he stated: "Clearly . . . it will be valuable to look at why each of us uses drugs [cold tablets, weight-reducing pills, tranquilizers] the way we do, what the outcomes are, and how one might hope to alter life situations so as to reduce self-endangering behavior in general, not just ingestion of drugs per se." [23]

No pupil should be uninformed regarding the fact that the use of hallucinogenic drugs does not help anyone to solve his problems but, in reality, causes him to have more and greater problems. Young people can become thus informed if they are given opportunity to study and discuss reasons for drug abuse and ways to solve problems other than through the use of drugs. And through participation in these activites, they will soon discover the importance of demanding *real* solutions to problems rather than accepting what merely *appear* to be solutions but are no solutions at all.

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[23] Senate Subcommittee Hearings on LSD, *op. cit.*, p. 124.

Chapter VI

NARCOTICS

The user of narcotics is no neophyte in the world of drugs. He usually approaches this ultima Thule after a period of exploration—sometimes of several years' duration—during which he has formed the associations and developed the practices and attitudes which lead him, it seems, inexorably in this direction. The chances are that he knows he is doing something dangerous and illegal when he first uses narcotics and that he is aware of both the rewards and the punishment likely to result from his actions.[1]

Two forces have combined to bring him to this point: (1) external forces present in his environment; and (2) psychological forces present within himself. He is like the victim of a communicable disease. The germs are present in the environment and he is susceptible to them. The germs *might* have been destroyed by sanitary measures, or he *might* have been protected by immunization; but now it is too late for prevention. The disease will run its course.

THE ADOLESCENT NARCOTIC USER

It is commonly believed that the environmental breeding ground of juvenile narcotic use is in the urban slum. This is undoubtedly true in some parts of the United States, particularly in the city of New York, where a high concentration of minority populations has produced delinquent subcultures—adolescent "street-corner societies" or gangs—which accept some form of drug abuse as a way of life. It is apparently not true in California, where narcotic use appears to be largely a middle-class phenomenon, with the lower classes oriented toward dangerous drugs and marihuana. The explanation for this situation may be partially economic: the middle-class youth is better able to support a narcotic habit than his lower-class counterpart. It is also partially cultural: the concepts, values, and motivations of the Caucasian youth differ from those of the Mexican-American youth, and these in turn differ from

[1] Isidor Chein, "The Status of Sociological and Social Psychological Knowledge Concerning Narcotics," in *Narcotic Drug Addiction Problems.* Public Health Service Publication No. 1050. Washington, D.C.: U. S. Department of Health, Education, and Welfare (May, 1963), p. 152.

those of the Negro youth, among whose ethnic peers, incidentally, narcotic use is at a minimum in California despite the fact that Negroes constitute the largest portion of the population in the urban slum areas.

In any environment—middle class or urban slum—which harbors the germs of narcotics abuse, many young people are exposed to infection through sheer association with their peers. Not all young people, however, are equally susceptible to the disease. Some may be deterred from any form of drug abuse by their knowledge of its hazards. Others who have already experimented with dangerous drugs or marihuana have formed associations and established modes of behavior which make them vulnerable to pressures toward narcotic abuse. The strongest deterrent to narcotic abuse, as to drug abuse in general, lies in the ability of the individual to meet challenges and resolve conflicts with his own resources, including the psychological, regardless of any pressure which may be brought to bear upon him.

It appears that some young people are impelled toward narcotic dependence early in their lives. Many psychiatrists believe that these are severely disturbed individuals with deep-rooted personality disorders which existed prior to their involvement with drugs. These individuals have failed to develop mature personalities; they lack the normal drives and motivations which impel others toward marriage and family living, constructive employment, and responsible citizenship. They are, in Ausubel's words, "typically passive, dependent, irresponsible, lacking in perseverance and self-discipline." [2] They feel insecure in the present and face the future with fear and an expectation of failure. They feel frustrated and anxious; yet they have little capacity to endure frustration and anxiety.

The causes of this personality disturbance can frequently be traced to the individual's family experience. His home was probably disturbed and his parents failed to provide for him a clear-cut, reasonable standard of behavior. Often the father was absent, and the son had no male figure as a model; he finds it difficult to assume a masculine role. He seems unable to form satisfactory relationships either with his peers or with adults.

This description applies to some narcotic users but not to all. Both the environmental and the psychological forces which lead a young person toward narcotic abuse are extraordinarily complex, and present knowledge about the causes of narcotic dependence is sorely limited.

It is most important for teachers and parents to recognize the fact that the California narcotic user cannot be stereotyped as the underprivileged minority-group youth from the urban slum, even though it is possible that this type of youth may be more readily detected and arrested than his middle-class counterpart. Narcotic abuse, particu-

[2] David P. Ausubel, "Causes and Types of Narcotic Addiction: A Psychosocial View," *Psychiatric Quarterly*, XXXV (July, 1961), 526.

larly in California, is not indigenous to any one stratum of society; it is a potential danger in all strata, and among girls as well as boys.

Young people may begin their use of heroin on an occasional week-end or "spree" basis. They are called "joy-poppers," or they are said to have a "weekend" habit. Use is often casual and infrequent, and the heroin may be taken by subcutaneous injection ("skin-popping") or by sniffing ("snorting" or "horning"). Later, in order to meet a rising tolerance to fulfill a desire to repeat initial effects, the user will inject the heroin into his bloodstream ("mainlining"). He will use greater amounts to achieve the results he desires. As tolerance builds up, he may need from five to ten capsules at a time, three or four times a day. A habit of this magnitude results in deep physical dependence and costs from $50 to $100 a day.

NUMBER OF JUVENILE NARCOTIC USERS

The use of narcotics by juveniles, as reflected in arrest statistics, is considerably less than their use of dangerous drugs and marihuana (see Table 1, page 11). Fortunately, not every young drug user graduates into narcotic use. Those who do so are likely to serve an apprenticeship in using drugs in general before taking the final step to narcotic use. Even after they have taken this step, they may not be detected and arrested by the police for as long as two or three years. For these reasons, the number arrested for narcotic use or related offenses before the age of eighteen is relatively small. Statistics on adult narcotic arrests indicate maximum use in the twenty-one to twenty-seven year age group, with a continued high rate of use up to age thirty and a gradual decrease thereafter.

THE NATURE OF HEROIN

The narcotic that is most subject to abuse among young people today is heroin.

Heroin is a semisynthetic derivative from morphine, which in turn is a constituent of the unripe seed pod of a particular species of poppy, the *Papaver somniferum*. This poppy, known as the "opium poppy," thrives in a hot, dry climate and is grown in such countries as India, Turkey, China, Egypt, and Mexico, where land and labor are cheap.

The flowers, leaves, stems, and roots of *Papaver somniferum* have no narcotic properties, nor do its ripe seeds, which are used to decorate rolls and buns. However, the unripe seed pods from this plant do have narcotic properties. The narcotic drug called opium is prepared from the juice of these pods. It should be noted that *Papaver somniferum* is the only species of poppy which yields opium. The wild California poppy, with its brilliant orange-yellow flowers, is harmless.

as are the various cultivated poppies found in gardens throughout the United States.

Morphine, which is a principal alkaloid or active constituent of opium, was discovered early in the nineteenth century. Almost at once it became one of the most valuable drugs for medical use.

Heroin, known as diacetylmorphine, was developed in Germany around the turn of the century. This is a white crystalline powder, odorless but with a bitter taste, and is derived from morphine by means of a simple chemical process. Ironically, it was first promoted as a nonaddicting substitute for morphine and as a possible cure for morphine addiction. Doctors soon discovered, however, that the new substance was violently addicting. It is three to four times as potent as morphine and is somewhat more rapid in its action, especially when injected directly into the bloodstream.

ILLICIT TRAFFIC IN HEROIN

At first there were no laws controlling heroin, and the market was flooded with cough medicines and pain relievers which made this product freely available to the public. The result was a spread of addiction, not only among adults but also among teenagers. Commencing in 1909, however, with a series of statutes directed specifically against the opiates, the federal government placed under rigid controls the cultivation and importation of opium and made its presence in this country illegal except for medical and scientific purposes. In the United States heroin is outlawed, except that its use in certain carefully controlled amounts is authorized for scientific and other valid purposes. Whatever heroin may exist otherwise in this country has been introduced illegally; whoever makes unauthorized use of heroin does so in defiance of laws designed to protect the individual and the public against the tragedy of heroin addiction.

The contraband heroin reaching the east coast of the United States is derived chiefly from opium grown in Turkey, manufactured in France, and transported on ships, planes, or persons into New York. This is a totally illicit big business handled by large criminal syndicates.

Most of the heroin seized in California is derived from poppies grown in Mexico. The traffic is, to a great extent, an across-the-border retail operation conducted by addicts who leave the country for shots and attempt to return with the drug concealed on their persons or in their cars.

In its pure form (85 to 90 percent pure) heroin may command a wholesale price of $12,500 a kilo (2.2 pounds). By the time the drug reaches its consumer, it has passed through many hands; it has been sold by the pound, the ounce, the "bindle" or "deck," and finally the capsule or "cap," and has been adulterated or "cut" time after

time with milk or with sugar, talcum powder, or any other cheap whitish powder. The addict or street "hype," who is the ultimate consumer of the product, may pay from $3 to $5 a capsule for the "stuff," which now contains only 2 to 5 percent heroin. The original kilo has in all likelihood produced over 300,000 capsules, which are now marketable for approximately $1,000,000!

INTRAVENOUS INJECTION OF HEROIN

The "outfit" used by the addict for taking a "fix" consists, in general, of some matches, a teaspoon with a bent handle, a medicine dropper, a hypodermic needle, a piece of cotton, and a length of rag. This equipment makes it possible for the user to dissolve the heroin, filter it through cotton, puncture a vein, and "shoot" the "stuff" directly into the bloodstream. If a hypodermic needle is not available, the addict may use any sharp instrument to open the vein, as, for instance, a nail, a safety pin, or a razor blade.

The dangers inherent in this crude procedure are obvious. The strength of the heroin injected into the bloodstream is unknown to the user. If it is significantly stronger than that to which his body is accustomed, he may suffer a violent reaction. Death from an overdose of heroin is becoming increasingly frequent today.

If the substance contains impurities, the possibility of blood poisoning is imminent; infection at the site of injection is common; the veins of the long-time addict may be punctuated with abscess scars. Tetanus occurs more frequently among heroin users than among nonusers and is more likely to be fatal. It is known, too, that heroin users may transmit viral hepatitis from one to another by sharing contaminated injection instruments. It is suspected also that many heroin users are blood carriers of viral hepatitis.

Of greater concern to the addict, however, than the possibility of contracting disease is the inevitability of scarred or sclerotic veins—veins whose walls have deteriorated from repeated puncturings. In time less accessible veins in other areas of the body must be exploited.

EFFECTS OF HEROIN ON THE SYSTEM

The changes that heroin can produce in the human system may be examined according to physiological effects, psychological effects, and the relationship between heroin and certain types of behavior.

Physiological Effects

Inside the body the heroin goes to work at once, exerting its depressant effect directly on the nervous system and indirectly on all physiological activities of the body. Circulation and respiration are slowed down, blood pressure is lowered, and the metabolic rate is reduced. The

production of body fluids is retarded. Serious dehydration, digestive disturbance, and chronic constipation frequently result. There is usually a loss of appetite with consequent extreme loss of weight. So far as it is known, the opiates do not themselves cause tissue deterioration or destruction; but the addict, in his preoccupation with drugs and the means of securing them, is prone to neglect his health. The result, in time, may be severe malnutrition, dental caries, chronic fatigue, lowered resistance to infection, and a generally devitalized condition.

The presence in a young person of one of these health problems or of any other changes in appearance or behavior should, under any circumstances, alert the teacher to the need for investigation of the individual's health status by appropriate personnel. Classic indications of possible narcotic use are described in Chapter X.

Psychological Effects

The most important effect of heroin use, from the standpoint of the user, is euphoria—the sense of well-being and contentment, the "thrill" or "kick"—which he experiences or attempts to experience immediately after his injection or "jolt." This sensation, elusive and transitory though it may be, is the *summum bonum* of the addict. This is his objective in taking narcotics, and this is the basic reason for the high rate of relapse among "cured" addicts.

The extent to which the individual enjoys this sensation is dependent upon several factors, such as the strength of the dose, the expectation of its effects, and the degree of tolerance already developed in his system. Before tolerance is acquired, the individual may react to the foreign substance in his body by vomiting, nausea, and mental distress. With continued use the drug becomes progressively less effective, and larger amounts are required to attain desired results.

Once physical dependence is established, however, the heroin user is likely to claim that he derives no pleasure from the use of the drug but that he is bound to it by the necessity of warding off the torture of the withdrawal illness which threatens him whenever his body is deprived of heroin. This statement is discredited by various experts who cite evidence indicating that the addict is continually motivated by the desire to experience euphoria, and that his bondage to heroin is based not only upon the demands of his body for the drug but also upon the pleasure derived from its use. Some addicts have admitted taking two shots, "one to prevent withdrawal, the other for the kick." [3]

Relation to Sexual Activity and Other Behavior

The relation between heroin use and sexual activity is sometimes misunderstood. Research indicates that the opiates, presumably through

[3] David P. Ausubel, *Drug Addiction: Physiological, Psychological, and Sociological Aspects.* New York: Random House, Inc., 1958, pp. 27–30.

their action on the nervous system, depress the activity of adrenal and sex glands, diminishing the secretion of hormones and decreasing the activity of the reproductive system as a whole. In general, the use of heroin does not lead to the commission of sex crimes but rather to a reduction or obliteration of sexual interest and activity.

The concept of the heroin user as a "dope fiend" is equally fallacious. The person under the influence of heroin is ordinarily passive and withdrawn, becoming aggressive only when necessity forces him to commit a crime in order to replenish his supply of drugs.

HEROIN DEPENDENCE

The characteristics of heroin dependence are comparable to those of morphine dependence, which the World Health Organization's Expert Committee describes as follows: (1) an overpowering desire or need to continue taking the drug and to obtain it by any means; the need can be satisfied by the drug taken initially or by another drug with morphine-like properties; (2) a tendency to increase the dosage because of the development of tolerance; (3) a psychic dependence on the effects of the drug; and (4) a physical dependence on the effects of the drug, "requiring its presence for maintenance of homeostasis and resulting in a definite, characteristic, and self-limited abstinence syndrome when the drug is withdrawn." [4]

According to this definition, morphine causes total dependence—the development of compulsion, tolerance, psychic dependence, and physical dependence. Heroin dependence develops even more rapidly than morphine dependence and is, comparatively, even more compelling.

The Abstinence Syndrome

Although the manifestations of withdrawal illness vary somewhat with the nature and amount of the drug consumed and with the individual consuming it, certain classic symptoms are associated with opiate withdrawal in general. Several hours after the last dose, the addict "feels his habit coming on" and begins to yawn, to sweat, and to suffer running of the eyes and nose as though he had an acute head cold. These symptoms increase in severity and are followed, after about 24 hours, by violent muscle spasms ("kicking the habit"), waves of gooseflesh, dilation of the pupils, vomiting, and diarrhea. The bodily functions which had been depressed are now hyperactive. The respiration rate is elevated, blood pressure and temperature are heightened, and basal metabolism is accelerated. The flow of body fluids is overabundant. These symptoms may last for two or three days and then di-

[4] *Thirteenth Report*, WHO Expert Committee on Addiction-Producing Drugs. World Health Organization Technical Report Series, No. 273. Geneva: World Health Organization, United Nations, 1964, p. 13.

minish gradually over a period of a week or more. The addict may suffer general malaise for several months.

MORPHINE

Morphine is an odorless, white crystalline substance derived from opium. It acts on the central nervous system as an analgesic or pain-killer. It is a very powerful drug and can be used safely only in small, carefully controlled doses. An overdose of morphine can result in unconsciousness, even death. Continued indiscriminate use of morphine, even in small amounts, can result in drug dependence. When morphine dependence occurs in the course of medical treatment, it is more readily curable than self-induced dependence derived from the illegal use of narcotics. This is because psychological dependence is not ordinarily present in such cases.

Morphine is legally available in the United States only to physicians for use in the alleviation of suffering, and the California Narcotic Act surrounds even this use with stringent safeguards. Prescriptions for morphine must be written in triplicate on official numbered blanks issued by the Bureau of Narcotic Enforcement. A copy of every such prescription is filed with the bureau and subject to its surveillance.

Morphine is obtained illegally by a variety of methods, including thefts from doctors' offices and automobiles, forging of prescriptions, and thefts from stored supplies. Because the drug thus obtained is pure, it is likely to be stronger and more potent than the diluted morphine or heroin available on the illicit market. Morphine is occasionally obtained by addicts as a heroin substitute.

CODEINE

Codeine (methylmorphine) is derived directly from opium or prepared from morphine. It is comparable to morphine in its analgesic and addictive properties but is considerably milder in its effects. It is a valuable medicinal drug used principally as a pain-reliever and a cough suppressant. In recent years the sale of cough syrups containing codeine without requiring prescriptions resulted in some abuse of this drug by juveniles. However, this practice was corrected by the California Legislature in 1965. Today such cough syrups are sold in California only on a physician's prescription. Diverted occasionally from legal medical channels, codeine may be used for the maintenance of addiction or as a temporary replacement for morphine or heroin.

DIHYDROHYDROXYCODEINONE OR OXYCODONE (PERCODAN)

Oxycodone or Percodan is an opiate that approaches morphine in its addiction potential. It is in medical use as a substitute for morphine.

Until 1965 this opiate was available on a simple prescription basis. Its very availability appears to have increased the danger of addiction among unsuspecting persons using the drug for medical reasons. Moreover, narcotic users have taken advantage of its availability. The consumption of Percodan, therefore, increased rapidly during the early 1960s.

In 1965 the California Legislature passed a bill tightening control on the sale of Percodan by placing it under the triplicate prescription provisions of the California Narcotic Act. Since then the evidence of Percodan abuse has all but disappeared in California.

MEPERIDINE AND METHADONE

Meperidine (Demorol or pethidine) and methadone (Dolophine) are synthetic substitutes for morphine, which are representative of hundreds of drugs developed by pharmacologists in their search for a drug with the pain-relieving attributes of morphine but without its addicting properties. These drugs and other synthetics which relieve pain appear to be invariably addicting. Like the opiates, they are legally restricted to medical use but subject, nevertheless, to considerable abuse by addicts. Because methadone produces a relatively mild abstinence syndrome, it is used in the medical treatment of withdrawal illness.

COCAINE

Cocaine, being a stimulant, does not have the properties of the other narcotics and is in no way similar to heroin or morphine. However, it is legally classified as a narcotic under both federal and state laws. Cocaine is the active constituent of the leaf of the South American coca plant (*Erythroxylon coca*), which is grown in the mountainous regions of Peru. In the United States cocaine was at one time widely used as a local anesthetic, but it has now been largely replaced by synthetic substitutes, such as procaine and novocaine.

On the illegal market cocaine ordinarily appears as an odorless, white, fluffy, crystalline powder similar in appearance to snow. It may, in fact, be referred to as "snow," and its users as "snowbirds." Cocaine may be sniffed into the nostrils, whence it is absorbed through the mucous membrane of the nose, or it may be injected intravaneously directly into the bloodstream. In either case, the result is a strong stimulation of the central nervous system, and this stimulation, in turn, causes the accustomed user to feel exultant, animated, and energetic. These euphoric sensations are short-lived and quickly replaced by feelings of anxiety and depression, possibly accompanied by hallucinations and paranoid delusions. Sometimes cocaine and heroin are combined into a powerful injection known as "speedball."

Although cocaine is strongly habit forming, its use does not lead to physical dependence. It has long been recognized, however, as an exceedingly dangerous drug. Cocaine is highly toxic, and its use leads to rapid weight loss, extreme bodily debilitation, and mental deterioration. Its nonmedical use was outlawed from the United States in the Harrison Narcotic Act in 1914. Cocaine is not widely used in the United States at present, possibly because of the drastic effect it has on the user; thus it is not readily available for use by young persons.

Part Two

Society Attacks Drug Abuse

Chapter VII

THE CONTROL OF DRUG ABUSE

The spread of drug abuse is often compared to the spread of communicable disease. There are specific agents of infection harbored in a given environment, and these spread through various forms of personal contact. The control of drug abuse, like the control of communicable disease, demands a multifaceted approach. The agents of infection—the drugs themselves—must be brought under control. Unwholesome situations in which drug abuse thrives must be brought under surveillance, whether they exist in areas of urban blight, in suburban gathering places of youth, in schools, or on playgrounds. Susceptible individuals must be protected against those who are already infected with the disease of drug abuse. This disease, in at least one respect, is more insidious than communicable disease because the drug user, seeking a market for his drugs or companionship in his drug abuse, tends deliberately to transmit his infection to others.

Real strides have been made, through international treaties, border inspections, and various other measures, toward reducing the supply of illegal drugs available to our young people. The improvement of urban housing, the development of improved school and community recreational facilities, and the beautification of our country are steps in the direction of an improved environment. Great hope is vested in education as a means of building a drug-resistant youth. The most effective control measures thus far, however, are laws and accompanying enforcement procedures. These form the present bulwark of this country's control of drug abuse.

FEDERAL LAWS

The legislative control of the federal government over narcotics and dangerous drugs rests in the following laws enacted in the course of the past half-century.

Harrison Narcotic Act (1914)

The Harrison Narcotic Act of 1914 is a tax measure designed to control the importation, manufacture, production, preparation, purchase,

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sale, distribution, or gift of opium and its derivatives. It requires registration and payment of an occupational tax of all who deal in these substances. Prior to this act, opium and its derivatives could be purchased at drug stores without prescription. The act limits sales or transfers to registrants using official order forms, allowing exceptions only for legitimate medical or dental practice. Federal courts have maintained that dispensing of drugs to an addict merely for the gratification of addiction is not legitimate medical or dental practice.

Narcotic Drugs Import and Export Act (1922)

The Narcotic Drugs Import and Export Act of 1922 is a reenactment and revision of an earlier law. It limits the importation of crude opium and coca leaves to amounts deemed necessary for medical and scientific needs and specifically prohibits the importation of opium for smoking or for the manufacture of heroin. The purpose of this act is to stamp out the use of narcotics in the United States except for legitimate purposes.

Marihuana Tax Act (1937)

The controls over marihuana provided by the Marihuana Tax Act of 1937 are similar to those over opium provided by the Harrison Narcotic Act. The same exceptions are allowable for medical practice, but these are academic today because the medical use of marihuana is obsolete. This act, therefore, suppresses the use of marihuana in this country.

Opium Poppy Control Act (1942)

The Opium Poppy Control Act of 1942 prohibits the production of the opium poppy in the United States except under license and provides penalties for persons who grow the poppy illegally.

Boggs Act (1951)

The Boggs Act of 1951 is a mandatory-sentence act which provides severe penalties for the illegal possession or sale of narcotic drugs and limits the suspension of sentences or the granting of probation or parole.

Narcotic Control Act (1956)

The Narcotic Control Act of 1956 resulted from intensive studies made by Senate and House committees which investigated the narcotic problem in the United States in the wake of the postwar increase in juvenile addiction. Both committees recommended the imposition of heavy penalties as the strongest known deterrent to narcotic traffic and narcotic addiction.

The act provides as penalty for the unlawful sale of narcotics or marihuana between adults (first offense) a sentence of not less than five nor more than 20 years, with an optional fine up to $20,000. No

probation, suspension, or parole is allowed. For the adult who in any manner furnishes heroin to a minor, the act provides for imprisonment from ten years to life, for optional fine up to $20,000, or for the death penalty if the jury so directs.

Drug Abuse Control Amendments of 1965

The Drug Abuse Control Amendments to the Federal Food, Drug, and Cosmetic Act apply to depressant and stimulant drugs, other than the narcotics, and to other drugs which are determined to have a potential for abuse because of their depressant, stimulant, or hallucinogenic effect on man. Barbiturates, amphetamine, LSD, and comparable drugs are included under these provisions, and other drugs may be added as the need arises. These amendments place strict controls over the illegal manufacture, distribution, possession, or prescription of these drugs and increase the enforcement powers of Food and Drug Administration inspectors in dealing with infringements of the law.

FEDERAL LAW ENFORCEMENT AGENCIES

Enforcement of the federal laws governing drug abuse falls under the jurisdiction of the Federal Bureau of Narcotics, the Food and Drug Administration, and the Bureau of Customs.

Federal Bureau of Narcotics

The Federal Bureau of Narcotics, operating under the U.S. Treasury Department, is charged with investigating, determining, and preventing violation of the federal laws relating to narcotics and marihuana. It is responsible for determining the quantities of crude narcotics needed in the United States for medical and scientific purposes, for issuing permits for the importation of crude narcotics, and for limiting the manufacture of narcotic drugs, natural or synthetic, in terms of the needs of the country. This bureau cooperates with the U.S. Department of State and with the several states of the nation in suppressing the abuse of narcotics and marihuana. Agents of the bureau are empowered to seize drugs under its jurisdiction which are being illegally manufactured or distributed and to arrest persons involved in illegal operations relating to these drugs.

Food and Drug Administration

The Food and Drug Administration, operating under the U.S. Department of Health, Education, and Welfare, is responsible for implementing the provisions of the federal Food, Drug, and Cosmetic Act and its various amendments. Particularly relevant to its functions are the Drug Abuse Control Amendments of 1965, which established special controls over the depressant, stimulant, and hallucinogenic drugs. Al-

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though normally the Food and Drug Administration has jurisdiction only over products crossing state lines, Congress in 1965 expanded its jurisdiction to include both local and interstate traffic in the drugs covered by the new amendments. Congress also increased the enforcement powers of Food and Drug Administration inspectors by giving them authority to seize depressant and stimulant drugs which are being illegally manufactured or distributed and to arrest persons engaged in these activities and to seize their equipment. These inspectors have thus been endowed with powers similar to those of Federal Bureau of Narcotics agents.

Bureau of Customs

The Bureau of Customs, under the U.S. Treasury Department, is responsible for prohibiting the illegal entry of contraband drugs into the United States. Agents of this bureau, located at sea and land ports of entry into the country, are empowered by treaty to make searches of individuals and their goods in the fulfillment of their duties.

CALIFORNIA DRUG ABUSE LAWS

The drug abuse laws of the State of California reinforce those of the federal government and in some cases exceed them in severity. These laws provide stringent penalties for the illegal possession, sale, transportation, or administration of any narcotic drug; more stringent penalties for those convicted of previous narcotic offenses than for first offenders; and extremely stringent penalties for those who in any way involve minors in the use of narcotics.[1] A person is subject to prosecution also if he illegally uses or is under the influence of narcotics,[2] or if he possesses the paraphernalia for illegally using narcotics or knowingly visits a place where illegal narcotic use is occurring.[3]

Marihuana is covered by similar laws, and there is an additional injunction against the cultivation or processing of this drug in the state.[4] The barbiturates and amphetamine—called "restricted dangerous drugs" in the California Narcotic Act—are similarly covered, and penalties for those convicted of illegal possession, sale, transportation, or administration of these drugs are severe.[5] In 1966, LSD and related hallucinogenic drugs were added to the list of restricted dangerous drugs, and their use for other than authorized research was prohibited by California law.[6]

[1] *Narcotic Act, 1965,* California Health and Safety Code, Division 10 ("Narcotics"), Chapter 5, Article 1.

[2] *Ibid.*, Chapter 7, Article 4.5.

[3] *Ibid.*, Chapter 5, Article 3.

[4] *Ibid.*, Chapter 5, Article 2.

[5] *Narcotic Act, 1965,* California Health and Safety Code, Division 10.5 ("Restricted Dangerous Drugs"), Chapters 1 and 2.

[6] *Ibid.*, 1966 legislation amending Section 11901 and adding Section 11916.

The triplicate prescription provisions of the California Narcotic Act provide control over possible abuses relating to medical prescription of narcotic drugs. According to these provisions, prescriptions of narcotics by physicians must be written in triplicate on official blanks. One copy of each prescription is filed with the Bureau of Narcotic Enforcement, a second copy is kept on file in the physician's office, and the original is held by the pharmacist who dispenses the drug.[7] Thus excessive prescription of narcotics by any physician, excessive use of narcotics by any patient, or irregularities in the handling of narcotics by any pharmacist fall under the surveillance of the Bureau of Narcotic Enforcement and are subject to investigation. Even more significant is the effectiveness of the triplicate prescription procedure in enabling this bureau to detect the diversion of legitimate drug supplies into illicit channels or to uncover the fraudulent acquisition of prescription drugs by unauthorized persons.

CALIFORNIA ENFORCEMENT

The Bureau of Narcotic Enforcement of the California State Department of Justice is the California counterpart of the Federal Bureau of Narcotics. This bureau, however, is charged with the enforcement not only of the narcotic and marihuana laws, but with the enforcement of the restricted dangerous drug laws as well. The bureau's primary function is the detection and apprehension of violators of these laws. Its secondary function is the enforcement of laws regulating the legitimate prescribing, administering, and dispensing of drugs by physicians, pharmacists, and hospitals. The bureau also administers the triplicate prescription program of the state. The California Bureau of Narcotic Enforcement has the cooperation and support of other state agencies concerned in various ways with drug abuse, as well as federal, county, and city agencies directly charged with the control of drug abuse.

In recent years, California Supreme Court decisions upholding various constitutional rights of the individual have made it exceedingly difficult to enforce narcotic and dangerous drug laws. The Cahan decision made it necessary for an enforcement officer to be armed with a search warrant in order to make a legal search and seizure in the case of a suspected narcotic offense, thus requiring extensive investigation of possible narcotic offenses prior to arrest. The Priestley decision made it necessary for the prosecution to reveal the identity of any confidential informant, thus eliminating a crucial source of information concerning narcotic offenses. The Dorado decision made it necessary for law enforcement officers to inform suspects of their legal rights at the time of arrest (the right to remain silent, the right to have legal representa-

[7] *Narcotic Act, 1965*, California Health and Safety Code, Division 10 ("Narcotics"), Chapter 3, Articles 1 through 6.

tion, the knowledge that their statements might be used against them). As a result of these and several other decisions, all upheld by the United States Supreme Court, and of restrictions against wiretapping and the use of listening devices in narcotic cases, the arrest and prosecution of drug offenders now strain the manpower and financial resources of our law enforcement agencies.

A person who is found guilty of a narcotic offense in a California court may be assigned by the court to a treatment-control facility operated by the state. The California Narcotic Treatment Program, described elsewhere in this source book (see Chapter VIII) now handles adult offenders, both male and female. The California Youth Authority handles juvenile offenders.

NARCOTIC CONTROL IN GREAT BRITAIN

In the United States drug abuse has long been considered a form of criminal behavior, and its control has rested primarily in the hands of our law enforcement agencies. In Great Britain, on the other hand, drug abuse—when carried to the extent of narcotic dependence—has been viewed as an expression of mental disorder, and its control has been vested in the medical profession.

The essential difference between the handling of the drug abuse problem in the United States and in Great Britain is the role which the medical profession plays with respect to the treatment of addicts. In the United States the medical profession shies away from the treatment of addicts, primarily because there are no prescribed ground rules to guide such treatment. In testimony before California's Special Study Commission on Narcotics, it was stated that "the only doctors handling addicts [in the United States] are those in public institutions and a few doctors with shady practices. The average doctor is afraid of the penalties under the Harrison Drug Act." [8] In Great Britain, however, the physician has had a carefully defined range of activities permissible by law. The British doctor or dentist has been allowed to prescribe *minimal* doses of narcotics only (1) when he is withdrawing his patient from narcotic dependence; (2) when it has been demonstrated that abrupt abstinence would threaten the life of his patient; or (3) when the narcotic is necessary for the patient to lead a normal life.[9]

The widespread impression in this country that the addict in Great Britain is automatically entitled to receive drugs merely for the maintenance of narcotic dependence is thus obviously wrong. British doctors have been advised to refer addicts to institutions or hospitals for long-term treatment or supervision of this condition. Although it is

[8] *Final Report of the Special Study Commission on Narcotics.* Submitted to the Governor. Sacramento: State of Califonia, June, 1961, p. 98.

[9] *The Duties of Doctors and Dentists Under the Dangerous Drugs Act and Regulations* (Sixth edition). British Home Office, DD 101. London: Her Majesty's Stationery Office, 1956, p. 14.

true that the doctor in Great Britain has had the prerogative of providing narcotics to a patient entirely on the basis of his own estimate of the patient's medical need,[10] the doctor's decision has been governed by the following regulation:

> The authority granted to a doctor or dentist to possess and supply dangerous drugs is limited by the words *so far as may be necessary for the practice or exercise of his profession.* In no circumstances may dangerous drugs be used for any other purpose than that of ministering to the strictly medical or dental needs of his patients. The continued supply of dangerous drugs to a patient solely for the gratification of addiction is not regarded as "medical need."[11]

In Great Britain, therefore, as in the United States, the administration of narcotics to addicts merely for the maintenance of narcotic dependence has been strictly prohibited. And in Great Britain, as in the United States, the physician has been subject to prosecution for violation of the law.

TABLE 3

Annual Statistics on Addiction to Dangerous Drugs in Great Britain, 1959 Through 1964 *

Type of addiction	Number of addicts per year					
	1959	1960	1961	1962	1963	1964
Dangerous drugs (total number)	454	437	470	532	635	653
Heroin only	68	94	132	175	237	342
Cocaine only	30	52	84	112	171	211

Source of data: *Second Report,* Interdepartmental Committee on Drug Addiction. London: Her Majesty's Stationery Office, 1965, Appendix I.
* The term "dangerous drugs," as used by the British, means practically the same as the American term "narcotics."

The impression that the British "method" of narcotic control has eliminated or even stabilized the drug abuse problem in Great Britain is equally erroneous. A 1965 report of the Interdepartmental Committee on Drug Addiction reveals a disturbing rise in the incidence of serious drug involvement in Great Britain (see Table 3), and it notes with concern that this increase has been spectacular among the younger age groups.[12]

[10] *Ibid.*, p. 16.
[11] *Ibid.*, p. 2. (In British usage the term "dangerous drugs" is, in general, synonymous with our term "narcotics.")
[12] *Second Report,* Interdepartmental Committee on Drug Addition. London: Her Majesty's Stationery Office, 1965, p. 5.

The findings of the British committee indicate that a few doctors have been responsible for making drugs available to increasing numbers of persons through overprescribing heroin and cocaine, the drugs primarily involved in the increase of drug dependence in Great Britain. Although upholding the doctor's right to prescribe drugs without restriction to meet the bona fide *medical* needs of his patients, the committee proposes several measures designed to curb the prescription, supply, or administration of heroin and cocaine to addicts without sacrificing the basic principle upon which British control of drugs has rested. An addict, as defined by the committee, is "a person who, as the result of repeated administration, has become dependent upon a drug controlled under the Dangerous Drugs Act and has an overpowering desire for its continuance, but who does not require it for the relief of organic disease." [13] The measures proposed by the committee include the following:

1. That all addicts be "notified" (reported) to a central authority, just as patients suffering from certain infectious diseases are "notified" to public health authorities. In making this recommendation, the committee accepts the view that the addict is a sick person and that drug dependence is a disease which has epidemic propensities.

2. That a number of special treatment centers, expecially in the London area, be set up and that these centers be given power, through legislation, for the compulsory detention of addicts for treatment. The committee also stresses the need for long-term rehabilitation facilities.

3. That the prescribing of heroin and cocaine to addicts be limited to doctors on the staff of these treatment centers and that it be deemed a statutory offense for other doctors to prescribe heroin and cocaine to an addict.[14]

In making these proposals, the committee recognizes the following dilemma confronting British authorities: that insufficient control of drugs has already led to the spread of drug abuse and that severe restrictions which make it difficult for addicts to obtain supplies from legitimate sources may lead to the development of an organized illicit traffic.[15] According to the committee, the risk that such traffic will develop must be accepted, and this risk must be met by those responsible for the enforcement of criminal law.[16]

[13] *Ibid.*, p. 7.
[14] *Ibid.*, pp. 7–10.
[15] *Ibid.*, p. 7.
[16] *Ibid.*, p. 12.

PROPOSALS FOR CLINICS IN THE UNITED STATES

An understanding of the British experience in narcotic control is important because there has been some advocacy in the United States for the wholesale adoption of the British "approach." We could, many feel, reduce drug dependence in this country by viewing it as an illness rather than as a crime and thus shifting the management of addicts from law enforcement to medicine. Various proposals have been made for the legal dispensing of free narcotics through medical channels, with concomitant efforts toward rehabilitation of addicts.[17] There are two basic variations of these proposals. One, the "ambulatory plan," would grant latitude to physicians to prescribe narcotics for addicts. The other, the "clinic plan," postulates the creation of special facilities for administering narcotics to addicts.

Arguments Favoring Clinics[18]

The proponents of the clinic proposals theorize that the legalization of narcotics would diminish the crime rate because addicts would no longer have to steal to procure narcotics. The illegal sources of supply would tend to dry up, criminal underworld activity to decline, and the illicit entry of narcotics into the country to diminish. The spread of drug abuse would be curtailed because the addict would no longer gain any advantage from starting others on drugs. The addict himself would have every opportunity under medical supervision for rehabilitation. Most important, the advocates of this plan claim, is the fact that modern studies reveal the addict not as a dangerous "dope fiend" but rather as an inadequate personality who finds in drugs a mode of adjustment to otherwise intolerable circumstances. He needs help, not persecution or prosecution. Finally, our approach to the problem has failed and the time is ripe for change.

Arguments Opposing Clinics[19]

The great bulk of expert opinion is opposed to any form of legalization of narcotics in the United States. The Senate, the House of Representatives, and various state commissions have considered and rejected the principle of furnishing narcotics freely to addicts. A Senate committee, in registering opposition to clinic proposals, stated, "We believe the thought of permanently maintaining drug addiction with 'sustaining' doses of narcotic drugs to be utterly repugnant to the moral principles inherent in our law and the character of our people." [20]

[17] For a summary of proposals, see Edwin M. Schur, *Narcotic Addiction in Britain and America: The Impact of Public Policy*. Bloomington, Indiana: Indiana University Press, 1962, pp. 167–73.
[18] For a detailed summary of arguments, see *Final Report* to the Governor, *op. cit.*, pp. 93–94.
[19] For a detailed summary of arguments, see *ibid.*, pp. 95–98.
[20] *Drug Addiction: Crime or Disease?* Interim and Final Reports of the Joint Committee of the American Bar Association and the American Medical Association on Narcotic Drugs. Bloomington, Ind.: Indiana University Press, 1961, p. 101.

Also strongly opposed to any plan involving legalization of narcotics is the Federal Bureau of Narcotics. This bureau cites the experience of the United States in the 1920s when 40 cities operated clinics which sold drugs to addicts at very low prices. The number of addicts appears to have increased dramatically during the few years of clinic operation, and illicit traffic appears to have been stimulated. All of the clinics were closed by the end of 1925, and this means of solving the problem was deemed a failure.[21]

Perhaps the strongest argument against the legalization of narcotics stems from the British experience. The report of the Interdepartmental Committee makes it clear that the British approach has failed to stem the growing tide of drug abuse, particularly among young people. The committee's proposals represent a movement away from the comparative freedom of the past and toward more stringent controls over drugs —over the doctors prescribing them and the addicts receiving them— even at the risk of promoting the development of an illicit drug trade. Certainly this recent development in the British experience gives no support to those who advocate legalization of narcotics in the United States.

INTERNATIONAL COOPERATION IN THE CONTROL OF DRUG ABUSE

Throughout the twentieth century, governments concerned with protecting their people from the misery, crime, and degradation invariably associated with drug abuse have cooperated to control the production and distribution of various drugs. The United Nations has made significant progress in this direction. It has worked through such bodies as the United Nations Commission on Narcotic Drugs and the World Health Organization's Expert Committee on Addiction-Producing Drugs (1) to estimate the world's annual needs for various drugs and to curtail the world's production in terms of these needs; (2) to develop international understanding and promote international agreement concerning crucial aspects of the problem; and (3) to provide sources of information on drugs and their control (see, for instance, the United Nations *Bulletin on Narcotics* and the WHO Technical Report Series on various aspects of drug abuse).

Although significant progress has been made, many serious problems remain. Traffic in and abuse of marihuana is increasing, and there has been little progress in its control.[22] The worldwide production of opium and coca greatly exceeds the world's medical needs for the products of these substances. Smuggling operations along the Mexican border maintain a constant flow of dangerous drugs, marihuana, and narcotics

[21] *Narcotic Clinics in the United States.* Washington, D.C.: U.S. Treasury Department, 1953.
[22] *Proceedings,* White House Conference on Narcotics and Drug Abuse, September 27 and 28, 1962. Washington, D.C.: U.S. Government Printing Office, 1963, p. 26.

into the United States. This country is the principal target of illicit international drug traffic.[23] Despite the progress made thus far, still greater international cooperation is necessary if the substances which serve as agents of infection in the epidemic of drug abuse are to be brought under effectual control.

[23] *The President's Advisory Commission on Narcotic and Drug Abuse: Final Report.* Washington, D.C.: U.S. Government Printing Office, November, 1963, p. 50.

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Chapter VIII

CURRENT ADVANCES AGAINST DRUG ABUSE

The first White House Conference on Narcotic and Drug Abuse, called by the late President Kennedy, met in Washington, D.C., in the fall of 1962. It was attended by more than 400 representatives of public and private agencies concerned with various aspects of the narcotic problem. The purpose of the conference was not to arrive at solutions of problems but, as stated by the President in his opening address, "to permit a pooling of our information and experiences to the end that an orderly, vigorous, and direct attack can be undertaken at all levels, local, State, Federal, and international." [1] This was the first cooperative assault on the problem of narcotic and drug abuse in the United States. It brought together people from law enforcement, medicine, government, sociology, pharmacology, research, education, and other fields for an appraisal of the nature and scope of the problem and an examination of existing resources for its solution.

Subsequent to the conference, President Kennedy created the President's Advisory Commission on Narcotic and Drug Abuse and charged it to analyze and evaluate the data gathered at the conference and to submit recommendations for a positive course of action. The White House Conference thus laid the groundwork for the development and sponsorship by the government of a comprehensive program against drug abuse. It was made clear at the conference that the problem in this country does not lend itself to any simple and dramatic solution but that meeting the problem will require a high degree of cooperation and dedication on the part of all involved.

RECOMMENDATIONS OF THE PRESIDENT'S ADVISORY COMMISSION

In November, 1963, the President's Advisory Commission on Narcotic and Drug Abuse issued its report.[2] This report presents specific recommendations for multilateral action against drug abuse.

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[1] *Proceedings*, White House Conference on Narcotic and Drug Abuse, September 27 and 28, 1962. Washington, D.C.: U.S. Government Printing Office, 1963, p. 2.

[2] *The President's Advisory Commission on Narcotic and Drug Abuse: Final Report*. Washington, D.C.: U.S. Government Printing Office, November, 1963.

Education

The commission deplores the existence of misbeliefs and misconceptions which hamper public understanding of facts about drug abuse and calls for a broad program of public and professional education aided by the resources of the federal government.

Research

The commission calls attention to various aspects of the field in which there is a lack of basic knowledge. Research is needed, for instance, on the psychological and social factors which cause certain people and certain groups of people to be more susceptible to drug abuse than others.

Reference is made to the lack of reliable statistical information on drug abuse. Estimates of the number of narcotic addicts in the United States range from 45,000 to 100,000. Almost nothing is known, according to the commission, about the incidence of dangerous drug abuse and its geographic distribution.

Information is correspondingly lacking on the medical aspects of drug abuse. The basic physiological mechanisms of tolerance and physical dependence need investigation. Likewise, knowledge of proper treatment and rehabilitation procedures is deplorably deficient, according to the commission, and all present treatment and rehabilitation programs are merely experimental. Is cure possible? At what point can an addict be pronounced either "curable" or "incurable"?—and if the latter, how should he be handled? Can means be found to facilitate the early identification of future drug abusers? How can the marihuana problem be tackled? Is there a relationship between alcoholism and drug abuse? Is there an underlying predisposition toward addiction to alcohol or to drugs?

The commission proposes that a comprehensive research plan be developed and that the National Institute of Mental Health provide funds for operation of the plan.

Control of the Drug Traffic

Regarding aspects of basic control, the commission (1) proposes various organizational changes designed to streamline the operation of the several governmental bureaus concerned with narcotic control; (2) urges the provision of additional federal enforcement personnel for the investigation of illicit operations; and (3) recommends that the present mandatory-sentence provisions in federal laws be amended so as to leave the way open for rehabilitation of those persons deemed worthy of profiting from it.

Of special interest are the commission's recommendations (1) that a system of international controls over the distribution of dangerous

drugs be established by the United Nations; and (2) that intoxicating drugs other than the narcotics be brought under federal control. The Drug Abuse Control Amendments of 1965 would serve to implement the latter special recommendation.

Treatment

The commission recognizes the fact that no satisfactory treatment for narcotic dependence is known, but it supports the general principle that the medical profession should be responsible for defining the legitimate medical use of narcotic drugs and for determining the legitimate medical treatment of narcotic addicts. Since 1963 the American Medical Association, through its Council on Mental Health, in cooperation with the National Research Council's Committee on Problems of Drug Dependence, has periodically published statements on "Narcotics and Medical Practice" for the guidance of physicians.

In line with the commission's recommendations, the concept that the addict is a sick person and that the medical profession should be more actively involved in his treatment has been gaining ground within recent years in this country. The preponderance of medical opinion is nevertheless opposed to the legalization of drugs.

Meanwhile a promising approach to the medical treatment of narcotic addicts is emerging in the city of New York from the work of Marie Nyswander, a psychiatrist and psychoanalyst. With the cooperation of Vincent P. Dole of the Rockefeller Institute and with the use of the facilities of the Manhattan General Hospital, Dr. Nyswander is using methadone, a synthetic narcotic, as a substitute for heroin and is finding that addict patients given this drug daily are enabled to function normally in society without any desire or apparent need for heroin. Dr. Nyswander's research is being watched with interest as a potentially important contribution to the treatment of narcotic dependence.[3]

In further consideration of the treatment of narcotic addicts, the President's Advisory Commission supports the efforts of cities and states to develop their own treatment facilities and recommends that federal assistance be made available for any needed expansion of such facilities. The commission stresses the desirability of community involvement in the attack upon drug abuse and calls attention to various private agencies which offer assistance to addicts. Narcotics Anonymous, Synanon, and Teen Challenge are typical agencies of this type.

Narcotics Anonymous. Narcotics Anonymous is a self-help organization modeled on Alcoholics Anonymous. It has chapters in six states,

[3] For a review of this research and an interesting discussion of Dr. Nyswander's work with addicts, see the following two-part article: Nat Hentoff, "Profiles: The Treatment of Patients," *The New Yorker,* XLI (June, 1965), 32–34 ff.; XLI (July, 1965), 32–57.

including California. Members meet to discuss their problems and to guide addicts in need of help to obtain treatment services. The organization is listed in the telephone directory in cities in which it operates or may be contacted at 546 Sixth Avenue, New York, New York.

Synanon. Synanon is of special interest to Californians because of its orgin in this state and because most of its chapters are located here. This is an organization of former addicts built around a family-type structure in which group sessions form the basis of therapy. The purpose of Synanon is the attainment of "drug-free" days, and the record of those who remain in the program is impressive in this respect.

Teen Challenge. Teen Challenge, a group that exists in California as well as elsewhere in the country, stems from the work of Rev. David Wilkerson with teenage addicts in New York. Teen Challenge has a religious basis and has been eminently successful in developing within youthful addicts a constructive view of their individual potential. Houses have been established by the group for the rehabilitation of youthful addicts in areas where the incidence of narcotic use is high.

The President's Advisory Commission mentions the need for scientific evaluation of the work of these and other private groups. Some of them appear to be achieving good results, and their activities should be encouraged.

Civil Commitment

The commission has also called attention to programs instituted in California and New York for the rehabilitation of addicts and has described them as far-reaching developments. These are "civil commitment" programs designed to ensure treatment and control over addicts and potential addicts during their rehabilitation.

California's civil commitment program, instituted in 1961, serves either volunteers or those who are committed by the courts after conviction for misdemeanors or certain felony offenses. An addict admitted to the program receives an initial minimum period of treatment in the California Rehabilitation Center at Corona. He is then released as an outpatient and returned to his own community, where he is under the close supervision of a specially trained supervisory agent.

Underlying the program of the Rehabilitation Center is the concept that the addict is a person in need of treatment rather than one who is a criminal; the program is designed to help him rather than to punish him. During his stay in the center, the individual receives counseling, physical conditioning, and opportunities for development of a wide range of vocational skills, for pursuing an education, and for various

other types of activities.[4] In his community he is given frequent tests to detect any return to the use of narcotics and is returned to the center if he relapses, not with the idea of punishment, but rather for the purpose of additional support from the center.

By January, 1966, some 5,300 men and women had been committed to the California Rehabilitation Center; and of those who were returned to their communities, the great majority had maintained their drug-free status under supervision. Meanwhile the center is serving an important purpose in removing addicts from the streets, thus preventing them from contaminating others and from committing crimes in their pursuit of narcotics. The 5,300 addicts thus far served by the California program, the 4,500 in other institutions because of convictions for felonies, and the 2,500 additional addicts under parole supervision constitute a sizable proportion of the estimated 18,000 to 20,000 heroin addicts in California.

The progress of the California civil commitment program is being watched with interest and hopefulness by concerned citizens throughout the United States. At the White House Conference this program was adjudged the most promising development in the country in the field of treating and rehabilitating the narcotic addict.[5]

THE PROGRAM OF THE AMERICAN SOCIAL HEALTH ASSOCIATION

The American Social Health Association (ASHA) is a national voluntary agency which has set up a program covering certain aspects of narcotic addition. The association has an advisory committee composed of authorities in the field and is establishing a professional information center where data concerning various aspects of the problem are being collected. Its program calls for analysis and evaluation of present rehabilitation programs, preparation of a comprehensive bibliography, dissemination of materials designed to keep the public informed, and development of research and demonstration programs.[6] This attack upon the problem is the first undertaken by such an agency.

[4] Roland W. Wood, "New California Program Offers Hope for Addicts," *Federal Probation*, XXVIII (December, 1964), 41–46.

[5] *Proceedings*, White House Conference, *op. cit.*, p. 298.

[6] Charles Winick, *The Narcotic Addiction Problem*. New York: The American Social Health Association, n.d., p. 18.

Part Three

Education Attacks Drug Abuse

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Chapter IX

INSTRUCTION

Society has two means by which it can prevent individuals from using potentially harmful substances for other than socially approved puposes. The first of these is through legislation that places the manufacturer and distributor under strict federal and state control, or that makes the manufacture or distribution illegal, or that permits forceful restraint to be employed whenever an individual makes other than approved use of potentially harmful substances. The second is through the provision of educational programs that provide opportunity for every individual to acquire adequate knowledge about potentially harmful substances and to develop self-restraint sufficiently great to keep him from ever making other than approved use of such substances. Obviously neither of these means will do the job alone, but it is most apparent that education offers society the greatest of opportunities to prevent the misuse or abuse of potentially harmful substances and the only known means that offers the individual the opportunity to enjoy complete immunity from making such uses of these substances.

THE LEGAL BASIS FOR INSTRUCTION

Most states have enacted statutes requiring instruction about alcohol and narcotics and their effects upon the individual. The present statute in California, Section 7852 of the Education Code, reads as follows:

> . . . Instruction upon the nature of alcohol and narcotics and their effects upon the human system as determined by science shall be included in the curriculum of all elementary and secondary schools. The governing board of the district shall adopt regulations specifying the grade or grades and the course or courses in which such instruction with respect to alcohol and narcotics shall be included. All persons responsible for the preparation or enforcement of courses of study shall provide for instruction on the subjects of alcohol and narcotics.

THE ROLE OF EDUCATION

Recently law enforcement and other peronnel directly concerned with the problem have turned hopefully toward education as a valuable

weapon in the total war which society now finds it necessary to wage against narcotic and drug abuse. Governor Brown's Special Study Commission on Narcotics, reporting in 1961, stated:

> The prevention of narcotics addiction is closely interwoven with the problem of education in the schools concerning narcotics. The role of the school is to prevent delinquency or anti-social behavior in any form and to attack and attempt to resolve any problem which reduces educability, whether it involves the use of narcotics, dangerous drugs, or glue and gasoline sniffing.[1]

At the White House Conference on Narcotic and Drug Abuse, former California Attorney General Stanley Mosk stated, "We feel that education has a major role to play although its precise role is a difficult one for law enforcement to determine. . . . It is a problem that professional educators should undertake." [2]

More recently (November, 1963), the late President Kennedy's Advisory Commission on Narcotic and Drug Abuse reported as follows:

> . . . An educational program focused on the teenager is the *sine qua non* of any program to solve the social problem of drug abuse. The teenager should be made conscious of the full range of harmful effects, physical and psychological, that narcotic and dangerous drugs can produce. He should be made aware that although the use of a drug may be a temporary means of escape from the world about him, in the long run these drugs will destroy him and all that he aspires to. The education of the teenager is, therefore, an essential requisite of any prevention program.[3]

On the other hand, some authorities vigorously oppose education about narcotics and drugs, for they think that it will result in experimentation and increased drug abuse. Former Narcotics Commissioner Harry J. Anslinger points out that addiction has increased in the state of New York, which has had a comprehensive narcotic education program since 1951.[4]

The President's Advisory Commission deplores opposition to educational programs. It takes the stand that the reasoning behind this opposition runs counter to our basic American belief in education as a guide to informed action. If care is taken to avoid emphasizing the so-called "spectacular" or "glamorous" phases of drug abuse, there is little likelihood that instruction would do other than cause the student to become increasingly resistant to drug abuse.

In its final report, the Special Study Commission on Narcotics pointed to the lack of statewide coordination of narcotic instruction and to

[1] *Final Report of the Special Study Commission on Narcotics*. Submitted to the Governor. Sacramento: State of California, June, 1961, p. 91.
[2] *Proceedings*, White House Conference on Narcotic and Drug Abuse, September 27 and 28, 1962. Washington, D.C.: U.S. Government Printing Office, 1963, p. 64.
[3] *The President's Advisory Commission on Narcotic and Drug Abuse: Final Report*. Washington, D.C.: U.S. Government Printing Office, November, 1963, pp. 17–18.
[4] Personal letter to Angela Kitzinger, July 27, 1964.

the dependence of educators upon law enforcement personnel for classroom presentations on narcotics. In the words of the commission, "The educator should assume this responsibility and prepare himself to teach this subject." [5]

Various students, invited to testify before the commission, stressed the need for greater awareness on the part of teachers in regard to the drug abuse problem existing in the schools in which they are giving the instruction and the need for teachers to have (1) up-to-date information on dangerous drugs and chemicals, marihuana, and narcotics; and (2) the materials they need to make their instruction effective.

Early in 1967, Attorney General Thomas Lynch told the California State Board of Education that the alarming "drug spiral" among California juveniles must be countered by a realistic and thorough program of drug abuse instruction in *all* the schools of the state. In the past, he said, most California schools have relegated this instruction "to a secondary position"; some have given only "lip service" to it; some have not met the statutory requirements at all.

> Since the Special Study Commission issued its findings and recommendations in mid-1961, there have been 10,000 *new* juvenile drug abusers detected. . . . I cannot but help but wonder if some of those youngsters could have been saved from drug abuse if better education had been available. . . .
>
> Needless to say, the efforts to improve education has been very frustrating for all of us who have been concerned. Law enforcement, in particular, feels the frustration because it realizes the potential which better education holds in the overall strategy to curb drug abuse. . . .
>
> In enforcement, corrections, and rehabilitation, California stands second to no state during the past five years. . . . It is very difficult for me to "square" the lack of progress in education with the impressive advances which California, with the help of the Legislature, has made in other areas of the drug problem. . . . Given the age we live in and given the scope of the health problems we face, it is time that we established a course of instruction to meet the current needs of our young people.[6]

GUIDING PRINCIPLES FOR AN INSTRUCTION PROGRAM

The guidelines in this chapter may be used to advantage by California schools to design their programs of instruction regarding the use of narcotics and dangerous drugs in such a way that the programs (1) are most likely to produce the desired results; and (2) meet the statutory requirements for this instruction.

The Instruction Should Be Well Planned

Narcotic and dangerous drug instruction should be planned under the guidance and with the assistance of the administrative, curriculum,

[5] *Final Report* to the Governor, *op. cit.*, p. 89.

[6] From a report made by Attorney General Thomas C. Lynch and presented to the California State Board of Education in its February, 1967, meeting in San Francisco.

and supervisory staffs of the school or school district; and this planning should be done along the same lines as that for all other phases of instruction.

As a first step, pupils' needs and those of the community should be determined; secondly, the generalizations and concepts to be emphasized in the program should be identified; thirdly, a survey should be made to ascertain the kinds of instructional materials that are available for use; and fourthly, the various types of learning experiences that may be utilized for different purposes should be outlined.

An important part of this planning is to determine what contributions can be made by related subject fields, such as social sciences and certain of the physical and life sciences. Although duplication should be avoided, every opportunity should be taken to build upon and extend pupils' learning experiences wherein it is possible to strengthen the instruction on narcotics and dangerous drugs. Services offered by various community agencies should be utilized if they will help to clarify, strengthen, or expand the instructional program.

Pupil and Community Needs Should Be Considered

The needs of any group of pupils are determined largely by their educational, socioeconomic, ethnic, and cultural backgrounds. The practice of "covering" narcotics and dangerous drugs at an assembly attended by a whole school population disregards this diversity and exposes all students to the same experience. In the classroom, however, narcotic and dangerous drug instruction can be provided in terms and experiences that are appropriate to pupils' stages of readiness for such instruction.

Just as mortality and morbidity statistics are overall indicators of the health and safety hazards confronting certain groups, so arrest statistics give a general measure of the abuse of narcotics and drugs. The extent to which state or national figures apply to a local situation should be determined through consultation with local authorities. Cultural factors operative within a community often color the local situation. In the Mexican-American sections of a community, for instance, marihuana may be obtainable whereas in the Caucasian sections only pills may be obtainable. Availability of various drugs may change from time to time in keeping with changing patterns of drug abuse and with fluctuations in illicit market operations. Pills may be in ample supply at one time and marihuana at another. Narcotic and dangerous drug instruction should be planned so that attention may be focused, as necessary, upon current practices; but the overall picture of narcotic and drug abuse should always be presented.

Instruction regarding various dangerous substances should begin early in pupils' school careers and continue at appropriate times thereafter.

Inasmuch as volatile chemicals are present in innumerable substances to which children are exposed, instruction on the hazards of misusing these substances should be a routine part of safety education in the intermediate grades. Facts about poisonous plants and ways to avoid them should also be taught at this time.

From the latest available California statistics, it appears that significant use of both dangerous drugs and marihuana begins in the early teens. If education is to serve a preventive function, it should reach pupils in advance of this crucial period, certainly no later than when they are in the seventh or eighth grade.

Because the use of LSD has created many serious problems in recent years and is threatening to create many more, instruction about this potentially harmful drug should begin as early as it is discreet and feasible to do so.

Education on the narcotic drugs poses a particular problem. Arrests for the use of heroin reach substantial proportions only in the middle teens. In terms of statistics and because narcotic use normally begins only after a period of dangerous drug or marihuana use, it would seem that instruction on this topic might well be deferred until the first year of high school. On the other hand, the majority of juvenile narcotic users are, or become, school dropouts. The Special Study Commission on Narcotics pointed out that "the grade level of 3,500 former narcotics users in our California prisons is 7.5 years." The commission concluded that "for this group, a senior high school education and prevention program concerning addiction comes too late and serves no purpose." [7]

The progressive nature of involvement with dangerous drugs and chemicals, marihuana, LSD, and narcotics makes it mandatory that the groundwork of a drug abuse prevention program be laid for all pupils well before they enter high school. Each school and school district should appraise its own needs and locate various elements of an instructional program at strategic points in the educational program offered. It is obvious that, if the needs of the pupils and the nature of drug abuse are considered, such instruction should not be given only in one grade or only at specified points in the program; rather, the instruction should be given whenever the pupils will probably benefit most fully from it.

The Best Possible Learning Situation Should Be Provided

In general, pupils are most likely to learn when they are motivated to do so and when they are actively involved in purposeful educational experiences in which they have opportunity to express themselves creatively.

[7] *Ibid.*, p. 92.

In the elementary school, instruction given on narcotics and dangerous drugs should be an integral part of the classroom health instruction program and as such should meet the established criteria for elementary school health instruction.[8] These criteria demand the utilization of scope-and-sequence content outlines for each grade level; the application of a variety of accepted instructional methods; the availability for teachers and pupils of up-to-date books, periodicals, and other reference materials; and suitable provision for the evaluation of instruction.

In California high schools, according to the Special Study Commission, narcotic instruction is usually left to the science teacher, the physical education teacher, or the driver education teacher. Theoretically, related areas of learning and the teachers in those areas can contribute materially to a narcotic instruction program. Science, for instance, offers opportunity for an experimental approach to the study of pharmaceutical and chemical properties of drugs and their effects on the body. The social sciences may deal with the psychosocial aspects of narcotic and drug abuse; with historical, economic, and international aspects of drug traffic; with legislation; and with the citizen's role in helping to solve the drug abuse problem. Physical education may lay the foundation for skills which are important to the constructive use of leisure time. In practice, unfortunately, teachers of science, the social sciences, and physical education are seldom prepared adequately to provide narcotic instruction, nor do the teachers in any one of these areas have time to devote to a topic which lies on the periphery of their subject-matter field. For these reasons, narcotic information which is "farmed out" to various teachers is likely to receive inadequate treatment.

Logically, according to the Special Study Commission, narcotic instruction falls within the province of the health program. Narcotic instruction is a recognized area of health instruction, and the qualified health educator is prepared to deal with the subject. However, since only a small number of the high schools in California—in 1961 about a sixth of the total[9]—offer a course in health education, provision must be made for narcotic instruction to be given in other phases of the high school instructional program.

In the final analysis, *where* such instruction is given in less important than *how* and *under what conditions* it is given. The instructor should have adequate time, an appropriate place, and the necessary facilities for conducting the instruction. He should utilize appropriate learning experiences and the best available resources to enhance his instruction. In all instances the instruction given should cover the subject, and each phase of the subject should be presented in a planned sequence.

[8] *Criteria for Evaluating the Elementary School Health Program*. Sacramento: California State Department of Education, 1962, pp. 6–8.
[9] *Final Report* to the Governor, *op. cit.*, p. 89.

The Teacher Should Be Well Prepared

In the past, schools have relied heavily upon law enforcement personnel for assistance in providing narcotic instruction. However, according to the Special Study Commission, educators should be prepared to provide the necessary instruction rather than continue to depend upon the assistance of others.[10] The commission recommended that "every teacher who teaches the subject of narcotics should secure adequate training and preparation as to the nature and effects of narcotics and dangerous drugs . . . ." [11] The commission proposed that a statewide inservice training program be adopted which would prepare teachers to provide effectively the instruction required in this subject area.

A number of opportunities for teachers to acquire the necessary inservice education are available from time to time in workshops and institutes offered by California colleges and universities. Local health departments, Food and Drug Administration offices, police departments, customs services, courts, and other community agencies are valuable sources of information that teachers can use to advantage. And the literature in the field (see Selected References for Teachers) makes it possible for teachers to inform themselves on various aspects of the field.

Objectives Must Be Sustained

There can be no doubt as to the overall goal of the educational program on drug abuse. *This goal is to help youth to develop attitudes and to acquire knowledge that will cause them to abstain from any form of drug abuse.* In the attainment of this goal, it is important that every pupil be armed with information that provides him with a sound basis upon which to make informed, constructive, and rational judgments regarding drug abuse. Specific learning about the nature and effects of various substances should be supplemented by more general learning regarding the psychological, social, and legal aspects of the problem. Not only the welfare of the individual but the welfare of society is at stake.

The objectives of the educational program on drug abuse—attainment of the specific goal itself and a well-rounded educational and personal development which will strengthen that attainment—must be kept constantly in clear view. Once identified, the objectives must be furthered by all phases of the instructional program to ensure genuine progress toward the attainment of these objectives.

The section that follows contains suggestions for instructional procedures that may be used to advantage in this program.

[10] *Ibid.*, p. 89.
[11] *Ibid.*, p. 90.

SUGGESTED INSTRUCTIONAL PROCEDURES

The school program should provide opportunities for pupils to acquire knowledge, attitudes, and practices that will help them to become resistive to drug abuse. At first the opportunities should be simple in nature and adjusted in such a way that very young pupils may profit from them. From this point upward through the elementary and high school grades, the opportunities should become increasingly complex so that pupils may be constantly expanding their knowledge, improving their attitudes, and refining their practices. A major portion of these opportunities may be provided through the regular health education program. However, some of them might also be taught in relation to other subjects.

The suggested grade placement of topics employed in this guide should be treated as being extremely flexible. In all situations the teacher should provide opportunity for pupils to study any topic, regardless of its grade placement, that will focus their attention on local problems.

Primary Grades

In the instructional program for the primary grades, health education should provide opportunity for all children (1) to appreciate their health; (2) to protect their health; (3) to learn that food is important to their health and that nonfood substances may be harmful; and (4) to develop appreciation of the roles of the physician, the dentist, the nurse, and other persons who help them to maintain good health. The children should also learn that pills and other medicines should never be taken except under a doctor's direction or when administered to them by their parents.

Provision should also be made for pupils in the primary grades to acquire information, attitudes, and behaviors that will put them in good stead if they are ever faced with problems that may lead them to the use of narcotics and dangerous drugs. For example, they should learn the dangers of accepting favors from strangers; they should learn the value of telling their parents—or the police, if necessary—whenever a stranger bothers them while they are playing, walking between school and home, running an errand, or the like; they should learn that policemen are helpers who protect them, their homes, and their families; they should develop an understanding of the laws with which they come in contact, an appreciation of their importance, and a willingness to obey them.

Guidance of children's emotional and social development is most important. The strongest deterrent to drug abuse in the child's future lies in his strength of character—in his ability and determination to face

life and enjoy it through the wholesome and constructive use of his own resources.

Middle Grades

Health instruction in the middle grades should reinforce and expand upon instruction given in the primary grades. In addition, the pupils should be introduced to the structure and function of their bodies and the interrelatedness of body systems. Every attempt should be made to develop their awareness of the human body as a miraculous creation and their appreciation of health as a precious resource. Learning activities should be developed with a view toward instilling in pupils a sense of responsibility for protecting and maintaining their own health, and provision should be made for them to become informed regarding the reasons why the community is vitally concerned with the health of its citizens. The program must be arranged so that the pupils will study the four food groups and learn the importance of gooa food habits.

The ideas and facts in italics and the suggested instructional procedures that follow are recommended for use at strategic points in the educational program of the middle grades. These are intended to help pupils acquire knowledge, develop attitudes, and employ practices that will be beneficial to their health and well-being and that will make them resistant to the use of any harmful substances.

Every substance taken into the body by any means (eating, sniffing, injection, or smoking) enters into the complex functioning of the body and affects its condition.

- Stimulate the class to discuss the importance of sound health and the responsibility that every individual has for maintaining and safeguarding his health.
- Project pictures showing the beauty and complexity of the human body. Discuss with the pupils the interrelationships of the various parts of the body.
- Select a committee of pupils to prepare a diagram of the bloodstream, showing how substances entering the body by any means are carried throughout the body, and to display the diagram on the bulletin board.
- Assign encyclopedia research and special reports—either as committee projects or as general class activities—on the brain and the nervous system, their interrelatedness with other systems, and their importance to the total functioning of the body. Make the results of the research available to the class.

Nonfood substances are potentially damaging to the body and should be used only under special circumstances and with extreme care. No person should ever inhale the fumes of a volatile chemical. Poisonous plants should be avoided.

- Have the pupils ask their parents what substances in their homes may be potentially harmful to the human body, such as detergents, insect poisons, volatile chemicals, lye, and pills, and write on the chalkboard the name of each substance reported by their parents. Then discuss with the class certain means whereby younger children may be protected from hazardous experimentation with the substances reported on, as well as with dangerous substances not mentioned in the reports.
- Display an exhibit of dangerous household substances—including those containing volatile chemicals—and describe their uses to the class. Discuss with the pupils various means of protecting oneself and others from bodily damage that can be inflicted either by inhaling the fumes of certain of these substances or by touching or swallowing them. To exemplify one protective method, have the pupils make appropriate labels which can be placed on the containers to warn people of the possible dangers involved in using the substances.
- Invite a chemistry or biology teacher to talk to the class about the nature of dangerous household chemicals and the precautions that should be observed in their use.
- Have a committee of pupils make out a list of questions pertaining to certain difficulties or problems which they think that managers of local stores, such as hobby shops, supermarkets, or novelty stores, might encounter in selling substances containing volatile chemicals as well as other dangerous substances. Have the pupils ask their parents to suggest ways in which these managers might handle such problems. After the committee has obtained the desired information, direct the pupils to report their findings to the class. Encourage the rest of the pupils in the class to discuss the findings and to suggest additional methods they believe would be helpful.
- Appoint a committee to do research on poisonous plants, and direct the pupils in the committee to proceed as follows:

  1. Consult the color plate, "Poisonous Plants," opposite page 1768 in the Third Edition of Webster's unabridged *New International Dictionary*. (In the Second Edition a similar plate can be found opposite page 1820.) Make drawings of plants that are found growing in California, such as the castor-oil plant, loco weed, and Jimson weed or Datura. If these large dictionaries are not avail-

able, try to locate pictures in books, magazines, or other sources to which you have access.

2. Make a list of poisonous plants that grow in California. Look in encyclopedias and other books to find the desired information and also ask your parents and other members of your families to tell you what they know about poisonous plants that either grow wild or are cultivated in California. If possible, ask the local health department for information it may have. Your list should include oleander, poison oak, and certain types of poisonous mushrooms as well as the plants identified in Step Number 1.
3. Write a description of each plant that is named on your list. After the committee has completed its project, have its members report their findings to the class. In making their reports, the pupils should describe the poisonous properties of the plants they have studied and display the drawings they have made. After the committee's presentation, invite the class to discuss (a) the information reported on; and (b) the precautions that should be taken in protecting oneself and others from poisonous plants and the possible injurious effects that can result from coming into contact with them.

Properly used, many drugs are of great value to mankind; improperly used, they can damage the individual and interfere with his success in life.

- Plan a problem-solving approach to the topic "Drugs and Their Proper Use," in which the whole class will be involved. This approach might include activities such as the following:

1. Select a committee of pupils; direct them to go to the school or community library and do research on the history of drugs. The research might include such specifics as the following: (a) man's early search in the world of nature for substances to relieve his ills; (b) drugs derived directly from natural sources and still in use today; (c) the development of synthetic drugs and their importance in medicine today; (d) special drugs and their importance to man (aspirin, digitalis, quinine, and others); and (e) the growth of the drug industry in recent years.
2. Organize a committee and give it the responsibility of informing the class about some of the drug-promotional efforts that are carried on in the modern world. The committee might, for instance, do the following things: (a) make a bulletin-board display of drug advertisements; (b) make a tape recording, if possible, of drug advertisements on television and radio and play the recording in the classroom; and (c) discuss the meanings of various slogans

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that are used in advertising drugs and tell how some of this slogan information gives wrong ideas.

3. Name for the class some drugs that are commonly used today. As each one is named, permit the pupils to ask any questions they wish about the drug. Make a list of these questions, and then have the class select a small committee to find answers to them. Have the committee write each question and the answer to it on a large chart to be displayed in the classroom. When the chart is ready, call the pupils' attention to it and encourage them to discuss the answers to the questions.
4. Explain to the class the difference between drugs and medicines that are sold "across the counter" and those that are sold by medical prescription only. Through class discussion and question-and-answer activities, make sure that the pupils clearly understand this difference.
5. Have several pupils discuss with their parents the medicines that are kept in their homes and the use or uses that are made of each of the medicines. Then direct the pupils to report to the class the results of their discussions. Invite the school nurse to be present during the reports and to discuss with the class the proper uses of the medcines that have been described, the precautions that should be taken in their use, and the prevention of their possible misuse by any member of the family.

Medicines in any form—pill, liquid, powder, or other—should not be taken regularly except when prescribed by a physician and administered by a physician, by a nurse, or by a parent. It is extremely dangerous to use pills or capsules offered by a friend, acquaintance, or stranger. Anybody observed giving pills to others without proper authority to do so should be reported immediately to parents, teachers, or police.

- Obtain from a pharmacist, a physician, a law enforcement authority, or a community or government agency several photographs or drawings that show various kinds of pills and display these, appropriately labeled, on a bulletin board. Encourage the pupils to raise any questions or discuss any problems they have in mind regarding the pills, regulations that have been established to curb their abuse, and so forth.
- If the required equipment is available, arrange with a physician to conduct a telephone interview with the class—or a taped interview with selected pupils—concerning the proper uses of pills and the dangers that are involved in their misuse. Provide opportunity for the pupils to discuss the answers given by the doctor and the importance of following his advice.

- Have the pupils draw up some tentative suggestions as to the proper handling of medicines and medications which are kept in their homes. A typical list might include such procedures as the following: (1) keep all medical supplies in a safe location, particularly in a place that is out of reach of very young children; (2) place a label on each container that tells the degree of potential danger of the medicine; (3) determine whether the place chosen for the storage and safekeeping of family medicines is satisfactory from the standpoint of temperature, humidity, cleanliness, and the like; and (4) decide on the most feasible ways of discarding or disposing of pills and other medications that have lost their effectiveness. When the pupils have done this, have them review their lists of suggestions with their parents and report the results to the class.
- Select two pupils to dramatize a situation in which a person with a bottle of pills offers one of them to a friend who is complaining of a minor ailment. The friend refuses to take it and then describes the dangers of accepting pills from any unauthorized individual. Discuss with the class the dangers of self-medication in general.

  A variation of this type of role playing might be the following situation: A high school student in his upper teens attempts to sell pills to a younger student, who resists the sale and reports the attempt to a responsible adult.

Pills with which young people are most likely to come in contact are amphetamines and barbiturates. These are synthetic chemicals that are marketed legally only on prescription. Excessive use of either may result in a habit that is difficult to break.

- From this source book select case histories concerning the use of dangerous drugs and read the accounts to the class. After each account is read, invite the pupils to discuss the hazards connected with the indiscriminate use of the particular drug or drugs involved.
- Have a committee make a chart listing dangerous drugs and their effects on the system. Discuss the chart with the class.
- Direct the pupils to write a composition on habits, the importance of habits in human life, and the desirability of forming habits that will be beneficial to them.
- Have a committee list and report reasons why any individual might take dangerous drugs other than when prescribed or in greater amounts than prescribed. Have the class analyze the reasons and suggest actions the individual could take other than the use or misuse of drugs.
- Select a committee to conduct research on state and federal laws relating to the use of dangerous drugs. Then discuss with the class the

reasons for these laws and the responsibility of citizens for upholding them.

- Pose problems concerning the use of drugs; have the pupils offer the solutions they have decided upon and tell why they chose the solutions.

Knowledge about dangerous substances does not necessarily serve as a deterrent to experimentation with such substances. In the middle grades, as in the primary grades, various other learnings bear a close relationship to pupils' behavior in relation to drug abuse. Through hobby groups, neighborhood clubs, physical education classes, and after-school activities, pupils in these grades should be establishing skills and interests in wholesome recreation. In the classroom they should be given opportunity to consider the associations they are forming with others and the part these associations play in their lives. In this connection they should learn, primarily, that each person is responsible for his own decisions and his own behavior and that it is foolish for anyone to allow himself to be led by others into actions which he knows are dangerous or wrong. Good attitudes toward laws should be developed, and pupils should be made aware that certain laws are designed to protect them from harm. They should also be helped to think intelligently about advertising, to distinguish between advertisements that give worthwhile information and those that do not, and to analyze advertisements according to whether they (1) are factual and accurate; (2) tend to exaggerate; (3) describe a product as "good for everything"; or (4) are actually misleading. Learning to develop analytical ability and to make reasoned judgments is most important to these young people during their formative years.

Junior High School

Health instruction in the junior high school should build upon the foundation established in the elementary school and should also explore the emotional and social, as well as the physical, aspects of early adolescence. Young people should be exposed, at this time, to learning experiences which help them to grow in understanding themselves and their behavior. Attention should be given to the importance of association with others as a formative influence in their lives and to the desirability of exercising care in the selection of friends. Opportunity should be provided for critical examination of the influence of peer-group pressures on individual standards of conduct. Instruction and leadership at this time should result in young people (1) tempering their growing independence with responsibility; and (2) viewing their teen years as a most important time in their lives when they are taking steps to prepare for adulthood.

The ideas and facts in italics and the suggested instructional procedures that follow are recommended for use at strategic points in the educational program of the junior high school. These are intended to help pupils acquire knowledge, develop attitudes, and employ practices that will be beneficial to their health and well-being and that will make them resistant to the use of any harmful substances. Prior to instruction on marihuana and LSD, it is recommended that teachers test pupils on knowledge of drugs in general and the dangerous drugs and chemicals in particular and then plan the instruction accordingly so that every pupil is given opportunity to acquire the knowledge he needs. (See Test Items, beginning on page 115; see also the ideas, facts, and proposed learning experiences under "Middle Grades" in this chapter.)

Marihuana is derived from a plant which is grown in many parts of the world. In the United States marihuana is ordinarily used in cigarette form. Its use in any form in this country is illegal.

- Administer a pretest which covers the information on and attitudes about the use of marihuana. (See Test Items, pages 118-19.)
- Form small research committees and give each committee responsibility for reporting on topics such as the following: (1) How is marihuana grown and marketed? (2) For what purpose is marihuana used and in what country or countries is it used the most? (3) To what extent is marihuana used in the United States as determined by the number of arrests in connection with it?
- Display two pictures: one showing the plant from which marihuana is derived and one showing a typical marihuana cigarette. Have the pupils study the pictures carefully and give them whatever supporting information is necessary so that they may become familiar with the appearance of both the plant and the cigarette. In this way the pupils will be helped (1) to identify the marihuana plant if they should see a specimen growing anywhere; and (2) to recognize the common characteristics of the marihuana cigarette and thus avoid being caught in the position of being offered one without knowing what it is. They will also be better prepared not only to identify a marihuana cigarette if they should see it being smoked by anyone but also to identify individuals who are smoking cigarettes of this kind.
- Set up a question box and encourage the pupils to put into this box any questions which they would like to have answered regarding the use of marihuana or other drugs. After a number of questions have accumulated, take them out and read them to the class. Invite the pupils to answer the questions if they are capable of doing so; but in these instances make certain that the answers are satisfactory

by adding such information as may be necessary to make the answers complete and appropriate. Supply information on those questions which the pupils are not able to answer. If there is any question that calls for data not available in the classroom, postpone the answers until the necessary information is obtained.

The marihuana smoker often becomes intoxicated and irresponsible. He May inflict harm on himself and others.

- Describe the effects of marihuana on the human system. Explain the relationship between marihuana smoking and health of body and mind. Invite class discussion, and encourage the pupils to raise any questions they wish to have answered.
- Have a committee make a bulletin-board display that shows how motor control, perception, and judgment may be impaired when an intoxicating substance affects the brain. In connection with the display, hold a class discussion on ways in which people depend upon their motor control, perception, and judgment in order to function in modern society. Expand the discussion into a consideration of the responsibility of each citizen for his own behavior. Help the pupils to understand that constructive behavior leads to good results and that irresponsible behavior almost always leads to trouble—even to serious conflict, loss, impairment, or other misfortune.
- If the necessary equipment is obtainable, arrange and conduct a taped interview between a committee of pupils and a law enforcement officer concerning the observable effects of marihuana smoking on individuals who have acquired this habit and have come under the surveillance of officials. Play the tape for the class and invite discussion afterward.
- Have a panel of pupils discuss the claim that marihuana users are actually or potentially dangerous persons. Statements such as those that follow may be given the pupils on the panel to discuss: (1) the use of marihuana may cause homicidal tendencies; (2) the user generally knows no fear and may exhibit savage behavior if he is crossed—for instance, when he is being placed under arrest; and (3) it is often very difficult to bring the smoker under control because he usually feels little or no pain.[12] Encourage all the pupils to discuss the various ideas presented by the panel.

Those who use marihuana or LSD or wish to entice others into using them often rationalize that these substances are nonaddicting and there-

[12] John B. Williams, *Introduction to Investigation and Police Procedures.* California State Peace Officers' Training Series, No. 75. Sacramento: California State Department of Education, 1966, p. 140.

fore harmless. Actually the marihuana or LSD user develops the most serious form of drug dependence: psychological.

- Explain the meaning and nature of "rationalization." Have several pupils keep track of their own behavior—perhaps over a period of several days—in an effort to find examples of ways in which they make use of this mental trick. Ask the pupils selected to explain how they rationalize and under what conditions they find that they are most likely to rationalize.
- For the benefit of the class, discuss with the pupils the erroneous concept that "because marihuana and LSD do not cause physical dependence, their use is not dangerous."
- Assign compositions on topics such as the following: "The Importance of Maintaining My Freedom of Choice," "Having the Courage of My Convictions," "Good Habits and My Goals in Life," "The Teens as a Time for Building."

LSD is a potent drug still in the investigational stage. Legal use can be authorized only by the federal Food and Drug Administration.

- Explain the recent federal drug abuse laws that restrict new drugs to investigational use until they are proved to be safe and effective. Hold a class discussion on the danger of using drugs before their effects on mind and body have been determined.
- Call for three or four volunteers and request them to watch newspapers for reports concerning the use of LSD or similar-type drugs. When several reports have been collected, have the pupils (1) read the reports to the class; and (2) lead a discussion of the effects of LSD use on the individuals or groups involved.
- Organize the class into small groups and direct each one to think of reasons why any young person might use LSD. Have each group list its reasons on the chalkboard. Then discuss these with the class. Encourage the pupils to give their opinions as to (1) how the victim got trapped into using the drug in the first place; and (2) how he might have avoided getting trapped.
- Read to the class several of the case histories found in the chapter on LSD. Lead a discussion about some of the effects this drug can have upon the human system, including behavior.

Marihuana is a total outlaw, even from medical practice, and its use is dangerous as well as illegal. Every observed incident of marihuana sale or use should be reported to the police.

- Have a committee locate information on the federal and state laws governing the use of marihuana and report its findings to the class. Discuss with the pupils the need that society has for such laws.

- Have one or two volunteers watch the newspapers for accounts of marihuana seizures. After the information has been gathered and reported to the class, invite all the pupils to discuss any problems, questions, or ideas that these accounts might suggest—for example: (1) the reason why the possession, selling, or buying of marihuana is prohibited; (2) the high costs of state and federal marihuana control; (3) the large amounts of money that users have to pay for marihuana on the illicit market; and (4) the tragic fact that the only "benefits" that marihuana users receive in return for the money they spend are various kinds of mental and physical harm and even the ruination of their lives.

- Invite the class to propose six to ten questions concerning the nature and extent of marihuana and LSD use in the local community and the responsibility of citizens for reporting any such use to the police. Then have the class select a committee of one or two pupils to visit a police station and obtain answers to these questions from a law enforcement officer. Arrange for one of the members of the committee to read the answers to the class. Call for class discussion.

- Make arrangements for a small committee of pupils to visit a local judge and ask his opinions as to what steps he thinks could be taken toward the control of marihuana and LSD use. Have the committee report its findings to the class. Encourage discussion.

- Plan with some of the members of the class a sociodrama in which a peddler tries to sell marihuana cigarettes to a group of schoolchildren; one pupil accepts a cigarette, but the others refuse. After the sociodrama has been performed, encourage the class to discuss the implications of both the acceptance and the refusal.

- Organize buzz groups to discuss questions of particular interest to the class. These questions may be formulated by the class during a discussion period or may be prepared in advance by the teacher. Sample questions might include the following: (1) What should you do if you learn that one of your classmates is using marihuana, LSD, or some other illegal drug? (2) What should you do if you go with friends to a party and find that several people there are smoking marihuana or using LSD and urging you and others to join them? (3) Some college students in your community are agitating for the legalization of marihuana and LSD. Would you support the movement or oppose it? Why?

- Hold a symposium in which several pupils—each playing a role such as that of a physician, a parent, or a law enforcement officer—summarize the crucial information about marihuana and LSD and present it to the class as a review.

- Give a test covering the knowledge that has been gained and the attitudes that have been acquired about marihuana and LSD. (See Test Items, pages 118–21.)

Elsewhere in the junior high school curriculum, pupils should be developing leisure-time skills and interests; learning to function as leaders or followers in constructive group activities; and developing their resources for independent, responsible thought and action. Opportunities should be provided for them to understand, appreciate, and practice responsible citizenship. Individual guidance, wherever it is needed, should lead them toward the utilization of their own resources in meeting and solving problems and should fortify them, when necessary, with the help that is available through community resources. Recognition and guidance of young people with inadequate personalities and adjustment difficulties are matters of prime importance during this period.

High School

High school students should be given frequent opportunities to learn to view their personal health problems within the context of the society in which these problems occur; to comprehend the influence of various ethnic and socioeconomic subcultures on the behavior of the members of these subcultures; to appreciate the importance of the well-being of all people; and to accept responsibility for maintaining themselves as efficiently functioning human beings—both as individuals and as members of society. As each student takes advantage of these opportunities, he should develop a set of principles calculated to guide his behavior in terms of the best possible utilization of his talents and the fullest possible realization not only of his own ideals but also of the ideals which the nation has for its youth. All students, moreover, should become acquainted with the agencies of government and the community organizations that concern themselves with health and social welfare.

The ideas and facts in italics and the suggested instructional procedures that follow are recommended for use at strategic points in the high school educational program. These are intended to help students acquire knowledge, develop attitudes, and employ practices that will be beneficial to their health and well-being and that will make them resistant to the use of any harmful substances. In the high school grades the instruction that is given on narcotics and the additional instruction that is given on LSD represent the culmination of a sequential program of instruction on drug abuse. Prior to this instruction, teachers should (1) test students on their knowledge of drugs in general and on dangerous drugs and chemicals, marihuana, and LSD in particular; and (2) use the information from the test results as a basis for planning the instruction so that each student is given the help required to meet his own

needs and to become well informed. (See Test Items, pages 115–21; see also the ideas, facts, and proposed learning experiences related to instruction about dangerous drugs and chemicals, marihuana, and LSD in the preceding sections of this source book set up for the middle grades and the junior high school. Many of these elements can be expanded and adapted for use at the high school level.)

LSD is one of the most powerful drugs known to man, and its use causes many adverse side effects. It will diminish consciousness rather than expand it.

- Administer a pretest covering information about LSD. (See Test Items, pages 119–21.)
- Describe to the class the acute and chronic effects of LSD on the user. Stress the unpredictableness of the effects of such a drug. Stimulate class discussion regarding these points.
- Assign several students to study the following statement to determine its meaning and have them explain their findings to the class: "Users call LSD a 'consciousness-expanding' drug; however, instead of expanding consciousness, this drug actually diminishes it."
- Organize the class into small groups. Direct each group to suggest two problems of adolescence which young people might think could be evaded or even "removed" by the use of LSD or similar drugs. Have the students in each group study the problems and then tell the the class why they believe it is better to try to solve problems rather than to avoid finding sound and practical solutions for them.
- Select members of the class to role-play a situation in which a boy is invited to a party and, while he is at the party, friends of his try to persuade him to take LSD. Ask the players to portray, as well as they can, both sides of the situation—the erroneous reasoning used by his friends regarding the drug and the reasoning used by the youth in resisting their efforts. After the presentation has been given, promote class discussion of the problems that would be faced by any student who might find himself in a situation of this type.

The term "narcotic" refers primarily to opium and its derivatives (morphine, heroin, codeine), which in varying degrees induce sleep, relieve pain, and cause drug dependence.

- Administer a pretest covering information about narcotics. (See Test Items, pages 121–22.)
- Provide a question-box activity by means of which the students can indicate items they wish discussed in class in relation to narcotics or other drugs. Follow much the same procedure as proposed for this type of learning experience in the junior high school section.

- Make individual or committee assignments on certain specific topics and have the students who do the work report their findings to the class. The following assignments are suggested:

1. Have students consult encyclopedias or other reference works concerning the source of the opium plant and the history of its use by man.
2. Have the class select a special committee which will work with the teacher and the school administration in arranging for one or more physicians to talk to the class about (a) the importance of the opiates in medical practice; and (b) the danger of opiates when used unlawfully. During these visits the students should feel free to ask questions for which they need answers. Encourage class discussion after the visits have taken place.
3. Request the class to choose a small committee which will interview a pharmacist regarding the operation of legal controls that govern the use of opiates such as morphine, codeine, and Percodan. If more than one class is planning this activity, arrange to have only one committee represent all the classes. The information that is obtained from the interview should be saved for future use in other classes receiving this instruction. An alternative to the interview would be to invite the pharmacist to speak to the class about these matters. Should the latter choice be made, encourage the students to raise questions for which they want answers or to identify any points that need clarification.
4. Direct one or two volunteers to consult law enforcement officials concerning the extent to which morphine, codeine, and Percodan are used illegally in the community and to identify some of the problems these officials encounter in their efforts to stop such practices.
5. Organize a committee to do research on the progress of modern-day experimentation with the development of an analgesic the use of which does not lead to drug dependence.
6. Have a selected group of students consult school and community library facilities and write a report on the development and early use of heroin in the United States. The report should be made available to the class.
7. Assign all the students in the class the task of looking up definitions for terms such as the following: "drug," "narcotic," "hypnotic," "stimulant," "depressant," "sedative," "analgesic," "hallucinogenic." Then have the class discuss these definitions and encourage the students to ask questions freely regarding any points they do not understand.

The opiate primarily subject to abuse today is heroin. The person who uses heroin jeopardizes his health and runs the risk of dying from an overdose.

- Describe the immediate and possible long-range effects of the use of heroin on the system. Stimulate class discussion.
- If it is possible to do so, obtain from law enforcement personnel (or from other sources) pictures showing the emaciation of the confirmed heroin user and the destruction of tissues resulting from injection.
- Invite the school nurse to talk with the students about the skin as a protective covering of the body and the dangers attendant upon puncturing the skin and injecting any foreign substance into the body.
- Invite a biology teacher to talk with the class about the interrelatedness of circulatory, nervous, respiratory, digestive, and other body systems, and the effect of a strong depressant upon body functions. Encourage discussion, question raising, clarification.

Heroin causes total drug dependence, a condition in which the individual becomes enslaved by the drug. In this condition he requires continuing use of heroin for the maintenance of his physical processes and for his psychosocial adjustment to the world.

- Explain physiological and psychological dependence. Discuss with the class the steps whereby an individual may progress from seemingly harmless experimentation with a drug to the serious end result of total drug dependence. (Refer to Sharon's case, Chapter II, page 17.) Encourage the students to ask any questions they wish about drug dependence, the two kinds of dependence, the sequential route of becoming an addict, the trap of total dependence, and the like.
- Assign class readings in current periodicals and books on drug dependence, including case histories of users. Have each student report his findings to the class. After each report is made, give the students opportunity to raise questions and to find answers for them. Although this activity may take considerable time, the knowledge and insights gained by the students may well be worth the time and effort expended.
- Have each student in the class write an essay on drug dependence, particularly in the light of his personal values and the knowledge he has acquired about this problem. Topics that may be suggested are: "A Fifth Freedom: Freedom from Drug Dependence," "Drifting into Drug Dependence" (including nicotine dependence), "My Values in Life," "Happiness: Where Can I Find It?"

Heroin is a total outlaw in the United States. Its use by anyone at any time is illegal except for authorized research. The abuse of narcotics creates health and social problems of major proportions in our time, and these problems become the responsibility and concern of all citizens.

- Have all the students in the class collect and report on articles in newspapers, magazines, journals, or other publications that deal with heroin use and addiction in modern society.
- Assign a small committee of students responsibility for interviewing law enforcement officials and other qualified personnel in the community to obtain information on the local situation regarding the use of heroin; for example, statistics on local arrests of heroin users or "pushers" and estimates on the scope and seriousness of the local problem. Have the committee report its findings to the class.
- If there is a branch office of the U.S. Customs Bureau in the vicinity, assign two students to interview the local representatives regarding measures that have been taken to prevent the illegal entry of narcotics into the United States by way of California and the effectiveness of the measures. Have the students report this information to the class. If there is no such branch office in the community or even nearby, ask one of the students to write the nearest U.S. Customs office for the desired facts and to read to the class the information he receives.
- Make arrangements for a small committee to visit an attorney, a judge, or a narcotics officer and obtain his opinions as to ways in which the heroin traffic can be effectively curbed. His suggestions as to ways of *preventing* heroin use would also be desirable. Have the committee report to the class the results of the interview.
- Either as a class activity or as a committee project, assign research on the development of federal laws that are designed (1) to outlaw heroin from the United States; and (2) to punish those persons found guilty of promoting its distribution and sale. After the report is made, call for a class discussion of the laws.
- Have a student report to the class on the major provisions of the California Narcotic Act. Encourage questions and discussion.
- Form buzz groups to discuss questions of particular interest to the class in connection with drug abuse. Questions may be formulated by the class in open discussion; they may be controversial queries collected in the question box; or they may consist of items such as the following assigned by the teacher: (1) When a person uses drugs illegally, is it his own business or is it the concern of all of us? (2) What is my responsibility if I suspect that a friend of mine is engaging in some form of drug abuse? (3) Should I refrain from using a drug merely because it is illegal, or should I base my judg-

ment on my own opinion and my own set of values? (In other words, should I obey laws because they are laws, or should I select those laws which I wish to obey and those I wish to disobey?)

Rehabilitation of those persons who have become dependent upon drugs is prolonged, difficult, and not always effective. California's civil commitment program is the most promising work of this type thus far developed.

- Consult a local or nearby representative of the California State Department of Corrections for recent information on California's civil commitment program. If it is possible to do so, make arrangements for this person, or some other representative of the department, to describe for the class the current program, its functions in the state as a whole and in the local region or community, and the extent to which it appears to be succeeding. If there is time, provide a question-and-answer period after the talk has been given.
- Assign reading in current periodicals on various modern approaches to the treatment and rehabilitation of persons who have become dependent upon narcotics, and have each student report to the class the content of the article he has been assigned. Permit the students to raise questions and to discuss each topic immediately after it is presented.
- Have the class choose a committee to examine the British approach to the treatment of narcotic users and to present its findings to the class.

The local community, the state, the federal government, and the United Nations are attacking narcotic abuse in various ways and are making significant progress in its control.

- Have the class select a committee to collect (1) information on the chief ways in which various community, state, and federal agencies as well as the United Nations work for the control of narcotic use and trafficking; and (2) data on the degree to which the controls have been effective. Then arrange for a panel discussion in which the committee members report their findings. Call for class discussion and provide opportunity for the students to ask questions.
- Conduct a student symposium on the topic, "Solving the Problem of Narcotic Abuse in the United States." Encourage full participation and freedom of expression regarding means by which the students think the problem might be solved.
- Administer a test covering the knowledge that has been gained and attitudes that have been acquired about narcotics. (See Test Items, pages 121–22.)

Chapter X

DETECTION

In its report to the Governor in 1961, the Special Study Commission on Narcotics stressed the role of the school in the prevention of drug abuse by young people. Potential users, according to the commission, are likely to exhibit a tendency toward antisocial behavior in their early school years, and such children should be identified in the elementary school so that all available resources may be utilized to help them.[1]

EARLY DETECTION OF THE POTENTIAL DRUG USER

It would be rash to imply that every teenager who uses narcotics or dangerous drugs might have been identified as a potential user in his childhood and buttressed against this particular form of delinquent behavior. Research, nevertheless, shows that delinquency is often traced to misbehavior that was manifested early in the delinquent's life. Sheldon and Eleanor Glueck, in their classic study of delinquent children, found that no less than nine in ten of the delinquents they studied had misconducted themselves in school at one time or another and that fewer than two in ten of the nondelinquents had done so.[2] Three fourths of the delinquents who misbehaved had, according to the Gluecks, started to do so before they reached sixth grade, and one third had shown signs of behavior disturbance before they were eight years old. The commonest indication of maladjustment in this group was truancy; other indications were backwardness in school, emotional distress, social conflict, and lack of interest in educational or vocational preparation.

Early identification of potential delinquents is exceedingly important. And since one indication of potential delinquency is revealed by evidence of difficulty in making normal adjustments, teachers can be most helpful in making such identifications. The National Education Association has stressed that much can be accomplished by teachers through systematic observation of classroom behavior and conduct,

[1] *Final Report of the Special Study Commission on Narcotics*. Submitted to the Governor. Sacramento: State of California, June, 1961, p. 92.

[2] Sheldon and Eleanor Glueck, *Delinquents in the Making: Paths to Prevention*. New York: Harper & Bros., 1952, p. 76.

provided they know what constitutes normal behavior.[3] However, it should be noted that the teacher's role is not that of diagnostician but rather that of "suspectician." And when the teacher identifies a pupil who he thinks might be having adjustment problems, he should refer the pupil to the school guidance counselor or psychologist for study and for determining the steps that must be taken to relieve the pupil of the difficulties he is experiencing.

DETECTION OF THE DRUG USER

Detection by the teacher of the pupil who is using drugs is at best difficult, but the teacher should always be alert for any signs that may lead to identification. Obviously the pupil who is using drugs will endeavor to conceal the fact. And it is unlikely that he will come to school while he is in a stuperous or intoxicated state. He confines his experimentation to after-school hours and weekends or absents himself from school when there is any possibility of detection. Truancy may be the first indication of his aberrant behavior. If he becomes deeply involved in these activities he is likely to lose interest—if he has had any—in school work, to isolate himself from his classmates, or to form associations among those who share this "new and exciting" way of life. He is evasive and uncommunicative if questioned.

The Dangerous Drug User

Should a pupil consume dangerous drugs during school hours, he might react with observable behavior symptoms. A small dosage of barbiturate might make him appear relaxed, sociable, and good-humored, but less alert and slower to react than usual. A large dose might make him sluggish, gloomy, and possibly quarrelsome. Still more might make him appear intoxicated; his speech would be thick and his gait unsteady, but his breath would carry no alcoholic odor. The user of amphetamines, on the other hand, would give evidence of excessive stimulation, liveliness, talkativeness, and exaggerated self-confidence.[4]

The Glue Sniffer

Chronic glue sniffers are likely to display certain signs which should, in themselves, alert parents and teachers to the need for special attention. The glue sniffer may have a malodorous breath and a need for frequent expectoration, due to the inflammation of nasal and oral membranes by the vapors inhaled. He is likely to experience nausea, loss of appetite, and eventual loss of weight. In the classroom he may be irri-

[3] *Delinquent Behavior: Culture and the Individual.* Washington, D.C.: National Education Association, 1959, p. 130.

[4] *Narcotics.* Edited by John B. Williams. Dubuque, Iowa: William C. Brown Co., 1963, pp. 179–80.

table and inattentive; at times he may fall asleep or even lose consciousness.[5]

The Marihuana Smoker

Pupils will probably never come to school while they are in the excitement stage of marihuana use—a stage characterized by hilarity, talkativeness, and general animation—or even when they are in the later stage—one which is characterized by depression, drowsiness, and uncoordination. However, they may come to school wearing clothes that carry the odor of marihuana smoke, and this can be identified because it is similar to the odor of burning hay. If the pupil is indulging in more than occasional marihuana smoking, he may appear sleepy, perspire freely, and show marked pallor. The teacher should be alert to identify these signs, even though they may indicate health abnormalities; and when they are noted, the teacher should refer the pupil to the school health service, for, regardless of what causes the conditions, an investigation is imperative.

The marihuana smoker may have badly stained fingers because of the practice of holding cigarettes until they are almost consumed. His eyes —depending on the recency of use—may be reddened, and the pupils of the eyes may appear frozen and dilated. To conceal this telltale sign, the smoker will often wear dark glasses.

The LSD User

The detection of a pupil who is a user of LSD (or a similar drug) requires close observation inasmuch as the use of this drug produces only a few physical symptoms. The most common symptom is dilation of the pupils of the eyes. Because of this dilation, the user often wears dark glasses. LSD users often experience dramatic shifts in values. A pupil who has been doing well in school and has established goals for himself may suddenly lose interest and decide to drop out of school. And the pupil who is an LSD user may think he is achieving at a higher level when his performance has actually decreased. In contrast to the users of other drugs, who attempt to conceal their actions, the LSD user frequently talks about using the drug and encourages friends to use it. Speaking the jargon associated with LSD (see Drug Abuse Jargon, pages 112–13) may be indicative of association with LSD users.

The Narcotic User

The detection of the person who is using narcotics is frequently difficult even for law enforcement and medical personnel since the only clues to his use of a narcotic may be the presence of needle marks on

[5] Helen H. Glaser and Oliver N. Massengale, "Glue Sniffing in Children: Deliberate Inhalation of Vaporized Plastic Cements," *Journal of the American Medical Association*, CLXXXI (July, 1962), 300–301.

his body or the onset of withdrawal symptoms. There may be no definite signs that will help the teacher to identify a student who is using a narcotic. This is particularly true if the student is a "joy-popper," an occasional or weekend user of narcotics. And it is becoming increasingly true regarding the user of the extremely dilute heroin which is often sold today to teenagers, for this substance gives minimal satisfaction to the user and it produces minimal withdrawal symptoms.

There are, nevertheless, certain classic indications of possible narcotic use that should be familiar to teachers who are associated with teenagers. These fall into two categories, as follows:

Appearance. The eyes of the narcotic user may be discolored and the pupils of the eyes pinpointed; he may use dark glasses to hide these symptoms. At the onset of withdrawal he is likely to have watery eyes and a runny nose, and he may yawn frequently.

The skin of the user will show sores, scars, or discoloration, usually on the hands or arms, but possibly on the neck, feet, legs, or buttocks. He will attempt to conceal needle marks by wearing long-sleeved clothing. The confirmed user may attempt to mask these marks by means of tattoos or self-inflicted burns.

In time the narcotic user is likely to lose weight and to appear emaciated. This is because in his preoccupation with narcotics and the means of securing them he is prone to neglect his physical well-being.

Behavior. The narcotic user is sometimes peevish, irritable, and restless and at other times drowsy and apathetic. In either case he is uncommunicative and disinterested in school. He shuns his former friends and classmates, shows lack of interest in others, and is generally antisocial. In order to secure money to support his habit, he may find it necessary to steal from his schoolmates.

He is likely to show little or no interest in physical activities and to exhibit poor capacity for muscular exertion. He may disappear from group activities for prolonged periods while preparing a "fix" in a restroom.

Speaking the jargon or "lingo" of the narcotic addict (see Drug Abuse Jargon, pages 113–14) is usually indicative of the company the young user is keeping. Possession of equipment associated with narcotic use (see pages 49, 60) is, of course, strong evidence of involvement with narcotics.

Obviously no young person attending school should be summarily branded as a user of dangerous drugs, volatile chemicals, marihuana, LSD, or narcotics because one or more of the indications described in the foregoing are present. It is possible that he could be suffering from some problem, defect, or disease quite unrelated to narcotic or drug abuse. The pupil's condition should be noted on his record, and health service personnel or guidance personnel should be notified so that they

can institute an appropriate investigation and endeavor to secure for the pupil the help he needs to overcome his difficulty.

The great mass of high school students are headed toward responsible citizenship. They are not likely to jeopardize their present status or their future success by illicit recourse to drugs. Various facets of the high school program serve to motivate them toward attainment of constructive life goals and to promote their development as citizens.

A few students may have already experimented with dangerous drugs and marihuana and may thus be headed toward narcotic use. Drug abuse instruction may help some of them, but not most of them. Those who are not helped will probably end their educational careers as high school dropouts. All of these students might have been helped had their personality problems and character disorders been identified early in their school careers and had they been helped at that time to understand their problems and to take the required steps to solve them.

Another group of students, who are at a crossroads between socially acceptable behavior and delinquency, might be classed as "fence-sitters." Instruction on dangerous drugs and chemicals, marihuana, LSD, and narcotics is of primary importance for these youth since they are quite vulnerable to the allurements of experimenting with harmful substances.

Obviously not all students are equally susceptible to drug abuse, but all should profit from being informed about its dangers and about the serious problems it produces. Therefore, instruction regarding drugs and other potentially harmful substances must be given to all young people in school. Equally important, however, is the fact that this instruction must be adapted to student differences. As is the case in any subject, the instruction will be most productive if it is individualized whenever necessary so that what is taught is understandable for each student and directly related to each student's needs.

Chapter XI

A TOTAL APPROACH

Young peoples' use of dangerous drugs, volatile chemicals, marihuana, LSD, and narcotics poses problems for our society that have no easy solutions. If steps are not taken to provide the solutions needed, the problem of drug abùse will become monumental, for an ever-increasing number of young people are using certain of these substances, especially LSD. Responsibility for taking the required steps must be shared by all segments of society if the total approach is to be one that produces the necessary solutions.

The educational approach for instruction on drug abuse proposed in this source book takes into account the increasing use of such substances by young people; emphasizes the thesis that learning about various drugs and their effects, although important, is in itself insufficient as a deterrent to drug abuse; and proceeds on the assumption that the professional staffs of California schools are genuinely concerned with the drug abuse problem and are prepared to give more than minimal attention to its solution.

This proposed approach is designed to further the goals of all education. This approach provides pupils opportunity to acquire basic knowledge and skills that will add much to their educational backgrounds and that will help them to develop attitudes, acquire knowledge, and establish practices that will insulate them from the temptation of drug abuse and make them resistant to accepting other than sound and practical solutions to their problems.

In employing the proposed educational approach for instruction on drug abuse, the schools will provide opportunities for every pupil (1) to develop respect for his body so that he will not allow it to be injured by smoking, sniffing, ingesting, or injecting into the body system any substances that have potentials for damage; (2) to acquire reverence for his brain and the infinite possibilities inherent in its development so that he is not prone henceforth to tinker with its intricate mechanism; (3) to develop interest and skill in several wholesome forms of recreation so that he need not look for synthetic self-satisfactions which would only serve to make him isolated and unhappy; (4) to learn that zest, adven-

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ture, and meaningful experience lie within his grasp in science, books, hobbies, arts and crafts, physical activities, and the outdoors; (5) to learn to take command of his own life, to assume responsibility for his own acts, and to meet his own problems squarely and courageously; (6) to develop sound convictions and worthwhile values as a basis upon which he can stand firm against those people who would sway him against his better judgment; and (7) to know his worth as a human being so that he will not willingly participate in his own destruction. In making these provisions, the school is providing opportunity for the pupil not only to develop his own safeguards against the tragedy of drug abuse but also to develop himself as a well-integrated person and as a valued member of society.

Each of the provisions enumerated is essential to the attainment of the broad objectives of education. Therefore, every teacher shares in the responsibility for making the provisions fully productive. For example: the social science teacher spearheads that phase of the educational program that is designed to extend and deepen the pupil's appreciation of our American heritage, his understanding of the problems that are of concern to our society, and his development as a citizen; the science teacher, that phase of the program designed to intensify, extend, and deepen the pupil's interest in and knowledge of the physical environment; the language teacher, that phase of the program designed to incite the pupil's interest in language and to develop his ability to communicate effectively; the physical education teacher, that phase of the program designed to foster the pupil's interest in games and sports and to help the pupil develop the skills he needs to participate in them with pleasure; and the health education teacher, that phase of the program designed to help the pupil understand, appreciate, and safeguard his physical and mental well-being.

If the goals of eduction are to be fully attained, the program conducted by the schools must be both supplemented and extended by all governmental and community agencies; by groups, including families; and by individuals who have the capability to make worthwhile contributions. And if the desired overall results are to be secured, the attack upon the problem of drug abuse and closely related problems will be one in which all these forces work cooperatively and act in unison. The action taken in all instances will be based upon information regarding the underlying causes of the problems and will be designed to provide opportunity for each pupil to develop the attitudes and the knowledge he needs to be immune from the pitfalls inherent in the problem of drug abuse and the other problems related to it. In no instance shall the attack involve the use of erroneous information or the use of scare tactics.

Definitions of Key Terms

Drug Abuse Jargon

Test Items

Selected References for Teachers

DEFINITIONS OF KEY TERMS

Dangerous Drugs

"Dangerous drugs" is a legal term which applies specifically to barbiturates, amphetamines, and other drugs (except the narcotics) which are officially determined to have a potential for abuse because of their depressant, stimulant, or hallucinogenic effect on man. Federal control of the dangerous drugs is under the jurisdiction of the Food and Drug Administration, whereas federal control of the narcotics is under the jurisdiction of the Bureau of Narcotic Enforcement of the U.S. Treasury Department. In California, control of both narcotics and dangerous drugs is under the jurisdiction of the Bureau of Narcotic Fnforcement.

Drug

The term "drug" has been traditionally defined as "a medicine or a substance used in the making of medicine" and, when used within the context of the illegal use of drugs, has been interchanged freely with the term "narcotics." Thus "drug addiction" has carried the same connotation as "narcotic addiction." However, the term "drug addiction" is rapidly being replaced with the term "drug dependence." The broader definition of "drug" used in this source book (see page 3) takes into account the increasing number of nonmedical substances—for instance, volatile chemicals and certain hallucinogenic agents—which are used today by persons who seek gratification from injecting, ingesting, smoking, or sniffing some nonfood substances into the body.

Drug Abuse

The term "drug abuse," as used in this source book (see discussion, page 3), covers the illegal self-administration of a wide range of substances, medicinal and nonmedicinal. The term does not refer solely to, nor does it exclude, narcotic abuse. It is a nonspecific covering term relating to the misuse of drugs, narcotics, chemicals, and other substances—a practice that is, unfortunately, becoming increasingly prevalent in our society.

Drug Dependence

The term "drug dependence" (see discussion, pages 4–6) is gradually replacing the terms "addiction" and "habituation" in drug abuse literature. This development is most important since the use of the two terms has resulted in the erroneous impression that addiction, with its physical components which are sensationally evident in withdrawal illness, is the most serious manifestation of drug dependence and that habitua-

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tion is of lesser importance because it functions merely on the psychological level. This impression is dangerous; it leads to the false conclusion that marihuana is "not dangerous" because it is "not addicting."

It is now recognized that psychological dependence, formerly called "habituation," is more complex and compelling than physical dependence, formerly called "addiction." It is known that physical dependence may be overcome, with suitable medical treatment, in a matter of 72 hours, whereas no means has yet been found to overcome psychological dependence on a drug.

Whenever possible, the term "drug dependence" should be used to indicate, without attempting to describe, the involvement of an individual with a drug. This term avoids the unfortunate connotations which cling to the terms "habituation" and "addiction" and even to the more meaningful terms "psychological dependence" and "physical dependence." Drug dependence, whatever its nature, is complex. The distinction between its psychological and physical components is not yet fully understood by medical scientists. Certainly the layman should not presume to make the distinction.

With "drug dependence" used in this frame of reference, it logically follows that "drug dependent" should replace "addict." However, "addict" continues to be used with respect to drug abuse. Ordinarily it is employed to describe a person who is deeply involved with drugs, usually narcotics, and who is reaching or has already reached the level of total dependence.

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DRUG ABUSE JARGON

Those who abuse drugs develop a vocabulary of their own. This vocabulary commonly varies from locale to locale and changes frequently. The following list contains formal terms and the equivalent jargon that is spoken by persons who are using drugs or associating with drug users.

EXPRESSIONS ASSOCIATED WITH DANGEROUS DRUGS

Formal usage	*Jargon*
Amphetamines	
Methamphetamine	Crystals (powder form)
Benzedrine	Bennies
Dexedrine	Dexies
Barbiturates	
Nembutal	Yellowjacket
Seconal	Reds, red devils, redbirds
Sodium amytal	Blue heaven, blue velvet
Tuinal	Rainbow
Barbiturates mixed with amphetamines, and the like	Goof balls
Dangerous drug user	Pill freak, pill head, pilly
Under the influence of barbiturates	Goofed up
Intoxication after using benzedrine	Benny jag, high
Subcutaneous use	Joy-pop

EXPRESSIONS ASSOCIATED WITH VOLATILE CHEMICALS

Formal usage	*Jargon*
Glue sniffer	Gluey
Sniffing gasoline fumes	Gassing
Cloth material or handkerchief saturated with the chemical	Glad rag, wad

EXPRESSIONS ASSOCIATED WITH MARIHUANA

Formal usage	*Jargon*
Marihuana	Charge, grass, hay, jive, muggles, pot, tea, T

(Expressions Associated with Marihuana, continued)

Marihuana cigarette	Jive stick, joint, Mary, pot, reefer, stick, twist, weed
A quantity of marihuana cigarettes	Stack
Marihuana container	Can, match box
Light a marihuana cigarette	Toke up, torch up, turn on
Smoke a marihuana cigarette	Blast, blast a joint, blow, blow a stick, blow hay, blow jive, blow tea, blow pot, do up, get high
Young person starting to use marihuana	Youngblood
Marihuana smoker or user	Grasshopper, hay head, head, mugglehead, pothead, teahead, weedhead
Marihuana smoking party	Blasting party, tea party
Under the influence of marihuana	Flying high, high, on the beam, out of this world, way out

EXPRESSIONS ASSOCIATED WITH LSD

Formal usage	*Jargon*
LSD	Acid
One who takes LSD	Acid head
Under the influence of LSD	Bent out of shape, on a "rip"
An unpleasant experience with LSD	Bummer (bum trip, bad trip)
Emerging from an LSD experience or "trip"	Coming down
Vicarious experience that occurs by being with someone who is on a "trip"	Contact high
Sugar cube or wafer impregnated with LSD	Cube or wafer
A deprecative term applied by LSD users to social conformity and to the normal activities, occupations, and responsibilities of the majority of people	Ego games
An LSD "trip"	Experience
To have unpleasant reactions while on a "trip"	Freak out

A pseudo experience obtained through the use of lights and sound; to have the same type of experience that one has with a drug	Happening
Parties or sessions where LSD is used	Kick parties
The feelings a person experiences while he is under the influence of LSD	Out of the body, outside of myself
An experienced LSD user who helps or guides a new user	Sitter, tour guide, travel agent, guru
The experience one has when under the influence of LSD	Trip or voyage
Feeling the effects of LSD	Tuning in
The act of taking LSD; initiating an LSD "trip"	Turning on

EXPRESSIONS ASSOCIATED WITH NARCOTICS

Formal usage	*Jargon*
Morphine	Dope, junk, M, stuff, white stuff
Heroin	Dope, H, hard stuff, horse, junk, smack, sugar, white stuff
Morphine or heroin mixed with cocaine	Speedball
Dose of a narcotic	Fix, jolt, shot
Various amounts of a narcotic	Bag, bird's-eye (extremely small amount), cap, paper, piece (1 ounce, a large amount, usually heroin), taste, things
Small packet of narcotics	Bag, balloon, bindle, deck, foil, paper
To adulterate narcotics	To cut, to sugar down
Paraphernalia for injecting narcotics	Biz, business, dripper, dropper, factory, fit, gun, joint, kit, layout, machinery, outfit, point, spike, works
Any main vein used for injecting narcotics	Mainline
One who injects narcotics into veins	Hype, junkie, mainliner
An injection of narcotics	Bang, fix, hit, jolt, pop, shot
To sniff powdered narcotics into nostrils	Horn, smack, sniff, snort

(Expressions Associated with Narcotics, continued)

In possession of narcotics	Dirty, holding, straight
Occasional user of narcotics	Chippy, joy-popper, skin-popper
Regular user or addict	Hooked, on the stuff, strung out
Under the influence of narcotics	Goofed up, high, lit up, knocked out, on the nod, stoned, wired
Narcotic habit	Habit
Attempt to break the habit	Kick, kick the habit, sneeze it out
Method of curing addiction without tapering off	Cold, cold turkey
Desire for narcotics	Yen
Nervous or jittery because of need or desire for narcotic injection	Frantic, sick

VARIOUS EXPRESSIONS

Formal usage	*Jargon*
Dealer in drugs	Connection, peddler, pusher, the man
To have drugs	To be dirty, to be holding
To try to buy drugs	To buzz, to hit on, to make it
To buy drugs	To connect, to make a meet, to score
Money	Bread (from "dough"), lace, long green
To have money	To be flush, heeled
To understand	To be hep, to be hip, to have savvy
Police officer (the law)	Fuzz, heat, man, narco
Uniformed officers	Harness bulls
Juvenile officers	Juvies
Marked patrol cars	Black and whites
Arrested	Been had, busted
Effect of a drug	Bang, boot, buzz, coasting, jolt, kick
Party	Ball, blast
Nonuser of drugs	Cube, square

TEST ITEMS

The following test items, with their corresponding answers, are suggested for the teacher's use in measuring the progress the pupil has made in acquiring understanding of the problems created by drug abuse, as well as the knowledge and attitudes the pupil needs in order to avoid being tempted to use drugs for any purpose that might be harmful to his mental or physical health.

CHAPTER I

True-False Questions

	Answers
1. The term "drug" applies only to substances that are used as medicines.	False
2. The medical meaning of the term "narcotic" differs from the legal meaning of the term.	True
3. Drug dependence is said to exist only when a person is physically and psychologically dependent on a drug.	False
4. Psychological dependence on a drug is easier to overcome than physical dependence.	False
5. When a person has developed tolerance to a drug, he needs increasing amounts of that drug in order to react satisfactorily to its presence.	True

Multiple-Choice Questions

	Answers
1. "A substance that produces sleep, lethargy, and relief of pain" is the definition of (a) a drug; (b) a sedative; (c) a narcotic; (d) an opiate; or (e) an analgesic.	c
2. A substance, other than food, that affects body structure and function is called (a) a depressant; (b) a narcotic; (c) an analgesic; (d) a drug; or (e) an intoxicant.	d
3. The term "narcotic" is used medically in reference to (a) marihuana; (b) the barbiturates; (c) the opiates; (d) the hallucinogens; or (e) the hypnotics.	c
4. "A state arising from repeated administration of a drug on a periodic or continuous basis" is the definition of (a) drug abuse; (b) depression; (c) drug dependence; (d) analgesia; or (e) euphoria.	c
5. The theory of homeostatis is used as an explanation of (a) tolerance; (b) withdrawal illness; (c) physical dependence; (d) euphoria; or (e) psychological dependence.	b

(Multiple-Choice Questions, continued) *Answers*

6. Substances which depress body functions are (a) barbiturates and amphetamines; (b) barbiturates and opiates; (c) amphetamines and opiates; (d) cocaine and marihuana; or (e) amphetamines and cocaine. — b
7. Substances which stimulate body functions are (a) barbiturates and amphetamines; (b) barbiturates and opiates; (c) amphetamines and opiates; (d) cocaine and marihuana; or (e) amphetamines and cocaine. — e
8. "A generalized feeling of well-being in the absence of any objective justification for such a feeling" is a definition of (a) euphoria; (b) tolerance; (c) analgesia; (d) dependence; or (e) hallucination. — a

CHAPTER II

True-False Questions

Answers

1. California law prohibits a person from driving while under the influence of a narcotic or a dangerous drug. — True
2. Amphetamine, when self-administered to prevent sleepiness while driving, may cause intoxication which affects the driver's ability to handle his car safely. — True
3. Barbiturates, taken in excessive amounts, cause a severe depression of the central nervous system which may result in unconsciousness or death. — True
4. When alcohol and barbiturates are taken together, the drugs tend to neutralize each other, causing a relatively mild reaction. — False
5. Barbiturates, if taken repeatedly, may cause total drug dependence which is comparable in severity to heroin dependence. — True
6. Amphetamine may be self-administered with relative safety because its use does not lead to drug dependence. — False
7. "Yellowjacket," "redbird," "blue heaven," and the like are slang terms for various forms of amphetamine. — False
8. The dangerous drugs differ from the narcotics in that their excessive use leads only to psychological dependence, whereas narcotic abuse leads to both psychological and physical dependence. — False
9. The young person who abuses dangerous drugs is likely already to have a history of delinquent behavior. — False
10. It has been shown through experimentation that the use of amphetamines can substantially improve athletic performance. — False

Multiple-Choice Questions

Answers

1. Statistics on California arrests indicate that the young person who abuses drugs today is most likely to start with (a) LSD; (b) marihuana; (c) narcotics; (d) volatile chemicals; or (e) dangerous drugs. — e

2. According to statistics on California arrests, the smallest number of arrests made of California juveniles (under eighteen years of age) was for using (a) LSD; (b) marihuana; (c) narcotics; (d) volatile chemicals; or (e) dangerous drugs. — c

3. Dangerous drugs reaching the market in California are believed to have been manufactured in (a) the United States; (b) Mexico; (c) South America; (d) the Orient; or (e) the Near East. — a

4. From among various claims which have been made for the usefulness of amphetamine, one of the following is valid: (a) it improves motor performance; (b) it improves mental performance; (c) it reduces weight; (d) it causes a mild depression; or (e) it relieves nasal congestion. — e

5. One of the following statements about the dangerous drugs is correct: (a) they are outlawed both legally and medically; (b) they may be used legally without a doctor's prescription; (c) they may be used legally only with a doctor's prescription; (d) they fall under different regulations depending on the drug involved; or (e) they are mild drugs comparable to alcohol in their effects. — c

CHAPTER III

True-False Questions

Answers

1. Glues containing volatile chemicals are freely available to minors on the counters of hobby shops, supermarkets, and various other types of stores in California. — False

2. The organic solvents present in glues and plastic cements are capable of damaging the brain, affecting liver and kidney functions, and interfering with the blood-forming function of the bone marrow. — True

3. There is no evidence that glue sniffing leads to the development of dependence. — False

4. It is believed that the abuse of volatile chemicals will soon be solved through the development of nonintoxicating solvents to replace those now present in glues and plastic cements. — False

Multiple-Choice Questions

	Answers
1. The most hopeful approach to the solution of the glue sniffing problem at present appears to lie in (a) more stringent laws; (b) more stringent enforcement of existing laws; (c) voluntary control by distributors of glues and plastic cements; (d) replacement of volatile chemicals by nonintoxicating solvents; or (e) education of children concerning the hazards of introducing foreign substances into the body.	e

CHAPTER IV

True-False Questions

	Answers
1. Marihuana is an important medicinal drug because of its effectiveness as a pain-killer.	False
2. Marihuana is a contraband drug, and whoever produces or distributes it is guilty of a crime punishable as a felony.	True
3. Most marihuana entering the United States today comes by way of Mexico.	True
4. The plant *Cannabis sativa*, from which marihuana is derived, grows only in warm, humid climates.	False
5. The plant from which marihuana is derived has been known and used as a drug for several thousand years.	True
6. A person who feels he must take marihuana (or any other drug) in order to enjoy life or to belong in a group has failed to make a normal wholesome adjustment to life and has not learned to function as an independent, responsible member of society.	True
7. If other people are using marihuana (or some other drug), it is best for you to use it, too, so as not to appear different.	False
8. If you can't find success or enjoyment in life, it is wise to try to forget your sense of failure by drinking alcohol or taking drugs.	False
9. Since most marihuana users today do not progress to heroin, there is little reason not to use marihuana.	False
10. Marihuana contains a powerful chemical that appears to incite its users to commit acts of violence.	False
11. There is now believed to be little or no relation between the use of marihuana and the commission of acts of violence.	False
12. A person who forms a habit of marihuana use may find it exceedingly difficult to break that habit.	True
13. The use of marihuana opens the way for many persons to the use of other drugs.	True

14. The use of marihuana is really an innocent pastime, and laws against marihuana use should be made more lenient. — False

15. When a drug is said to be "nonaddicting," it means that a person using the drug can stop any time he wants to. — False

16. A person should make decisions in terms of his own standards and convictions rather than in terms of the pressures and practices of other people. — True

17. There is little or no harm in using marihuana so long as a person doesn't indulge too frequently. — False

18. Marihuana, while apparently acting as a stimulant, dulls the higher control centers of the brain so that one's conduct may become socially unacceptable, for his normal inhibitions no longer prevail. — True

19. A person under the influence of marihuana is able to think more clearly and act more efficiently than he would under normal conditions. — False

20. When a person has taken marihuana, he is likely to experience a period of stimulation followed by a period of depression. — True

Multiple-Choice Questions *Answers*

1. In the United States marihuana is most frequently taken into the body by (a) chewing; (b) sniffing; (c) eating; (d) drinking; or (e) smoking. — e

2. The odor associated with the use of marihuana is most like (a) dried alfalfa or hay; (b) alcohol; (c) garlic; (d) decaying fruit; or (e) burning wood. — a

3. The effects of marihuana on the system most closely resemble the effects of (a) heroin; (b) LSD; (c) strong coffee; (d) ordinary cigarettes; or (e) alcohol. — e

4. The body system most affected by the use of marihuana is (a) the nervous; (b) the circulatory; (c) the digestive; (d) the respiratory; or (e) the muscular. — a

CHAPTER V

True-False Questions *Answers*

1. LSD may be used only for purposes approved by the federal Food and Drug Administration. — True

2. Any licensed physician can obtain LSD from the Food and Drug Administration for the purpose of conducting scientific investigations. — False

(True-False Questions, continued)

No.	Question	*Answers*
3.	People with stable personalities seldom experience adverse effects after taking LSD.	False
4.	Since the early 1940s, scientists have known that LSD causes hallucinations.	True
5.	LSD is one of the most potent drugs known to man.	True
6.	LSD has an accepted place in medical practice.	False
7.	After a user takes LSD, his mind "expands" and he becomes more aware of his surroundings.	False
8.	Psychological dependence results from the use of LSD.	True
9.	A user taking the same amount of LSD in the same surroundings a second time will have an experience similar to the one he had the first time.	False
10.	Hallucinations experienced after a person has taken LSD can recur several months later even though he has not taken any more of the drug.	True
11.	An individual's value system often changes after he has taken LSD.	True
12.	After taking LSD, the user becomes more social; that is, he relates more closely to those around him.	False
13.	A number of persons have committed suicide after taking LSD.	True
14.	Some people use LSD in order to withdraw from reality.	True
15.	A person who has used LSD several times can predict the kind of side effects, if any, that a new user might expect.	False
16.	Persons who use LSD seldom use any other drugs.	False
17.	In California it is illegal to have LSD in one's possession.	True
18.	LSD is derived from the sacred mushroom, which has long been used by the Indians in Mexico.	False
19.	LSD is a relatively mild drug which can be used safely in large amounts.	False
20.	Once it is brought under medical control, LSD promises to be a "miracle drug" in that it helps people to solve their problems and adjust better to life.	False
21.	LSD and other hallucinogens are now subject to the same federal controls as the dangerous drugs.	True
22.	The use of LSD is frequently accompanied by severe and dangerous side effects.	True
23.	Physicians prescribe LSD for persons who have symptoms of anxiety and depression.	False

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24.	LSD has a special attraction for adolescents who are searching for identity.	True
25.	LSD can help adolescents resolve the conflicts of "growing up."	False

Multiple-Choice Questions

		Answers
1.	The use of LSD is regulated by (a) the federal Food and Drug Administration; (b) the federal Bureau of Narcotics; (c) the National Institute of Mental Health; or (d) the American Medical Association.	a
2.	In laboratory research LSD has proved to be (a) safe and effective for the treatment of epilepsy; (b) safe but not effective for the treatment of alcoholism; (c) neither safe nor effective for the treatment of any disease; or (d) safe but not effective for the treatment of psychosis.	c
3.	From among the following side effects, the one which has not resulted from the use of LSD is (a) distortion of perceptions; (b) withdrawal illness; (c) delusions; or (d) severe depression.	b
4.	A person who takes LSD often continues to take it because (a) it improves his ability to concentrate; (b) it causes sexual stimulation; (c) it creates a sensation which he likes; or (d) it brings on a physical craving.	c

CHAPTER VI

True-False Questions

		Answers
1.	Involvement in narcotic use, if it occurs, is likely to take place only after prior experience with other drugs.	True
2.	The wild California poppy is a potential source of opium.	False
3.	Heroin is legally used in the United States today as a medicinal drug.	False
4.	The process of injecting heroin (or any other foreign substance) directly into the veins carries serious danger of infection.	True
5.	Since heroin appears not to damage body tissue, its use is not serious from the standpoint of health.	False
6.	The use of heroin leads rapidly and almost inevitably to total drug dependence.	True
7.	The person who is most likely to resort to narcotic use is the one who is hostile to society and dangerously aggressive against its members.	False

(True-False Questions, continued)	*Answers*
8. The recent increase in sex crimes throughout the United States is attributable, in part, to the increase in narcotic use.	False
9. Heroin is derived directly from opium through a process of distillation and subsequent crystallization.	False
10. Narcotic dependence may be said to be cured when a person has been relieved of the physical aspects of dependence.	False

Multiple-Choice Questions

	Answers
1. The part of the opium poppy from which raw opium is derived is (a) dried flowers; (b) dried leaves; (c) unripe seed pods; (d) ripe seeds; or (e) unripe seeds.	c
2. From among the following substances, the one which is not an opium derivative is (a) heroin; (b) morphine; (c) codeine; (d) cocaine; or (e) Percodan.	d
3. The primary source of the heroin that reaches California today is (a) the Near East; (b) the Orient; (c) South America; (d) Europe; or (e) Mexico.	e

CHAPTERS VII AND VIII

True-False Questions

	Answers
1. The narcotic addict in Great Britain, once he has registered with designated authorities, is entitled automatically to receive a supply of drugs sufficient to maintain his desired level of dependence.	False
2. The "clinic plan" of administering sustaining doses of narcotics to addicts was tried in the United States in the 1920s and deemed a success at that time.	False
3. The American Medical Association has come out in favor of the adoption of the British method of narcotics control in the United States.	False
4. The United States has made significant progress in international narcotic control.	True
5. In the United States the dispensing of drugs by a physician to an addict for the gratification of his desire or need for drugs is now considered by the courts to fall within the province of legitimate medical practice.	False
6. Whereas control of drug abuse in the United States rests largely in the hands of law enforcement personnel, control in Great Britain is vested in the medical profession.	True

7. Since the drug abuse pattern in the United States differs drastically from that in Great Britain, it is doubtful that this country will ever move toward the wholesale adoption of the British method of narcotic control. — True

8. Underlying the program of the California narcotic treatment program is the concept that the addict is a person in need of treatment, rather than one who is a criminal. — True

9. Under California law the mere possession of marihuana or of a narcotic (other than one prescribed by a physician) is illegal. — True

10. Under the California triplicate prescription provisions, one copy of each narcotic prescription is kept by the physician, one by the pharmacist, and the third by the patient for his record of narcotic use. — False

Multiple-Choice Questions

Answers

1. The federal law which forms the basis of our government's control over narcotics by requiring registration and payment of an occupational tax by those who deal in narcotics is (a) the Boggs Act; (b) the Narcotic Control Act; (c) the Harrison Narcotic Act; (d) the Opium Poppy Control Act; or (e) the Narcotic Drugs Import and Export Act. — c

2. The federal law which imposes extremely severe penalties, including a possible death sentence, upon the adult who furnishes heroin to a minor is (a) the Boggs Act; (b) the Narcotic Control Act; (c) the Harrison Narcotic Act; (d) the Opium Poppy Control Act; or (e) the Narcotic Drugs Import and Export Act. — b

3. Let it be assumed that a carton of barbiturates is shipped illegally from a midwestern state to California. Investigation of this shipment falls under the jurisdiction of (a) the federal Bureau of Narcotics; (b) the Food and Drug Administration; (c) the California Bureau of Narcotic Enforcement; (d) the U.S. Bureau of Customs; or (e) the California State Department of Public Health. — b

(See page 124 for General Questions.)

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GENERAL QUESTIONS

Matching Items

Each of the items in the right-hand column is related to one or more of the substances listed in the left-hand column. Place the appropriate numeral(s) on the line provided.

1. Amphetamine
2. Barbiturate
3. Cocaine
4. LSD
5. Marihuana
6. Opiate
7. Volatile chemical

Answer	Item
5	*Cannabis sativa*
7	*Carbon tetrachloride*
2	*dangerous-drug depressant*
1	*Dexedrine*
1, 2	*Goof ball*
5	*Hashish*
5	*Indian hemp*
6	*Joy-popping*
4	*Lysergic acid*
4	*Mescaline*
6	*Methadone*
3, 6	*Narcotic*
7	*Nasal inhalant*
1	*Pep pill*
6	*Percodan*
6	*Poppy*
4	*Psychedelic*
5	*Reefer*
2	*Seconal*
2	*Sleeping pill*
3	*Snow*
5	*Tea party*
7	*Toluene*
4	*Trip*

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