DRUG ABUSE AND LAW ENFORCEMENT

A REPORT

to

THE PRESIDENT'S COMMISSION ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE

Submitted

by

ARTHUR D. LITTLE, INC.

18 January 1967

Under Contract LEA-66-10 with
The Office of Law Enforcement Assistance
U. S. Department of Justice

68409-1

PREFACE

This report on drug abuse emphasizes the problems of law enforcement but also examines other factors which must be considered in forming public policy. This final version of the report incorporates a few minor changes in presentation, primarily intended to clarify the text. It differs from the edition delivered earlier to the Commission in a few words here or a sentence there. This version retains strong statements on contentious issues, in order to maximize its usefulness to the Commission and to the Office of Law Enforcement Assistance.

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont.)

TABLE OF CONTENTS (Cont.)

TABLE OF CONTENTS (Cont.)

TABLE OF CONTENTS (Cont.)

LIST OF TABLES

LIST OF FIGURES

SUMMARY

A. BACKGROUND

Some people use chemicals to cope with a world which they find too overwhelming or too inadequate. It is not enough to say that such people are defective, since many people with similar problems do not take drugs. Some, of course, take the acceptable drug, alcohol.

The fact that alcohol is acceptable brings out the point that drug dependence involves not only the drug but the individual's relationship to the drug and the relationship he and the drug form with the world around them. These factors may be seen in the use of marijuana: there is a great difference between a college student smoking marijuana in a dormitory and a high-school dropout smoking marijuana in a high heroin-incidence neighborhood. For both smokers use of the drug may be part of the community life pattern, but that pattern in the college community rarely harms the individual and seldom bothers the rest of us; in the latter case, it seems to do both.

The relationship between the drug dependent person and the world around him has a strong influence on how easily he can be separated from the drug. The housewife hooked on amphetamines can be persuaded to seek psychiatric counseling, as can the physician using opiates. The street addict dependent on heroin, on the other hand, is embedded in a community devoted to drug-getting and drug-taking; separating him from the drug is useless unless he can also be separated from his drug-oriented community and subsequently helped with his problems.

Of all the drugs of abuse the opiates present the most complex set of problems. It is hard to motivate the opiate user to abstain because the drug produces a state of total drive satisfaction in the user: nothing needs to be done because all things are as they should be. At the same time, the physiological and psychological dependence force the opiate dependent person to extreme measures to obtain the drug. In recent years, the concentration of heroin available on the street has been so low that classical withdrawal symptoms are seldom experienced but the user is still driven by a psychological need.

It is thought that the compulsion to obtain heroin forces many users into a life of crime. Since the majority of present day heroin users come from lower socio-economic groups this is a debatable assumption. It is likely that users tend to be criminals first, but insufficient data are available to settle the question. The relationship of heroin and crime has, with the aid of the popular press, created an image of the addict as a dangerous person. The vast majority of crimes with which heroin addicts are charged, other than offenses against the drug acts, are crimes against property rather than persons.

Marijuana, although not an addicting drug, is legally placed in the same category with the opiates. Marijuana does not cause criminal behavior, juvenile delinquency, sexual excitement, or addiction. Not enough is known about the physiological effects of this drug because research has been very limited. It is known that more concentrated forms of Cannabis (hashish, charas) are more likely to interfere with judgement and motor skill than is marijuana. The effects of marijuana are to some extent like those of alcohol. It is apparently the only drug which is used in smaller quantities by a habitual user than by a novice.

Cocaine, which is a dangerous drug, is restricted primarily to New York City and Miami. Its use is limited for several reasons: the supply is limited, the price is too high, and similar effects can be obtained with amphetamines.

The abuse of amphetamines occurs in two major forms. The most wide-spread abuse is in the form of pills taken by many elements of the population, from housewives to truck drivers. The more dangerous abuse is in the form of intravenous injections which often produce violent behavior typical of cocaine. This use is becoming common among members of the socio-economic groups who would in previous years have adopted heroin. A shift in mood of the Negro community from passive to active seems to have played a part in this shift.

Barbiturates are addicting, like the opiates, with the added complication that withdrawal is much more prolonged and difficult. Barbiturate pills are like solid alcohol and produce much the same dangers to the individual and to society. With both these drugs and the amphetamines the problems of control are made difficult by the fact that the drugs are ubiquitous and their use is taken for granted by the whole society.

Psychotogenic drugs, which are now a fad, cannot produce dependence. They are taken for "kicks," to alter mood and perception and, according to their advocates, to give psychological insight. These drugs, particularly LSD, have some potential for disintegrating personality, and it is suspected that physiological damage is being done by use of amateur preparations. The psychotogenics are abused primarily by middle and upper-class types, intellectuals and beatniks. The underworld has not yet taken an interest either in use or trade, for which one should be grateful.

B. SOCIAL COSTS, OBJECTIVES, AND REMEDIES

For a discussion of the social costs of drug abuse all drugs can be divided into two major classes: heroin and other dangerous drugs. This division differs from the legal one which includes cocaine, marijuana and other opiates with heroin. The cost to society of heroin abuse can be put in terms of dollars as well as the emotional strain on the rest of

society. Heroin addicts not only commit crimes against property but they are a steady source of income for the major crime syndicates. The cost to society for abuse of other drugs is less easy to define since it arises as the sum of myriad small costs to the many individuals involved.

Public policy with respect to drug abuse should be to minimize the social cost of the user/addict population. The means for carrying out this policy are laws and law enforcement, treatment for the dependent persons, and education of the general population and relevant special groups. One can ask whether the total expenditures are appropriate to the size of the problem, and whether the allocation over enforcement, treatment, and education is optimum. One can also ask whether any of these means might be performed differently to achieve greater success. In the context of this report, possible changes in law enforcement are of greatest concern.

C. NARCOTICS, DRUGS, AND THE LAW

Until recently official attention to the problems of drug abuse was centered on the opiates, The Harrison Act of 1914 forms the base of existing law concerning opiates. The Act first began to be enforced with effect in the early 1930's. The Marijuana Tax Act of 1937 gave the Federal Bureau of Narcotics jurisdiction over that drug too. Even before the 1930's one effect of the Harrison Act was to discourage the medical profession from treating addicts, even though the Supreme Court in 1925 declared addiction to be a disease.

The combination of defining an opiate-dependent person as outside the law while making it difficult for him to receive medical help left the addict in limbo. To counteract this condition, two Public Health Service hospitals were established by law for treatment of addicts. These hospitals have successfully withdrawn thousands of addicts from their drugs: most of these addicts have resumed the habit immediately upon release. The low success rate can be explained by the fact that upon release the addict returned to his old problems in his old environment: it did not take him long to return to his old drug.

The penalties established by law for various narcotic offenses are described in detail in Chapter IV. The main points to note are that penalties have continually been made stiffer and that judicial discretion has been removed by imposition of mandatory sentences.

The primary Federal agencies for enforcement of the drug acts are the Federal Bureau of Narcotics (FBN), the Customs Agency Service (a branch of the Bureau of Customs), the U. S. Public Health Service, and the Food and Drug Administration (FDA) of the Department of Health, Education and Welfare. The FDA was empowered by legislation in 1965 to be responsible for control of the abuse of barbiturates, amphetamines, and psychotogenic drugs.

States and municipalities also have laws concerning drug abuse. There is a great diversity in penalties; for the same crime penalties range from six months to 25 years. Some jurisdictions require all addicts to register; others make it illegal to drive a vehicle, even if not under the influence. New York State makes the penalty proportional to the amount of drug involved whereas until recently California would convict on a sample size which could only be identified by microscope.

D. ENFORCEMENT OF DRUG LAWS

All laws which attempt to proscribe a willing exchange of goods and/or services present special difficulties for enforcement. There are seldom non-crank complainants against infractions of vice laws. The police have to seek out information. In the subculture in which heroin use occurs there is a general distrust of the police and a lack of concensus that drug abuse is a crime, even among those who would never use the drug themselves. Many portions of society in which abuse of pills and psychotogenic drugs occurs do not normally come to the attention of the police and thus it is difficult both to determine the extent of abuse and to deal with it when discovered.

The need to seek out information means that the police use informers and undercover agents. The Customs Service Agency buys information by awarding money proportional to the confiscated value. Most other agencies obtain information by a combination of threatening prosecution and granting passes for limited drug activity. Recent Supreme Court decisions with regard to confessions and evidence have had the result that many arrests are now made for information only, with no expectation of prosecution.

Because enforcement against drug abusers depends upon information one would expect that the many levels and overlapping jurisdications of enforcement would cooperate fully in exchange of information. Investigations in the field have shown that the level of cooperation varies widely and in many areas of the country is surprisingly poor. In some cases, the lack of communication is intentional and is based upon suspicions of incompetence or security leaks, or upon a desire for a scoop for one's own unit.

A defect of the whole law enforcement structure is the lack of appropriate measures of effectiveness. The police powers seem to be out of contact with the judicial and correctional efforts. There is little effort to relate arrests to convictions, prison sentences, and recidivism. The measure of police effectiveness is taken to be number of arrests rather than changes in the number of drug abusers at large or shifted to prison or treatment.

Even using the limited measure of effectiveness, arrests, it is evident that the effectiveness of law enforcement against drug abuse varies widely over the country. In St. Louis, for example, the heroin problem is well under control by an average police force which is not coping with a very widespread abuse of amphetamines. In Los Angeles, which has one of the most difficult problems in the country (due to the proximity of Mexico and the informal nature of the local trade) enforcement agencies are doing well. Enforcement in New York City, which has numerically the largest number of drug abusers in the country, is comparatively the least effective: this may be an adaptation to the fact that insufficient facilities exist to care for all the addicts who might be convicted.

When the FBN was created to cope with opiate addiction the addict found himself outside the law in practice as well as theory. The extra problems created thereby have not yet been solved. In addition, as alluded to earlier, the alternative solution of the addict problem in terms of medicine was seriously hampered by pressures against research. The FBN has also taken a role in education which has proven dysfunctional, particularly with respect to marijuana. An emphasis upon the bizarre and sensational in telling the story of narcotics abuse has tended to cancel the results intended from the educational campaign.

It is too early to say either how the FDA will enforce the laws for which it is responsible or what the results of such enforcement will be. It is very likely that the abuse of other dangerous drugs will continue to rise until education and enforcement have had time to be effective.

E. TREATMENT, REHABILITATION AND EDUCATION

Law enforcement aims to prevent the flow of illicit drugs or to remove the drug abuser from the streets. Until recently removal from the streets was as a criminal. With the resurgence of awareness that abuse is a medical problem, there is an increasing use of enforced treatment. Both California and New York State have passed laws for civil commitment of drug abusers with the intent of treatment and rehabilitation.

For reasons mentioned earlier, treatment of drug abusers is difficult. The drug is used to meet some need: removal of the drug does not cope with the need. Even the normal first step in treatment, withdrawal, is not universally accepted. It is possible to substitute another drug with the same physiological effects and at the same time separate the user from his drug-oriented environment. He can then be given help with his problems. This is the approach of the Dole-Nyswander experiment: it remains to be seen whether the subjects will ever be withdrawn from the substitute drug. An alternative treatment pits drug against drug, using an antagonist such as cyclazocine to help keep the addict away from his opiate.

The second element in treatment is support, in the sense of psychological help, and the third is habilitation to the everyday world of work. Most heroin addicts never were habilitated so one cannot speak of rehabilitation. The most important need is for follow-up, to help the ex-abuser stay clean or to cope with relapses.

Habilitation and follow-up is done in some cases by half-way houses through which the addict passes on his return to the community. Another approach is that of Synanon which is a special environment in which ex-addicts support each other by example and coercion.

F. THE PRESENT SITUATION

What have the present and recent policies with respect to drug abuse accomplished?

1. Opiates

Enforcement efforts of the FBN and Customs have contributed to a long-term decrease in the concentration of heroin available on the street. This decreased concentration has been necessary to maintain the syndicate income. At the same time it has reduced most addicts to a psychic rather than a physiological dependence.

Until recently there has been a long-term decrease in the number of addicts (the term used by the FBN), by a factor of roughly five since 1890, by a factor of two since the 1920's.

On the basis of a careful examination of the FBN's list of "active addicts" it is concluded that there are (as of 31 December 1965) approximately 34,300 real, known addicts. To these one must add another 21,400 real, unknown addicts; the estimated total U. S. addict population is 55,700. This number is very close to the 57,200 listed by the FBN. The similarity results fortuitously from the FBN practice of holding ex-addicts on the list for a time roughly equivalent to the mean time required to detect new addicts.

On the basis of unpublished research, it is believed that nearly every steady heroin abuser eventually appears on the FBN list. Roughly one-third of the addicts detected are picked up with a mean time of the order of one year. The other two-thirds are discovered with a mean time of the order of six years. (Some are first picked up after as much as 20 or 25 years of use). There are no data now at hand with which to determine whether the difference in mean time to detection is related to a difference in criminal activity other than drug violations.

The total addict population has increased over 60% in the past six years, in spite of the increasing numbers of enforcement agents and the increasing penalties for those convicted. The addict population is increasing not because more people are entering but because fewer are leaving. The number of entrants per year has hovered about 7,400 while the number of voluntary departures has varied from year to year and normally been lower than the inputs.

Recent opium seizures have increased yearly, as have the amounts of narcotics stolen. Both of these facts tend to corroborate an increase in the addict population.

At prevailing prices the current successful importation of heroin represents approximately $11 million when it enters the country, $250 million when sold to the consumer. Nearly 20% of the attempted flow is confiscated.

On the basis of a simple analysis of the illicit narcotics trade, it is estimated that there are a dozen major importers. Each of these, with his organization, services 4000 or more addicts. Each of the major importers has a controlled group of fifty to sixty associates who service 250 to 300 pushers. The pushers, who are outside of the organization, take most of the risks and least of the profits. The organization reaps its profits not only from simple mark-up of the product but by advancing credit to the pushers at usurious rates. A pusher can make between $25 and $50 thousand a year, with as few as fifteen steady customers. Of the estimated 3500 pushers operating at any time roughly 700 per year will go to prison.

In view of the increasing numbers of addicts and the decreasing amount of heroin available for a dollar on the street, it is reasonable to conclude that the total income of the syndicates is increasing. To shield the syndicate directorate the number of levels has been increased, and presumably the number of people. The income of each member may therefore have decreased. There have recently been assertions that organized crime is "getting out of dope." These assertions are apparently based on the fact that some of the old line ethnic groups are being replaced in the trade by Negroes and Puerto Ricans. If this phenomenon <u>is</u> occurring, it is probably more the result of a labor shortage than a lack of employment.

The FBI's <u>Uniform Crime Reports</u> show that the reported value of property stolen and not recovered has recently varied from $135 to $285 million per year, with the larger figure being the latest. The <u>Crime Reports</u> cover all the metropolitan and urban areas in which the vast majority of addicts are to be found. Of the reported amount not recovered, $49 million was in cash, (for 1964). If the remainder could have been fenced at roughly 20¢ on the dollar, the net proceeds to the thieves would have been approximately $100 million in 1964.

It is reasonable to conclude that even if all reported larceny (including robbery and burglary) were committed by addicts, the take would suffice to pay for only 40 percent of their drug bill. Either there is a great deal more larceny occurring than the FBI reports indicate, or a large number of the U. S. addicts are not supporting their habits by crimes against property. Probably both statements are true.

It is known that all larceny is not perpetrated by addicts. It is shown in Appendix B, on the basis of the records of the New York City Police Department, that less than four percent of the larceny arrests in NYC involve addicts. There are a great many more people "earning" money by stealing than the addict population alone.

As an upper bound one can estimate that one-third of the addict population might possibly support themselves by crimes against property; as a lower bound, less than five percent. The approximately one-third of the addicts who form a quickly-discovered population may be composed of those who support themselves, or are supported by, prostitution plus those in the larceny trade.

There is clearly a large amount of money used to buy narcotics which does not come from reported stealing. If addicts are not responsible for the majority of crimes against property, making drugs available at low cost, as is done in Britain, would not strongly reduce such crimes.

On the debit side of current results is the fact that the cure of addicts has been until recently little nearer to reality than it has been for the past century. Current experimentation, including habilitation, antagonists, and close parole may change this significantly but cannot yet be relied upon. Estimates of cure-rates vary from zero to twenty percent.

In a few cases severe enforcement against heroin users has caused a shift to other drugs which are in some cases more dangerous than heroin itself. This is the case in St. Louis, for example, where there are now a large number of amphetamine addicts, many of whom had once been on heroin. (See Appendix B.)

Ill-informed and irresponsible treatment of the narcotics problem by the public media has contributed to public attitudes which interfere with solutions to the problem. Such interference is seen whenever there is an attempt to establish a neighborhood clinic or half-way house.

2. Cannabis

The policy change which placed marijuana in the same category as heroin as a dangerous drug appears to have been unsuccessful. Use is apparently on the increase, but the numbers of users and their degree of use is unknown.

The fact that large segments of the population, plus some of the judiciary, do not take a strong stand against the use of marijuana may result from the fact that FBN propaganda protests too much. A less sensational story would be easier to believe.

In the long run Cannabis should be placed under the jurisdiction of the FDA, and the abuse of ordinary marijuana, as distinguished from hashish, should be made no more serious than a misdemeanor. In view of the hue and cry over marijuana in recent years such a logical step cannot be taken at this time, however.

3. Other Dangerous Drugs

It is very difficult to know the extent of abuse of other dangerous drugs such as amphetamines, barbiturates and the psychomimetic drugs for reasons discussed above. A very rough estimate places the minimum number of O.D.D. abusers at 100,000 in New York City and 50,000 in Los Angeles.

In New York City, in 1965, roughly ten percent of all arrests on drug charges were for O.D.D. (other dangerous drugs). There is no information on the amount of such abuse. In St. Louis, on the other hand, informed opinion puts the number of abusers of O.D.D. at from 10 to 50 times the number of heroin addicts. The St. Louis arrests for heroin exceed those for O.D.D. by a factor of at least two. The chance of an O.D.D. abuser being arrested was, therefore, not greater than 1/20-th that of a heroin user. In New York City, the chance of a heroin abuser being arrested (in 1965) was about one in four. If the same relative chance existed in NYC as in St. Louis for an O.D.D. abuser to be arrested, the number of such types in NYC would be slightly more than 100,000. This is admittedly a very deplorable way to estimate the extent of O.D.D. abuse.

One special problem with respect to other dangerous drugs deserves mention. The recent publicity about LSD, coupled with the drying up of legal sources, has resulted in a flow onto the market of LSD of very dubious quality and characteristics which are possibly dangerous physiologically as well as psychologically.

G. POSSIBLE CHANGES

1. Changes in Allocation or Amount of Expenditures

In the past few years the present policy with respect to drug abuse has not been successful either with heroin or Cannabis. This suggests that either more money should be spent or it should be spent in different ways.

Any numbers concerning crime are only educated guesses. Recognizing that fact, it is interesting to compare the expenditures on drug abuse control with the costs to society of that portion which eludes control. The rough estimate of annual expenditures per addict for enforcement and treatment is $1100, averaged over the entire addict population. Assuming for argument that only 40% of addicts live from crime the total annual crime cost is roughly $6000 per addict. If this is the situation one would naturally assume that more money should be spent on prevention. The conclusion is not automatic, however, since the real question is: will another dollar spent for enforcement and treatment reduce the social cost more than a dollar? To answer this question one would have to know how much crime is actually committed by addicts and how the crime rate varies with level of enforcement.

2. Changes in Allocation Within Enforcement

Even without being able to predict the effect of increasing the resources expended to cope with addiction, it is possible to evaluate some possible changes in allocation. This is particularly true for one change which has been advocated in many quarters: enforcement against the producers of opium.

It would be possible, technically, to survey Turkey from the air both to discover illicit poppy fields and to make a fair estimate of the yields to be expected. The arguments against this proposal are of four kinds. First, the difficulty of policing and the economic effect on the growers make it unlikely that Turkey would accept the scheme as politically feasible. Second, the heroin trade is so profitable that alternate sources (Near and Far East, Africa) would soon respond to demand. Third, because heroin is a price-inelastic commodity any reduction in output tends to raise prices rather than decrease consumption. To the extent that the drug is paid for by crime, the amoung of crime will increase. Fourth, it is now possible to make opiate-like drugs which are factors of 10^4 or 10^5 more powerful than heroin, thus making the smugglers' task easier. The producers have not gone this route for two reasons: it would put the collection end of the hour-glass shaped trade out of work, and any losses in the smuggling channels come out of the importer's overhead and after the French chemists have received their money.

A second recurrent suggestion for changing the allocation of enforcement funds is that Federal drug-enforcement agencies be combined.

There are compelling reasons for leaving Federal organizational responsibilities for abused drugs undisturbed for the present. Narcotics is effectively using its experience and HEW has its hands more than full with new FDA and NIMH responsibilities with respect to drug abuse, plus re-examination of older U. S. Public Health Service tasks.

Endeavors to reduce the user population are paramount in drug abuse control; these are closely related to increasing emphasis on research, treatment, habilitation, and close parole. Mixed drug use is common and increasing. The medical profession's assumption of responsibility will increase. For these and other reasons noted in greater detail elsewhere, absorption of Narcotics into HEW will be desirable when that department is better equipped to handle its own emerging drug abuse responsibilities, and to consolidate strategy for all drug abuse.

Provided that hashish does not become a problem, it will eventually be desirable to transfer Cannabis enforcement responsibilities to FDA. Such a transfer will require a shift of statutory authority from tax to other constitutional bases.

As a result both of the limited success of enforcement and the shift to viewing addiction as a medical rather than a criminal problem, California, New York, and most recently, the Federal government have expanded or made plans to expand expenditures on treatment. It is too early to judge whether these programs will over the long run reduce either the total number of addicts or the total costs to society. Several facts are becoming obvious however. One is that addiction must be considered a disease with many remissions and relapses en route to cure. (A person who has "given up" smoking can understand the difficulty to a modest degree.) A related conclusion is that more money must be provided for carefully supervised probation and/or parole.

It is clear that at this time no one knows enough about the impact of educational efforts on various potential audiences to know how much emphasis should be put upon this tool.

The British claim to have no "system" for dealing with addiction. It is true, however, that in England an addict may legally receive his drugs by prescription signed by a practicing physician. It has been suggested that such a scheme, if implemented here, would greatly reduce the cost of addict crime. Experience in England has shown that some addicts prefer an illegal source.

Before one could predict the outcome of the English system applied to the U. S., one would have to know how many addicts would probably be criminals anyway, how many addicts are criminals only to support their habit, and how many have not needed to turn to crime. One would also have to know how many currently deterred people would take up the habit if the cost and criminal stigma were reduced.

3. Changes in Operating Procedure

It is clear that an international flow of "other dangerous drugs" already exists, in addition to the flows of heroin, Cannabis, cocaine, etc. Europe already has severe problems resulting from the fact that a drug abused and proscribed in one country may be sold over the counter in another. This problem is discussed in Appendix E, together with details of the drug problems of Great Britain and Sweden. Much of the O.D.D. traffic seems to be in the hands of amateurs, fortunately. To cope with possible increases in such traffic, it is suggested that the U. S. should enter into further international agreements, as discussed in Chapter V.

Experience in the field (see Chapter V and Appendix B) indicates that cooperation among the many agencies which deal with dangerous drug abuse is less than it might be. The most easily remedied lack seems to be information exchange. The problem is similar to that experienced by the FBI in accumulating national crime statistics. The Federal organization has no way to force the state and local agencies to provide information. If the latter are understaffed, they may neglect to pass information, a habit which is reinforced if no news ever comes back from above. It is suggested that FDA and FBN, and perhaps Customs, should have explicit budget items to cover the purchase and dissemination of information. By "purchase" is meant the subsidizing of personnel at local levels who would collect and examine data both for local use and for transfer to other agencies. To make effective use of such a scheme the FBN, in particular, should budget for additional planning and statistical staff in Washington.

Another facet of inter-agency cooperation is the possibility it opens for a flexible concentration of forces in time and/or space. As mentioned earlier, the U.S. heroin trade is composed of perhaps a dozen fiefdoms, each of which operates in fairly fixed territory. It is the nature of this system to work in any uneasy truce: everyone distrusts everyone else. By concentrating enforcement activities heavily in a randomly chosen manner, it may be possible to exploit existing but hidden stresses within the syndicate. Such activity would require more overall planning at the national level than now exists.

In spite of the importance of gathering statistics concerning narcotics use, few local law enforcement agencies are systematically doing so, and fewer still have made a conscientious effort to collect data that is meaningful and error free. There is, however, at least one notable exception. Examination of what this agency has done reveals several problems. First, the development of a satisfactory system seems to be an evolutionary process. The agency studied has revised its reporting system six times in the last 10 years. Second, even with considerable effort, one has to expect lapses and errors in reporting. Finally, the reporting system missed a great deal of information which would be useful to a better understanding of drug abuse problems.

One possible aid to enforcement against drug abuse is the employment of chemical tests to detect traces in body fluids such as blood or urine. It is shown in Appendix F that such detection is now possible. Improved methods under development may make it possible to use a single type of test to identify the drug of abuse specifically, up to a day or two after use. The cost per test will normally be determined in part by how many tests are conducted.

It is suggested that such sensitive chemical tests might be used routinely to screen selected groups of the population, such as draftees, to obtain a measure of the scope of drug abuse. Such tests might be used on drivers in automobile accidents, in addition to the alcohol detection tests now available.

In Appendix B, it is pointed out that the Los Angeles Police Department operates a very successful "buy" program with which it makes cases against narcotics sellers. The average cost per defendent is less than $40 for the actual narcotics bought, which is a very small fraction of the total enforcement cost per defendent. It is suggested that the administrative and budgetary changes required to set up such a program in other states and local jurisdications would greatly enhance enforcement effectiveness.

In Chapter V, it is mentioned that the Bureau of Customs feels that its success in picking up contraband is very strongly tied to its ability to give monetary rewards for information. The reward is usually given as a percentage of the fair value of the merchandise confiscated. This raises the question of what value to put upon confiscated heroin; the value at the trade level where it is picked up, or the ultimate retail value.

Assume for the moment that increased use of reward money would result in increased interference with heroin flow into and through the country. The next question is whether the interference is enough to persuade the importers to give up or whether the result will simply be further dilution and/or increase in price. In line with the general economic arguments of Appendix D, it appears that the importers are more likely to pass the squeeze along to the addicts than to give up. This suggests that reward money should be used at levels close to the consumer, in which case it becomes complimentary to "buy" money in the process of detection, identification and conviction.

It is not possible at this time to suggest specific changes in either treatment or educational activities with respect to drug abuse. Any possible suggestions are really recommendations for research. These subjects are discussed at length in Chapter VI.

I. INTRODUCTION

The objectives of this report are to examine the patterns and problems of drug abuse in this country, to suggest possible national policy objectives with respect to drug abuse, and to recommend ways and means by which these objectives may be pursued.

The report begins by describing the various drugs of abuse, the people who use and abuse them, and the many reasons for their use. A number of technical definitions are given in this chapter, together with a brief description of the structure of the heroin trade. The reader familiar with drugs and drug abuse may omit this material and proceed to Chapter III which is a succinct statement of "the drug problem." Here the dimensions of the problem are given, primarily in terms of official statements, and the social costs are discussed. Possible objectives and remedies are stated, preparatory to considering each in detail in subsequent chapters.

Chapter IV describes the laws which exist to deal with drug abuse, and gives enough background to put the present laws in perspective. An estimate is made of the direction in which the law will change. The agencies which exist to enforce these laws are described in Chapter V, including what the agencies do and how they do it. This chapter also compares the problems and law enforcement results in three major U. S. cities.

In Chapter VI other methods of dealing with drug abuse are examined: treatment and rehabilitation, and education. Existing and planned programs are discussed and evaluated to the extent possible.

Chapter VII describes where the U. S. is today with respect to abuse of dangerous drugs. The net effect of all programs is estimated, in terms of both successes and shortcomings. This chapter tries to answer such basic questions as: how many narcotics abusers are there in the U. S.? Is the number increasing or decreasing? And how much of the crime in America can be credited to drug abusers?

In Chapter VIII the questions of increasing or re-allocating effort are examined both within law enforcement and among the various means for coping with drug abuse. This chapter also describes certain changes in operating procedures which might increase enforcement effectiveness. The chapter considers several current proposals for changes in policy.

A number of appendixes have been included, both for reference and to keep the body of the text free of detailed formulas and tables of numbers. The lists of people interviewed and consulted and places visited appear as Appendix H.

II. DRUGS AND DRUG TAKERS

A. GENERAL OBSERVATIONS

Some people use chemicals to cope with or hold off the quotidian world, which, on its own terms, is too overwhelming or too inadequate for them. Their relationships to the non-deviant world and to their drugs vary considerably.

Many examples come to mind of people who are taking drugs to cope with a life situation, using chemicals to help themselves manage an adjustment they cannot manage on their own: the housewife who cannot make it through a day's laundry and dishes without 60 milligrams of amphetimine, the Harlem 'junkie' or Houston 'dope fiend' who need heroin to avoid physiological withdrawal and the far more disturbing psychological malfunctions that heroin use and heroin society mask, the physician who has accustomed himself to several injections of Dilaudid, the businessman commuting home to a New Jersey suburb who needs two or three martinis on the train to endure his wife or his house or his bills, the same man or his friend who needs two or three meprobamate capsules each afternoon to be able to endure his job or his clients or his boss or himself.

There is a similar variation in the so-called thrill seekers: the young man or woman trying to "expand consciousness" on LSD or enjoy the splendid colors on mescaline, the teen-ager seeking something new in a marijuana cigarette, the musician trying to find something old with the same drug, the middle-aged man getting drunk on alcohol or nembutal, the potential addict trying his first nervous shots of heroin because pills and marijuana and alcohol have not given him the kick he has sought and he wants something that will, or just because he is already in a drug-taking community and is willing to take what is around and finds that heroin gives him more pleasure than any of the others -- all these are after a thrill of some kind, a pleasure or experience of a kind not ordinarily afforded. Each posits a different set of sociological, medical, and legal problems.

To describe the drug abuser as having a "defective" or "inadequate" personality does little to explain the situation with which we must deal. Although it is, of course, true that drug dependent people frequently manifest a variety of psychic aberrations, it is also true that the drug taking is a part of the syndrome but it is not the disease -- it is analogous to the fever, not the germ that causes fever. Moreover, there are many more defective or inadequate or mildly aberrant personalities who do not take drugs than there are those who do. Some, of course, take the acceptable drug--alcohol--an excess of which is, within wide bounds, permissible. Others manifest their maladjustment

by nagging their spouse, eating too much, driving too fast, working too hard, working too little, going to too many movies or watching too much television, playing tennis -- anything might do.

A recent W.H.O. publication, pointing out that we mislead ourselves if we consider "addiction" a single form of dependence, says we should instead speak of "drug dependence" of various types. "Drug dependence is a state of psychic or physical dependence, or both, on a drug, arising in a person following administration of that drug on a periodic or continuous basis. The characteristics of such a state will vary with the agent involved, and these characteristics must always be made clear by designating the particular type of drug dependence in each specific case; for example, drug dependence of the morphine type, of amphetamine type, etc."[1]

This change from the old terminology of "addiction" is important for two reasons. First, it has been realized that the critical factor is one's relationship to a drug, not a specific effect such as withdrawal, that is important; one may develop a dependency on any chemical, and that the nature of that dependency is psychic or physical is of less importance than its existence in the first place. Second, we think now of drug abuse in terms of a pattern of behavior, not a specific physiological reaction to a specific chemical. To qualify that somewhat, we note that within each type there are sub-categories revealing widely variant patterns of behavior and adaptation, some of which show more gross similarities to sub-categories in other types. The midwestern amphetamine dependent who takes his drug parenterally is enmeshed in a social system much like the heroin addict's, he has similar educational and police records, and has a similar approach to his dependency. There are no easy definitions in this area, and there are certainly no simple categories.

As an example of how the drug is less important than the individual's relationship to his drug and the relationship he and the drug form with the world around them, consider marijuana. It may sound undemocratic and unfashionable, but there is all the difference in the world between a college student smoking marijuana in a dormitory and a high school dropout smoking marijuana in a high heroin-incidence neighborhood. For both smokers the use of the drug may be part of the community life pattern, but that pattern in the college community rarely harms the individual and almost never bothers the rest of us; in the latter case it seems to do both.

For some, deviance is naturally limited (there is considerable evidence that <u>few</u> of the college marijuana smokers do so more than once, and that those who do rarely engage in any illegal forms of drug abuse after graduation); for some, moderate treatment can redirect the deviant into conventional channels (the physician who is addicted is relatively

easily cured; the housewife hooked on amphetamine often will, when she realizes her problem, submit to psychiatric counseling); and for some, there seems little hope at all. Few heroin addicts are cured by any of the current programs; most have three alternatives to look forward to: a long jail sentence, death by overdose or infection, or possibly living to 35 or so when "burnout" may occur. From British and European experience it seems likely that the most critical factor in rehabilitation is motivation, and those individuals with the least obvious motivation -- the street addicts -- are the ones who need the help the most. The ones who "burn out," that is, simply stop taking drugs on their own as they go into middle age, may be regarded as persons with high motivation (because they are too old to hustle, prostitute, steal, connect, or because they are just tired of it all) who are cured by self-treatment.

One essential factor influencing "cure" of drug abuse relates to whether or not there is a social structure connected with the drug abuse and what forms and dimensions of drug abuse that society will tolerate. When there is no social structure related, the addiction is amenable to cure (the physician) or can be easily recognized as being symptomatic of far more basic personality disorders that are treatable (the housewife). Sometimes the structure is automatically terminated, as is the college drug scene, which tolerates certain intoxicants and psychotogenics, but not narcotics, and which phases out when the individual graduates from the community. Sometimes the community is centered around the act of drug-taking and the process of drug-getting, and the individual's primary identification is with it. In such cases rehabilitation presents tremendous difficulties, as is the case with the New York heroin addict and the St. Louis amphetamine addict, for whom the specific chemical is of far less importance than membership in the drug milieu, the hustling involved in getting drugs, etc.

There are a number of sociological and psychological factors involved in the creation and maintenance of a drug taking culture, but one of the most important factors has to do with simple economic geography: abuses occur where the items with potential for abuse are most likely to be found. The degree and style of abuse are changed and modified by the other factors, but first there has to be the chemical in sufficient quantity to maintain deviant usage. If the market is under a certain critical mass, a sizeable expanding traffic will not develop (as is the case with heroin in cities like St. Louis and Vancouver). This is one reason there is little heroin addiction in small towns, especially those some distance away from the major heroin consumption centers of New York, Detroit, Chicago and Los Angeles. The heroin market requires an indeterminate minimal level of consumption and expansion to be financially attractive, and small towns do not supply that kind of market. Not only are there not enough potential addicts, but the traditional restraining factors of relatively successful family structure and moderate social cohesiveness and visibility tend to channel deviance into more acceptable forms, such as alcoholism.

LSD and the other hallucinogens or psychotogenics require a fairly sophisticated drug taking culture, one that is not only sensitive to the rather esoteric effects of these drugs, but also in touch with the arcane channels of distribution.[4] This population also tends to be urban, but unlike the heroin population, which is almost entirely lower class, is middle and upper class; as with heroin, the dominant age group of the users ranges between 18 and 30.

Marijuana used to be almost entirely in the milieux of lower socio-economic groups and certain arty and musical circles, but the last few years have witnessed a massive expansion in its consumption, and now it too is found across socio-economic boundaries, though most of the users tend to be under 40 and urban.

The drug most abused -- alcohol -- is available everywhere, as are the two drugs ranking next in abuse frequency, amphetamines and barbiturates. There were 13 million doses of amphetamine and barbiturates produced last year, enough, according to one report, to supply twenty-four 100 mg sedative and thirty-five 5 mg stimulant doses to every man, woman and child in America. Reportedly 50% of this production finds its way into illegitimate channels and is distributed to students, urban drug groups and to truck drivers. A significant portion of the half that is legitimately distributed is also abused; large amphetamine and barbiturate dependencies are not rare in smaller communities. Abuse of these three drugs transcends geographical and economic considerations. The complexity of the legitimate mid-century American drug is a complicating factor in drug abuse. There are, for example, some 1700 amphetamine preparations on the market.

As a result of the wide variety of drugs which can be used, drug users frequently are habituated to a variety of drugs; many make permanent shifts when major shortages occur. Drug abuse and dependence are, therefore, not necessarily related to a few specific chemical compounds. A wide variety of substances can be substituted. This fact has serious implications for those who write and enforce our laws. The developments of chemistry and the growing dependence of our society on a wide variety of organic chemicals for industrial and household use create a new and ubiquitous source of potentially dangerous drugs. Control procedures that were useful fifty years ago to exclude the importation of a few specific chemical substances into this country are no longer adequate to control drug abuse.[2]

Since this report deals with all major forms of drug abuse except alcohol, it is useful for perspective to note that problem, which in America is so great it dwarfs all other forms of drug abuse:

In Western society, alcohol has the unique distinction of being the only potent pharmacological agent with which self-induced

intoxication is socially acceptable. It is estimated that there are 70 million users of alcohol in the United States and that approximately 10 billion dollars per year are spent on the various forms of alcoholic beverages.

The large role that the production and consumption of alcoholic beverages plays in the economic and social life of Western society should not obscure the fact that alcoholism is a more significant problem than all other forms of drug abuse combined. Five million Americans exhibit some form of alcoholism, and about 5% of these eventually reach the derelict or "skid row" level. It has been estimated that, in the United States, 750 million dollars are lost each year in potential wages, crimes, accidents, and medical and custodial care; and the cost in broken homes, wasted lives, loss to society, and human misery is beyond calculation.[3]

B. DEFINITIONS

Several of the key terms used in discussions of drug abuse are defined here to avoid later misinterpretations. These definitions are based on those in Jaffe's chapter, "Drug Addiction and Drug Abuse," in The Pharmacological Basis of Therapeutics.

Basis of Therapeutics.

DRUG ABUSE will "refer to the use, usually by self-administration, of any drug in a manner that deviates from the approved medical or social patterns within a given culture. So defined, the term rightfully includes the 'misuse' of a wide spectrum of drugs, ranging from agents with profound effects on the central nervous system (CNS) to laxatives, headache remedies, antibiotics, and vitamins." (p. 285)

PSYCHOLOGICAL DEPENDENCE. "A hazard in the use of drugs to alter mood is that some individuals eventually feel that the effects produced by a drug, or the conditions associated with its use, are necessary to maintain an optimal state of well-being. Such individuals are said to have a psychological dependence on the drug (habituation). The intensity of this dependence may vary from a mild desire to a 'craving' or 'compulsion' to use the drug. This need or psychological dependence may then give rise to behavior (compulsive drug use) characterized by a preoccupation with the use and procurement of the drug. In extreme forms, the behavior exhibits the characteristics of a chronic relapsing disease." (p. 285)

TOLERANCE "has developed when, after repeated administration, a given dose of a drug produces a decreasing effect or, conversely, when increasingly larger doses must be administered to obtain the effects

observed with the original dose." (p. 285)

PHYSICAL DEPENDENCE "refers to an altered physiological state produced by the repeated administration of a drug, which necessitates the continued administration of the drug to prevent the appearance of a sterotyped syndrome, the withdrawal or abstinence syndrome, characteristic for the particular drug." (p. 285)

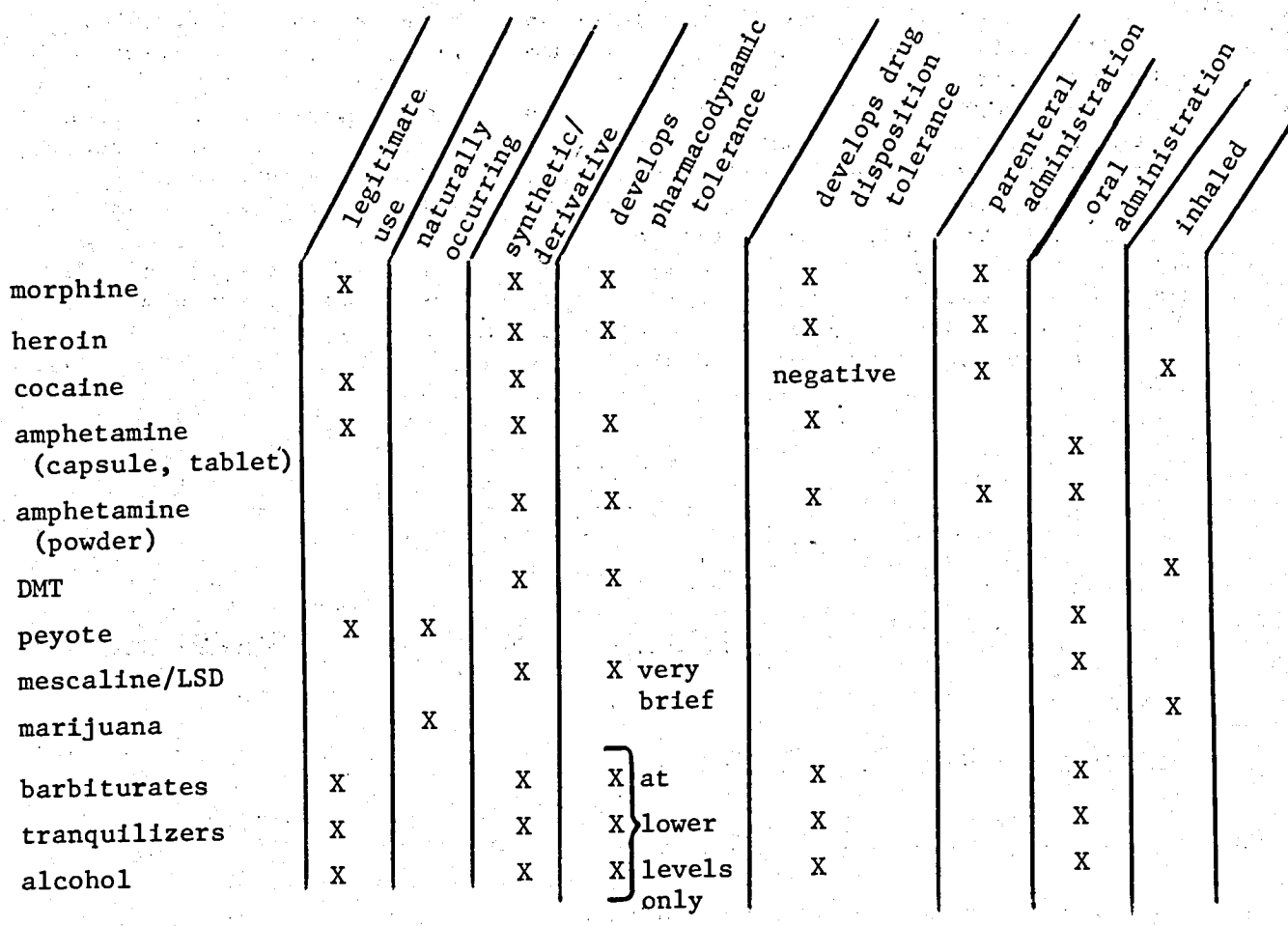
ADDICTION "will be used to mean a behavioral pattern of compulsive drug use, characterized by overwhelming involvement with the use of a drug, the securing of its supply, and a high tendency to relapse after withdrawal. Addiction is thus viewed as an extreme on a continuum of involvement with drug use and refers in a quantitative rather than a qualitative sense to the degree to which drug use pervades the total life activity of the user." (p. 286)

DRUG DISPOSITION TOLERANCE or METABOLIC TOLERANCE -- change in the rate at which the body disposes of a drug.

PHARMACODYNAMIC TOLERANCE -- adaptation of body cells, especially the nervous system, to a drug's action.

C. DRUG CHARACTERISTICS SUMMARIZED

For reference the chart below shows certain characteristics of drugs currently abused in America. It should be remembered that there is considerable fashion in drug abuse and the styles of administration are not the same everywhere; the notations below do apply to America, but one finds quite different modes in Europe. In Sweden, for example, Preludin tablets are dissolved in water and injected; in America they are taken orally. Any of these patterns could change. The drug source indicates whether the drug occurs naturally and can be used without any chemical alteration, or whether it requires chemical processing of some kind or is completely synthesized in a laboratory. Usually heroin is considered a naturally occurring drug, since it is derived from opium, but here it is regarded as a derivative.



D. DRUG CHARACTERISTICS AND PROBLEMS

1. Opiates

All narcotics produce indifference to pain, and that is of course their primary legitimate use. But "they also suppress those drives which motivate an individual to appease hunger, seek sexual gratification, and respond to provocation with anger. In short, they seem to produce a state of total drive satisfaction. Nothing needs to be done because all things are as they should be. For certain types of personalities, but clearly not for all, such a state is extremely pleasant."[4]

A number of opiate alkaloids and synthetic analgesics with the properties just described are frequently abused in this country. However, the choice of the majority of "street addicts" is heroin (diacetylmorphine). Heroin is about three times as powerful as an equivalent dose of the morphine from which it is derived. The prevalence of heroin may, however, reflect the traffickers' choice as much as the users' choice, since heroin probably is easier to smuggle. Dilaudid, five times as powerful as morphine, seems to be the drug of choice among physicians. Meperidine (marketed as Demerol), a synthetic analgesic, is sometimes used by addicts, but it is only one-tenth as strong as morphine and is used only when stronger drugs are not available. Table II-1 lists the opiates currently being abused in the U.S.

TABLE II-1

OPIATES OF ABUSE

GENERIC NAME	COMMERCIAL NAME	RELATIVE DOSE FOR EQUIVALENT EFFECT
opium (c. 4000 b.c.)		100
morphine (1803)		10
diacetylmorphine heroin (1874)		3 (2-8)
hydromorphine	Dilaudid	2
methadone	Dolophine	7.5-10
meperidine* (1939)	Demerol	80-100

Paregoric, which is also abused, is a "4% tincture of opium which includes benzoic acid, camphor and anise oil. The usual adult dose is 4 ml, which corresponds to 16 mg of opium or 1.6 mg of morphine." (Based on Goodman & Gilman)

* A synthetic analgesic; others are opium alkaloids

Almost all addicts have careers involving alcohol; almost all smoked cigarettes before addiction; somewhat smaller percentages have used marijuana, barbiturates, and/or amphetamines. It does not seem to be a matter of "progression," as has often been insisted in the past, but instead a matter of trying certain drugs, finding some of them unsatisfactory, and finally settling on one that works. Or it may be a matter of being introduced to the notion that chemicals can be used to alter one's relationship with the world, being in a milieu in which a variety of drugs are available, and finding that of them all heroin is the one that gives the most pleasure.

The standard picture of the opiate user includes withdrawal symptoms when use is cut off. These symptoms include: irritability, insomnia, anorexia, lacrimation, weakness, depression, nausea, intestinal spasms, diarrhea, elevated heart rate and blood pressure, alternating chilliness and flushing, waves of gooseflesh, abdominal cramps and aches and pains in bones and muscles of back and extremities, muscle spasms. Anywhere in the process of withdrawal a dose of opiates will immediately and completely suppress withdrawal symptoms. "Without treatment, the syndrome runs its course and most of the grossly observable symptoms disappear in 7 to 10 days, but it is not certain how long it takes to restore physiological equilibrium completely. It does seem clear that for a few weeks after withdrawal the addict continues to think and talk about his use of drugs and seems particularly susceptible to relapse during this period." Withdrawal from methadone is similar to abrupt withdrawal from morphine or heroin, but it "develops more slowly and is less intense and more prolonged."[5]

Withdrawal symptoms, according to enforcement authorities, have been seen seen much less frequently in recent years than formerly; when they are seen, they are milder than they used to be. This, they say, is a result of the low concentration product the addict can now buy on the street, compared to earlier periods.

Heroin addicts suffer from a variety of diseases as a result of the conditions of their addiction, but not directly from the heroin, which seems, other than constipation, mydriasis, and reduction of sex drive, to have few adverse effects. Addicts often do not eat, because they use their money for their drugs, and they have a high incidence of innoculated serum hepatitis and innoculated bacterial endocarditis. Because so many female addicts are prostitutes, there is also a high rate of venereal disease.

Users get their opiates from a variety of sources. Physicians and some addicts with connections sometimes manage to maintain their habits on drugs acquired with prescriptions. Some criminal addicts specialize in burglarizing pharmacies and doctors' offices and, therefore, restrict themselves to opiates like morphine and Dilaudid. The street addicts, with very few exceptions, get their opiates from an illegal dealer in heroin -- a pusher.

During "panics," i.e., heroin shortages, addicts will take almost any other drug as a temporary substitute. Barbiturates, especially, will be taken in large quantity. One recent study at Lexington revealed that 22.8% of the addicts had physiological addictions to barbiturates on admission. They will also take amphetamine or even alcohol.

There are a number of "professional" addicts (physicians and nurses) and "medical" addicts (those addicted in the course of legitimate medical treatment), but these receive what is probably a disproportionate amount of publicity. There are not very many of them (the frequent charge that physicians as a profession have the highest addiction rate is debatable; criminals seem to have a far higher rate). Moreover, since they are almost invariably not a part of the subculture of addiction, their prognosis is quite good. For them, careful weaning and some psychiatric assistance is often adequate for permanent cure. This is the case even though the physician typically receives a far greater dose than does the street addict. This evidence supports the theory that the drug itself is less important than the kind of dependency formed and the process of dealing with it.

Unlike the medical addict, the street addict has no idea of the dimension of his habit. His dose is always indeterminate and he never knows whether he is buying a capsule of lactose or 87% heroin -- i.e., he never knows whether he is going to waste his money, forestall withdrawal, have a good high, or kill himself when he inserts the needle into his vein.

With a very few exceptions, the street addict is from the lower socio-economic groups. In New York, Chicago, Los Angeles, and St. Louis the addicts are dominantly Negro or Latin; in Houston only 3-5% of the addicts are Negro, the majority are Latin and Caucasian; in Vancouver almost all the addicts are Caucasian. Addiction liability seems to be a combination of several factors, among them socio-economic status, drug availability, fashion.

Estimates of the number of opiate abusers in the U.S. vary from 20,000 to 100,000; the Federal Bureau of Narcotics estimated 57,199 addicts at the end of 1965. This subject will be examined in detail in later sections of this report. Here it is sufficient to point out that even though heroin abuse is the most studied form, there are appalling gaps in our knowledge. Though there are many times more persons who try heroin once, a few times, or even on rare but regular occasions, than there are addicts, we know little about these occasional or spree users. There are no estimates about their number, the frequency of their indulgence, their consumption; nor do we know why they chose not to take heroin regularly enough to become addicted while many of their coevals progress to addiction.

Although heroin addicts are regularly involved with law enforcement agencies, little of their involvement relates to crimes against the person (a little over 1% of arrests); they are involved in an indeterminate amount of crime against property (burglary, shoplifting mainly); mostly they are involved in the so-called "crimes without victims" -- prostitution and the drug offenses themselves. There is no evidence that heroin produces criminality, sexual perversion or moral disintegration; there is positive evidence that it inhibits violent drives. Frequent statements such as "addicts account for 50% of New York's crime" are gross exaggerations without any substance in fact, unless one includes in the definition of "New York's crime" those offenses having only to do with possession of drugs. This subject is treated in later sections of this report.

It is universally known that the raw material for heroin and other opiates is the opium poppy. Some U.S. consumption, particularly that on the west coast and in the southwest, is from poppies grown in Mexico. Far eastern countries (Burma, Laos, Thailand) supply a small quantity for our traffic; their contribution could probably be expanded if near eastern sources were threatened. Turkey is the major source, accounting for about 85% of the heroin consumed in the United States. An unknown amount of the opium gum produced there is grown for the illicit market in addition to the large quantities diverted from legitimate production. The opium gum is converted in Lebanon or Syria to morphine base (a reduction in volume of about 10 to 1), then shipped to France for acetylization. The heroin, a white crystaline powder about 87% pure, is then shipped to the United States, often via Canada or Mexico. Further details of the heroin traffic will be given in connection with some economic analysis in later sections.

Heroin is seldom found in pure form on the retail market. The usual sequence of dilutions results in a product of from two to 20% purity; the diluents are a variety of chemicals, including milk sugar, quinine, and procaine. The users purchase the heroin in a variety of containers, depending on local customs. Currently, pushers are using small balloons, which they keep in their mouths while trading (west coast), glasseine envelopes (New York), #5 gelatin capsules (southwest, midwest, Vancouver), tinfoil packets (midwest), and paper packets (southwest, west coast).

Estimates of the daily addict drug expenditure range from $20-100. A search for the source of these estimates usually reveals that they are based on something someone heard once. Opiate abuse seems to be a field of deviance in which the majority of the operative information is "soft." A few years ago New York began asking all arrestees whether or not they used opiates, and if so, how long, what dose and at what cost. In a group of 1271 heroin users (1174 male, 97 female) arrested in December 1965, the average use was 3.1 bags per day at an average cost of $14.04. Police everywhere can point to characters who use much more than 3.1 bags per day, but one wonders if there is not a visibility factor involved: the police naturally come into most contact

with the addicts having the grossest habits and needing the most money.

2. Cannabis

Intoxication by use of the flowering tops of the female hemp plant -- Cannabis sativa L. -- dates back to at least 2700 B.C.: it is mentioned in the herbal of the Chinese emperor Shen Nung. There are several varieties of the species, of which Cannabis indica and americana are among the most common. The resinous exudate of the tops is called hashish or charas; the dried leaves and shoots are bhang or marijuana: the resinous mass from the small leaves of specially prepared and cultivated cannabis plants in India is called ganja. Though there is a tendency to lump cannabis forms into one group (as is indicated in the U.N. Single Convention) there is a considerable difference in the potency of the forms. It is important that in North America all forms except marijuana, the dried leaves, are extremely rare. The subjective effects of the drug are exquisitely dependent not only on the personality of the user but also on the dose, the route of administration, and the specific circumstances in which the drug is used. The most common reaction is the development of a dreamy state of altered consciousness in which ideas seem disconnected, uncontrollable, and freely flowing. Ideas come in disrupted sequences, things long forgotten are remembered, and others well known cannot be recalled. Perception is disturbed, minutes seem to be hours, and seconds seem to be minutes; space may be broadened, and near objects may appear far distant. When larger doses are used, extremely vivid hallucinations may be experienced; these are often pleasant, but their coloring, sexual or otherwise, is more related to the user's personality than to specific drug effects. There are often marked alterations of mood; most characteristically there is a feeling of extreme well-being, exaltation, excitement, and inner joyousness (described as being "high"). Uncontrollable laughter and hilarity at minimal stimuli are common. This is often followed by a moody reverie, but occasionally the depressed mood may be the initial and predominant reaction. With the larger doses, panic states and fear of death have been observed; the body image may seem distorted.... Illusions are not uncommon, and the feeling of being a dual personality may occur. Even with the smaller doses, behavior is impulsive and random ideas are quickly translated into speech; violent or aggressive behavior, however, is infrequent. When the subject is alone, he is inclined to be quiet and drowsy; when in company, garrulousness and hilarity are the usual picture.[6]

In regard to the importance of modd and environment, marijuana is quite similar to alcohol.

Because of legal difficulties, legitimate research on the effects of cannabis on human beings has been quite limited. The best study is still the so-called LaGuardia Report, commissioned in 1938 and published in 1944. The conclusions of that report, some of which follow,

are considered valid by competent medical authorities.

Jaffe observes, "... There seems to be a growing agreement within the medical community, at least, that marijuana does not directly cause criminal behavior, juvenile delinquency, sexual excitement, or addiction. Therefore, while attempts to limit its use are appropriate, the hazards of use should not be exaggerated."[7]

One does not develop pharmacodynamic or dispositional tolerances to cannabis. Its reactions when used in combination with other drugs vary. It is said to potentiate LSD; its effects when combined with alcohol are almost completely obviated. With excessive doses there is apparently a toxic psychosis which may persist for several hours. According to the LaGuardia report, "the main features of the poisoning are the restlessness and mental excitement of a delirious nature with intermittent periods of euphoric and overhanging state of anxiety and dread."[8] There were other factors involved in the few psychotic episodes witnessed in the LaGuardia studies and the authors indicate that how marijuana contributed is not clear. One subject was an epileptic, one had a history of heroin addiction and prepsychotic personality, the third was considered prison psychosis. Physiological effects vary. Simple psychomotor functions are effected only slightly if at all; more complex functions may be adversely effected to a considerable degree. "The ability to estimate short periods of time and short linear distances is not measurably affected by the ingestion of marijuana." Marijuana does slow down thinking, mostly because of "a general confusion of ideas and inability to maintain a fixed goal." Users who were tested showed much milder signs of malfunction than nonusers; there were no signs of mental deterioration in any of the users.

"The personality changes observed when the subject is under the influence of 2 cc. of marijuana or marijuana cigarettes demonstrate that the subject experiences some reduction in drive, less objectivity in evaluating situations, less aggression, more self-confidence and a generally more favorable attitude toward himself."[9]

When smoked, cannabis takes effect within a few minutes, reaching a peak at about 30 minutes and lasts from one to three hours. There are physiological impairments associated with the more potent forms of cannibis (such as ganja and charas).

Unlike opiates, amphetamines, barbiturates, and cocaine, the experienced user takes <u>less</u> marijuana than the novice. There are two reasons for this: too much produces an unpleasant "high," and almost all smokers are very conscious of their limits,[10] and perhaps as important, the response to marijuana is so mild that much of it has to be learned, and once learned less is needed to react to the symptoms. No lasting ill effects are known (though there are some from extensive long term

use of the more potent forms); the only fatality of which we are aware involved someone in the U.K. who attempted to inject the drug, a most peculiar and anomalous incident.

Researchers involved in the LaGuardia study comment that experienced users could not be gotten to use more marijuana than they thought would make a good high; that is, they learn how much to take and rigidly enforce that self limitation. One commonly stated objection to marijuana is that the effect of a half-dozen cigarettes is much like smoking strong hashish. In light of the LaGuardia study, this objection is irrelevant; no one does it. The objection is a syllogistic as objecting to alcohol because ingestion of a full quart is toxic.

> ... There is no evidence that marijuana use is associated with crimes of violence in the United States. ... Marijuana is not a narcotic nor is it addicting. It is a mild hallucinogen....
>
> ... Part of the confusion concerning the dangers of marijuana can be resolved by identifying the potency of the marijuana used. Indian charas and hashish are highly potent. Habitual use (an average of at least 6-10 cigarettes per day) has been associated with criminality, violence and admission to mental hospitals for psychosis. The marijuana used in the United States, the kif used in North Africa, and the bhang drunk in India are perhaps 1/5 the strength of hashish, and are far less dangerous. Criminality and violence have not been correlated with these less potent forms and cannabis-induced psychoses for the most part occur only among those who use large amounts for prolonged periods of time. (There are very few marijuana smokers in this category in the United States). It should be emphasized that marijuana users frequently have impaired judgement in certain areas, particularly in skilled activities, such as driving.[11]

In regard to this latter point, we have heard that a number of automobile accidents in Nigeria recently have been ascribed to drivers intoxicated on cannabis.

Though as high as 20% of the students in some universities may have tried marijuana at least once, an extremely small percentage have had it more than a few times. Of all the drugs proscribed, it is probably the most widely used and generally misrepresented. By legal definition (our narcotics acts, the U.N. Single Convention, etc.) it is classified as a narcotic, which it is not.

Cannabis is produced in Nigeria, central Africa, southern and southeastern Africa, Brazil, Columbia, Guatemala, Jamaica, northern Mexico, Malasia, India, Afganistan, Iran, certain areas of Algeria and Morocco, Lebanon, Syria and Turkey. Most American marijuana comes from Mexico, although some comes from Jamaica, and a small amount is indigenous.

Marijuana is known in the USA by a variety of slang terms, among which are: pot, grass, weed, reefer, Mary Jane and tea.

There is little evidence of an organized traffic in marijuana in the United States. Most seems to be brought or sent from Mexico by amateurs dealing in relatively small quantities. Even larger shipments tend to be amateur operations. We discovered a 70 kg shipment that reached Massachusetts recently and on investigation found it involved some students financing their summer vacation. Interpol finds the European situation not unlike the American: most is disorganized, on a personal basis, without the usual heroin commercial organization.

3. Cocaine

Cocaine is an alkaloid derived from the leaves of the plant Erythroxylon coca. The cocaine which arrives in Western Europe and the United States originates in South America, particularly Peru and Bolivia. Indians of the high Andes have for hundreds of years chewed the coca leaf for its effect of reducing sensations of cold, fatigue and hunger in its slight euphoric capacity. In leaf form, the drug is relatively innocuous; the cocaine which can be extracted is a far more potent stimulant. The drug was formerly used as a local anesthetic, especially for eye operations, but such use has decreased considerably in recent years. Fairly effective control of the world supply has prevented cocaine from becoming much of a problem in North America, but some is nevertheless diverted into black market channels.

The resin from the leaves is brought down into Chile and Brazil where it is changed to cocaine hydrochloride. This white odorless powder passes by road through Columbia out through central America through Mexico to the United States. Another route is through the ports of the Guianas to ports in Florida or on the Eastern Seaboard. Some comes through Rio de Janiero to the east coast and some through Chile to San Francisco and Vancouver.

In former years, the fashion with cocaine was to sniff it or place it between the lips and teeth, much as snuff, but since the tightening up of supply and increase in price, the tendency has been to inject the drug intravenously. Most frequently in this country it is used in conjunction with heroin.

One does not develop a physical dependence on cocaine and there is, therefore, no abstinence or withdrawal syndrome noted in withdrawal of the drug. A heavy user is likely to evince severe depression, lethargy and general fatigue. There is considerable evidence that instead of developing tolerance, many people become sensitized to the effects of cocaine. A good deal of medical opinion considers cocaine the most dangerous drug of abuse.

Injecting pure cocaine has several rather dramatic effects. "The induced feeling of great muscular and mental strength leads the individual to overestimate his capabilities. This, associated with paranoid delusions and auditory, visual and tactile hallucinations, often makes the user a vary dangerous individual, capable of serious antisocial acts. Digestive disorders, nausea, loss of appetite, emaciation, sleeplessness, and occasional convulsions are commonly experienced by cocaine abusers of this type."[12]

Cocaine euphoria is accompanied by generalized sympathomimetic action. As with amphetamine, "a disturbed personality is not a prerequisite for cocaine-induced euphoria, and the drug is quite effective in relatively normal personalities." When too large a dose is administered, "the euphoria becomes mixed with anxiety and suspicion. If the dose is large enough a toxic syndrome develops, characterized by paranoid ideation, persecutory delusions, and visual, auditory, and tactile hallucinations." Respiratory seizures may result in death. "Unlike the user of morphine, whose drives are decreased, the cocaine user is stimulated and may act in response to his persecutory delusions, carrying weapons and using them on the alleged persecutors. The stereotype of the 'depraved dope fiend,' so inappropriately used to describe the opiate user, is not entirely unjustified when applied to the cocaine user who develops toxic symptoms."[13]

Cocaine, however, is extremely rare in the United States. There are three reasons for this: (1) as noted above, the world supply is limited and fairly well controlled: (2) the heroin addict, who has the best access to the illegitimate channels in which the drug may be obtained, is not willing to pay the greater price created by the scarcity: and (3), another drug, amphetamine, produces many of the same effects and has to a large extent replaced cocaine in some areas.

4. Amphetamines

Amphetamine, first introduced a little over 30 years ago, has been found useful to weight control, narcolepsy, Parkinson's disease, as an anti-depressant, and in treating alcoholism. The drug is an important central nervous system stimulant. In this country, it is marketed in a number of forms, the two most common being dextroamphetamine sulfate (Dexedrine) and methamphetamine hydrochloride (Desoxyn,

Methedrine). These two amphetamines are not only prepared alone, but in combination with tranquilizers and barbiturates, such as Dexamyl (dextroamphetamine sulfate and amobarbital), Eskatrol (dextroamphetamine sulfate and compazine), and Desbutal (methamphetamine hydrochloride and pentobarbital). They are available in immediate and sustained release tablets and capsules, ampuls containing 20 mg/cc, and elixir; from certain manufacturers one may obtain in pure form amphetamine sulfate, amphetamine phosphate and methamphetamine hydrochloride. There are non-amphetamines having similar therapeutic and abuse properties, such as Ritalin (methylphenylate) and Preludin (phenmetrazine).

"The main result of an oral dose of 10 to 30 mg are as follows: wakefulness, alertness, and a decreased sense of fatigue; elevation of mood, with increased initiative, confidence, and ability to concentrate; often elation and euphoria; increase in motor and speech activity. Performance of only simple mental tasks may be improved, and although more work may be accomplished, the number of errors is not necessarily decreased. Physical performance, for example, in athletes, is improved."[14]

Considerable tolerance develops to the pharmacological effects. There are cases of persons taking regular doses of up to 1700 mg per day without permanent ill effects. Tolerance does not develop to the toxic effects to the same extent, and toxic amphetamine psychosis is not uncommon among regular users who have taken their regular dose. This psychosis usually clears within a week and resembles in most regards the psychosis induced by overconsumption of cocaine. Though there are hardly any appreciable physiological withdrawal symptoms, there are psychological symptoms of craving, fatigue, lassitude and depression.

Among certain groups amphetamine is injected and there are rare instances of the elixirs being abused, but in the main the drugs are abused in the pill form. Most of the users take the drug as a coping mechanism: housewives who are dependent on the pills to keep from being bored by housework, students who want extra study hours during exam time, and truck drivers who want to be able to drive without having to stop and waste time sleeping. Here is one of the drug's greatest dangers: although it is possible to use amphetamine to carry oneself a few hours past a normal sleep period and still maintain relatively efficient performance, efficiency tends to disintegrate shortly thereafter, and since the drug masks symptoms of exhaustion but does not negate the condition, one may feel quite capable and not realize the degree of physiological dysfunction incurred until too late. Mistakes in judgement, delays in reaction time, and hallucinations are some of the symptoms -- not so much of the drug but of the masked exhaustion. The pills are sometimes used in social settings as a euophoriant, much as alcohol is used by some elements of the population.

One problem with the spree and cope-users is that they tend to develop a tolerance to amphetamine rather quickly and may soon have

a dependency on it. The housewife who used Dexamyl to help lose weight, then to face the day comfortably, finds she cannot manage the day at all without a steadily increasing dose. Tolerance is more likely to stabilize in such users than among thrill drug takers, but there is still a tendency to increase the dose. Often, after a moderate period, the abuser finds his tolerance developing more quickly to the amphetamine than the barbiturate, if he is taking such a maleated preparation; the capsules put him to sleep, so he shifts to unmaleated amphetamine.

The drugs are easily available through both legitimate and illegitimate channels. One can give a physician a variety of vague reasons that seem to justify prescriptions and American physicians tend to overprescribe sedatives and stimulants. This form of abuse should become far more important in the next few years, especially if the radical trend among Americans to increased drug ingestion in general continues expanding as it has in the past decade.

There is a newer phase to amphetamine abuse that is also troublesome and may portend considerable law enforcement difficulties. Heroin addicts will, at a time of heroin shortage, often take a variety of other drugs: barbiturates, paregoric, Robitussin, alcohol and amphetamine may be used. Most, when heroin is again available, return to it, but this is not necessarily the case. The grossest example of this was found in the St. Louis area, where there are currently several thousand people (estimates range from 4000 to 16,000) taking intravenous injections of powdered pure amphetamine. The local names given powdered amphetamine are splash, spliven, grease, and rhythm. One sociologist noted that "there is no doubt that the use of 'splash' evokes violent behavior in some of the users: however, there is no evidence that this violent behavior is translated in violent crimes."[15]

Some of the users are recently addicted, but many were previously heroin users and since the effects of the two drugs are almost polar, the preference is peculiar. Many of the new amphetamine users are from the socio-economic group that would in previous years have produced heroin addicts. Heroin shortage is only part of the reason for the change. An active, rather than a passive, mood in the Negro community seems to have played an important part. Whatever the other reasons this form of abuse is far more dangerous to society as a whole than is heroin addiction, for the amphetamine addict who takes concentrated forms of the drug in large doses intravenously is, like the cocaine user, physically stimulated, often toxically psychotic, and frequently disposed to irrational bursts of violence. Parenteral administration, on a smaller scale than is St. Louis, has been noted in New York, Chicago, and San Francisco.

The more traditional forms of amphetamine abuse have been expanding in number of users, but the patterns are not changing very much. Before the active ingredients were changed, many people used to chew the amphetamine strips in nasal inhalers; these now use Dexedrine and similar tablets. Many thousands of servicemen were first introduced to amphetamine during World War II, and it is not surprising that many

continued to use it afterwards. In the 1940's and 1950's, the truck driver and student groups began to use the drugs; then the 'hippies' began to use them for the euphoric effects.

The sources of illicit amphetamines are: diversions from manufacturer's supplies, unethical or careless physicians and pharmacists, and clandestine manufacturers and distributors. The involvement of organized criminal elements here is still unclear. In most instances of pill abuse, it seems to be a matter of someone developing a 'connection' and servicing his friends and acquaintances. A considerable quantity comes across the Mexican border, and the tremendous number of people crossing that border daily will be a continuing source -- there are too many bodies and vehicles to search (1.4-1.9 million people cross at Tia Juana alone each month). Much of the amphetamines from Mexico are American products that are shipped to wholesalers there, then shipped back in quantities ranging from a few dozen to a million pills; some of the American pills never actually cross the border, just the paperwork does. There is some amphetamine manufactured in Mexico (SKF has a plant there) and even though the ethical companies try to exert strict controls over their sales, it is impossible for them to control the ultimate disposition of the drugs. Even if it were possible completely to control American shipments to Mexico and legitimate products within Mexico, it would be a simple matter to organize a clandestine factory there, or to import from other countries, and continue to ship across the border.

The Federal controls recently applied to dangerous drugs should cut into the current illegal market, much of which has been founded on simple diversion. But the drug is popular, increasingly so, not only in America but also in Europe, and we should expect a period of clandestine manufacture. The raw materials are common laboratory chemicals and are impossible to control; the syntheses are not particularly difficult.

World experience suggests that amphetamine abuse is a problem that can spread quickly. When the Americans sold large stocks of methamphetamine in Japan after the war, there were thousands of persons addicted before the problem was brought under control. Sweden is currently having difficulties with an amphetamine-like drug, Preludin, on which abusers spend 400 kroner ($100) per week (they dissolve 100-200 tablets in water and inject the solution). Great Britain has had a rapid explosion of amphetamine abuse among young people. Part of the problem has to do with our having moved into what might be considered a chemical age -- drugs are omnipresent in homes, on mass media, in the popular press; part has to do with the attractive stimulation and euphoria the amphetamines offer.

Of all the drugs currently being abused, amphetamines and the psychotogenics seem most likely to continue expanding rapidly. It is difficult, if not impossible, to control disposition of drugs that are in the legitimate possession of millions of citizens, and the very people who are most likely to receive amphetamine prescriptions are very often the type most susceptible to abuse such drugs or develop strong dependencies on them. Since amphetamines require far less 'in' connections than the hallucinogens, they should be the group to present the most widespread, if not the most publicized, problem in the next decade.

5. Barbiturates

A recent article in the journal of the New York Medical Society, New York Medicine, succinctly outlined the barbiturate problem:

> Every year there are 3,000 deaths due to accidental or intentional overdose of barbiturates, but a far more common problem is habituation and addiction. Barbiturate addiction, defined by physical dependence is characterized by intellectual impairment, self-neglect, slurred speech, tremor, defective judgement, drowsiness, emotional liability, bizarre behavior and ataxia. Those who treat it consider it a "nasty" addiction, often characterized by excessive activity, agitation, and by aggressive, sometimes paranoid behavior. Withdrawal, if abrupt, may produce nausea, vomiting, weakness, tremulousness, insomnia, fever (up to 105 degrees F), delirium, hallucinations and, most dangerous of all, convulsions, stupor and coma which may be fatal.
>
> A survey of 6 state and 2 city hospitals with narcotic detoxification units reveals that heroin addicts are currently having withdrawal problems. not because of the opiate but because of the concomitant addiction to barbiturates; they can readily be withdrawn from the opiate but the barbiturate withdrawal is prolonged and difficult. Over half the heroin addicts use multiple drugs, and according to a careful study at Lexington, Kentucky, 22.8% are also physically dependent on barbiturates.[16]

The barbituarates most frequently abused are those with short to intermediate acting time, such as amobarbital (Amytal), butabarbital (Butixol), penotobarbital (Nembutal), secobarbital (Seconal). As a group, they are central nervous system depressants, and can produce effects ranging from mild sedation to fatal coma. Tolerance to all effects of barbiturates develops with the single and important exception

of its respiratory depressant action. As the hypnotic effects of the barbiturates have tolerance developed against them, the abuser uses more of the drug; however, the fatal respiratory depressant dose remains approximately the same. A similar effect occurs with alcohol. There are a number of non-barbiturate sedatives and tranquilizers that have a similar pharmacodynamic action; at least six of these have been found physiologically addicting: meprobamate (Equanil, Miltown), glutethimide (Doriden), ethinamate (Valmid), ethchlorvynol (Placidyl), methyprylon (Noludar) and chlordiazepoxide (Librium). Compulsive use and physical dependence can be produced by all these drugs, and since they are used to treat anxiety they are particularly liable to fall into the hands of individuals who are likely to develop a dependency on them.

Barbiturates and tranquilizers are taken by millions of Americans to help them cope; some people use them to get through the day, others to be able to sleep at night. Not only do users develop a certain tolerance, but they may suffer from another effect: in large doses, barbiturates act as an intoxicant. A user may become confused and disordered and accidental deaths from overdose are not uncommon.

Jaffe notes that "the patterns of abuse are as varied as those of alcohol and range from infrequent sprees of gross intoxication, lasting a few days, to the prolonged, compulsive, daily use of huge quantities and a preoccupation with securing and maintaining adequate supplies." The intoxication resembles alcohol intoxication. The user "shows a general sluggishness, difficulty in thinking, slowness of speech and comprehension, poor memory, faulty judgment, narrowed range of attention, emotional liability, and exaggeration of basic personality traits. Irritability, quarrelsomeness, and moroseness are common. There may be laughing or crying without provocation, untidiness of personal habits, hostile and paranoid ideas, and suicidal tendencies."[17]

The pills are like solid alcohol. "The signs and symptoms of barbiturate and of alcohol intoxication are similar, as are the signs and symptoms of abstinence from these drugs. Barbiturates will suppress alcohol abstinence phenomena, and alcohol will suppress, at least partially, the sumptoms of barbiturate withdrawal. The two drugs are essentially additive and interchangeable in chronic intoxications; these similarities justify the term 'dependence of the barbiturate-alcohol type,' but there are psychological and sociological differences."[18]

The dangers of barbiturates to society and the individual are very much like those of alcohol. Large doses of the drug can produce the following symptoms: ataxia; dyarthria; impairment of mental function, with confusion, loss of emotional control, poor judgement, and, occasionally, a toxic psychosis; coma and death. The harm to society is also related to both the individual's preoccupation with drug-taking and the persistence of the effects of these drugs on motor functioning, emotional

stability and interpersonal relationships, with proneness to accidents and to assaults on other persons as frequent consequences."[19]

Unlike heroin, which is largely a lower class drug, and psychotogenics, which are largely in the fief of students and certain intellectual groups, the barbiturates and tranquilizers are abused by persons in all socio-economic groups and of a wide age range. Like the amphetamines, they are insidious: they are easily prescribed for a variety of symptoms and a tremendous number of persons are exposed to them for extended periods of time. Much of the traffic should be curbed by the Drug Control Amendments, but there will still remain the problem of physicians carelessly overprescribing, and minor diversions for spree use.

6. Psychotogenic Drugs

This group of drugs, of which LSD might be considered a prototype, is known by a variety of names, each of which seems to reveal more about the attitude of the speaker than the characteristics of the drug. Physicians seem taken with psychotogenic, i.e., psychosis producing. LSD cultists prefer psychodelic, i.e., mind-manifesting. These drugs are also frequently called hallucinogens, a slight misnomer since few of them produce real hallucinations.

"Drugs of this type include lysergic acid diethylamie (LSD), a semi-synthetic derivative of ergonovine; psilocybin, an indole found in a mushroom ('teonanacatl,' Psilocybe mexicana); mescaline, the most active alkaloid present in the buttons of a small cactus ('mescal,' 'peyote,' Lophophora williamsii), and in the seeds of some morning glory varieties ('ololiuqui,' Rivea corymbosa L. Hall f.; Ipomoea violacea L.), the active principle of which is closely related to LSD."[20] There are others that are produced in the laboratory, such as dimethyltryptamine (DMT), and diethyltryptamine (DET).

Psychotogenics "are taken for thrills ('kicks'), to alter mood, to change and clarify perception, to induce reveries, and to obtain 'psychological insight' into the personality problems of the user. Generally, the drugs are taken orally and in the company of other users."[21] Peyote is lawfully used by members of the Native American Church, an Indian church in the southwestern part of the country. Outside certain experimental projects now in progress, there is no legitimate use of these drugs.

Psychotogenic drugs are not capable of producing physiological dependencies. Tolerance develops and disappears quickly. Because of this somatic reaction, readministration of drugs like DMT and LSD usually is ineffective. One cannot stay on LSD indefinitely and stories of people on LSD trips lasting several days seem to be mere fiction.

After reaching the peak on DMT, which occurs almost immediately, further inhalation produces no intensification or prolongation of the experience: when one comes down one cannot take off again until several hours have elapsed. These two drugs can act together, however, not to increase duration but intensity -- DMT potentiates LSD and is reported to produce in combination the most overwhelming "high" currently available.

Pyschotogenic drugs are currently in a fad phase, but some of them have been available for a long time. Peyote has been used by American Indian tribes for hundreds of years: the alkaloid mescaline received its name from the Mescalero Apaches. In 1918, the Native American Church was organized with part of the rite involving ingesting the peyote buttons. LSD was discovered in 1938, its hallucinogenic effects were discovered accidentally in 1943. The effective dose is measured in micrograms: 25 µg are enough to produce appreciable effects in some subjects. The usual abuser dose is supposed to be 250 µg, but this varies depending on the sophistication of the dosing apparatus in possession of the manufacturer. One kilogram of LSD would contain four million doses, roughly 100 times the number of doses in a kilogram of heroin.

LSD is still an experimental drug only. It has been suggested for use in the treatment of psychoneuroses, alcoholism, frigidity, sexual perversion, and severe pain in terminal cancer patients, among other possible applications. Without careful selection of the user and careful control of the post-administration setting, it can be the most dangerous of the thrill drugs. There is no way to predict the subject's reaction: his 8-12 hours may be spent in utter joy or abject terror, he may come out of the experience feeling as though he has understood himself for the first time or he may come out psychotic. Under the drug's influence he may appreciate aspects of the world around him for the first time or he may jump out a window or try to stop a train.

The price of LSD on the black market varies. In quantity, costs are quite low, but they are still many times the legal price. An ounce, which can be purchased legally in Italy for $1400-$1500, sells on the whole-sale black market for $25,000-$30,000: there are approximately 125,000 doses in one ounce of LSD. Single dose prices range from $2.50 to $10, averaging aroung $5. Informal investigations indicate that modest amounts of LSD are distributed free in social groups. There may be changes in the traffic as a result of the new FDA activities. One informant reports that many student dealers in the San Francisco area have been pulling out because of the new Federal drug regulations and that their place in the marketplace is being taken by criminals. Such a possibility bears further investigation and study.

One basic enforcement problem with this whole group of drugs was voiced by a Texas public health psychiatrist: "How do you legislate gasoline?" There are literally thousands of chemicals that can be used

for euphoric and hallucinogenic effects. Next year there is a conference scheduled in California to discuss several hundred new ones. Many require chemicals available in any laboratory, others require chemicals only slightly more difficult to obtain -- LSD, for example, can be made starting with ergot tartrate, which is available in this country in a variety of pharmaceutical products.

So far, most of the LSD and other strong psychotogen[22] use has been among college students, writers, beatniks, middle-class types, teachers, etc. Whether the drug will have any appeal for a lower class market if it should be put on an underworld distribution list, and what the group's reactions to it may be, are uncertain.

There are considerable profits in LSD but these do not seem to have attracted organized crime. The drug is not addicting, so there is no guaranteed market, as there is with heroin and bootleg alcohol. The users take the drug infrequently -- the number who take the drug more than once a month is extremely small, as is the number who take it more than a few times -- so there is not even a regular clientele. The market is widely distributed with small isolated groups of users within a community being the pattern rather than a large homogeneous user population. Communication channels are more unreliable than at the junkie-level, so it is hard to establish a large clientele. The users are educated and know how to find alternatives should the price rise too much, so it is impossible to depend on increased price. LSD is the easiest drug of all to smuggle -- it is colorless, odorless, and tasteless and may be hidden in something as unobstrusive as a dollar bill -- and European travelers will be able to supply easy competition in case of any price rise. The profits which might attract criminals, seem hedged with too many difficulties for organized crime.

The nature of the clandestine laboratories which produce most of the bootleg LSD in this country may account for some portion of the drastic behavior changes following taking LSD in a few cases. The process of making clean LSD, even under favorable laboratory conditions with good equipment, is difficult. It may be that there are contaminants in the bootleg drug that alter the experience being had. Moreover, one can doubt the reliability of the dosing. The stated dose for illegal LSD is usually 200 to 300 micrograms, but that is an extremely small quantity of a chemical to measure accurately. Users report buying batches of LSD in which 3 cubes were needed for one satisfactory trip, and other batches strong enough that one cube was adequate for three people on a trip. It may be that the average bootleg dose is considerably under 250 µg, and that some amateur producers, hearing that the dose is 250 µg will put that much in a cube, so a far stronger amount than is expected is taken. Alternatively, many of the cubes are grossly overloaded. Even some of the LSD that is sold in manufacturer's ampul and crystal containers may be forged and inaccurately dosed.

LSD is going to be a problem for some time to come, and for a while at least, its abuse is going to spread. It is spreading first in a population which society is least reluctant to jail (the 1956 narcotics laws probably could not have been passed if the abuser populations were middle class). The user population has a variety of drug connections not currently open to the heroin-consuming socio-economic group. What will happen when LSD does become more available -- and with the current publicity it is likely that it will -- to that population? How does someone without the abstract vocabulary currently in vogue among LSD users cope with such a situation? How does he rationalize it? Will he be too discomforted to continue, will he be violent? No one knows. In these and in all other aspects of LSD, considerable research is still needed. Ironically, as a number of writers have noted, the primary result of the present LSD scare is that users can get it more easily than ever before and responsible researchers can hardly get it at all.

E. THE STRUCTURE OF THE HEROIN TRADE

It has already been mentioned that a major portion of the U.S. opiates comes from Turkey. This traffic is controlled by crime syndicates. The ability of organized crime to control the traffic in heroin stems from two factors: (1) the concentration of capital and (2) the willingness to use violence. The heroin traffic is organized like an hour glass. The producing units in Turkey generate small lots which are combined progressively into large shipments to be processed first in Syria and Lebanon, in southern France and Italy. In this end of the hour glass, there is a buyer's market: the producers have no alternative buyers except the less profitable legitimate channels.

After the raw material is processed into heroin, it is carried to the consumer by distributors chosen by the management of the syndicate. The top levels of the distribution system are all members of a family, in the sense in which "Cosa Nostra" is organized. Membership in the family and in the trade is restricted by the two means already mentioned. Outsiders will not be extended credit to buy the large quantities of drug required to move into the big money end of the operation. Even if an outsider could afford the tens of thousands of dollars required to purchase a large shipment, he could not do so without approval unless he wished to risk his health. The profits made by organized crime on the heroin trade come not only from the immense markup but from the fact that the small dealer operates on money borrowed from the syndicate at usurious rates. The markup on heroin from the field to the needle is a factor of 600 to 700. The normal interest rates charged to the peddler are 5% per week, as is customary in loan-sharking.

The fraction of heroin which originates in Mexico and is consumed primarily on the west coast and in the southwest is not controlled by the syndicates. The apparent reason for lack of control is the ability of Mexican peasants to resist organization by outsiders. Another factor may be the relative ease of smuggling over the Mexican border.

III. SOCIAL COSTS, OBJECTIVES, AND REMEDIES

INTRODUCTION

The preceding chapter has set the stage by describing what narcotics and other dangerous drugs are and what they do to (and for) those who use them. In addition the users and addicts themselves have been described in economic and sociological terms. The patterns of narcotic and drug traffic have been examined briefly. This chapter examines the dimensions of the drug problem, states possible objectives of public policy with respect to the problem, and considers broad means by which the objectives might be approached. Detailed analysis of the means is left to later chapters.

A. THE USER/ADDICT PROBLEM

From what has been said in Chapter 2, it is clear that there are several classes of drug users. The heroin addict, some marijuana users, and some users of other dangerous drugs are clearly on the outskirts of society. Many of these people would be a source of anxiety and concern even if they were not using drugs. The cost to the peace of mind of the average citizen cannot be measured but it is clear that a large hostility devolves onto the user population.

The cost to society can be measured in terms of dollars as well as emotional strain and it is these costs which are used to justify punitive and remedial actions. One of the dollar costs of addiction as well as of other drugs is associated with dangerous behavior of people under the influence. This is less likely for the heroin addict than for those on certain other dangerous drugs. Unfortunately, the numbers of automobile accidents, suicides, murders, and other violent crimes which are actually committed while under drug influence are not known at this time. Even if the numbers were known there would be some controversy over the value of damage done, particularly to people.

The crime costs associated with addiction are related primarily to heroin. These costs are of two types which will be referred to as personal and syndicate crime. At the personal level, the addict who is reputed to spend some $5,000 a year, on the average, for heroin, oftimes has no source of income other than crime. The ostensible pattern is one involving theft, breaking and entering, and to some extent forgery. Given the devaluation of stolen goods by the "fence" system, the typical criminal addict may be expected to steal between $20,000 and $25,000 worth of goods a year. This does not take into account the possibility that many female addicts support themselves by prostitution.

According to the Federal Bureau of Narcotics there are approximately 60,000 narcotics abusers in the country at present. If each of these were supporting his habit by crimes against property,

the total annual crime bill might be $1.5 billions, as an upper bound. It is known that many, if not most, of the one-sixth addicts who are female support themselves by prostitution; some of these support a male addict in addition. The total bill must also be reduced to account for those who steal cash directly or by forgery, thereby avoiding the five-to-one "fence" reduction. A further decrease in crime cost is needed to account for part-time users and for the unknown number who can legitimately earn enough to pay for their habit. A reasonable upper bound on the cost of crime by individuals to support their habits will almost surely fall between $500 million and $1 billion, assuming that the FBN population estimate is approximately correct.

At the syndicate level the narcotic addict provides large amounts of income for organized crime in all parts of the U.S. except the Far West. Assuming the FBN population estimate, the cash flow to the heroin traffic structure is roughly $250 million per year. It will be shown in Chapter VII that a large portion of this cash flows to syndicate crime where it can be used to capitalize other forms of illegal activity. Detailed discussion of both types of narcotics-related crime is given later in this report. The argument being made here is that the dollar cost to society is apparently very large, even neglecting the dollars now spent on enforcement.

An example of the seriousness with which public officials view the narcotics problem, consider Governor Rockefeller's Special Message to the Legislature, February 23, 1966. Quoting from the speech:

> "The problem of addiction to narcotics is at the heart of the crime problem in New York State. Narcotics addicts are responsible for one-half of the crimes committed in New York City alone--and their evil contagion is spreading into the suburbs....
>
> Between 1963 and 1964 there were:
>
> --A 75% increase in the number of children under 16 years of age taken into custody for criminal offenses who were admitted narcotics users;
> --a 95% increase in arrests for violations of the narcotics law by young people from 16 to 20 years old; and
> --a 49% increase in arrests for murders by addicts.
>
> In addition:
>
> --80% of all women arrested for prostitution were narcotics addicts; and
> --Almost half of all other persons arrested for serious misdemeanors and offenses were admitted narcotics users."

These statements are examined in detail in Appendix B. The point being made here is that the problem is not only real, but is recognized, although there are discrepancies between reality and official accounts.

The constant battle between the criminal and the law can be described by two general functions: one which relates the cost of crime to the number of crimes and/or criminals; and a second which relates the number of crimes or criminals to the resources spent on law enforcement. Presumably if the amount spent on enforcement is increased the number of criminal actions is decreased and therefore the cost of crime. Some equilibrium always occurs because the total cost of crime plus enforcement tends toward a minimum. In other words, one is not likely to spend more on enforcement than is saved marginally by decreasing crimes.

The enforcement costs must include not only those associated with the police, but also the costs of public prosecutors, judges, courts in general, probation systems, and jails and penitentiaries. In the case of the narcotics or other dangerous drug user there is the additional cost of cure and rehabilitation.

Parenthetically there is a cost similarity in all aspects except scale between the social cost of the alcoholic and those of the drug user. The primary differences are that there are more alcoholics, there are more demonstrable accidents or crimes of violence associated with alcohol, and a greater personal penalty is paid by the alcoholic in terms of health.

One might also consider the cost to society of the loss of productivity of those who are incapacitated by drug abuse. This loss can be dismissed by assuming that the kinds of people who become drug abusers would not otherwise have added much to net production. Such an assumption is supported by Chein[1], for a rather limited, juvenile population.

B. OBJECTIVES WITH RESPECT TO NARCOTICS AND OTHER DANGEROUS DRUGS

From what has been said above, it is clear that there are reasons for concern over the abuse of narcotics and other dangerous drugs. These reasons are both economic and sociological. There does not seem to be strong disagreement over the fact that the problem exists and that something must be done about it. The difficulty comes in deciding what to do. Several objectives are possible. A simple humane objective might be to limit or reduce the number of users and/or addicts for the good of the individuals "saved" from this way of life. This objective can be claimed to serve the public interest. However, there always comes the question of who will pay the bill. Those who must spend the public dollar in the public interest may not find a large enough community of humane tax payers who wish to "save" the individual drug abusers.

A better objective would be to spend resources to minimize the social cost of the user/addict population. This assumes that the necessary increase in dollars spent on enforcement, cure, and rehabilitation will be made up or balanced by the reducing costs of crime and

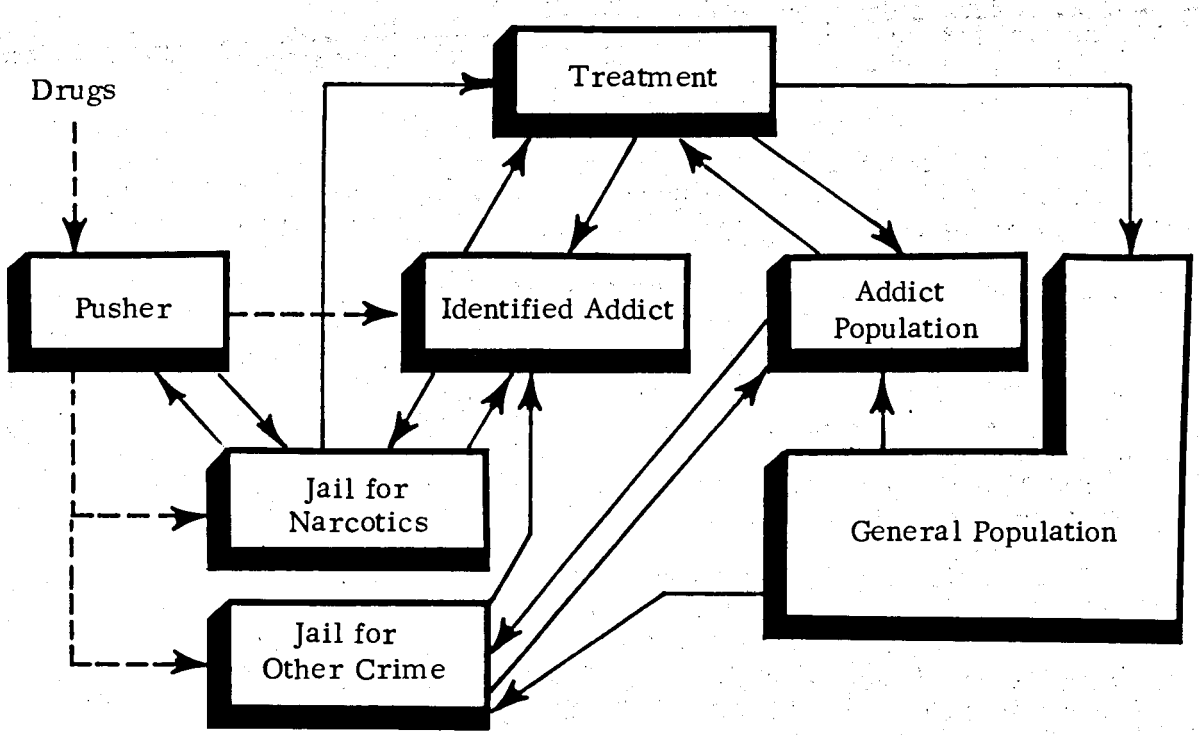


FIGURE 1 FLOW OF PEOPLE ASSOCIATED WITH NARCOTICS

lost individual productivity. This objective is probably easier to sell to the person who has to pay the bill. Unfortunately the facts required to decide on the best allocation of resources simply do not exist at this time.

C. DEALING WITH THE ADDICT POPULATION

Figure 1 is a flow diagram showing how people move in and out of the addict population. The solid arrows indicate flows of people; the dotted arrows flows of drugs. The addict population is looked upon as a subset of the general population. From this addict population it is necessary to pull out and identify individual addicts before they can be dealt with. In other words, although the objective is to reduce the addict population, this must be done by dealing with individuals. Identification of the addict can be done either by watching the flow of drugs to him from known pushers or by picking him out of a suspected addict population on the basis of specific observations. The identified addict can then be removed from the population either by going to jail on a narcotics charge or by going into a treatment center under the civil commitment laws.

There are limits to the amount of time the addict can be kept out of his parent population by either jail or treatment. After jail he is very likely to return as an identified addict. It is evident from the figure that there are two initial routes into the addict population. One directly from the general population and one by means of indoctrination in jail for those who are committed for non-narcotic crimes. The latter route can perhaps be cut off by segregation and control in the jail system to keep jailed addicts away from non-users. The route from the general population into the addict population can only be dealt with by education and long-term modification of society itself.

Once an addict has been identified by police work, he can be removed from the population either by being jailed because of his possession or sale of narcotics, or he may be remitted for treatment in one of the civil commitment programs. In treatment he is withdrawn from use of drugs and hopefully returned to the general population. In actual practice, he usually returns directly to the addict population and takes up the habit again. In addition to the law-enforced movement of addicts into treatment, there are voluntary movements which presumably result from police action on pushers and on the drug flow itself. Therefore, another way in which enforcement can be used to reduce the addict population is enforcement against the drug flow and those who conduct it.

An alternative to jail or enforced treatment has been suggested in the form of total isolation of the complete addict population from the general population, as is done with lepers, for example. This might decrease the flux of new addicts from the general population, but would certainly complicate the management of the isolated addicts, who are at best a difficult group.

D. THE ALLOCATION PROBLEM

Figure 1 may be used to explicate the complexity of reducing the addict population. It shows explicitly the points at which resources may be applied in education, enforcement or treatment. The figure does not, however, show the complete picture which is given in Figure 2. Figure 2 includes the flow of economic resources in the form of crimes against the general population, presumably committed by the addicts to support their habit.

It is evident from Figure 2 that the dollars spent in enforcement can be applied at a number of levels: first, to deter or punish the criminal activities per se; second, to remove the addict from the street; third, to stop the flow of pusher-supplied drugs to the addict; and fourth, to cut the drug supply at higher levels, including importation to the country. The resources expended on imprisonment must include the probation and court expenses; those for treatment must include follow-up expenses. The application of resources for education is also shown in the figure. The real policy problem concerns the large scale allocation of public resources over enforcement (including incarceration), treatment and education. At a secondary level, the problem is one of allocation over various points where enforcement might have effect and of allocation over various types of treatment required for different addict problems. As mentioned earlier, information required to solve the allocation problem is not now available.

The chapters to follow first consider various existing means of enforcement and treatment, and describe their results. The present successes and shortcomings of U.S. policy are described in Chapter VII. Subsequent chapters consider possible changes in operating procedures and in allocation of resources, and possibilities for research.

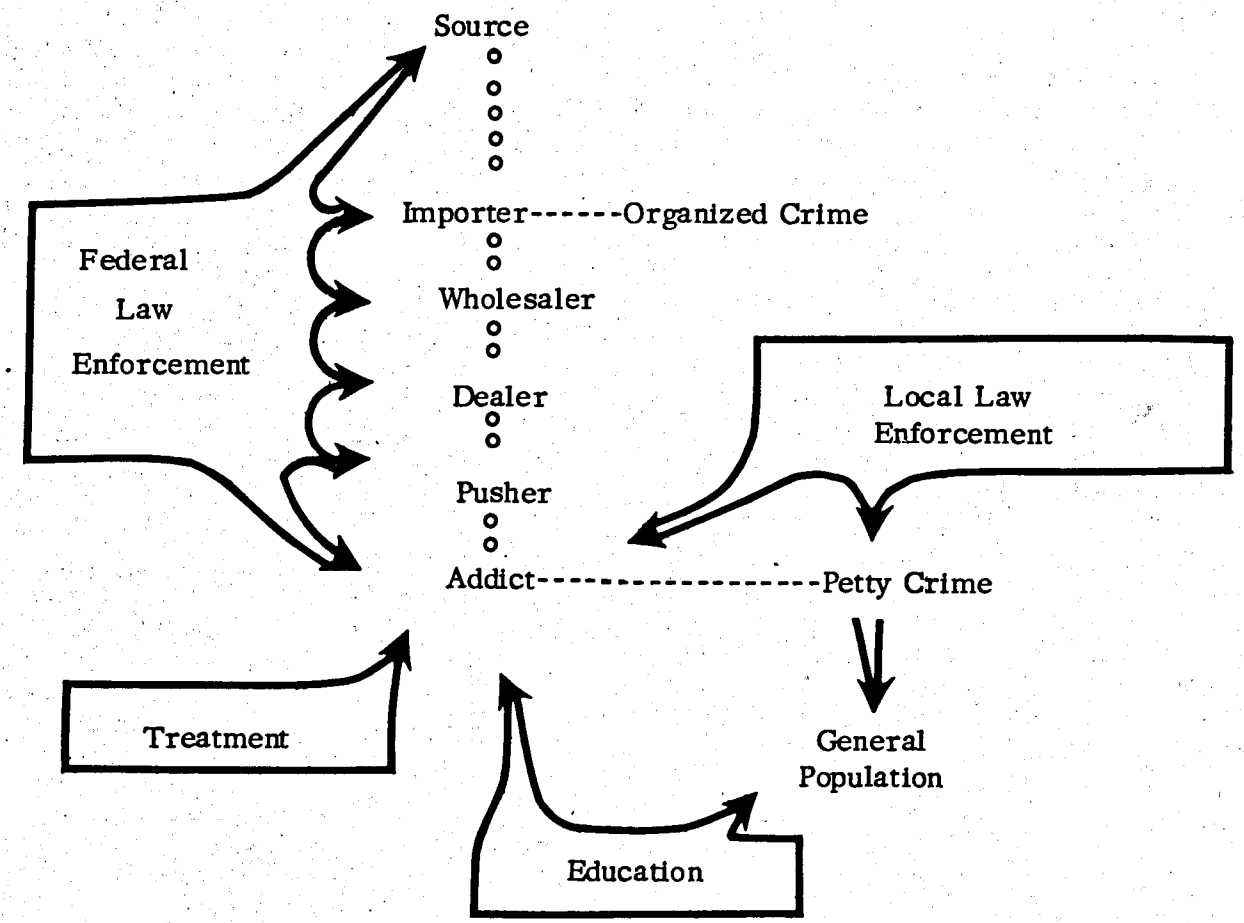


FIGURE 2 FLOW OF RESOURCES IN THE NARCOTICS PROBLEM

IV. NARCOTICS, DRUGS AND THE LAW

A. THE DRUG DEPENDENT PERSON AND THE LAW: EVOLVING TRENDS

It is generally recognized that drug dependence is not a problem amenable to direct solution by the processes of criminal justice. In recent decades however, control and eradication of the problem has been attempted mainly via law enforcement. There are constitutional limits to the degree to which law enforcement can handle medical problems. All debate on the efficacy of law enforcement handling of drug dependence must be limited to that area in which the police power can be constitutionally exercised. Nonetheless, legislatures and law enforcement officials have overstepped constitutional limits in aspects of their handling of the drug dependent individual. Perhaps as a result, judicial attitudes toward the drug dependent person are evolving in a direction destined to remove the drug dependent individual from the administration of criminal justice.

When Congress passed the Harrison Narcotic Law, the professional relationship between the physician and the drug dependent person was exempted, provided the doctor prescribed narcotics "in the course of his professional practice only." The interpretation of that clause of the Harrison Act by the judiciary severely restricted the situations in which a drug dependent person could legally obtain narcotic drugs (opiates, cocaine, and their analogs) from a physician. The first two times the question came before the Supreme Court, the court gave similar conclusions on the permissible limits of the phrases "to a patient" and "in the course of his professional practice only." "Manifestly," the court said, "the phrases" do not extend to "a distribution intended to cater to the appetite or satisfy the craving of one addicted to the use of drugs."[1] Legal limitations, reinforced by federal readiness to prosecute, placed ambulatory treatment in doubt. As a result, physicians were limited to dispensing of narcotics for treatment of somatic symptoms and for physiologically withdrawing a dependent person from drugs. Such limitations created a new class of criminal offenders, drug dependent persons still using narcotics, now obtainable only illicitly.

As early as 1925, the Supreme Court recognized the status of drug dependence as a disease. Of the Harrison Act, the court said, "it says nothing of addicts and does not undertake to prescribe methods for their medical treatment. They are diseased and proper subjects for treatment..."[2]. Despite the judicial invitation, the medical profession, burned in earlier brushes with the law, did not attempt to test the legal limits of the Harrison Act. Recently however, the Supreme Court's earlier categorization of drug dependence as a disease has been translated into substantive limitations on the police power.

Prior to 1962, one third of the American states had legislation making the status of opiate addiction a criminal offense. In such states, arrests under this legislation accounted for a high percentage of all narcotics arrests. On June 25, 1962 the Supreme Court decided the case of

1. Jin Fuey Moy v. U.S., 254 U.S. 189,194
2. Linder v. U.S., 268 U.S. 5, 18

Robinson v. California, (370 U.S. 660) in which it held that such legislation, making the "illness of opiate addiction a crime, was invalid under the Eighth Amendment to the United States Constitution. The court held that making it a criminal offense to be diseased is a cruel and unusual punishment.

At the time of the decision, Robinson v. California did not elicit a great deal of academic discussion. It was largely overshadowed by other cases decided the same term, especially the first of the reapportionment cases, Baker v. Carr, (369 U.S. 186) and the school prayer case, Engel v. Vitale (370 U.S. 421). The first extension of Robinson is coming in the field of alcoholism. The question of whether or not ordinances prohibiting public drunkeness can be applied to chronic alcoholics has just been answered in the negative by two federal circuit court cases, Driver v. Hinnant (356 F.2d. 761) and Easter v. District of Columbia (361 F.2d.50). The question may reach the Supreme Court on appeal of an affirmative California decision, People v. Budd (Cal. 2d.). In the area of drug abuse, the Robinson reasoning points to the day when a drug dependent person may be criminally prosecuted only for the act of sale, or posession with intent to sell. If a drug dependent person is legally diseased and may not be criminally prosecuted for that disease, it appears that he may not be criminally prosecuted for exhibiting such "symptoms" of his disease as unlicensed possession of narcotics for his personal use, use of narcotics, or possession of narcotic paraphernalia for his personal use.

While the strict holding of Robinson applies only to statutes making the status of narcotic addiction criminal, the decision also clearly forbids the use of other statutes, such as vagrancy and disorderly person ordinances to accomplish the same end. It should be noted that nothing in the Robinson decision makes it legal for non dependent persons to use or possess drugs. While one may only conjecture at the timetable the courts will use to fully implement the reasoning of Robinson, it is not too early for prudent law enforcement officials to become aware of the evolving legal attitudes.

B. FEDERAL NARCOTICS LAWS

Federal legislation to control the market in narcotic drugs dates back to an 1870 import duty on raw and prepared opium. Between 1870 and 1914 various attempts were made to stop the traffic in opium. The Opium Exclusion Act of 1909 prohibited the importation of opium, except for medicinal purposes. Early in 1914, export and transshipment of opium were prohibited also. A prohibitive tax on the domestic manufacture of opium was next, followed by the Harrison Act of December, 1914, which forms the base of existing federal law.

The Harrison Act (38 Stat. 785-790) provided for the licensing and special taxation of all persons who produce, import, manufacture, sell or dispense opium, cocaine and their derivatives. The act prohibited interstate transportation of taxed products by unregistered persons. At the time of passage, the power of the United States Congress to legislate

merely for the purpose of stopping the purchase of narcotics was in doubt. Therefore, the Harrison Act was drafted primarily as a revenue measure, under the taxing power. Since the commerce power had not then achieved the broad recognition it has today, the Harrison Act's reliance upon it was secondary. This tax background, reinforced by the tax base of the later Marijuana Act, has tended to unduly hinder development of federal plans to provide post-hospital treatment of narcotics users, etc. There seems to be no great obstacle remaining which requires that new legislation be based on the taxing power or old legislation remain that way.

The original Harrison Act of 1914 provided penalties of not more than $2,000 in fines or more than five years imprisonment, or both, in the discretion of the court. Subsequent amendments have greatly increased penalities. In 1937 higher penalties were instituted for habitual offenders. The Boggs Act of 1950 again increased penalties for subsequent offenders and removed from the federal judiciary the power to suspend sentence or order probation in such cases. Finally, in 1956, penalties were again increased and all remaining judicial discretion was removed, even in the case of first offenders.

The following chart illustrates present penalties:

Applicable Penalties for Sale or Transfer of Heroin and Marijuana, and for Possession of either Heroin or Marijuana under the Export-Import acts.

	Mandatory Minimum	Statutory Maximum	Discretionary Fine
First offense	five years imprisonment	twenty years imprisonment	up to $20,000
Second or subsequent offense or sale by one over 18 to one under 18	ten years imprisonment	forty years imprisonment	up to $20,000

There is no judicial discretion to suspend the above sentences or order probation for individual offenders. The only discretionary power remaining in the courts is the imposition of a fine.

The other major federal penal law covering narcotic drugs is the Narcotic Drugs Import-Export Act of 1909 (35 Stat. 614, ch. 100). The act forbids the import of narcotic drugs, except in amounts determined by the Commissioner of Narcotics as necessary for medicinal purposes. Penalty sections were originally identical to those of the Harrison Act and present penalties and judicial limitations are identical to the chart above.

The Marijuana Tax Act of 1937 is classified as a narcotics law. The marijuana law is enforced by the Federal Bureau of Narcotics and is codified with the laws governing opium and its derivatives rather than with other dangerous drugs. The federal legislation is dealt with here

because marijuana is legally defined as a narcotic, a definition that bears no relation to marijuana's pharmacological properties. The act of August 2, 1937 (50 Stat. 551, ch. 553) imposed occupational excise taxes, transfer taxes, and a registration requirement similar to the Harrison Act. Penalties for violations of the act are also identical to those of the Harrison and Import-Export Acts shown in the chart on the preceding page.

Under federal law, possession of heroin or marijuana can carry lesser penalties than those above, if the prosecution takes place under 26 U.S.C. 4704a, which does not carry with it the imputation of illegal import. Under this act, conviction carries two to ten years for a first offense, five to twenty for a second. In addition, these penalties are not mandatory; the judiciary retains discretion to suspend sentence and/or order probation. Since possession is punishable under two statutes, carrying widely differing penalties, discretion on the choice of charge rests with the Bureau of Narcotics and the U.S.Attorney's office.

C. FEDERAL AGENCIES DEALING IN DRUG ABUSE

The Federal Bureau of Narcotics was established as part of the Treasury Department by act of Congress on June 14, 1930 (46 Stats. 585, ch. 448). The Bureau was created in order to "centralize all authority and information" in a single department. At Congressional hearings it was claimed that centralization would assist exchange of information and promote international cooperation. The act also provided that the Bureau cooperate with the American states, in "recognition of the rights of the states to control the professional use of narcotic drugs by their physicians and to extricate the federal government from the position of appearing to be regulating the practice of medicine in the several states (S. Rept. 785, 71st Cong.)."[3]

The Bureau of Narcotics, headed by the Commissioner of Narcotics, supervises the administration of the tax laws governing the use of narcotic drugs and marijuana. The Bureau shares administration of the Narcotic Drugs Import-Export Act with the Bureau of Customs. The Bureau of Narcotics also licenses domestic production of narcotic drugs whenever necessary and issues import quotas and permits. The structure of the Federal Bureau of Narcotics and its detailed functions are discussed later in this report.

The Bureau of Customs is also part of the Treasury Department. The Bureau's principal function is to assess and collect import duties and prevent smuggling, including the smuggling of contraband such as narcotics. The laws relating to narcotics are enforced by the Customs Service, which dates its origins back to 1789. The investigative branch of the Customs Service, the Customs Agency Service, performs the detection and enforcement duties of the Service.

3. Senate Misc. Document #120, 84th Congress, 2nd Session p.7. This document provides a comprehensive survey of narcotics legislation prior to 1956.

The Customs Agency Service is concerned with virtually every narcotics case made by the Bureau of Customs. Agents of the Agency Service do investigative and undercover work, often in cooperation with local and state police and the Bureau of Narcotics. The structure and detailed functions of the Customs Agency Service are discussed later in this report.

The functions of the United States Public Health Service concern it with the problems of drug abuse also. Through the Bureau of Medical Services, the Public Health Service operates various specialized hospitals. Among these are two for the treatment and cure of narcotics addicts at Lexington, Kentucky and Fort Worth, Texas. Patients are admitted to these hospitals either voluntarily or via conviction for a federal narcotics offense.

The National Institutes of Health is the principal research arm of the Public Health Service. Among the Institutes, which are concerned with basic research, is the National Institute of Mental Health. The National Institute of Mental Health provides grants for research programs related to drug abuse. In addition it operates the Center for Studies of Narcotics and Drug Abuse and is associated with the Center for Alcoholism and Drug Abuse at Lexington, Kentucky. Through the Division of Chronic Diseases, grants are provided for studies which though directly aimed at the reduction of cigarette smoking, may ultimately provide data relevant to control of drug abuse.

The Food and Drug Administration of the Department of Health, Education, and Welfare has primary cognizance over all non-narcotic dangerous drugs except for marijuana. The FDA role is discussed in the following section.

D. LAWS RELATING TO OTHER DANGEROUS DRUGS

In order to control the traffic in barbiturates, amphetamines and hallucinogenics, so as to stop diversions from legal channels, the Congress passed the Drug Abuse Control Amendments of 1965. The amendments are based on the commerce power of Congress, as opposed to the taxing power base of the Narcotics and Marijuana laws. The amendments do not apply to either narcotic drugs or marijuana. The amendments became effective on February 1, 1966 and are administered by the Food and Drug Administration.

The amendments made major changes in the drug provisions of the Federal Food, Drug, and Cosmetic Act. First, the amendments eliminated the necessity of proving that drugs have moved across state lines, which formerly had to be proved in each case. Secondly, wholesalers who handle depressant or stimulant drugs are required to register with the Food and Drug Administration. Manufacturers were required to register under 1962 amendments (Kefauver-Harris). Finally, pharmacists were required to take an inventory of drugs on February 1, 1966 and then keep their invoices and prescriptions for administrative checking.

The Amendments make it illegal to manufacture the designated drugs unless registered, to distribute the drugs to anyone not licensed, or to possess the designated drugs, with intent to sell. Possession for one's personal use is not illegal under the 1965 Amendments, thus avoiding the creation by legislation of a new class of criminal offenders. In proving possession with intent to sell, the burden of proving intent rests on the government. As a practical matter, the Food and Drug Administration does not plan to prosecute for possession with intent to sell, except in cases of very large amounts of drugs where intent is clear. Penalties for violations are the same as for other sections of the Federal Food, Drug, and Cosmetic Act -- $1,000 maximum fine and/or one year imprisonment for a first offense, $10,000 and/or three years for a second offense and for willful violation. The 1965 Amendments provide special penalites for anyone over 18 who gives or sells the drugs to anyone under 21. The penalty for a first offense is a fine of not more than $5,000 and/or imprisonment for not more than two years. Subsequent offenses carry a fine of not more than $15,000 and/or imprisonment for not more than six years. Judicial discretion is not impaired by mandatory minimum sentences.

In addition to the statutory changes, new enforcement personnel have been authorized to carry out the Amendments. The powers of the Food and Drug Administration inspectors will be similar to those of the agents of the Bureau of Narcotics. In addition to the administrations' eighteen District Offices and 58 Resident Posts, 9 Drug Abuse Control Offices are being set up across the country. For this fiscal year 198 criminal investigators have been authorized. Nearly 150 members have been already trained in a special course at the University of California at Berkeley.

E. STATE AND MUNICIPAL LAWS

The states share with the federal government a concurrent jurisdiction in the area of drug abuse. The power of the state to regulate the drug traffic within its borders has been explicitly recognized and was recently reaffirmed by the United States Supreme Court in Robinson vs. California. In the exercise of that jurisdiction, all fifty of the American states have enacted laws regulating narcotic drugs.

The vast majority of American states have enacted, in one form or another, the Uniform State Narcotic Act. The Uniform Act was approved by the National Conference of Commissioners on Uniform State Laws in 1932. The Uniform Act consists of 26 sections which define "narcotics" (the definition includes marijuana as a narcotic drug); forbid the illegal manufacture, possession or dispensation of drugs; allow certain individuals to dispense them under state supervision and generally duplicate other federal provisions. The penalty section of the Uniform Act was left blank so that each state might impose its own penalties. The Uniform Act made no provision for treatment and did not define the status of addiction as criminal, leaving each of those questions to state discretion.

Many states have modified the act upon adoption. The greatest diversity is to be found in the sections on penalties. State penalties range from six months for a first sale or transfer offense to 25 years. Most of the provisions are as strict or stricter than federal law.

Nearly one third of the states enacted laws making the status of addiction a crime. There was no uniformity in those provisions, some being misdemeanors, some felonies, with penalties ranging from 6 months to 5 years. New Jersey narcotic laws, described by the Bureau of Narcotics as a model set, provided that an addict could be given one year as a disorderly person. All these laws are now unconstitutional due to the Robinson decision.

States and municipalities also use a variety of ordinances to supplement the usual regulations. New Jersey requires all persons convicted of a narcotics offense to register and submit to fingerprinting and photographing, if they intend to remain in New Jersey for more than 24 hours. Several cities have ordinances making possession of a hypodermic syringe illegal, unless under prescription. It is an offense in many areas for a person under the influence of drugs to drive an automobile. The laws of New York and California, which follow, illustrate some of the local variations.

F. NEW YORK STATE LAW

The State of New York provides a recent example of a comprehensive state program for dealing with the problem of drug abuse. The state's penal laws cover both narcotic and other dangerous drugs. The state's recently enacted civil commitment program covers all those addicted to narcotic drugs and those in imminent danger of being so addicted.

New York's penal code does not follow the Uniform Narcotic Act in its categorization of narcotics offenses. The code divides sale into two offenses by the ages of the seller and buyer, and divides possession into three categories by the amount of drugs possessed. Sale to those under twenty-one carries penalties of 7½ to 15 years imprisonment for first offenses. Sale to one over twenty-one carries a first offense penalty of 5 to 15 years imprisonment. New York's habitual offender statute prescribed 15 to 30 years imprisonment for second offenders and 30 to life imprisonment for a third offense.

New York's possession offenses are graded by amount. The following chart illustrates the limits and penalties:

	Heroin	Morphine	Cocaine	Opium	Marijuana	Marijuana Cigarettes	PENALTIES
Possession with intent to sell implied (rebuttable)	1 oz. or more	1 oz. or more	1 oz. or more	2 oz. or more	1 oz. or more	101 or more	5 to 15 years
Possession (or intent rebutted)	1/8 oz. to 1 oz.	1/8 oz. to 1 oz.	1/8 oz. to 1 oz.	1/2 oz. to 1 oz.	1/4 oz. to 1 oz.	25 to 100	3 to 10 years
Mere Possession (misdemeanor)	up to 1/8 oz.	up to 1/8 oz.	up to 1/8 oz.	up to 1/2 oz.	up to 1/4 oz.	up to 25	up to 3 years

The remainder of New York's penal statutes concerning narcotics complement the crimes of sale and possession. In New York it is a misdemeanor to keep a building where drugs are kept or sold, or where addicts visit. Such buildings are defined in the code as public nuisances. It is also a misdemeanor to sell or possess a hypodermic needle or syringe without a prescription. It is a felony to hire a child to transport narcotics and a felony to possess knockout drops with intent to administer them without consent. Finally, New York's conspiracy law makes it illegal to "conspire to commit the crime of illegally selling narcotics." The crime of so conspiring is a felony and "some act, besides the act of agreement" is required in order to convict.

New York also regulates other drugs of abuse. In New York it is a crime to sell or otherwise transfer any "depressant or stimulant drug," except as provided by law. Penalties are one to five years for sale to a person under 21, and not more than five years for sale to one over 21. Possession of any amount of depressant or stimulant drugs, except as provided by law, is a misdemeanor for the first offense, a felony for the second offense. Possession or sale of hallucinogenic drugs (including mescaline, peyote, stramonium, psilocybin and LSD) is a misdemeanor, a felony on the second offense. The licensing features of the New York Depressant and Stimulant Drug Control Act are of the same order as federal regulations.

G. CALIFORNIA'S NARCOTIC AND OTHER DANGEROUS DRUGS LAWS

California's laws regulating narcotics and other dangerous drugs also cover the field. The laws governing narcotics include all opiates and marijuana and the laws covering dangerous drugs include amphetamines, barbiturates and, by virtue of recent amendments, hallucinogens. California's drug laws are enforced both by local police and sheriffs and by a special Division of Narcotic Enforcement, part of the State Department of Justice.

California narcotic law follows the trend of defining medical practice, by stipulating that a prescription of narcotic drugs to an addict "for the purpose of providing the user with narcotics sufficient to keep him comfortable by maintaining his customary use, is not a prescription within the intent and meaning of" the exceptions in the law. An addict may not be treated for his addiction except in an institution approved by the Board of Medical Examiners, where the patient is kept under restraint and control or in a city or county jail, a state prison, a state hospital, a state narcotic hospital or a county hospital. Halfway houses are not prohibited by the law, but they must register with the Board of Medical Examiners and are subject to official inspections. In addition, all residents of such houses must register with the local police or sheriff upon entrance and again upon departure from the house.

Possession of narcotic drugs, other than marijuana, is an offense punishable by not less than two nor more than ten years in a state penitentiary. A second offender is liable to five to twenty years imprisonment and a third offender is liable to not less than fifteen years to life. All the minimum sentences are mandatory, the judiciary being powerless to suspend sentence or order probation. Unlike New York, where possession is gradated by amount, possession means any amount. Until very recently convictions were obtained in California for "possession" of mere traces of drugs. The California Supreme Court recently limited the law to apply only to usable amounts. Possession of any narcotic, other than marijuana, with intent to sell is punishable by slightly higher minimum sentences.

Possession of marijuana follows the same pattern as possession of other narcotic drugs, the main difference being lower sentences. First offenses carry a minimum of one year, second offenses two years and third offenses not less than five years in a state prison.

Dangerous drugs are restricted in California. The group now includes all amphetamines, barbiturates and hallucinogens. The range of penalties for the main offenses are as follows:

	First offense	Second and subsequent offenses
Illicit Possession	not more than $1000 and/or one year (cj)*	not more than one year (cj) or one to five (state prison)
Illicit Possession with Intent to Sell	not more than one year (cj) or one to three in state prison	two to ten years in state prison
Illicit Manufacture or Sale	not more than one year (cj) or one to five in state prison	two to ten years in state prison

* (cj) = county jail

It is also illegal under the restricted drug law to possess any paraphernalia for the injection of a restricted drug.

Various California laws prohibit the cultivation of Lophophora (peyote), possession of any narcotic paraphernalia, visiting any place where narcotics are used, with knowledge that such use takes place, or maintaining any place for the purpose of selling or using narcotics. In addition, it is illegal to be under the influence of narcotics, except pursuant to a legal prescription.

The California Motor Vehicle Code makes it illegal to drive while under the influence of any drug (aimed at pep pills). The code also makes it illegal for any narcotic or amphetamine addict to drive any vehicle upon the highway. That section of the code applies whether the addict is under the influence of drugs or not. Under California law a narcotics addict may not possess any firearm capable of being concealed upon the person. Finally, California requires that any person convicted of any narcotics offense within the previous five years, either in California or elsewhere, must register with the local police or sheriff within thrity days of entering the city or unincorporated area. The registration process consists of a statement in writing by the person registering, along with the taking of photographs and fingerprints.

The New York and California laws illustrate the variety of regulations which the states have enacted to harrass and attempt to control the traffic in and abuse of drugs. State programs for treatment of drug dependence are now beginning on a large scale, although the vast majority of states still maintain no facilities for treatment and rehabilitation. The first major efforts, the California and New York programs, are discussed later in this report.

H. LIMITATIONS ON JUDICIAL DISCRETION

In recent years the United States Congress and many state legislatures have removed the judiciary's traditional discretion to suspend sentence and/or order probation in narcotics and marijuana cases. At the federal level the trend began with the Boggs Act of 1950, which removed such discretion in cases of second and habitual offenders. In 1956, the limitations were extended to all narcotics and marijuana cases, regardless of the individual variables of the case.

Such limitations have proven popular with legislatures and law enforcement personnel. These limitations on the judiciary are manifestations of a "get tough" enforcement bias. In addition, they have provided a vehicle for legislative reaction to what they consider a generally over-active judiciary. Evidence is scanty upon which to gauge the effect of such limitations on enforcement. However, certain conclusions can be drawn.

Discretion has not disappeared from the enforcement of narcotics laws; it has shifted from the judiciary to the prosecuting attorney's office. The pros and cons of having the judiciary (with its theoretical independence) perform this function rather than the prosecutor are well known. It is beyond the scope of this study to pass on opinions that the shift in discretion has made it more difficult to get guilty pleas and more difficult to get convictions from juries.

It has been alleged in enforcement circles that high mandatory minimums have driven organized criminals out of the narcotics traffic in many areas. It is generally agreed that many individual criminals have withdrawn from the narcotics traffic in recent years. This shift out of narcotics appears in part related to the enactment of higher penalties and their successful application to certain individuals. The shift also follows a trend of those in organized crime to turn to legitimate business and remove themselves from dealing in contraband goods. As part of the removal of discretion from the judiciary, legislatures have at the same time significantly increased penalties. It was true prior to the removal of discretion that organized criminals did not receive the benefit of that discretion when convicted. Organized crime may have been prompted to move out of narcotics because of apprehension that they would be the recipients of new, higher penalties, judicial discretion or no.

One clear result of the removal of judicial discretion by the legislatures is the animosity which such moves have created in the judiciary. Judges report that they are more likely to "bend over backwards" for defendants, who, were it not for mandatory minimum sentences, would have been good candidates for probation or a suspended sentence. Judges operating in a mandatory minimum situation are more willing to grant motions for supression of evidence because of a feeling that the minimum imprisonment is unwarranted in the particular case. In one recent marijuana case a motion to suppress was granted on a doubtful point of law. "If it had been a dangerous weapon rather than a marijuana cigarette" the judge told the prosecutor, "the result might have been different."

The use of a shotgun approach to sentencing by removal of judicial discretion does not recognize the existence of variable facts in individual cases. The drug dependent persons and others who could profit most from probation and/or suspended sentences are foreclosed not by an independent judgment on the merits of their individual case, but by legislation.

It is true that a very few organized criminals have been sent away under these provisions. It must be remembered that these are the persons who were least likely to benefit from judicial discretion anyway. At the same time, this legislation has denied opportunities for rehabilitation to many more persons. The recent case of an Air Force lieutenant is illustrative. Arrested for possession of marijuana cigarettes, he was sentenced to five years imprisonment by a reluctant judge. With no past record of any kind and no drug dependence to cope with, this individual would have been a perfect candidate for probation. Instead, he

will spend five years in jail in addition to the disgrace and wrecked career he has already experienced. We feel that whatever benefit this legislation may have had, in conjunction with other trends, it has been outweighed by the lost opportunity and animosity it has created. The evidence reaffirms the conclusions on the efficacy of mandatory minimum sentences reached by the President's Advisory Commission on Narcotic and Drug Abuse of 1963.

V. ENFORCEMENT OF DRUG LAWS

A. INTRODUCTION

The preceding chapter described briefly the laws in existence to cope with problems of narcotics and other dangerous drugs. The agencies created by law were listed. This chapter describes what these agencies do to enforce the laws. The chapter begins by explaining some of the difficulties of enforcing any laws against vice. The problems of ensuring and measuring effective enforcement are then taken up. The role and activities of enforcement agencies at the Federal level are described. The role of international agreements is described. The methodology of enforcement against drug offenders is described in a section which brings in the activities of state and local agencies. Finally, three U.S. cities are discussed in detail, in terms of their drug problems, official responses to these problems, and their apparent success. The cities examined are New York, Los Angeles, and St. Louis.

B. GENERAL PROBLEMS IN ENFORCEMENT OF VICE/NARCOTICS LAWS

All laws which attempt to proscribe a willing exchange of goods and/or services present special difficulties of enforcement. Traditionally, these offenses have been grouped under the label "vice," and have been handled by a special "vice squad." The group includes prostitution, gambling, and laws proscribing the use of narcotic and other dangerous drugs.

In an area such as narcotics, which is by its very nature covert and personal, information concerning significantly high elements of the traffic is particularly difficult to acquire. Drug offenses do not involve a "victim" in the traditional sense. There is rarely a non-crank complainant to bring offenses to the attention of the authorities. As a result, it is necessary for the police to seek out offenses. It is the need for information, the need to know what is happening, and the isolation of higher echelons by intermediates that make enforcement in this area especially difficult.

In addition to the lack of complainants, citizen participation in narcotics enforcement is lower than in most other forms of crime. Among the medical and social agencies that deal with drug dependent persons, the code of good faith with their clients forbids giving any information to enforcement officials. In the sub-culture in which the drug offenses take place, people are reluctant to give information to law enforcement personnel, (1) because of a general distrust of the police, and (2) lack of consensus on norms that make drug abuse illegal.

In areas where the incidence of sale and use is relatively high, there has developed a general attitude against personal use or sale while at the same time there also exists a general willingness to look the other way and certainly not to give information freely to representatives of enforcement agencies. There exists a very prevalent "them" and "us" dichotomy which builds a wall of silence if not resistance, resulting in lack of cooperation between the members of the sub-culture and the enforcement officials.

Law enforcement officials are left in the position of having to seek out the information necessary for effective enforcement. This is done through use of undercover investigation and informants. The need for information makes inter-agency cooperation within jurisdictions especially critical. When all agencies cooperate positively, within limits only of avoiding leaks by corrupt officials, the chance of overall effectiveness greatly increases.

C. ENSURING AND MEASURING EFFECTIVE ENFORCEMENT

1. The Enforcement Agency Network

The Federal enforcement agencies have already been listed in the previous chapter. At the state and local level various combinations of agencies exist in different areas. A few states (generally those with the larger problems) have state level enforcement agencies for narcotics and other dangerous drugs. Most states have some type of state police or highway patrol, but their contribution to drug enforcement is more by chance than design. At the local level, some municipal police departments have separate drug abuse departments, some have only a vice squad which includes drugs, and some make no differentiation at all. Sheriffs' Departments also can be broken down into those which have separate "narco" squads, vice squads, and no differentiation. The given pattern in any area usually bears some relation to the degree to which drug abuse exists, or is thought to exist, by the authorities.

The effective operation of each agency depends to a degree on the transfer of information and other forms of assistance between agencies.

2. Inter- and Intra-Agency Cooperation

Cooperation among agencies is necessary if information and other forms of assistance is to flow, and combined tactics developed and applied effectively. With such a variety of enforcement agencies within a level and at different levels, the extent of cooperation might be expected to vary. It does in fact vary, from state to state, from municipality to municipality. What has been unexpected is the fact that the general level of cooperation is lower than official pronouncements would indicate. At the operational level cooperation is sometimes very poor, even in areas of high incidence of drug abuse.

Poor cooperation can result from many causes. In some cases lack of cooperation is intentional as a result of suspected corruption or known carelessness of one side. In some cases, of course, conflicts of judgement or personality exist. In other instances, lack of cooperation is unintentional, resulting from ignorance either of the existence of another agency or of its functions. Personality conflicts are unavoidable in any organization or group of organizations. What is avoidable is lack of cooperation caused by undeservedly low reputations and ignorance.

All enforcement agencies, with the notable exception of the Customs Agency Service, seem reluctant to share credit for jobs completed. This reluctance is partially a matter of professional pride, of course. In addition, the number of cases made is usually a criterion for promotion, which may account for the appearance of having one eye on the newspapers. The competition that these factors create is normally useful to prevent unwarranted complacency, but the situation in drug enforcement today seems to have gone too far.

Experience in the field is that state and local enforcement officers state that cooperation with the FBN is less than complete, and give a variety of reasons why this is so. One reason consistently given is that federal officers, in the view of local authorities, take an undue portion of the credit for joint work. Another reason lies in a feeling among local officials (confirmed by federal officers) that the FBN considers local officials as the second team in narcotics enforcement and themselves as the first. Such attitudes are a justifiable part of any agency's morale program. Yet, unless local officials are unduly sensitive, it appears that these attitudes have developed on the federal level to a dysfunctional degree.

Cooperation between state and local agencies also varies. While there appear to be fewer conflicts of judgement or personality than between local and federal levels, inter-agency difficulties exist, as among almost any bureaucratic units. One problem is that local agencies seldom have sufficient budgets to make large buys of narcotics when an appropriate occasion arises. In certain areas state agencies make the necessary funds available to local agencies on short notice. In other areas, where local-state cooperation is poor, such opportunities are missed.

The Customs Agency Service has had a special problem: local agencies often lack knowledge of the Service's functions and unique search and seizure capabilities. Situations in which assistance could have been provided to local agencies have sometimes been lost because the inland agencies did not know that the Service had jurisdiction.

Intra-agency transfer of information is also wanting in some areas. Some local officers have not had the training necessary to recognize situations in which specialized narcotics enforcement personnel can be valuable. Across the country more drug arrests are made by regular police than by the specialized units within the police forces. Clearly, the non-specialized policeman encounters large numbers of situations of drug abuse. To be effective these situations must commonly come to the attention of specialized personnel for either direct handling or advice. Training programs in this area have been scanty. The training program run by the FBN has been the largest and most fruitful, and it will be discussed in detail later.

Finally, at the local level we find that higher police officials are misinformed concerning the way in which their specialized drug departments are working. This misinformation goes to both the techniques used in narcotic and other drug enforcement and to what degree these techniques are being used in their own department. One result of this misinformation is an inability to gauge effectively the job being done at the street level. We find traditional modes of measuring effectiveness being applied from the top onto a drug enforcement situation where these measures are especially poor standards.

3. Measures of Effectiveness

Across the United States, in local, state, and federal agencies, the standard measure of effectiveness in drug enforcement is the number of arrests made. The use of such a standard should be officially discouraged, since it does not provide a reliable guide to enforcement effectiveness and it can lead to abuse of the arrest power by enforcement officials.

The use of arrests as a measure of effectiveness is of doubtful merit when used with "known" crime, such as murder, burglary, and car theft. It is even more fallacious when used with "unknown" crime such as drug abuse. With murder, burglary, car theft, etc., the police know, within certain limits, the extent of crime committed. This gives officials a number against which to compare the number of individuals brought to justice for those crimes. The number of arrests is used, as opposed to the number of convictions because, (1) it is always higher, (2) it is the number for which the cop on the beat is responsible.

Apparently, few law enforcement agencies follow their cases through the legal machinery to see how many result in prosecutions, how many in convictions, how many in useful informants. To use convictions, the argument goes, brings other variables into the picture for which the policemen cannot be responsible, such as skill of counsel, sentiments of juries, and judges, etc. Certainly, any measure of police effectiveness should take into account those cases lost by reason of police abuse (illegal search, etc.) and those cases lost because the arrested party was innocent or evidence was so flimsy the case never came to court.

The FBI crime reports measure effectiveness by cases "cleared by arrest." In many situations more than one person is arrested for the same crime and one arrestee will "cop out" to multiple crimes since he loses nothing in the process. He may even win the gratitude of his fellow criminals. Certainly, such duplicates should not be credited as effectiveness.

The problems with using arrest totals as the measure of effectiveness are multiplied when they are used with drug-abuse offenses, the total of which can only be guessed at. How can one evaluate a 10% increase in arrest rate without knowing whether or not the number of offenses committed rose, say, 20%. There are anomalous cases, as happened recently in St. Louis County, Missouri, where policy changes resulted in a decrease in arrests and an increase in convictions. Clearly, the use of arrests as the measure of effectiveness provides limited guidance to police work. Worse, such a standard may have dysfunctional effects. If evaluation is based on cases made, there is no incentive for the police officer to think in terms of the department's long-term goals, but instead to think in terms of his own short-term goals, i.e., his own statistical record.

Another problem associated with the use of arrests as a measure of effectiveness, is abuse by some enforcement officials of arrest privileges. In the enforcement of drug laws, there are two incentives to abuse arrest privilege. There is the need for information, which stems from the nature of the crime itself; in addition to this is the use of arrest totals as a measure of effectiveness.

Prior to Robinson vs. California, the vehicle for arrest of users was legislation making the status of addiction a crime. During 1961 in St. Louis County, for example, over half of the total arrests by the narcotics squad were made under such legislation. Less than 10% of those arrested under that legislation were ever proceeded against in court -- 5 out of 55. The other 50 were arrested, held for 24 or 48 hours, and then released after having, (1) told police what they knew about the local drug traffic and/or agreeing to become informers, and/or (2) improved the arresting officers record by adding to his total. Since Robinson, such arrests occur for vagrancy, disorderly conduct, or committal for treatment. It is easier and cheaper to get information from arrestees than it is from the paid informer on the street. In view of the importance of securing good informants to correct grave social evils, there is a problem of balancing the need for such information against the infringement of civil liberties which may occur. Such a problem is beyond the scope of this report.

Recent Supreme Court decisions dealing with police practices do not affect this abuse of the arrest privilege. The court's sanction, withholding a successful prosecution from the police, is not applicable when there is no plan to prosecute. When the police never intend to prosecute, they suffer no penalty for failure to give requisite warnings

to the accused or for engaging in lengthy interrogation. In addition, since cases do not come to court and are thus never appealed to higher courts, this type of arrest does not normally come to the attention of the judiciary.

D. ROLES AND MISSIONS OF FEDERAL NARCOTIC AND DRUG ENFORCEMENT AGENCIES

1. Federal Bureau of Narcotics

a. Background

The Federal Bureau of Narcotics has dominated the development of American official actions and attitudes concerning narcotics and marijuana and has strongly influenced popular conceptions of the drug abuse problem in America. It has worked with singular devotion towards the enforcement of laws and the establishment of broader and more severe laws related to drugs under their jurisdiction. The size of the Bureau's operative force has remained low over the years, less than 300 agents in the field. Their annual budget has also remained low, still under $6,000,000. The Bureau of Narcotics, and the laws behind it, must be given credit for constraining the illicit traffic in narcotic drugs, and for the concomitant reduction in the number of opiate addicts in the United States. Data on past and present effectiveness of the FBN is given in the following chapter and in Appendix C.

Unfortunately, the Bureau's concentration on law enforcement has led it to undervalue experimental research into methods of treatment. Experimentation needs to be legitimate, well designed, independently evaluated, and subject to review and approval by responsible public health oriented agencies. The Bureau's suspicion of experimentation can be explained both historically and in terms of organizational single-mindedness. Early experiments in treatment, especially the ill-fated opiate clinics, were poorly designed and poorly executed. Many early programs lacked necessary safeguards and justifiably raised doubts in enforcement circles. There now exists mutual suspicion, annoyance, and harassment between devoted law enforcement officers of the bureau and various medical, public health, social, and vocational rehabilitation workers.

There is, of course, considerable research going on that has never been brought into question by the FBN, and there are a number of researchers who have never seen an FBN agent. Yet, the feeling persists among a number of researchers that if one's opinions vary too far from FBN policy, one may be harassed by the Bureau. If such a feeling is based on erroneous information, steps should be taken to effect a reconciliation, which would include recognition on FBN's part that research has something to contribute to the law enforcement aspect of narcotics control; if the feeling is justified, steps should be taken to alter the situation.

b. Education and Training Activities

The Federal Bureau of Narcotics has played a large role in the development of attitudes concerning drug abuse. This is true both for the general public and for law enforcement officers. One of the Bureau's important educational activities is its training school for state and local enforcement agencies. This serves a very important need, much appreciated by its users; it needs expansion and coordination with FDA. In response to recommendations of the President's Advisory Commission on Narcotic and Drug Abuse of 1963, the program has been expanded to some degree.

The FBN's enforcement role has led it to employ scare tactics in its attempts to educate the public about the dangers of drug abuse. Information presented to the public and to special audiences such as school administrators tends to be fragmentary and biased toward the bizarre and sensational. Experience in other educational situations has proved this approach to be ineffective and often counter-productive. Such activities have helped impair the esteem in which medical and treatment officials hold the FBN.

In 1965, FBN agents spoke to over 35,000 people, not including enforcement personnel, so their influence is considerable. One example of the miseducation fostered by the Bureau is a speech recently delivered to university administration and security officers in Philadelphia. The speaker says at one point that smokers of marijuana are young people "who seldom bother to register or attend classes" and "who often live off the allowances of coeds." A few moments later, however, he says that the students who use marijuana

> come from good, though not necessarily affluent, background. They are the students who might be termed beatniks, misfits, or exhibitionists. (They appear to be those who are attracted to radical political causes, anti-art and literary "beatism.") The smoking of marijuana is a communal affair but the motives of the individual vary....
>
> What is marijuana? The delegates around the council table in the United Nations refer to it as cannabis. Drug-crazed soldiers in the Congo shout excitedly about dagga. White-robed figures in the Moroccan Casbah puff hashish in their hubbly-bubbly water pipes. Smugglers slipping across the

> Rio Grande whisper together about weed and marijuana. In dimly lit apartments in New York's Greenwich Village and in dank coffee houses in the Soho District of London, users smoke reefers, weed, or pot.

The sentence in parenthesis was crossed out in our copy of the speech; we do not know if it was included when the speech was delivered. The passage is essentially an appeal to a group of prejudices: against beatniks, against African blacks who do evil things, against radicals, etc. Marijuana is a very mild form of a wide range of Cannabis products; these are not, of course, taken as equivalent.

The most misleading and suggestive passage in the speech is the following:

> Pat Gannaway, veteran chief of the Intelligence Division of the Dallas Police Department, scoffs at the pseudointellectual who proclaims that marijuana brings one to the outer limits in sexual relationships. Gannaway terms it the weapon of the panderer. In his area, marijuana is used by the panderer in the seduction of the innocent. The procedure is described by the seducer in "white-slave" trafficking circles as "turning a little girl out." The routine basically is luring a young girl to a motel room and plying her with marijuana. When she is stupefied she is taken to bed. Usually, a fellow panderer is invited to the room and, before the night is out, a paying customer. When the day dawns, the girl, in embarrassment, remains with her seducer.

Not only does marijuana not have the implied effect, but the speaker ignores one important problem with his quotation: what is a nice innocent girl doing smoking pot in a motel room with a pimp in the first place? Moreover, the speaker does not bother to tell his audience that Detective Gannaway also thinks organized crime was created by the international communist conspiracy as part of its program to overthrow the U.S. government.

The problem of misinformation is not limited to the general public. At a recent meeting of the international Narcotics Enforcement Officers the moderator of a panel on education stressed the need for special emphasis on the reduction of mythology, misconceptions, appeals to hysteria, and general misinformation about narcotics and drug abuse. This was the same person who utilized these techniques in the presentation quoted earlier in this section.

It should be apparent that when a ranking official in a law enforcement agency makes a presentation which includes distortions, untruths, and bits of nonsense, the result is the perpetration of distortions through repetition by those who depend on secondary sources for their information.

c. FBN Policy Objectives

FBN stated policy is to concentrate on large scale traffickers in order to decrease the illicit traffic in narcotics. Immediate enforcement goals are therefore not primarily related to the number of cases made in any year or series of years, but instead to how well the flow of contraband narcotics into and within the United States has been restricted. If one extremely difficult case results in a greater impediment to traffic than 25 small and simple ones, the Bureau is interested in the difficult case even though it may involve far greater expense and far fewer criminals. The goal is keeping narcotics under control, not just locking people up. The Bureau's annual report indicates that management is fully cognizant of the major objective.

There are two problems in translating the major FBN objective into field terms. The first has to do with the unknown level of the narcotics flow which is being harassed. It is difficult to know whether variations in amounts of contraband seized reflect differences in the amount flowing in the illicit channel or variations in the effectiveness of the enforcement agencies. The second problem relates to the personal objectives of the agents involved in enforcement. To what extent do individual agents feel their careers are advanced by making an unusually large number of cases, whatever their dimension, in contrast to delivering a few reasonably large traffickers?

The FBN might increase its effectiveness in translating policy into results by augmenting the very small central staff which exists in Washington, D. C. Of a total of 14 professional personnel, it appears that only 8 are operative in a day-to-day sense. Administrative demands leave little opportunity for central staff planning, or the collection and evaluation of statistical data. In addition, as already discussed, there is no well defined method of measuring either local or nationwide effectiveness. It is for these reasons that the Hoover Commission of 1949 and the President's Advisory Commission on Narcotic and Drug Abuse recommended that FBN be transferred to the Department of Justice. FBN and Treasury Department officials are clearly moving towards solutions to the problems of planning and evaluation.

2. Food and Drug Administration

The agency within the Food and Drug Administration established to enforce the Drug Abuse Control Amendments of 1965 is the Bureau of Drug Abuse Control. The Bureau is just becoming operative and is just beginning to deal with the problems of inter-agency cooperation. The primary targets of the FDA will be gray or black market producers and large scale traffickers in other dangerous drugs. FDA will have to collect and analyze statistics, and effect cooperation with state, local and other Federal agencies. FDA's task may eventually be aided by further statutes which may require more record-keeping by manufacturers (aimed at gray market producers) or increase penalties for large illicit traffickers.

The laws under which the Bureau operates do not make it an offense to possess the controlled drugs for one's personal use. Illicit sale is punishable, as is illicit possession with intent to sell. The burden of proving intent is on the government and the likelihood of a successful prosecution increases with the amount of drugs possessed. At present, therefore, the most effective allocation of the Bureau's resources can be made against traffickers.

Some problems the FDA will face are in important respects substantially more difficult than those faced by the Bureau of Narcotics.

1) The other dangerous drugs are licitly available without prescription in many foreign countries, most importantly Mexico.

2) Most of the controlled drugs are produced domestically in large quantities and are licitly used by millions. This provides endless opportunities for diversion from the licit traffic.

3) Most of the drugs can be produced domestically by black market operators with a level of chemical knowledge and equipment available to tens of thousands of people in this country.

4) The use of the controlled drugs is widely accepted. Abusers of such drugs range and social spectrum and are not restricted to the ostracized position of narcotics abusers.

3. The Bureau of Customs

The Bureau of Customs, through its enforcement agency, the Customs Agency Service, has long been a major factor in deterring the smuggling of illicit narcotics. The flow of illicit drugs, though a principal concern, is but one of many responsibilities. At a time when international travel is enormously increasing, concomitant with increases in the number and concentration of illicit drugs, the task of this Bureau is formidable. The sensitivity of honest American travellers and foreign visitors to rigorous customs inspection does not ease the problem.

Despite the handicaps mentioned above, Customs has continuously made seizures of illicit drugs and has participated in the arrest and conviction of major traffickers. It is widely commended for meeting other agencies more than half-way in inter-agency cooperation and assignment of credit.

The routine work of the regular Customs inspectors and their deputized allies of the Immigration and Naturalization Service (who control remote border stretches) is a strong deterrent to smuggling of any sort, including illicit narcotics. By its nature increased enforcement against smuggling can pay for itself, in fines or duties collected. As a consequence the Bureau of Customs has recently developed a thoughtful series of proposals for increasing its capabilities from its (June 30, 1966) base of 768 investigative personnel. If an increased Customs effort is made, there will almost certainly be an effect on the flow of illicit narcotics and other dangerous drugs.

Among the proposals by Customs is one for very intensive border inspections by roving teams. Such spot checks, made in cooperation with FBN and/or FDA agents may be expected to improve knowledge of the extent of drug smuggling, particularly for marijuana and the FDA-controlled dangerous drugs.

It is difficult to sort out the contributions of the FBN and Customs to interference with illicit drug traffic. In part, this is because seizure records are not reduced to an equivalent pure drug basis. In part, the complexity is geographic.

Narcotics contributes to some seizures at ports and borders. Customs makes some seizures well within the interior by "convoying" contraband to an inland point at which it changes hands, and contributes to other inland seizures. It appears that while both agencies play an important role the FBN's greatest contribution is against opiates, and that of Customs is against marijuana and cocaine.

Customs foreign intelligence operations no longer include narcotics and marijuana, in order to centralize foreign contact concerning these drugs within a single agency, FBN. The recent drug abuse enforcement activities of FDA, however, have used Customs as their primary source of foreign intelligence.

Prior to the Drug Abuse Control Amendments of 1965, Customs rarely secured from police and prosecutors the degree of cooperation available for narcotics and marijuana cases when they found other dangerous drugs. The latter were simply ordinary smuggling cases, with no large monetary sums involved. Now, with FDA's enforcement capabilities becoming established, Customs has the opportunity to work out with FDA the means for joint realization of better intelligence and enforcement.

As mentioned previously, Customs is the established agency most willing to yield publicity to, or share it with, cooperating enforcement forces. This modesty has had one dysfunctional side effect. The Customs Agency Service is virtually unknown as a potential ally among medium and smaller inland agencies. The Treasury Department needs to cooperate with HEW in providing all state and local police adequate information on the roles and capabilities of Narcotics, Customs, FDA, and other related Federal agencies.

E. INTERNATIONAL REGULATION

Prior to the Second World War, six opium protocols and the permanent opium board were enacted under the auspices of the League of Nations. Since then, the United Nations and the Opium Board have enacted three additional protocols. In 1961 at the plenipotentiary meeting of the United Nations, these nine protocols were codified and simplified into the Single Convention on Narcotic Drugs.

America did not become a signatory to the Single Convention when it was enacted and the President's Advisory Commission on Narcotic and Drug Abuse reaffirmed this decision in 1963. The Federal Bureau of Narcotics has led the opposition to becoming a signatory. The Bureau views the convention as weakening the requirements and obligations of the nine protocols. The Bureau and the President's Advisory Commission's concern centered on those sections of the 1961 Convention which allow any country to produce up to five tons of opium for export annually, rather than restricting all production to nine countries, as specified in the 1952 protocol. It was feared that this would act as an invitation to non-producing countries to begin production.

During the four years that the Convention has been in existence, the arguments against American adherence to the Single Convention on balance tend to have been weakened to a point where our adherence now seems the lesser evil. Much of the rest of the world has adhered to

the single Convention. The 1953 protocol, which restricts opium production to nine countries, expires in March, 1968. Moreover, one of these licit nine, Turkey, is in any event the largest illicit supplier of opium which finds its way, as heroin, to the U.S. market. The five-ton annual production of opium which is allowed "non-producing" countries will produce only 540 kilos of morphine base. Such an amount is quite inadequate for any commercial export operation, but concededly could provide cover for larger illicit operations. In fact, fewer countries now appear to produce opium than produced it in 1961. Production of opium appears to be decreasing and can be expected to decrease further as synthetics become economically competitive.

Certainly international control cannot embody all the requirements that the United States desires. Any international convention is bound to represent the varying fears and aspirations of different nations. A unified approach to the problem of drugs will achieve much that bilateral treaties cannot. This is especially true in the field of drugs of abuse other than opiates. A committee of the U.N. Commission on Narcotics has recently advised the Commission which is to meet in December that LSD should be included under the Single Convention, and also asked the Permanent Central Narcotics Board (Geneva) and the World Health Organization about the feasibility of placing the amphetamines and barbiturates under international control, and the advisability of using Article 3 or 47 to achieve this. At recent meetings in Geneva the United States expressed doubts about this extension. It is our belief, following related discussions with FBN, FDA, Treasury, State, at the Geneva meeting, and at the Montreal Interpol meeting, and elsewhere, that the United States should support these extensions, and that it can expect to achieve its objectives more fully by seeking to strengthen the Single Convention as one of its adherents than by abstaining from participation because it is considerably less than perfect.

F. METHODOLOGY OF DRUG ENFORCEMENT

1. Detection and Apprehension of Offenders

Representatives of the enforcement agencies who were interviewed, stated without exception that the informer is the vital link in detection and apprehension. The closer to the actual operational situation the interviewee the more highly valued is the informer. Informers are utilized in different ways from agency to agency. Informers may: set up contacts for undercover men who then make the buys; supply information which can be used in obtaining search warrants; verify occupancy; make buys; and provide general information. The majority of informers are recruited as a result of their arrest on a drug offense charge. Promises of cooperation are traded for relief from prosecution. Very little information in this area comes from the average citizen.

One of the common privileges of informers is securing a "pass" by the authorities. This means that enforcement officers will allow their informers to operate illicitly, to some extent at least, (possess, use and/or sell) without arrest. Although these practices are necessary to maintain the facade of the informer, passes to sell are officially discouraged at management levels. At operational levels, however, it is apparent that the practice is more widespread than officially acknowledged and/or perhaps realized. Where several agencies work in the same territory there is occasional surprise and annoyance when one agency prepares a case against some person who turns out to be an informer for another agency and, therefore, somewhat invulnerable.

The degree of anonymity that different agencies afford their informers varies widely. Usually agencies prefer not to have to disclose their informants' names in court, in order to (1) maintain good faith with the informer, (2) retain his usefulness, and (3) afford the informer protection from those convicted by his efforts. Some agencies claim to prefer losing the case to having to produce their informers; some routinely do the opposite. A few local officials complain that the FBN produces its informers unnecessarily. FBN feels that their primary concern with high level traffickers plus their essentially unlimited supply of informers requires and justifies a comparatively heavy expenditure of informers.

There is considerable difference of opinion between members of the agencies and between agencies as to the effectiveness of money as a motivator for securing informants. Some agents of the Bureau of Customs, for example, felt that their ability to give substantial monetary rewards, in terms of a percentage of the recovery, was a stronger motive than any other except having the threat of a major prosecution hanging over one's head. Customs' concern with getting volunteered information for money is a prime motive in the unusually high degree of protection they provide informers. Local agencies generally indicate greater success when there is an arrest, regardless of size, hanging over the informant.

In addition to informers, undercover agents are used by all agencies. They are introduced into the narcotics and other dangerous drugs traffic in a variety of ways. The most effective appears to be through introduction by an informant. The useful life expectancy of an undercover agent does not appear to have any pattern. At the local level, they are used as long as they are effective in making buys and then either moved to another locale, if it appears that they may be able to operate there, or they are transferred to another unit. In some areas the narcotic squad undergoes a complete turnover every two or three years.

2. Apprehension to Trial

a. Drug Use Discovered Upon Jailing for Other Crime

It was once true that the presence of withdrawal symptoms made it possible to detect narcotics users who may have been jailed for other crimes. According to interviewees at the local level who see individuals through their first days of confinement, and interviews with known users, the classical symptoms of withdrawal are now seldom seen. This has been explained as resulting from the low concentration of doses being used today. Current withdrawal symptoms typically resemble serious hayfever or flu, with the running nose and watering eyes and relatively minor physical discomfort.

Dangerous withdrawal symptoms, however, can occur with severe barbiturate abuse. These symptoms may not be widely enough recognized as a grave danger to life and health, let alone as a clue to drug abuse.

Without the "classical" symptoms of narcotic withdrawal, and with the dangers from barbiturate withdrawal, a means for rapid analysis of urine or other body fluid of arrested persons is needed. Current research indicates there may soon be available quick methods for detecting any drugs (except certain hallucinogens) by a single test.

b. When Known to be User/Addict

Much of how the user/addict jailed for another crime is handled depends upon the existing laws. If the existing law allows for civil commitment, proceedings may be put into action. If such laws do not exist, there may be an attempt to use the current charge to pressure the user/addict to act as an informer. Finally, the fact that the person is a user/addict can be ignored or not discovered and the prosecution of the case will continue under the charge which has brought the person to jail. There can be many variations in these patterns and most probably many other patterns of action may be taken. All these patterns deal with time in jail prior to commitment upon judgement of guilt by the court, since detection of the user/addict, if through recognition of withdrawal symptoms, must take place during the first hours of confinement and non-use. Detection by commonly used testing techniques also must take place early to avoid dissipation and/or elimination of traceable substances from the system.

If civil commitment is not used as a substitute when the user/addict has been detected after jailing for another crime, he will in most cases, if convicted, go to jail, prison or a penitentiary on the original charge. Few of these institutions have treatment facilities and the person is handled as another criminal offender.

3. In Court

a. Making a Case

Admissibility of evidence and demands upon officer's time seem to present the most crucial problems, especially at the local level. The problems mentioned are wider than the enforcement of drug abuse laws. They permeate the entire enforcement process. Many cases are lost in court, or never reach court, because of illegal searches, either without warrants or with faulty ones. The problem stems largely from the inability of the enforcement personnel to handle the legal-clerical problems necessary to obtain good warrants. Education and the introduction into police departments of legal-clerical help appear to be fruitful avenues of research.

Inordinate amounts of time are demanded of enforcement officers in court proceedings. Often police limit the number of cases they attempt to make in order to handle time needed in court. It may be that if clerical assistance were provided officers to reduce their own clerical loads in connection with normal departmental duties, this complaint would be minimized. A more profound reform of course would be to expedite court procedures and put more reliability into court calendars. At present, time demands on officers, from both clerical work and court appearances, represent a significant drain on enforcement effectiveness.

Police attitudes towards the courts are generally very negative. Police believe that they are fighting a two front war, the criminals on one side, the courts on the other.

W. H. Parker at the 1963 President's Conference:

> "In comparing California statistics to determine trends we must do so in the lights of the progressive erosion of police authority. Beginning with the imposition of the 'exclusionary evidence rule' in 1955, successive court decisions have impaired effective narcotic law enforcement. The compulsory disclosure of informants, the unilateral pre-trial discovery in criminal cases and the elimination of drug addiction as a criminal offense have all contributed to the retardation of narcotic law violation arrest activity." (p. 39)(emphasis added)

The terms Parker used -- erosion, imposition, etc. -- are typical of police reactions to recent court decisions regarding procedure and evidence. However, individual defense lawyers and Public Defender's offices complain that local judges have largely circumvented many of the new requirements. It is beyond the scope of this report to discuss

this problem further. Friction between police and courts cannot be reduced by changing the law but by educating enforcement personnel in means for securing convictions within the law. Significantly the better trained narcotics police, e.g., Parker's own men in Los Angeles, are not seriously concerned with constitutional impediments to securing good evidence and achieving convictions.

Conspiracy laws are used in important drug cases. Higher-ups in the trafficking of drugs tend to be immune to normal prosecution. They make it a point never to handle either the drugs or the proceeds directly. Conspiracy laws have great value against such men but subject defendants to special dangers. One FBN agent put it succinctly. He likes to make conspiracy cases because "if you have ten men involved, with good cases on only seven of them, the other three will go down with the same dirty water."

All the states should have workable conspiracy laws capable of application if and when the local traffic develops in a way as to make conspiracy prosecutions necessary or desirable. The Model Penal Code of the American Law Institute proposal for a model conspiracy law provides the states with a good guide for legislation. Meanwhile cooperation with Federal agents, to use Federal conspiracy laws, needs encouragement.

4. After Court

a. Prison/Penitentiary

There is some controversy over the extent to which commitment, imprisonment, probation and parole are properly aspects of law enforcement with respect to narcotics and other dangerous drugs. Confinement, and well-controlled probation or parole, provides a period of at least relative inactivity as an offender. On the other hand, drug abuse within the confines of penal and treatment institutions is not uncommon. Initial contact with narcotics and other dangerous drugs not uncommonly arises through serving time in the same cell as a drug abuser, according to a number of users interviewed. This suggests the importance of policing against drug abuse in prison as by chemical analysis. Isolation of present or recent past abusers might be used but is contrary to rehabilitation practices. Increased use of closely supervised probation instead of imprisonment is indicated for some cases.

b. Probation and Parole

The drug dependent individual presents an especially difficult problem to probation and parole authorities. While limitations on judicial discretion have cut down the number of drug dependent persons in the federal and state parole and probation systems, many are to be found in any given department case load: the number is likely to increase in response to current laws and pending bills which emphasize treatment.

The federal system, while receiving no probationers, does receive mandatory releasees. The amount of assistance that such releases receive from federal officers is extremely low, enhancing their already high chances of recidivism. The federal parole system is understaffed. Except in Texas, it provides essentially no specialized treatment for drug dependent persons whose psychic dependence normally remains very strong on their release. Indeed they receive only a minimal amount of traditional assistance because of extreme case loads. In areas of highest abuse, it was common to hear of case loads of well over 100 persons per officer, not counting pre-sentence report work. These case loads are several times greater than good practice would dictate.

Local agencies also suffer from inadequate numbers of trained parole personnel, but less dramatically. In New York city, where a special unit has been set up to provide drug dependent persons with intensified help, case loads are being significantly lowered. In California, the parole system run in connection with California's civil commitment program maintains a case load of 30 parolees per officer. Results from the use of intensified contact are not yet available, but discussions suggest the need for more coordination with habilitational, vocational, and other social service agencies in the parolee's own local area. To the extent that states and local agencies achieve greater success in follow-up at local levels, it seems desirable for care of Federal patients and especially parolees to be contracted to local agencies.

G. THE SITUATION IN THREE U.S. CITIES

Appendix B reports in detail on the problems of narcotics and other dangerous drugs in three U. S. cities: New York City, Los Angeles, and St. Louis. This section will only summarize the details of Appendix B briefly.

New York City was chosen for study because it has the largest problem with heroin addicts, having approximately half of the addicts in the country, and because the heroin trade there follows the "classical pattern" of syndicate control. Los Angeles was chosen partly because it is reputed to have outstanding police effectiveness and partly because the structure of the narcotics trade there is distinctly different from that on the east coast. St. Louis, the tenth largest city in the U. S., was chosen as a representative inland city which might have the social and economic conditions associated with addiction but which has isolation and distance from the coast in favor of enforcement.

TABLE V-I

COMPARATIVE STATISTICS FOR 1965

	Los Angeles	St. Louis	New York
ESTIMATED:			
heroin users	2,400	350	25,000
heroin arrests	3,700	800	6,250*
marijuana users	?	?	?
marijuana arrests	5,300	300	6,250*
O.D.D. users	50,000	3,000	100,000
O.D.D. arrests	3,800	300	1,400
total arrests	13,400	1,400	13,900
agents	300	30	500
arrests/agent	∿ 45	∿ 45	∿ 30
narco arrests/addict	1 1/2	2 1/2	1/4 - 1/2
addicts/agent	8	12	50

*heroin and marijuana arrest not separated in NYC records: split 50/50

Table V-I shows estimates of the comparative statistics for the three subject cities for 1965. It must be emphasized that the numbers shown are estimates in many cases. The number of arrests for various charges are taken from public records, but even these numbers mean little, for reasons discussed in Appendix B. The number of enforcement agents in each area is probably within ten percent of being correct for St. Louis and Los Angeles; it may be very low for New York City, in which case some conclusions made with respect to that city are reinforced.

Accepting the fact that the numbers in Table V-I are estimates one can nevertheless draw some useful conclusions. It is clear that St. Louis is the worst of the three cities for an addict to reside in: his chance of being arrested in a given year is between five and ten times that in New York City. This may account for the fact that St. Louis does not have a serious heroin problem but has, instead, a severe incidence of abuse of other dangerous drugs. The ratio of arrest probabilities may also have something to do with the high concentration of addicts in New York City.

The number of enforcement agents per addict in New York City is most unfavorable, even if there were twice as many agents as estimated. The number of arrests per agent is least in New York City, and would be even worse if there are actually more agents than estimated. This point is made in spite of earlier protestations that numbers of arrests are not a suitable criterion. Unfortunately it was not possible to get data on how many of the arrests led to convictions in any of the jurisdiction except St. Louis. (There one out of four heroin arrests led to a conviction.)

A summary impression of the three cities is that St. Louis has the heroin problem under control with only modest enforcement capabilities, while overlooking a burgeoning abuse of other dangerous drugs; Los Angeles is coping well with one of the worst enforcement situations in the country (due to the proximity of Mexico and the informal nature of the local drug trade); while New York City does not seem to be taking the situation seriously, in spite of all pronouncements to the contrary. This conclusion with regard to New York City may seem unjust in view of the State's recent decision to spend some $70 million for facilities with which to treat addicts: the conclusion refers only to the effectiveness of enforcement on the street.

VI. TREATMENT, REHABILITATION AND EDUCATION

A. NEED TO AUGMENT LAW ENFORCEMENT

The control of drug abuse does not lie solely in the application of current law enforcement techniques, nor even in implementing the most radical improvements in those techniques one might suggest. Indeed, it is possible that increased law enforcement pressures might result in certain new difficulties, such as user shifts to new drugs of abuse (see Appendix B) or new problems regarding infringements on civil liberties. The administrative regulation of drug traffic, both licit and illicit, and the pursuit of offenders against the drug laws, represents only a partial answer to the problem of drug abuse. Such regulation must be fitted into a broader approach that includes programs of prevention and programs that attempt to reduce the current population of drug abusers.

B. LIMITATIONS OF ANY TREATMENT OF DEVIANT BEHAVIOR

The treatment procedures that can be invoked in the treatment of deviance depend in large part on the particular kinds of social organization that surround the deviant actor. The treatment technology that may be invoked in dealing with the housewife who abuses either the tranquilizers or the amphetamines must be very different than that which we use for the treatment of collective forms of deviance such as heroin addiction or the use of LSD among college students. The distinction that must be made between individual deviance and collective deviance is not hard and fast, but in general it supplies a useful framework for the discussion of the utility of various techniques for dealing with the drug user.

The degree to which the drug user is embedded in an unconventional or even criminal social system is a measure of the degree to which we are not faced with a pure drug effect problem, and are faced with a social system of persons who develop emotional and personal ties that must be taken into consideration when treatment techniques are suggested. The housewife using amphetamines to excess, for example, does not have to involve herself in a system of illegal traffic; her source of supply is licit, or most likely licit, and is often the consequence of careless medical practice of an overworked physician who is treating symptoms of boredom and familial disorganization by prescribing inappropriate remedies. In contrast, the heroin addict is linked to a system of persons who are involved in traffic in heroin, criminal behavior in general, as well as a system of moral commitments to a style of life in which the drugs have become a primary focus for existence. Unlike the housewife, who still has primarily a conventional

self image, and conventional social relationships, the heroin addict finds himself cut off more and more from the conventional sources of personal and social integration and more and more linked to deviant sources of social support. The dilemma of treatment in this case is the fact that the forms of social life that are involved in collective deviance systematically produce a situation in which most conventional forms of treatment of individual deviance do not apply.

Another element that intrudes in the area of treatment is that dysfunctional conditions for the practice of treatment may be introduced by the law enforcement structure itself. The focus of enforcement in the United States has been on the addict, either through the process of trying to use him to reach the peddler and trafficker levels above (an alternative to this as a primary method or focus of enforcement has not been suggested), or through the practice of local officials trying to eliminate the addict as a street nuisance. In order to be an opiate addict in the United States, then, one is forced into a criminal way of life. This is not meant to raise the question of whether addicts become criminals or criminals become addicts, but rather to observe that addiction requires that persons further involve themselves in a round of activities that make difficult treatment a great deal more difficult. In addition to whatever gross personality disorders might be present, the treatment procedures selected should take into account the various kinds of drug dependencies and drug use patterns, since it will be these as much as (if not more than) the specific pharmacological characteristics of the drugs that will determine accessibility of the drug user to specific forms of treatment.

Another effect of law enforcement practices on the structure of addiction is the degree to which an artificial homogeneity is cast over the addict populations. Although persons come to addiction because of a variety of preconditions, the variety is washed out as a result of living in a specific kind of environment in which being an addict is reduced to a specific set of experiences. As a result of this, specialized techniques are not available to deal with specific subtypes of addicts within any kind of addicted group. Addiction or dependency that takes on collective or ideological characteristics is more likely to produce these homogeneities than are those that are linked to individuals only. Thus, it is possible for subjects in the Dole-Nyswander research project, even though they have a greater drug dependency with methadone than they did with heroin, to refer to their addiction in the past tense, for they are no longer involved in the round of activities that is connected with addiction. The social context of living the life of an addict is often more salient to them as a defining element in their addiction than is specific ingestion of a drug.

C. ELEMENTS OF TREATMENT

1. Withdrawal

Simple abstinence from the drug is normally conceived of as a sine qua non either of successful treatment or a precondition of treatment itself. It is often argued that the addict must be withdrawn from the drug before any treatment process can begin. It is obvious that drug abstinence is one of the goals of treatment; it should be equally obvious that the timing of withdrawal and the necessity for complete withdrawal are not always fixed conditions. To merely take the drug away from the heroin addict and treat him without reference to the kind of social conditions in which he must function is to indulge in pious imitation of treatment. To the degree that addiction in his case is a way of life as well as a dependency on a drug, withdrawal can only be regarded as part of the treatment process.

2. Substitution

The major American experiment in drug substitution has been the Dole-Nyswander project in New York City. Substitution should be seen as a single step in the process of reducing drug dependence rather than a specific goal in and of itself, except in those cases where, in medical opinion, there may be no utility or possibility of totally eliminating drug dependence. Thus it may be necessary to substitute a long-acting for a short-acting drug or a less dangerous for a more dangerous drug over a long period of time, either to make the person more amenable to treatment or to reduce his commitment to a deviant style of life. Drug support has often been found to make mental patients more amenable to treatment, and it may well do the same for many drug dependents; certainly extensive experimentation in this area is warranted. Drug substitution could result in lowered levels of anxiety during the treatment process and permit the addict to develop other kinds of ties with the community which would serve as forms of support when abstinence finally becomes possible.

3. Support

This is an element that has many meanings depending on the character of the specific drug abuse situation and the kind of person involved. The college student who uses LSD or marijuana requires very different sources and kinds of support during treatment than does the housewife who is using amphetamines or the Negro slum dweller who is addicted to heroin. Support for the college student depends largely on the availability of psychiatric treatment or the existence of opportunities to give up drug use, that is, to mature out of drug dependence; for the late adolescent or the college student who is experimenting with drugs, the problem is one of protection and providing alternative ways of growing up so that drug use does not become a

central element in a developing life style. The problem may be quite different for a housewife using amphetamines, in whose case the treatment may have to focus upon the situation within the family and the opportunities for social management that are available outside the home during the period of treatment. It is among the socially deprived that the largest portion of support services will be required.

As with all the drug abuse problems, there is more to be considered than the drug dependency itself; also involved are training for engagement in the larger processes of social life, provision of work skills, a stable home, money and health services -- all may be required before the drug user can become a useful citizen, or at least not a law violator.

4. Rehabilitation

This term depends for its meaning on the kinds of values and goals proposed by people in the larger society. If the goal is purely drug abstinence without reference to other forms of deviance that might result from the abstinence, then the problem is not nearly so complex as the one with which we are really faced. Rehabilitation implies that there has been some prior state where the drug user was habilitated.

This is the case for most users of LSD, middle class persons using the amphetamines, barbiturates and marijuana, and doctors and nurses who have become dependent on opiates or synthetic analgesics. The problem here concerns essentially conventional citizens whose links to the society remain strong and whose drug use remains a relatively small element in their total life experience. They are persons who were on a conventional path of development and for some reason have dropped out. With these drug abusers, one can draw upon those elements in their lives that are not tied to the drug experience and work through these elements to get to the roots of the problems.

In the case of the lower class user of heroin or other drugs the problem is far more profound and far more difficult. As we have noted before we are not only dealing with a drug problem, but also a life style problem in which the persons not only fail to have roots in the larger society, but also commonly fail to have any set of skills or previous experience on which rehabilitation can be based. The functionally illiterate high school dropout with a criminal history who has spent five to ten years of his life in a criminal and deviant milieu does not represent a problem of rehabilitation as much as a problem of construction -- of habilitation. A major question that faces the community is the degree to which the scarce resources that are available for rehabilitation should be utilized on various populations. Here we are faced with the problem of minimal knowledge. The programs that are needed are those that will combat illiteracy, poverty and social disorganization as well as the complications of a

commitment to drug use. Not only do the programs that might combat the latter not exist, but there is considerable doubt about the efficacy of the former.

5. Follow-up

Any program of treatment requires a systematic follow-up not only to insure that the person is not currently still dependent on drugs, but to check on other areas of personal adjustment as well. If one finds that as a consequence of the treatment program the former drug abuser is no longer using drugs, but is now attached to another form of deviance, then there is substantial reason to question the efficacy of the program itself. Proponents of any program of treatment must, before it is attempted, be asked to specify what their goals are in fact and suggest ways in which the attainment of these goals may be assessed. No program should be attempted without an evaluation procedure built in; records must be open to the outside evaluators, as long as such inspection does not jeopardize the treatment situation (i.e., doctors should not be required to reveal names of patients unless there are safeguards to insure the information is not used improperly).

In order to assure drug abstinence during follow-up there are several technical aids available. There is at least one chemical antagonist, cyclazocine, which cancels the effect of opiates in the body. There are a number of efficient, sensitive tests of body fluids which will allow drug use to be policed. Control of drug use is only one aspect of follow-up, however.

President Kennedy's 1962 Ad Hoc Panel on Drug Abuse noted that, "Experience to date suggests that a carefully organized parole system for ex-addicts -- characterized by close supervision, sympathetic assistance, social service and employment agency support, and firm application of civil or criminal commitment in the event of reversion to drugs -- is an effective way to rehabilitate an appreciable percentage of addicts during the first few years after detoxication and discharge from an institution." Close parole supervision, by professionals working under a small case load (which is extremely rare; in most states, parole workers have far more regular cases than they can reasonably handle, and ex-narcotics addicts require far more time and attention than do those parolees) is one of the major tools in both New York and California experiments.

Recent research demonstrates that parole following a treatment program or incarceration increases by several times the former addict's chances of successful integration in the community. Ironically, many of the offenders who most need such care, i.e., those on narcotics charges in Federal institutions, are currently denied all parole support.

It should be remembered that the function of parole is not just to let someone out of prison earlier than would otherwise be possible, but also to permit us to maintain some control and offer some aid during his extremely difficult period of reacculturation to the outside world. Such control and aid is especially important with former addicts, many of whom were never previously part of that larger community.

D. AGENCIES AND METHODS

1. Types of Agencies

What is most impressive about treatment of the drug user is the poverty of alternative methods that have been implemented and the lack of assessment that has accompanied any one of the methods. With the elimination of the private physician as one resource in the treatment spectrum in the early 1920's, the primary agencies available have been penal institutions without any special facilities for the addict or the USPHS Hospitals at Lexington and Fort Worth which were opened in the early 1930's. It is these latter institutions that have had the longest experience with the treatment of the addict who is involved in crime. In terms of treatment populations there is little experience with the users of drugs other than the opiates. Thus, except for scattered reports from private practice of either MD's or psychiatrists, there is little in the literature of a systematic nature about the treatment of users who are dependent on other drugs.

More recently, there have been a number of important state, city, and privately supported experiments, such as the Riverside Hospital in New York City, the California addict commitment program at Corona, Daytop Lodge in New York, and Synanon. Smaller experimental programs in group psychotherapy -- such as the one sponsored by the Department of Neurology and Psychiatry of Northwestern University at the Cook County Jail in Chicago (1956-1959) and in their outpatient program in the psychiatric clinic -- have also been established, but there has been very little information provided regarding their success. Of all the larger programs currently being formulated or in operation, the most promising seems to be the new New York State program, which has been designed to permit maximum flexibility on an extremely large scale.

2. Methods and Philosophies of Treatment

Whether addiction is regarded as a symptom of other more basic underlying pathology or as a special problem in its own right depends in part on the individual or collective nature of the particular pattern of drug use. Thus for the isolated individual user of the amphetamines or even the doctor-addict the choice of this particular chemical adjustment to life is rooted in certain patterns of the personality reacting to the current situation of life stress. However in those situations where the pattern of drug is collective and the spread is not on the

basis of the misuse of licit drugs, but on the organized traffic in illegal drugs, then the problems that brought the user to the drugs may be less vested in peculiarities of psychology and more in patterns of social organization. After drug use has begun there is greater likelihood in these latter cases that they will have more profound effects on personality organization than will the drug used by the isolated addict.

The bulk of the treatment procedures so far utilized have been based on the policy of detoxifying the addicted individual (commonly through enforced institutionalization), and then engaging the person in programs of treatment usually modeled on those of individual and group psychotherapy. The content of these therapy meetings have varied from a conventional psychoanalytic search for the sources of the individual problem to attempts at reconstructing the individual's relationships with the rest of society. In many of the penal settings, unfortunately, no therapy programs were invoked for the treatment of the addiction problem; in some institutions there has been segregation of the addict from all other prisoners with no provision for participation even in the minimal programs of training and rehabilitation that do exist.

It is expected that some shift will result from the creation of the new programs in California and New York where addicts are now gathered together and exposed to treatment programs specifically designed for their treatment. However the specific treatment methods and philosophies of treatment will probably not vary a great deal from those programs that currently exist in the California prison systems as a whole and more specifically from the programs of treatment now under way at the institution for the sexual psychopath and other mentally disordered offenders at Atascadero in that state.

In contrast to programs which focus on the individual, there are programs which create therapeutic communities, such as Synanon, where the addict continues to live in a controlled atmosphere of work and treatment for long periods of time. The goal of the Synanon programs is to eliminate drugs from the life style of the individual by means of pressure and support from the special community. Other projects, such as the East Harlem Protestant Parish also attempt to work from within the addict community.

So far there are only the beginnings of programs which let the former addict move beyond the institution and take a useful role in the community. This is the purpose of the California program and the New York program that is currently tooling up. These programs will take advantage of the already existing technology of job training, controlled release through probation or parole, therapy focusing on the individual and his social relationships. These are sometimes part of the prison and mental hospital programs that already exist; they should

perhaps be part and parcel of all deviance control systems. From this point of view, addiction does not differ from other forms of social problems, but merely requires the implementation of programs for which there are already well established models in existence.

3. Private Physicians

The private physician does not at this time represent a major resource for the treatment of the addiction problem, especially regarding its social aspects. There is substantial evidence that education is required for the physician regarding drugs which are in constant legitimate use (amphetamines, barbiturates, tranquilizers). The prescription of these drugs without adequate forethought and in large quantities, and without training the patient, frequently results in drug dependence. The medical doctor is often overworked and may face a larger number of cases than can be thoughtfully handled, but he must be made aware that many of those who come to him with somatic complaints are in fact presenting signs of mental distress or upset that make them particularly prone to misuse of drugs.

There are a number of reasons why the individual physician's role regarding opiate abusers will continue to be a minor one. Addicts make difficult patients and not many doctors are willing to take them on. Perhaps more to the point, few physicians are equipped to deal with the problems of concomitant criminality and other deviance that characterize much of the opiate user population. A number of our sources indicated they felt FBN has played much too great a role in limiting the individual physician's options in selecting modes of treatment for the addicted person; there is some evidence that FBN has in the past been more than zealous in this regard. Some sources felt that the Treasury regulation concerning what is a legitimate prescription in this area goes beyond the rights of the agency involved; others note that AMA has never attempted to contest such regulation. Whatever the original reasons may have been, it should be clear that the private physician cannot be expected at this time to play a major role in the treatment of the addict.

E. SPECIAL REHABILITATION PROBLEMS

1. Addict Characteristics

As we have noted above there is no special set of characteristics that will apply to all addicts. The various kinds of populations that come to drug use and the special consequences that their forms of drug taking impose upon them will necessitate very different treatment technologies. For the vast majority of persons who are abusing those drugs which are currently in licit channels there are very few new kinds of treatment problems that are specific to them as a class. Thus among those college students who are using amphetamines, the

variety of reasons for overuse or inappropriate use will have things in common with excessive use of alcohol or the barbiturates. The dilemma does not rest in the specific nature of addiction or drug abuse, but in the limited treatment technology that we have developed to deal with these general kinds of problems of coping with the stresses of modern life.

It is particularly among those addicts whose problems have been linked with criminal or subcultural ways of life that we have greater problems. Many of those addicted to such drugs as heroin have spent many years in the addict culture and have lost all contact with the conventional world. To be Negro or Puerto Rican, poor, criminal, only marginally literate, and to have only a minimal set of job skills and the problem of addiction is to be saddled with a constellation of interrelated problems that is nearly insurmountable. Attempts to deal with such populations even without the stigma of either criminality or addiction, have not been notably successful, yet it is exactly with such groups that any treatment program will be faced.

If programs can be developed that will bring back only a small portion of these persons, given the fact that they may well be the hardest to reach, then major progress will have been made. The sheer fact of the existence of a chemical agent as part of the entire problem does not in and of itself raise any new kinds of problems, but the existence of the matrix of overwhelming social pathology in which these persons live suggests there may be limits on the potential for success and we must approach any new program and all of the older ones, including that of law enforcement, with guarded pessimism.

2. Community Attitudes

Even though in a recent national survey it was determined that an overwhelming proportion of the American people felt that the individual drug user was a medical and psychiatric problem, there is little evidence from the public response to either the former prisoner or the former mental patient that there will be easy public acceptance of the ex-addict. This condition may be partially laid at the door of the press that too easily focuses on either the most heinous of offenses or the cops and robbers aspects of the crime problem, without regard for the larger problems of returning offenders to the community and deterring development of new offenders.

The drug user is too quickly painted as a psychopathically dangerous criminal who is bent on a course of rapine and murder. After the excessive amount of publicity of this type, it is not surprising that citizens respond very slowly to ideas of treatment and controlled release in the community. The savage hostility accorded Synanon and Daytop Lodge gives some indication of how much harm has been done by this miseducation of the general public.

Our problem is the production of persons who will be able to pursue steady work careers after living a life of social disorganization and demoralization, and a hostile, misinformed community makes all rehabilitation even more difficult. The slum-dwelling ex-addict may, of course, find it extremely difficult to adjust even to very understanding employers and fellow workers. This is an appropriate time to begin to educate the community in the problems of addiction as part of mental health prevention and to acquaint it with more measured images of addiction and the addict. To facile a generalization in any direction (the addict is a drug crazed sex fiend or the addict is simply a poor boy gone wrong) will result in a lack of public support for any program that is proposed.

F. EDUCATION

1. Attitudes, Problems, Progress

In all areas of education the first question is education for what. Then come decisions on specific content and timing of materials chosen to impart desired values. There are some who see a danger in any education about drugs: the education may increase curiosity and result in more experimentation. The same fears are voiced about sex education of course. The ranks of the "don't-talk-about-it" group are decreasing, especially as the popular press and rumors have already provided a kind of "education."

Another fundamental objection to education is that little can be done through education to change human behavior, particularly with respect to pleasures enjoyed by cohesive social groups. Certainly heavy-handed "educational" campaigns have often misfired or merely been ineffective. Some positive examples do exist however: for instance some reduction in age-adjusted per capita cigarette smoking among the general public as a result of education about health hazards.

Controlled experiments in health education in schools were initiated in Oregon by Dr. Daniel Horn several years ago. They have been extended by Dr. Horn and his associates through the U. S. Public Health Service. These experiments suggest that for cigarette smoking, at least, there are possibilities of influencing behavior by education.

The U. S. Public Health Service educational program directed to cigarette smoking, primarily among students, benefits in one way from cigarette smoking's very broad social acceptability. The widespread acceptance of smoking lifts inhibitions concerning frank presentations, facilities statistical examination of large samples of users in control test groups, and elicits honest responses to unsigned questionnaires.

Projecting the results of Horn's experiments, drug-abuse education is speculative, but seems worth doing. The likelihood of education being useful is enhanced:

1. By including it in health education programs (a field currently subject to critical reexamination and reformulation).

2. By providing a sober, balanced, factual account consonant with the subject's own experience.

3. By dealing in terms and motives relevant to the particular group addressed.

It is worth making the point that educational programs founded on fear will have little efficacy. This has been demonstrated by failure of such programs to reduce VD rates in the military services. Other examples are programs in the public schools to deter cigarette smoking and alcohol use. In the latter examples, the mass media are organized to promote use and there is little that programs in the school system can do to combat the ubiquitous favorable propaganda.

President Kennedy's 1962 Ad Hoc Panel on Drug Abuse cited miseducation as a particular problem with which we must deal:

> The general public has not been informed of most of the important facts related to drug abuse and, therefore, has many misconceptions which are frightening and destructive. This situation is due to many causes, among which are the failure of our schools to recognize the problem and provide instruction of equal quantity and quality with that provided for other health hazards; the distortion and exploitation of this public issue for political purposes or as a promotion for mass media sales; and the failure of the responsible people in all professions connected with this problem to make available the large body of information which has already been obtained.

One reason to avoid making people fearful of taking drugs is that they represent one of the most powerful tools in the armamentarium of the physician. The opiates, which are particularly potential sources of abuse, are obviously a necessary tool for reducing pain. Even LSD must be conceded to have some beneficial effects, as on patients who are in psychotherapy or for reducing anxiety and fears of the dying. The objective of education with respect to drugs should be to teach people how to deal with drugs rationally, as part of day-to-day living.

2. Groups Needing Education

The relevant age and vocational groups to whom education needs to be addressed include the following:

1. Adolescents.
2. Educators and social workers (including athletic and recreational directors).
3. Members of the medical and allied professions (both as educators and as susceptible groups).
4. Persons associated with law enforcement.
    a. Police and other enforcement agents.
    b. Prosecutors.
    c. Judges.
    d. Correctional and treatment officers (i.e., those involved in confinement institutions, half-way houses, probation and parole).
5. The general public, including especially family and friends of drug abusers or susceptible population group.

The susceptible sub-cultures requiring individualized education are many:

1. Students (high school; in some places junior high school; college).
2. Slum dwellers.
3. Juvenile groups with known sociopathic tendencies.
4. Known drug abusers (reachable via physicians, jailers, custodians, and otherwise).
5. Other persons confined to institutions or on parole or probation.
6. Obese or depressed persons (reachable by their physicians).

With some of these groups the problem is compounded by misinformation in the press and local folklore. With the young prison inmate who has never taken drugs, for example, one needs to counter the curiosity aroused by inmate addicts, who rarely speak of dysfunction and illness, but instead create an image of drug use as full of "kicks."

3. The General Public

A public used to licit ingestion of alcohol and pills needs to learn to recognize susceptible, experimenting, and "hooked" children, other family-members and friends; and to know how to provide or secure proper help. It needs to understand the relationship between personality disorders and drug abuse. The fact that most adolescent drug

experimenters return quickly to a state of abstinence needs to be publicized. The fact that psychic habituation is a more common and sensitive trap than physical dependence needs to be understood. The public needs to be informed of the potential dangers in going beyond prescribed small doses of useful drugs such as amphetamines and barbiturates.

USPHS experience mentioned above may suggest means for reaching the public, but social service and treatment agencies are also needed to help convey information and secure its acceptance.

In considering target populations within the general population it is important to differentiate between those that are at risk and those who are unlikely to become drug users. It is clear that the principal high-risk populations in the use of LSD and marijuana include young people on high school and college campuses. The populations at risk for heroin on the other hand, are young people who live at the margins of American society in the slums and poorer areas of our great cities. There are secondary groups of significance, including physicians, and nurses and pharmacists themselves. At the same time, there is an educational effort needed with the large mass of the population who are unlikely to develop drug use patterns.

The presentation of drug information in schools is perhaps best done in courses in the health sciences. It is important that such programs not simply emphasize the negative effects of drugs. Young people are intelligent enough to recognize that the most dangerous drug may have positive or euphoric effects. They must recognize, especially in the slums, some of the young people may have had direct experience either with the drugs or with drug takers. In the latter circumstances education should focus on the positive aspects of <u>not</u> developing drug dependence. Prevention of drug abuse lies not only in proscription, but also in pointing out positive modes of gratification that fulfill the same needs.

4. Education of Addicts

Education of the addict should focus on the deficits of the addict status while providing information about the possibilities of treatment. Most addicts are ignorant of the effects of drugs other than their kick value and they could benefit from education about drugs and the consequences of drug use. It has been suggested that subway and bus posters be used to acquaint addicts with treatment possibilities. Such posters could also give to parents and relatives of thd drug user information about the location of treatment facilities. This is clearly an experimental area; there has been little experience in trying to break into the world of the addict through educational materials of any sort.

5. Members of the Medical and Allied Professions

Members of the medical profession are, because of the easy availability of drugs, somewhat more susceptible than the general population to the dangers of drug dependence. More of a problem, however, is the kind of drug dependency they can accidentally inculcate in patients. More attention can be paid in medical curricula to problems of drug dependency. The wide and wholly proper and beneficial use of amphetamines and sedatives, and the great breadth of the grey areas, requires of physicians a high degree of knowledge and discretion. Though physicians tend to be cautious -- frequently over-cautious -- about prescribing opiates, they rarely recognize the dangers of prescribing other drugs merely to treat symptoms rather than the underlying malfunction. Sometimes treating a symptom only (such as obesity or depression) by prescribing a drug that suppresses the symptom without reaching the real cause, creates a new problem -- dependency on the drug itself.

Physicians have a primary role, largely unrealized so far, in detecting tendencies to drug abuse among their patients, and initiating proper corrective action. General practitioners familiar with family situations can also help caution parents in the safeguarding of CNS drugs prescribed.

6. Education of Law Enforcement Agents (Police, Court, Correctional Officers)

Education of the law enforcement officer may be as difficult as the education of the addict, especially if one attempts not only to teach about enforcement technology but about the general context of drug taking and the social context in which the enforcement process takes place. Both the enforcement agent and the addict have special experiences of the drug problem and as a result of these special experiences see the problem in distorted fashions. The police officer sees addicts on the street, and those who have relapsed; he has to deal with informers; he often operates in dangerous situations. Since his concern is not with those who quit using drugs and succeed in establishing a conventional life, his success is measured in arrests and convictions. The public expects the police to eradicate the crime problem, but enforcement, no matter how efficient, can only contain and limit it. The police must therefore see their activity in relation to the programs of prevention and treatment; and treatment personnel need to be better informed about the problems and dilemmas of law enforcement. The current schism between these two functions results in people working at cross purposes with a low level of real, as opposed to ostensible, cooperation.

Adequate reporting of information about the incidence and types of addiction in a community should be made a major part of improving the information flow between various state and local agencies and the federal government. Therefore, police education should not only take the form of how to make an arrest and get to court, but also an appreciation of the necessity and value of data and research for the programming of enforcement efforts.

The problems of education and training here are several:

a. Recognition in breadth of the nature and causes of drug abuse.

b. Recognition by police and prosecutors of the roles of treatment, habilitation, parole, and probation; and understanding that progress is commonly interrupted by relapses.

c. Recognition of the need for controlled experimentation in treatment, habilitation, parole and probation; of the inevitability of failures and uncertainties, as well as successes.

d. Training related more specifically to the problems of apprehension, securing evidence, achieving convictions and providing proper parole, probational, and institutional control, care, and guidance.

e. Training related to the role of the police in the community and the relationship of that role to the Constitution. This subject was taken up in Chapters IV and V.

G. NEW YORK STATE PROGRAM

The New York State Council on Drug Addiction, chaired by Dr. Donald B. Louria, in December 1965 made a series of recommendations to Governor Rockefeller which as a whole have been quite broadly accepted among officials concerned with enforcement, treatment, and other aspects of drug abuse. These officials tend to regard the recommendations as effectively building on prior experience in New York, California, and elsewhere, and as well related to current work and thought among related U. S. Public Health Service, American Medical Association, and National Research Council groups. Few have accepted without modification all aspects of the Council's recommendations, but behind the recommendations as a whole there appears to be a consensus in which we now find ourselves.

The Council's summary of its recommendations follows:

1. Civil commitment after not before trial.

2. Creation of Dangerous Drug Abuse Control Commission to coordinate agencies, supervise addicts, and gather statistics and to insure both flexibility and rapid inter-unit transfer of the addict.

3. Establishment of rehabilitation centers stressing vocational training and increasing educational competence.

4. Vigorous employment efforts including an augmented vocational training program, elimination of job restrictions for the ex-addict, and provisions for bonding of ex-addicts.

5. Preferential funding of voluntary groups which provide sheltered workshops and vocational training programs.

6. Re-evaluation of penalties including a consideration of increased penalties for hallucinogen manufacture or sale, and decreased penalties for marijuana use.

7. Revision of regulations for physicians to permit maintenance treatment if medically indicated so long as the local medical society or the Department of Mental Hygiene concurs. It is anticipated that only small numbers of addicts would currently need such prolonged maintenance therapy.

8. Revision of Council make-up to include representatives of the Departments of Education, Office of Economic Opportunity, Social Welfare, and as an invited observer a representative of the Mayor of the City of New York and where indicated in other cities.

9. Establishment of an independent evaluation committee to analyze all research projects conducted under State aegis or considered for possible public health policy.

10. Increased support for voluntary groups, - from current $960,000 to $1,400,000.

11. Special funds for educational projects - including separate motion picture on opiate addiction and abuse of non-opiate drugs such as barbiturates, hallucinogens and stimulants.

12. Flexibility in the method of giving grants to permit funds to be allocated on a 2-3 year basis instead of yearly.

13. Augmented rehabilitation program in the Department of Correction.

14. Greater coordination of various State and State-supported units working with and treating addicts.

15. Improvements in in-patient treatment programs, especially in regard to education, aptitude testing, vocational training and sheltered workships.

16. Reaffirmation of freedom to pursue any sort of legitimate experimental project in regard to addiction.

17. Greater cooperation among federal, state and local officials, utilizing both formal and informal liaison.

18. Increase in law enforcement activities including more stringent penalties for importers, distributors, and pushers of narcotics and financial support for local enforcement units, especially in regard to undercover activities.

19. Intensive attack on the underlying sociological causes which provide the milieu in which drug abuse thrives.

These recommendations provided a principal basis for revisions of New York's Mental Hygiene Law. These revisions became law last April, concurrent with the appointment as chairman of the newly established Narcotic Addiction Control Commission of Lawrence W. Pierce, who successively had been assistant district attorney, Brooklyn; Deputy Police Commissioner, New York City; and director, New York State Division for Youth. Vice-Chairman is Henry Brill, a psychiatrist, on leave as director of Pilgrim State Hospital, and a member of the relevant American Medical Association and National Research Council committees. The continued existence of a council headed by Dr. Louria, a control commission of men of this caliber, openmindedness and diversity of experience, and the previously existing talents in New York State suggests that the law will be implemented judiciously. Implementation needs to be exploratory, probing for improved means, documenting and evaluating results, initiating changes in the law suggested by such exploration and its evaluation, and by related experience elsewhere.

In the future, it may be necessary to relate abuse of <u>other</u> drugs more fully to the problems dealt with here, and to use the capabilities of the state, in relationship to HEW and others, in dealing appropriately with them also. The existence of this commission, of a related commission in New York City, and of the Federal roles (especially via NIMH as a potential source of funds) raises questions about optimal Federal-state-city relationships. Such questions are being grappled with, of course, in other instances of joint Federal and state concern with problems of cities. The problem is similar to some arising under Title 19 of Medicare or to those aired by some mayors before the Senatorial Committee investigating urban needs and Federal participation. The costs of the total New York State program are likely to be very

great, probably much greater than initially estimated. If the narcotics abuse problem is conceived of as one which can spread out from an area of high incidence, then it is in the national interest to give Federal aid to the New York program.

Reduction of the "infected" population by treatment and habilitational measures such as those proposed appears the most direct way to reduce the size of the narcotics problem short of dealing with the basic psycho-socio-politico-economic problems. Yet one must face the possibility of major disappointment and setback if optimistic results are not achieved within budgets and times such as have been suggested. Moreover, one needs much better data, such as that to which this and NIMH programs in part address themselves, to secure proper bases for cost-benefit analyses to determine how much money is in fact warranted. Likewise such analysis cannot escape the Council's chastening conclusion:

> "It would be immensely unjust to spend millions of dollars to rehabilitate and obtain jobs for the addict if we simultaneously ignore those individuals from the same inimical environment who struggle to make ends meet but do not turn to narcotic drugs. We cannot in good conscience concentrate our efforts only on those who have succumbed to drugs rather than compete in a frequently unfriendly society. Urban blight must be removed for the benefit of all, not just the addicts."

H. SUMMARY: EFFECTIVENESS OF TREATMENT AND REHABILITATION PROGRAMS

The effectiveness of a treatment program in any social area is hard to assess, and this area, given the criminal concomitants of relapse and failure, is even more difficult. Most programs that have long histories have either been unevaluated or have changed over time so that one cannot tell what is being evaluated. This is especially true of the Federal efforts at the narcotics hospitals, where there has been long experience but little evidence about the intensity of treatment given to any group of persons or the extent of such treatment. Few of the experiments meet any of the minimal rules of scientific rigor and, therefore, are generally very difficult to evaluate. From the evidence of relapse, the Federal effort has not been promising or at least little more effective than regular imprisonment.

The programs of civil commitment will face two major difficulties encountered by the Federal system of hospitals: (1) treatment is difficult to manage when the population is being treated under coercion, and (2) there are going to be immense difficulties in finding persons

to staff the professional cadres required to begin treatment programs based on individual psychological needs. There are also major roadblocks in treatment programs established in penal institutions dealing with non-addicted criminal populations.

The successes or failures of most other programs are equally difficult to assess, given their sporadic nature and the fact that evaluation has not been built in as a regular part of the programs. (It might be added that this lack of evaluation is also characteristic of all enforcement programs as well.) From the evidence that does exist the prognosis is not very hopeful if we continue to model on the past. What has been lacking is the combination of sustained effort and the implementation of imagination. Most programs have allowed themselves to be limited by what may be utopian goals of success (total and life long drug abstinence) and have not yet experimented sufficiently with the kinds of notions that are latent in the Dole-Nyswander approach of attacking the drug problem not as a problem with a drug, but as a problem of social relationships.

VII. THE PRESENT SITUATION

The preceding chapters have described the nature and importance of the problem of drug abuse in the United States. The means for dealing with the problem have been described: laws and agencies to enforce the laws; treatment; education. The objectives and methods of the numerous agencies to cope with drug abuse have been discussed. This chapter will describe the successes and shortcomings of present policy, to the extent that the actual present situation can be deduced. The present situation is described for each major drug or drug category abused, with major emphasis on heroin.

A. OPIATES

1. Concentration

Enforcement efforts of the Federal Bureau of Narcotics have contributed to a long-term decrease in concentration of heroin doses sold at street level. One can guess that as the difficulty of importing heroin has increased each year the available amount has been diluted progressively, while the price per nominal dose has been kept fairly constant. The latter move has maintained and possibly increased the income of the criminal organization as a whole, but has decreased the amount of heroin available per dollar for the user. The income per syndicate member has probably been reduced because of the necessity to interpose more levels between addict and importer as protection for the latter. The user continues with a strong psychic dependence on his needle habit in spite of the reduced concentration of heroin. The decreased concentration is noticed both from measurement of samples bought on the street and from the virtual disappearance of severe withdrawal symptoms when addicts are jailed. Data on concentrations appear in Appendix G.

2. Number of Known Addicts

Enforcement efforts of the FBN have also resulted in a long-term decrease in the number of opiate abusers in the country, at least until the last few years. Reasonable estimates of the total number of opiate abusers over a fairly long period are shown in the following table, based upon further data given in Appendix C.

ESTIMATE OF NUMBER OF OPIATE ABUSERS

DATE	NUMBER
1890	246,000
1915	215,000
1922	110,000
1928	100,000
1938	43,000

From 1938 to the present the estimate of number of abusers has varied between 43,000 and 60,000. Figure 3 shows a plot of the number of individuals on the FBN's "active" list for each of the past eight calendar years.

The FBN active list retains the name of any offender through five clean years before the name is dropped. As a consequence there are at any time a large number of persons listed who will eventually be dropped from the list. These "pending" names are of value to the Bureau but tend to distort the picture of the addiction problem. If the "pending" names are removed (the method and calculations are given in Appendix A), the list of real known addicts has a time variation as shown by the lowest plot in Figure 3. The year 1964 is the first one in which the number of real known addicts exceeded more than fifty percent of the number on the active list. That year was a special one: strong efforts by the New York police apparently uncovered a large number of addicts (about 4000) who might normally have avoided detection until some later period.

Of the known, real addicts, roughly 4000 are in hospitals and treatment centers and another 1500 are in Federal prisons. These are assumed not to be using. The number of addicts listed as being in Federal prisons does not, of course, include non-addicts incarcerated on narcotics-act offenses. The known real addicts on the street and using are therefore roughly 29,000 in number, as of December 31, 1965.

Figure 3 indicates that the length of FBN's "active" list has increased approximately 25% since a low point in 1960. The Figure also shows that the number of real, known addicts has actually more than doubled since a low in 1959. The official figures, therefore, do not make evident the rather rapid increase in number of addicts in recent years. It is of interest that while the number of addicts has been rising rapidly, the annual number of FBN arrests has hovered near 1400 and the number of convictions near 1100. Those who have been convicted, however, have received increasingly severe sentences.

3. The Number of Unknown Addicts

In addition to the real known users on the FBN active list, it is necessary to know how many addicts have not yet been discovered, in order to know how large the population is. A careful analysis of the FBN active file has been made: it is reported in Appendix A. From this analysis several facts emerge.

The characteristics of the addict population vary slightly according to whether the addicts are men or women, and whether they are recidivists or not. For a given population, the probability of remaining undetected over a period of time decreases exponentially. In other words, the probability that some enforcement agency will discover an addict after x years of use is directly proportional to the fraction who have survived undetected for x years.

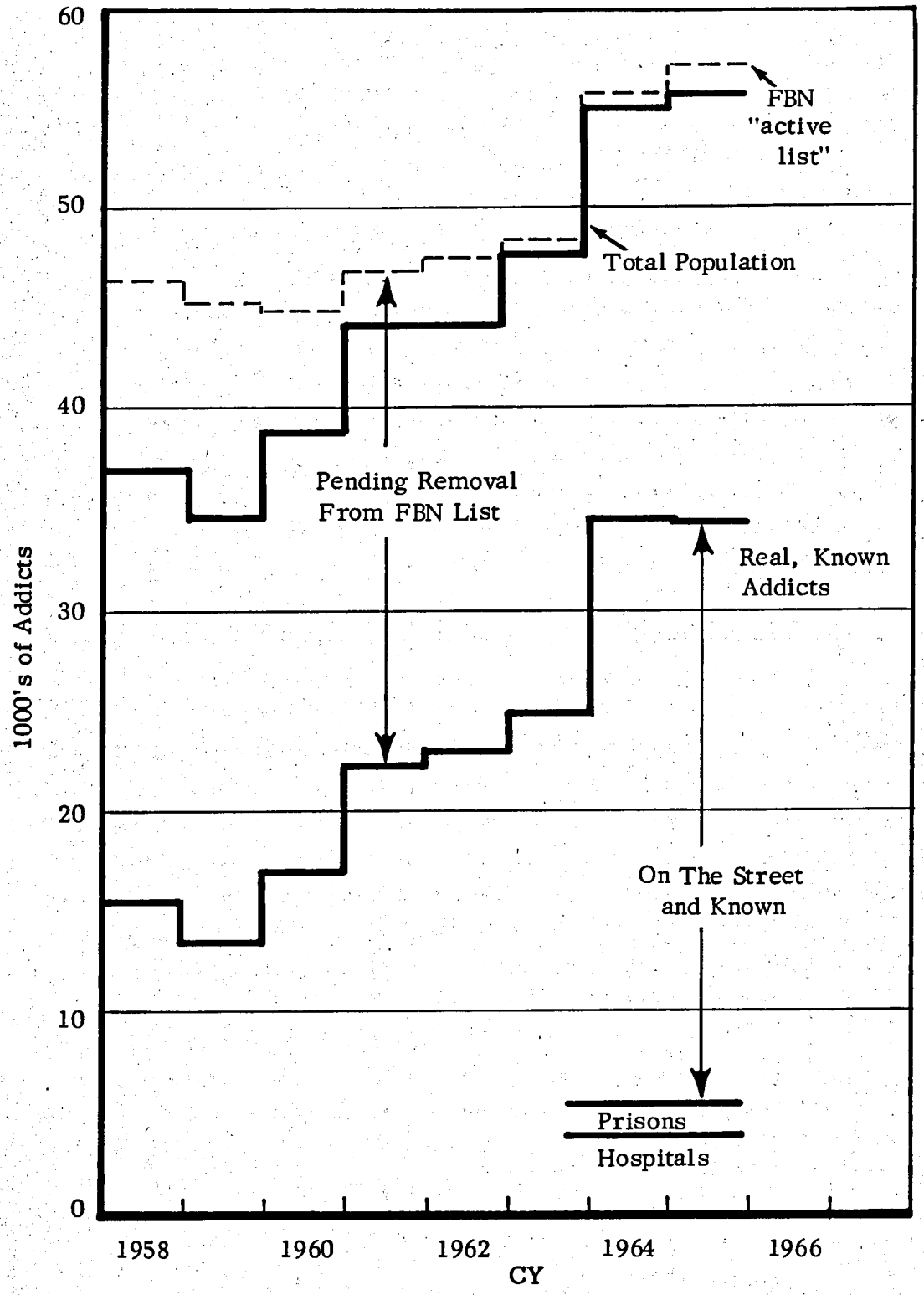


FIGURE 3 "KNOWN REAL," "ACTIVE" ADDICTS, AND TOTAL ADDICT POPULATIONS

Each of the four addict populations examined (male/female: recidivist/non-recidivist) is actually the sum of two distinct populations, one of which is discovered fairly rapidly, the other much more slowly. Roughly one-third of the addicts ever detected are picked up with a mean time of the order of one year. The remainder are discovered with a mean time of the order of six years. There are no data now at hand with which to determine whether the difference in average time to detection is related to a difference in other criminal activities. It may turn out that addicts who are picked up quickly are those engaged in other crime to support their habits: data now being collected by the FBN will eventually be sufficient to resolve the question.

The analysis of Appendix A indicates that the number of unknown, yet-to-be-detected addicts as of the end of 1965 was approximately 21,400. Adding the number of real, known addicts stated above, the total for the country is approximately 55,700. This figure is slightly smaller than the FBN active list which, it must be noted, is approximately correct for the wrong reasons. The real knowns of the active list comprised slightly more than 60% of the actual total addict population at the end of 1965.

4. Time Variation of the Total Addict Population

In Appendix A the number of addicts in the yet-to-be-detected population is estimated for several recent years. This undiscovered population has remained close to 22,000 in total numbers. The sum of the undiscovered addicts has been added to the real knowns and is shown in Figure 3 as the best estimate of the total U. S. addict population by year.

The number of names on the FBN active list is close to the number of addicts estimated here. The similarity results fortuitously from the FBN practice of holding ex-addicts on the list for a time roughly equivalent to the mean time required to detect new addicts. The rate at which the estimated total population is increasing exceeds the rate of increase of the FBN list. There has been a sixty percent increase in the total addict population over the past six years. During the same time period the negro population of central cities rose 24.4 percent, according to the Bureau of the Census. No data are available concerning the increase in the total susceptible population.

5. Flow of People Into and Out of the Addict Population

The calculations of Appendix A indicate that the flow of people into the addict population has remained fairly constant for several years; the annual input has varied only modestly about an average of approximately 7400 new addicts per year. This is in spite of the fact that the number in the addict population has been increasing rapidly and the number in the susceptible age group has been increasing slightly. This nearly constant annual input suggests that a standard epidemiological explanation of the spread of addiction needs careful scrutiny.

The reason that the addict population has been increasing is not because the input is going up but because fewer people are dropping out. If addicts had normal mortality for their age, the losses by death would be between 400 and 500 per year. Unless addict mortality is an order of magnitude larger than normal, most of the drop-outs must be voluntary. The number of voluntary drop-outs has varied widely from year to year and has regularly been fewer than the number of new addicts. The input and output for recent years are shown in Figure 4.

6. Opiate Seizures

The long term decrease in flow of illicit heroin is corroborated by Figure 5 which shows the history of narcotics seizures since 1931. It if is assumed that the amount which can be seized bears some relationship to the amount which is being smuggled, it is clear that the amount being smuggled dropped strongly over a period of more than two decades. The effect on dosage concentrations has already been mentioned.

From 1961 to the present, seizures have been trending upward, as shown in Figure 6 in which opium seizures have been changed to an equivalent weight of heroin. The recent upward drift in amounts seized follows the rise in number of addicts.

7. Opiate Thefts

Corroboration of the recent rise in opiate addiction is given by the variation in amount of narcotics stolen each year, shown in Figure 7 for the period 1931 to the present. The narcotics stolen in 1965 were enough to supply several thousand addicts for the year.

In Chapter II it was stated that one kilogram of heroin will supply the requirements of 45 "nominal" addicts for one year. This conversion factor can be used to show that the heroin confiscated in 1965 was enough to supply more than 10,000 addicts for the year, had it been pure heroin, as at least two-thirds of it was.

8. Size and Structure of the Opiate Smuggling Trade

The trade in 1965 would have had to import successfully 1100 kilograms of heroin to supply the 50,000 "nominal addicts" on the street (discussed above). A larger amount, nearly 1330 kilograms, must have been started on the smuggling routes, to account for the roughly 20% confiscated.

At prevailing prices the current importation of heroin represents approximately $11 million when it enters the country and $250 million when sold to the consumer.

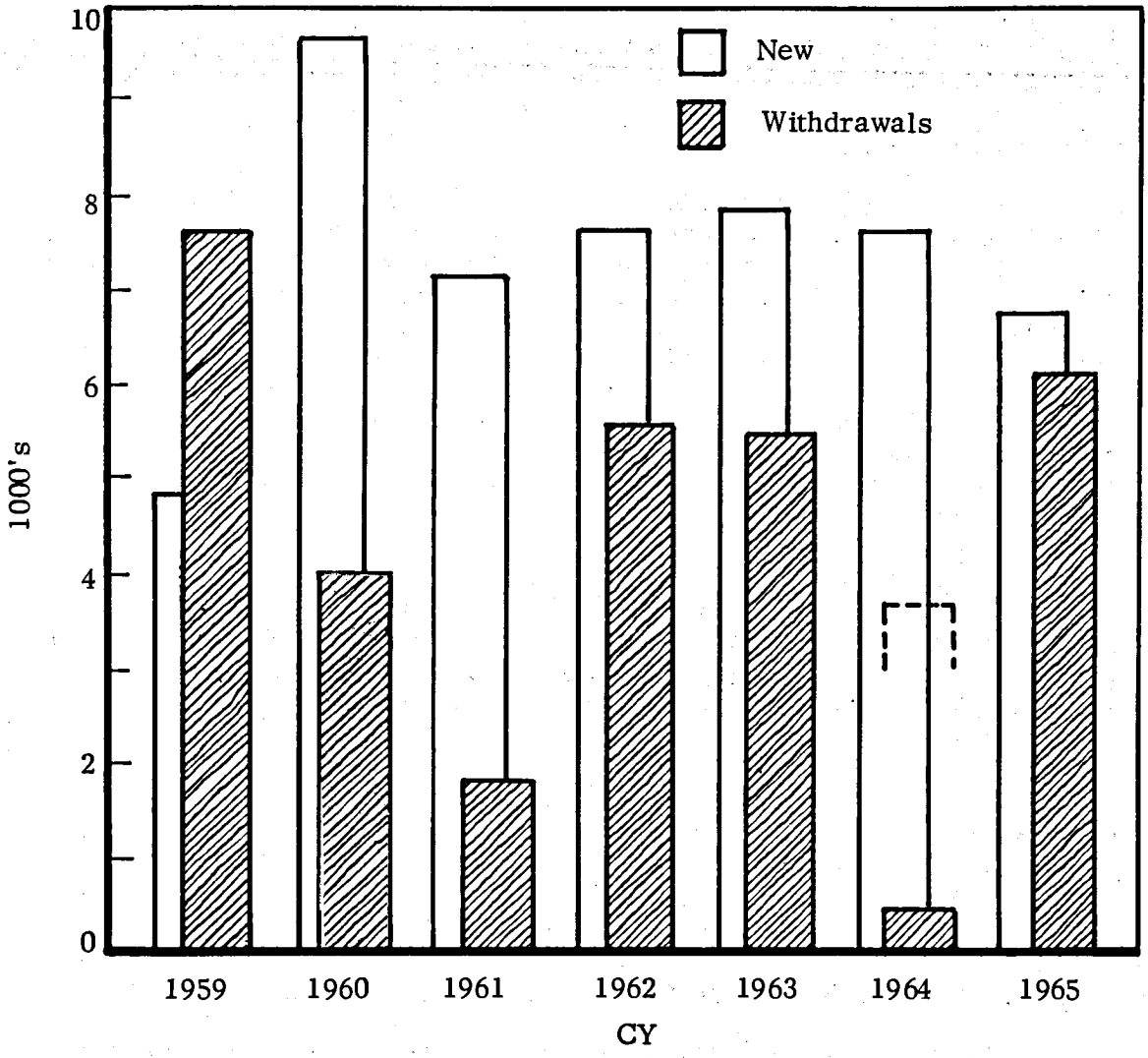


FIGURE 4 ANNUAL INPUTS TO AND OUTPUTS FROM THE ADDICT POPULATION

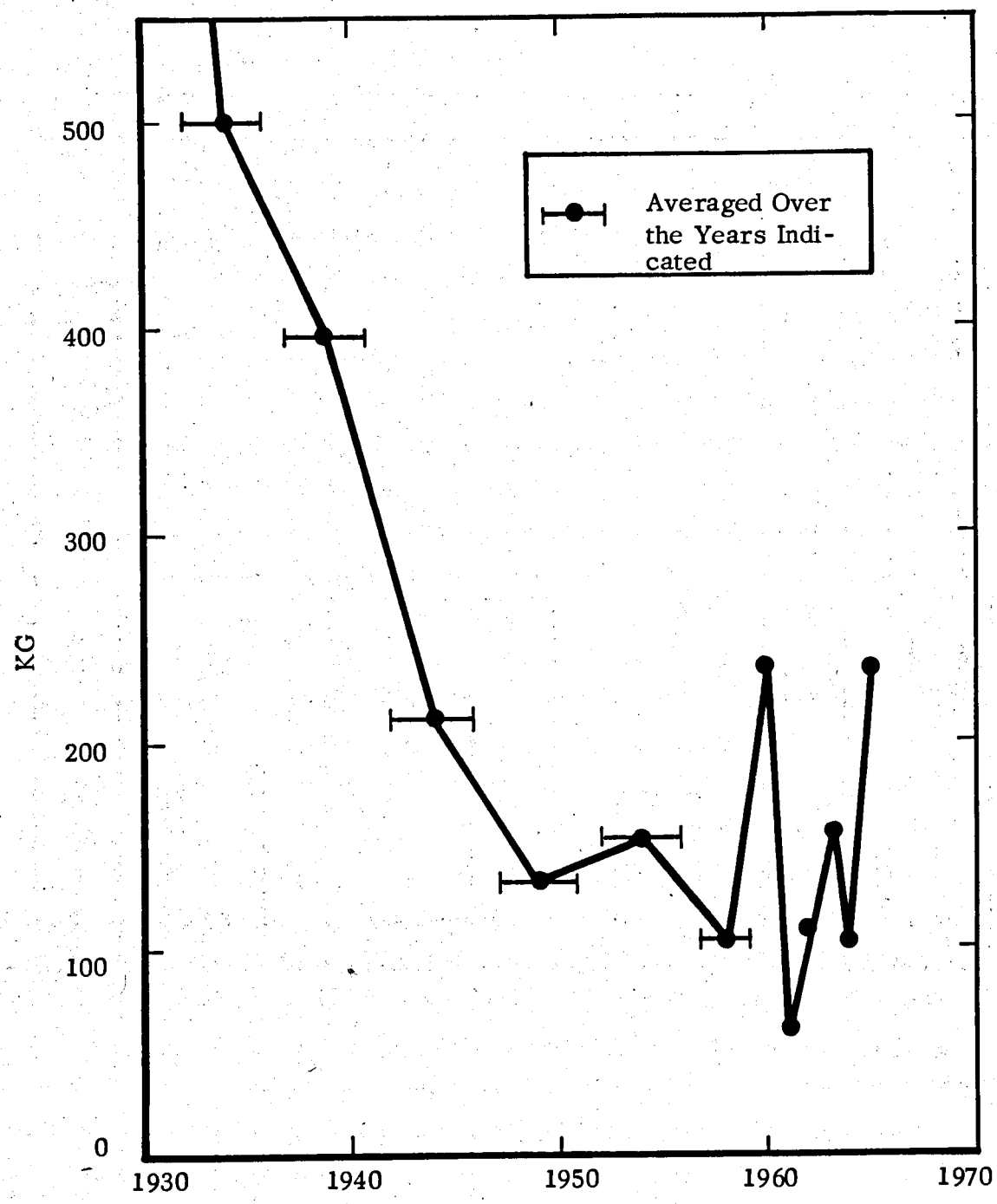


FIGURE 5 NARCOTICS SEIZURES; ALL NARCOTICS TAKEN AS EQUIVALENT

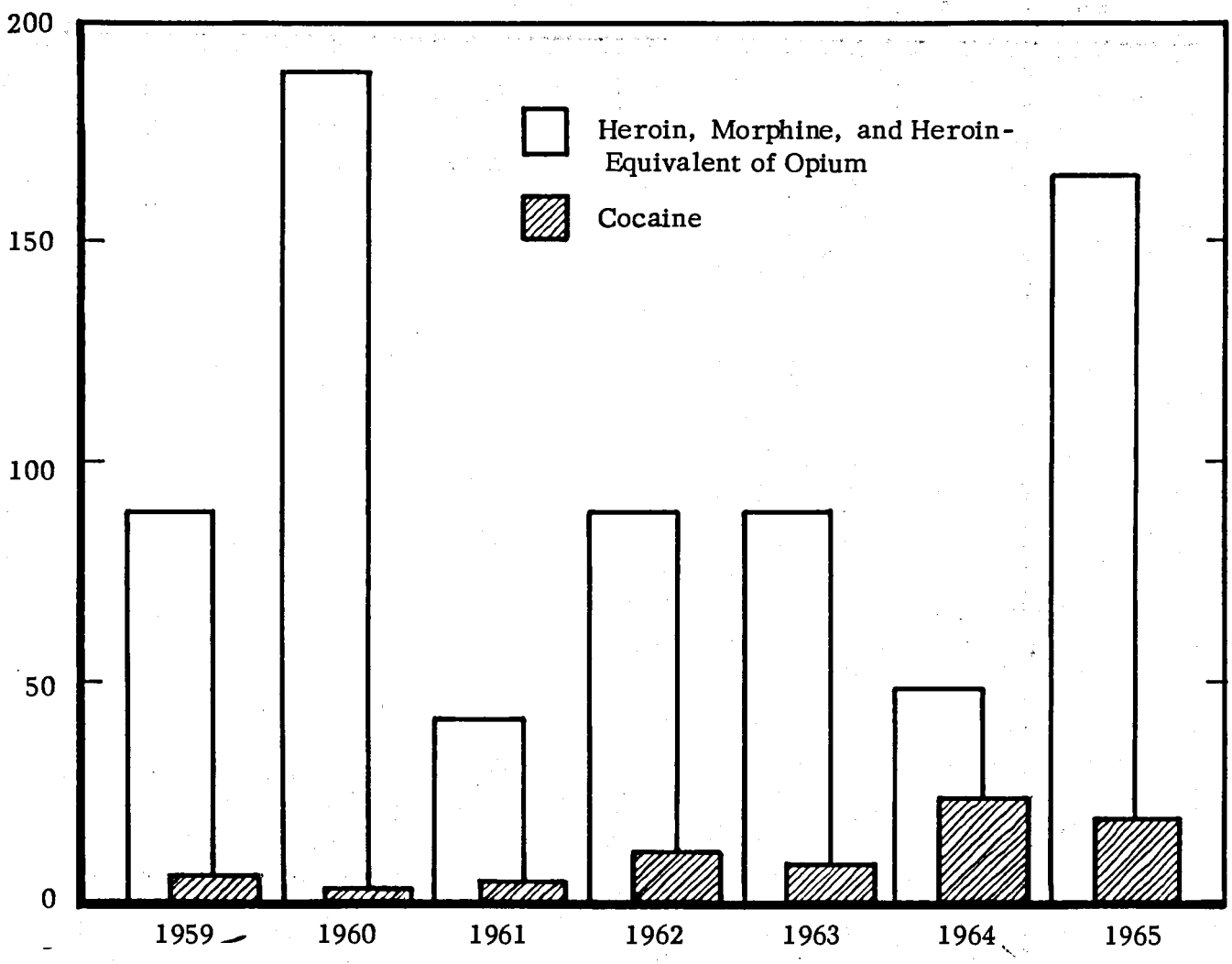


FIGURE 6 RECENT ANNUAL NARCOTICS SEIZURES, IN KILOGRAMS

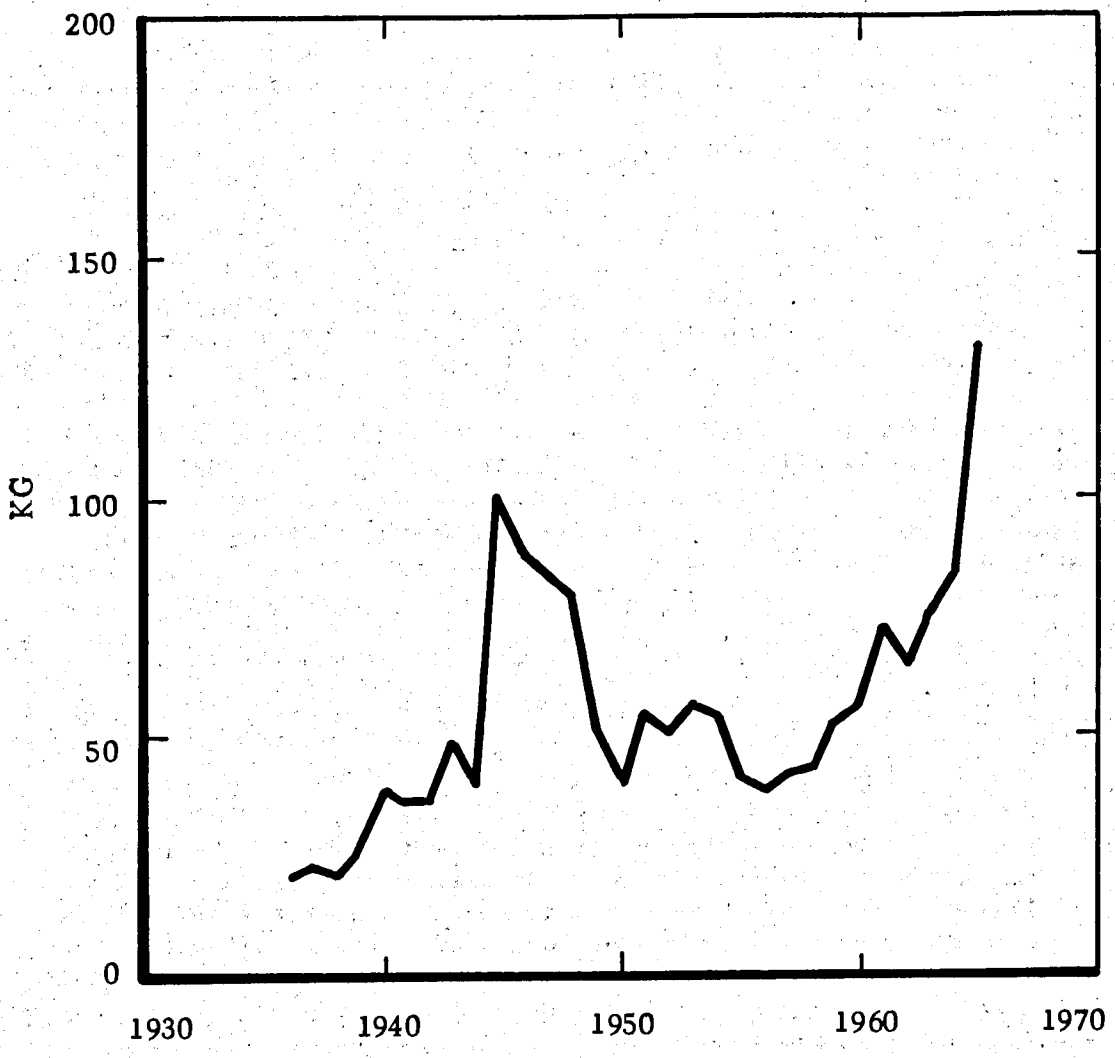


FIGURE 7 ANNUAL NARCOTIC THEFTS

On the basis of a simple analysis of the illicit narcotics trade (see Appendix G) it is estimated that there are a dozen major importers. Each of these, with his organization, services 4000 or more addicts. Each of the major importers has a controlled group of fifty to sixty associates who service 250 to 300 pushers. The pushers, who are outside of the organization, take most of the risks and least of the profits. The organization reaps its profits not only from simple mark-up of the product but by advancing credit to the pushers at usurious rates. A pusher can make between $25 and $50 thousand a year, (after he has finally paid off his initial loan of, say, $2000, at 5% per week for a year), with as few as fifteen steady customers. Therefore, in spite of the risks, there is considerable incentive for certain types to work at this trade. Of the estimated 3500 pushers operating at any time roughly 700 per year will go to prison.

In view of the increasing numbers of addicts and the decreasing amount of heroin available for a dollar on the street it is reasonable to conclude that the total income of the syndicate is increasing. There have recently been assertions that organized crime is "getting out of dope." These assertions are apparently based on the fact that some of the old line ethnic groups are being replaced in the trade by Negroes and Puerto Ricans. If this phenomenon is occurring, it is probably more the result of a labor shortage than a lack of employment.

9. Crime by Addicts

According to the FBI's Uniform Crime Reports, the value of property stolen and not recovered has recently varied from $135 to $285 million per year, with the larger figure being the latest. The Crime Reports cover all the metropolitan and urban areas in which the vast majority of addicts are to be found. The reported thefts, however, do not include all thefts; some are never reported and others are left out because they are too small. Of the reported amount not recovered, $49 million was in cash (for 1964). If the remainder could have been fenced at roughly 20¢ on the dollar, the net proceeds to the thieves would have been approximately $100 million in 1964.

A first and obvious conclusion is that even if all reported larceny (including robbery and burglary) were committed by addicts, the take would suffice to pay for only 40 percent of their drug bill. Either there is a great deal more larceny occurring than the FBI reports indicate, or a large number of the U.S. addicts are not supporting their habits by crimes against property. Both statements are true to an unknown extent.

It is obvious that all larceny is not perpetrated by addicts. It is shown in Appendix B, on the basis of the records of the New York City Police Department, that less than four percent of the larceny arrests in NYC involve addicts. Of the 230,000 or so inmates of Federal

and State prisons some 56,000 are in on property cases (larceny, etc.). This indicates that there are a great many more people "earning" money by stealing than the addict population alone.

As an upper bound one can estimate that one-third of the addict population might possibly support themselves by crimes against property; as a lower bound, less than five percent. The approximately one-third of the addicts who form a quickly-discovered population may be composed of those who support themselves, or are supported by, prostitution plus those in the larceny trade.

There is clearly a large amount of money used to buy narcotics which does not come from reported stealing. This suggests that, if addicts are not responsible for the majority of crimes against property, making drugs available at low cost would not strongly reduce such crimes. It would, however, reduce the profits of organized crime. The unanswered question is: where does the money come from?

10. Treatment

On the debit side of current results is the fact that the cure of addicts has been until recently little nearer to reality than it has been for the past century. Current experimentation, including habilitation, antagonists, and close parole may change this significantly but cannot yet be relied upon. Estimates of cure-rates vary from zero to twenty percent. (See Chapter VI.)

11. An Auxiliary Problem: Substitution

In a few cases severe enforcement against heroin users has caused a shift to other drugs which are in some cases more dangerous than heroin itself. This is the case in St. Louis, for example, where there are now a large number of amphetamine addicts, many of whom had once been on heroin. (See Appendix B.)

12. Public Attitudes

Ill-informed and irresponsible treatment of the narcotics problem by the public media has contributed to public attitudes which interfere with solutions to the problem. Such interference is seen whenever there is an attempt to establish a neighborhood clinic or half-way house. (See Chapter VI.)

B. CANNABIS

The policy change which placed marijuana in the same category as heroin as a dangerous drug appears to have been unsuccessful. Shortcomings are evident. Use is apparently on the increase, but the numbers of users and their degree of use is unknown. The relationship between abuse and enforcement attitudes towards marijuana, the dominant American form of cannabis use, and use of the much more dangerous cannabis gum, hashish, remains to be explored. Hashish is a severe drug of abuse in numerous African and Asian countries. Its use is rapidly increasing in Great Britain and seems to a slight extent to be increasing here.

The fact that large segments of the population, plus some of the judiciary, do not take a strong stand against the use of marijuana may result from the fact that FBN propaganda protests too much. A less sensational story would be easier to believe.

In the long run Cannabis should be placed under the jurisdiction of the FDA, and abuse of marijuana should be made no more serious than a misdemeanor. In view of the hue and cry over marijuana in recent years such a logical step cannot be taken at this time. Perhaps two or three years from now would be the appropriate time.

C. OTHER DANGEROUS DRUGS

It is very difficult to know the extent of abuse of other dangerous drugs such as amphetamines, barbiturates and the psychomimetic drugs. The reasons for this difficulty have been discussed earlier: many of these drugs are ubiquitous and, therefore, it is hard to distinguish between legitimate and illicit use; many of the abusers are in social strata who normally do not come to the attention of the police.

In New York City, in 1965, roughly ten percent of all arrests on drug charges were for O.D.D. (other dangerous drugs). There is no information on the amount of such abuse. In St. Louis, on the other hand, informed opinion puts the number of abusers of O.D.D. at from 10 to 50 times the number of heroin addicts. The St. Louis arrests for heroin exceed those for O.D.D. by a factor of at least two. The chance of an O.D.D. abuser being arrested was, therefore, not greater than 1/20-th that of a heroin user. In New York City, the chance of a heroin abuser being arrested (in 1965) was about one in four. If the same relative chance existed in NYC as in St. Louis for an O.D.D. abuser to be arrested, the number of such types in NYC would be slightly more than 100,000. This is admittedly a very deplorable way to estimate the extent of O.D.D. abuse.

In Los Angeles the number of arrests for O.D.D. is roughly equal to those for heroin. The typical heroin addict was arrested 1.5 times per year. The line of reasoning used above suggests that the number of O.D.D. abusers in Los Angeles is roughly 50,000. The fact that it is not larger may reflect the ease with which marijuana is available in the area.

One special problem with respect to other dangerous drugs has already been mentioned. The recent publicity about LSD, coupled with the drying up of legal sources, has resulted in a flow onto the market of LSD of very dubious quality and possibly dangerous characteristics.

VIII. POSSIBLE CHANGES

A. CHANGES IN ALLOCATION OR AMOUNT OF EXPENDITURES

It seems clear that present policy with respect to drug abuse is successful neither with heroin nor with Cannabis. This suggests that either more money should be spent to cope with the problems, or that the money should be spent in some other way. This section addresses both of these suggestions.

1. The Possibility of Increasing Total Expenditures on Drug Abuse Control

Before one can decide whether more should be spent on drug abuse control, it is first necessary to estimate both the present expenditures and costs.

Because of the way the laws are written, it is necessary to look at expenditures for enforcement against heroin and Cannabis together, even though the social costs of these drug abuses differ greatly. It is important to realize that any numbers given here are simply educated estimates.

On the basis of national records about 0.8% of all arrests are associated with violation of drug acts.[1] The cost of the total police system is roughly $3.18 billions per year.[2] If the cost of arrest is independent of type, the narcotics arrest cost is about $25 million per year. However, the special difficulties of making a narcotics case mean that they require more time than most types, with exceptions such as murders and kidnappings. The average cost of a narcotics agent, including overhead, is about $22,00 per year.[3] It is estimated that there are almost 2000 narcotic enforcement officers.[4] One can, therefore, assume a police cost of $40 million per year. The roughly 4000 prisoners in Federal prisons for narcotics-act violation can be maintained for $8 millions per year.[5] Federal court expenses associated with each of the 2000 or so proceedings per year add up, at $1300 each, to another $2 million.[6] The roughly 4000 addicts in treatment can be assumed to cost $2500 each per year, for another $10 million.[7] The annual expenditures on drug abuse problems, therefore, are $60 million or more, not including an unknown cost for probation officers, social workers, and other public agents. The known annual expenditure per addict is roughly $1100.

The annual costs of narcotics addiction include not only the $275 million which flows to organized crime and pushers for wages and investments, the $100 million estimated as an upper bound on reported thefts (representing $350 million or more to those from whom the thefts are made), but also the loss or diversion of man-years of labor which might otherwise be usefully productive.

For the sake of argument, assume that 40% of all addicts support themselves by crimes against property (as suggested in an earlier section). Given the "fence" discount, this means approximately $350 million in larceny. Averaged over all addicts, the crime cost is roughly $6000 per addict. It is an acceptable assumption that increasing the enforcement expenditure above $1200 per addict would reduce the crime cost per addict. The question is one of ratios: will the decreased cost be greater than the increased expenditure?

In order to determine whether the cost to society would be reduced by more than a dollar for each additional dollar expended to cope with the problem, a great deal of information now unavailable would have to be gathered. In particular, one would need to achieve a more accurate picture of the amount of crime committed by addicts and data on how the crime rate varies with level of law enforcement.

2. Changes in Allocation Within Enforcement

Even without being able to predict the effect of increasing the resources expended to cope with addiction, it is possible to evaluate some possible changes in allocation. This is particularly true for one change which has been advocated in many quarters: enforcement against the producers of opium.

a. Enforcement Against Opium Producers

Since an estimated 85% of all the heroin sold in the U. S. originates within Turkey, it has often been suggested that the Turkish government should be persuaded (possibly subsidized) to stop the cultivation of illicit crops and the diversion of licit supplies. Aerial surveillance could be used: after an initial survey costing of the order of $2 million, the cost per growing season would be approximately $100,000 for a survey which would not only detect illicit fields but allow estimates of yield to be made. The major hitch in implementation of this technical scheme, other than money, would be the very heavy peak demand for photo-interpreters who would otherwise be unemployed (at least in Turkey).

The method proposed is technically feasible and would presumably do the task required. The arguments against it are political, economic and technical.

It is estimated that 6 to 8% of the Turkish opium gum production gets diverted into or produced for illicit trade, or about 25,000 kilograms. To the whole country, the illicit flow of opium gum means an income of approximately $900,000; about 40% of that comes from sales which flow to the U. S. It is estimated that the income per Turkish farm family is $500 to $800[8]. There is thus an economic incentive at the personal level to sell illicitly. If, say, 20% of the growers

(about 20,000) sold illicitly their added income would be a gain of from 6 to 9%.

In order for control to be effective in Turkey, it is necessary to enforce against, as well as detect, illicit operations. The widespread pattern of cultivation, over 100,000 growers involved, the difficulty of policing with local officials and the seriousness of the economic impact make it very unlikely that the Turkish government would consider effective enforcement politically feasible.

There are two economic arguments against this proposed enforcement in Turkey. One is international, the other domestic and related to the nature of the habit. In simplest form the international economic difficulty is that cutting off production in Turkey will only result in it springing up elsewhere. Other countries in the Near East, north and east Africa, and Southeast Asia are all potential sources, as is Mexico. Even if the resulting prices for heroin were to increase by a large percentage, it is clear that the buyers would be willing to pay, and that therefore someone would be willing to supply.

The second economic argument is explored in considerable detail in Appendix D, where it is shown that heroin is a price-inelastic commodity. In simplest terms this means that the buyer wants the material strongly enough to purchase it independent of price, as is seen true with both alcohol and tobacco, for example.

The essence of the economic argument relating to price elasticity is that anything which raises the price of the product will increase the money spent on it, rather than decrease the amount bought. If some of the money spent is derived from crime the amount of crime perpetrated will increase. Conversely, anything which reduces the cost will reduce associated crime. This is the reason for an earlier statement that it is essential to determine how much of the heroin consumption is paid for from crime. Since an increase in heroin prices would bring only a small decrease in use, it would be important to know how much concomitant increase in crime costs might occur.

The final argument against striking at the production of opium is a technological one. It is now possible to produce synthetic opiates, starting with the natural product, which are a factor of 10^4 or 10^5 times as potent as heroin. (See Appendix F.)

If the laboratories in southern France which now produce heroin from morphine base were to produce concentrated opiates instead, detection of smuggling would become extremely difficult. The syndicate has not found it necessary or advisable to take this route so far, for several reasons. Heroin is an accepted product and introduces no delicate dilution problems among importers. A large number of people attached to the syndicate earn their living by smuggling the raw materials; the

syndicates are unlikely to squeeze these people out if such a move is not necessary. More important, when the FBN or other agencies confiscate heroin in transit, the losses come out of the overhead of the American importers. The French operators have already received their money. They, therefore, have little incentive to make the smugglers' task easier.

b. Shift of Agency Responsibilities

A second recurrent suggestion for changing the allocation of enforcement funds is that Federal drug-enforcement agencies be combined.

There are compelling reasons for leaving Federal organizational responsibilities for abused drugs undisturbed for the present. Narcotics is effectively using its experience and HEW has its hands more than full with new FDA and NIMH responsibilities with respect to drug abuse, plus re-examination of older U. S. Public Health Service tasks.

Endeavors to reduce the user population are paramount in drug abuse control; these are closely related to increasing emphasis on research, treatment, habilitation, and close parole. Mixed drug use is common and increasing. The medical profession's assumption of responsibility will increase. For these and other reasons noted in greater detail elsewhere, absorption of Narcotics into HEW will be desirable when that department is better equipeed to handle its own emerging drug abuse responsibilities, and to consolidate strategy for all drug abuse. Meanwhile, HEW needs to be given responsibility for statistics and all forms of education. Epidemiological statistics, maintained by NIMH with all the safeguards of confidentiality enjoyed by Census can ultimately help determine incidence, distribution, and trends. A related but separate consolidated file of all drug abusers known as such by enforcement agencies may likely best be maintained by FDA.

Provided that hashish does not become a problem, it will eventually be desirable to transfer Cannabis enforcement responsibilities to FDA. Such a transfer will require a shift of statutory authority from tax to other constitutional bases.

3. Balance of Enforcement, Treatment, and Education

As a result both of the limited success of enforcement and shift to viewing addiction as a medical rather than a criminal problem, California, New York and, most recently, the Federal government have expanded or made plans to expand expenditures on treatment. It is too early to judge whether these programs will, over the long run, reduce either the total number of addicts or the total costs to society. Several facts are becoming obvious however. One is that addiction must be considered a disease with remissions and relapses rather than cures. A related conclusion is that more money must be provided

for carefully supervised probation and/or parole. Data could probably be gathered today to establish the fact that it is more efficient to supervise an addict on parole than to track him down at a later date when he has taken up the habit again. Appendix F suggests some technological aids to efficient parole supervision.

It is clear that at this time no one knows enough about the impact of educational efforts on various potential audiences to know how much emphasis should be put upon this tool.

Hopefully within a few years enough data will have been collected by the FBN, by various treatment programs, and by enforcement agencies in general to allow a more efficient allocation of expenditures to be made. These and other factors are taken up in the following section (B).

4. Relevance of "the British System"

The British claim to have no "system" for dealing with addiction. It is true, however, that in England an addict may legally receive his drugs by prescription signed by a practicing physician. It has been suggested that such a scheme, if implemented here, would greatly reduce the cost of addict crime. Such has not been the case in England. Underworld elements have moved from Canada and the West Indies to England and are now building up a trade in illicit drugs. (See Appendix E for further discussion.) Clearly some addicts are criminals first and addicts only secondarily: they prefer to get their drugs illicitly.

Before one could predict the outcome of the English system applied to the U. S., one would have to know how many addicts would probably be criminals anyway, how many addicts are criminals only to support their habit, and how many have not needed to turn to crime. One would also have to know how many currently deterred people would take up the habit if the cost and criminal stigma were reduced.

It was estimated in the previous chapter that the fraction of addicts supporting themselves by crimes against property is somewhere between five and 40 percent. Another 30 percent may be living from prostitution. Uncertain as these estimates are, there is yet the unknown factor of how much this crime results from addiction and how much would happen anyway.

On the basis of the analysis of Appendix D, the number of new addicts who might be expected under a "British system" is not a large percentage of the present number (depending on actual cost of the product). It must be emphasized again that not enough facts are known at this time to argue either for or against a British approach.

B. CHANGES IN OPERATING PROCEDURES

1. Enforcement

a. International Cooperation

It is clear that an international flow of "other dangerous drugs" already exists, in addition to the flows of heroin, Cannabis, cocaine, etc. Europe already has severe problems resulting from the fact that a drug abused and proscribed in one country may be sold over the counter in another. This problem is discussed in Appendix E, together with details of the drug problems of Great Britain and Sweden. Much of the O.D.D. traffic seems to be in the hands of amateurs, fortunately. To cope with possible increases in such traffic, it is suggested that the U. S. should enter into further international agreements, as discussed in Chapter V.

b. Inter-agency Cooperation: Information Exchange

Experience in the field (see Chapter V and Appendix B) indicates that cooperation among the many agencies which deal with dangerous drug abuse is less than it might be. The most easily remedied lack seems to be information exchange. The problem is similar to that experienced by the FBI in accumulating national crime statistics. The Federal organization has no way to force the state and local agencies to provide information. If the latter are understaffed, they may neglect to pass information, a habit which is reinforced if no news ever comes back from above. It is suggested that FDA and FBN, and perhaps Customs, should have explicit budget items to cover the purchase and dissemination of information. By "purchase" is meant the subsidizing of personnel at local levels who would collect and examine data both for local use and for transfer to other agencies. To make effective use of such a scheme the FBN, in particular, should budget for additional planning and statistical staff in Washington.

Another facet of inter-agency cooperation is the possibility it opens for a flexible concentration of forces in time and/or space. As mentioned earlier, the heroin trade is composed of perhaps a dozen fiefdoms, each of which operates in fairly fixed territory. It is the nature of this system to work in an uneasy truce: everyone distrusts everyone else. By concentrating enforcement activities heavily in a randomly chosen manner, it may be possible to exploit existing but hidden stresses within the syndicate. Such activity would require more overall planning at the national level than now exists.

c. Data Collection

In spite of the importance of gathering statistics concerning narcotics use, few local law enforcement agencies are systematically doing so, and fewer still have made a conscientious effort to collect data

that is meaningful and error free. There is, however, at least one notable exception, and some examination of what this agency has done and the problems it has encountered may be helpful to other agencies.

First of all, the development of a satisfactory system seems to be an evolutionary process. The agency studied has revised its reporting system six times in the last 10 years. Some of the many changes were minor as when a separate code for Mexicans was eliminated under the classification for race. Others were rather complicated changes made in response to a need for more detailed information. For example, in 1963 the agency found it necessary to substantially increase the number of "evidence confiscated" codes and in 1964 to change the method for coding items within this classification.

Second, even when considerable effort is directed toward eliminating missing data, one has to expect that there will be some lapses in reporting. An examination of a partial listing of the punched cards comprising any narcotics arrest file will probably reveal blanks where data should appear, plus obviously inaccurate information. For example, a cursory examination of the subject agnecy's carefully maintained file showed narcotics arrests of two-year olds and several cases where only the arrested person's name had been recorded.

Finally, the reporting system examined concentrated on objectively determinable information. There was no category for "cause" of addiction nor for other information obtained largely on the basis of the uncorroberated testimony of arrested persons. Instead, the file contained a modest amount of demographic information like age, race, and sex and some detailed classifications which, if studied, could provide insights about the sale and use of narcotics and the nature of narcotics users. Information concerning narcotics violators' prior arrest records, the charges on which they were arrested, the disposition of the complaints against them, and the type of evidence confiscated, if any, could be of considerable value in the study of narcotics abuse.

d. Screening Programs

One possible aid to enforcement against drug abuse is the employment of chemical tests to detect traces in body fluids such as blood or urine. It is shown in Appendix F that such detection is now possible. Improved methods under development may make it possible to use a single type of test to identify the drug of abuse specifically, up to a day or two after use. The cost per test will, of course, be determined in part by how many tests are conducted.

It is suggested that such sensitive chemical tests might be used routinely to screen selected groups of the population, such as draftees, to obtain a measure of the scope of drug abuse. Such tests might be used on drivers in automobile accidents, in addition to the alcohol detection tests now available. In New York City, it

might be advisable to screen all persons booked on larceny charges.

e. "Buy" Programs

In Appendix B it is pointed out that the Los Angeles Police Department operates a very successful "buy" program with which it makes cases against narcotics sellers. The average cost per defendent is less than $40 for the actual narcotics bought, which is a very small fraction of the total enforcement cost per defendent. It is suggested that the administrative and budgetary changes required to set up such a program in other states and local jurisdictions would greatly enhance enforcement effectiveness.

f. Reward Money

In Chapter V it was mentioned that the Bureau of Customs feels that its success in picking up contraband is very strongly tied to its ability to give monetary rewards for information. The reward is usually given as a percentage of the fair value of the merchandise confiscated. This raises the question of what value to put upon confiscated heroin; the value at the trade level where it is picked up, or the ultimate retail value.

Assume for the moment that increased use of reward money would result in increased interference with heroin flow into and through the country. The next question is whether the interference is enough to persuade the importers to give up or whether the result will simply be further dilution and/or increases in price. In line with the general economic arguments of Appendix D, it appears that the importers are more likely to pass the squeeze along to the addicts than to give up. This suggests that reward money should be used at levels close to the consumer, in which case it becomes complimentary to "buy" money in the process of detection, identification and conviction.

2. Treatment and Education

It is not possible at this time to suggest specific changes in either treatment or educational activities with respect to drug abuse. Any possible suggestions are really recommendations for research. These subjects have been discussed at length in Chapter VI and will not be repeated here.

APPENDIX A

ESTIMATING THE ADDICT POPULATION

A. INTRODUCTION

When the Commissioner of Narcotics is quoted in the newspapers as saying that there are 57,199 addicts in the U.S. as of December 31, 1965, he means that the Bureau has a list of that many names. The newspaper accounts seldom describe either how names get added to the active list or how they get removed. A person not reported as a user for five years is transferred from the active to the inactive list. However, a person transferred to an inactive list is counted as an active addict for the entire five years that he has not been known to be using drugs. It appears reasonable to get a better estimate of known, active addicts by removing now the number of names which may be expected to be removed in the future. A true estimate must also include the number of names which have not yet been detected.

This appendix will first show how many of the names on the FBN active list are "real," present-day addicts. In addition, this appendix will calculate the number of addicts in the community who have not yet been detected. This latter number results from a detailed analysis of FBN addict files and has been made possible through the cooperation of the FBN in Washington, D. C.

B. REAL, KNOWN ADDICTS

Table A-I shows the method by which the number of real, known addicts has been derived for each of the calendar years 1958 to 1965. Earlier years have not been shown since the file, which was started in 1953, probably did not settle down until 1958. The first line in the table gives the number of active addicts in the list as of the end of the year. The second line gives the number of names added during the year. Each of these numbers has been rounded off to the nearest hundred, shown as thousands and tenths.

If in a given year, for example, 6000 new names are added yet the total list decreases by 1000, it is reasonable to assume that 7000 names were deducted. For our purposes, it is not important that some of the deductions may have been due to death. An upper bound, from American mortality experience for the age group of concern, would be 800/100,000/year. The percentage loss due to death would thus be less than one percent assuming that narcotics addicts do not have a much greater death rate than the population at large. Parenthetically, about

5% of the new names added each year are culled out in the subsequent year or two. It is not known how many of these culls are due to death, how many to duplication, and how many to the person being in prison for a sentence exceeding five years. If the latter two categories were each zero, it would imply that the death rate for addicts has an upper bound some five times greater than that of the general population. The calculations of Table A-I have been done taking the culled names into account: the results are within a few hundred names of those shown in the table.

Table A-I shows the calculations. In order to carry through to 1965, it has been necessary to project name removals for 1966 through 1969. This was done on the basis of a trend line through removals in the past eight years. In gross terms, it appears as though the number of new detections has stayed relatively constant over recent years, but the number of people known to be getting out of the addict population has been decreasing yearly.

The table shows that the number of inactive names carried on the list was greater than the number of reals, early in the period shown. At the end of 1965, the number of real, known addicts on the FBN's active list was slightly over 34,000 or roughly 60% of the list.

Figure A-1 shows the results of the calculation. A number of conclusions can be drawn. The number of known active cases (lowest curve of the figure) has fallen between 30% and 60% of the official list over the period shown. More important, the number of real, known addicts has more than doubled in the past eight years while the active list has given the impression that the increase has been by roughly one-fourth.

Figure A-I takes note of the fact that a fraction of the known active cases are in institutions. It is alleged that only forty percent of the roughly 3500 inmates of Federal prisons who are in for drug act convictions are actually users. The rest are in for smuggling, selling, etc. That means 1400 addicts in Federal prisons. There are roughly 700 in hospitals run by the state or city of New York, another 2300 in California state hospitals. The number in the Federal Hospital at Lexington is usually 900. There are also addicts in State prisons, private hospitals and the Federal facility at Fort Worth. The number known to be off the street and therefore almost sure to be off the habit certainly exceeds 5000. This means that of the names on the FBN's active list, fewer than 30,000 are actually on the street.

TABLE A-I

AN ESTIMATE OF REAL, KNOWN ADDICTS

YEAR	1957	1958	1959	1960	1961	1962	1963	1964	1965
Names on list at year end	44.1	46.3	45.4	44.9	46.8	47.5	48.5	55.9	57.2
Added in year	7.7	7.6	5.7	7.5	7.0	6.4	7.5	10.0	6.0
Removed at end of year		5.4	6.6	8.0	5.1	5.7	6.5	2.6	4.7
Lifetime of above before removal					4.7	4.7	4.7	4.7	4.7
				2.6	2.6	2.6	2.6	2.6	
			6.5	6.5	6.5	6.5	6.5		
		5.7	5.7	5.7	5.7	5.7			
		5.1	5.1	5.1	5.1				
		8.0	8.0	8.0		5.0*	5.0*	5.0*	5.0*
		6.6	6.6				4.7*	4.7*	4.7*
		5.4						4.4*	4.4*
									4.1*
Inactive names carried on list		30.8	31.9	27.9	24.6	24.5	23.5	21.4	22.9
Real, knowns		15.5	13.5	17.0	22.2	23.0	25.0	34.5	34.3

*Estimated, see text.

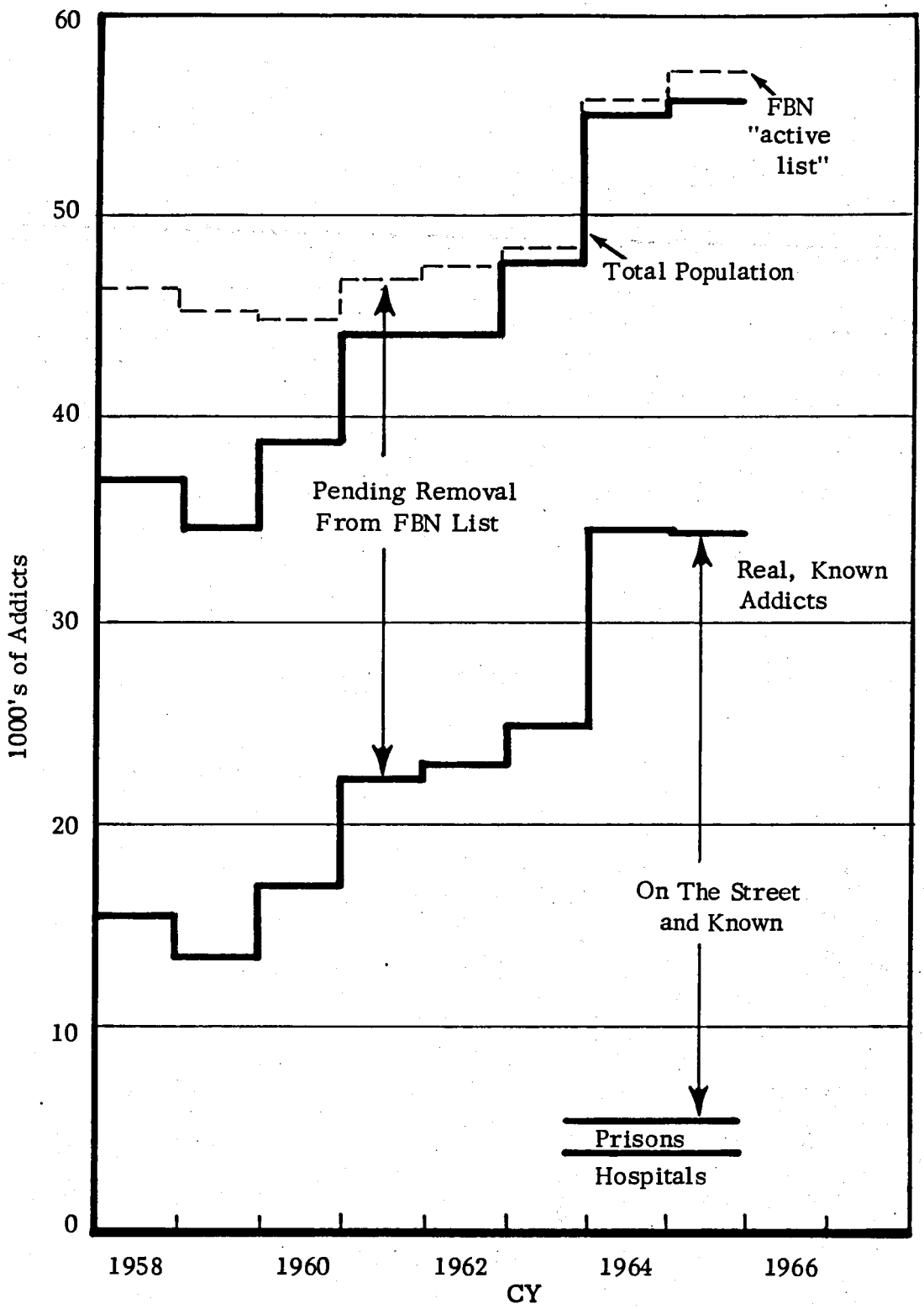


FIGURE A-1 RECENT HISTORY OF KNOWN REAL AND "ACTIVE" ADDICTS

C. UNDETECTED ADDICTS

In order to estimate the total number of addicts, it is necessary to estimate the number of addicts who were undetected at the end of 1965 but who will be or have been detected at some subsequent time. This computation requires the use of the cumulative frequency distribution of an addict's time to first detection. By an addict's time to first detection we mean the number of years he claimed to have been addicted at the time he was first reported to the FBN by a local reporting agency. By cumulative frequency distribution, we mean the proportion of new addicts who are detected within one, two, three, or any other stated number of years of use. This distribution is presented in the form of a graph with years on one axis and the proportion of addicts detected on the other; or in the form of an algebraic expression which relates the proportion of addicts detected to the number of years until detection.

The total number of addicts listed in the FBN files who were actively using drugs at the end of 1965 was estimated above to be 34,300. On the basis of unpublished research, we believe that addicts who are never detected comprise a very small proportion of the total addict population.

For the reader who does not wish to study the complex argument which follows: our estimate is that the number of undetected addicts who will eventually be detected is approximately 21,400. On the basis of the evidence available, then, the best estimate of the total number of persons in the U.S. who were addicted to narcotics at the end of 1965 is 55,700, including addicts in prisons and hospitals. Our estimate of the number of addicts "on the street" among the general population is therefore (55,700 - 5,300) or 50,400.

For convenience in exposition, we do not hereafter distinguish between undetected addicts and addicts who are undetected as of December 31, 1965, and who will be or have been detected subsequent to this date.

The Cumulative Frequency Distribution

The cumulative frequency distribution is important for at least two reasons. First of all, it describes the effectiveness of the current detection system by stating what proportion of the persons addicted this year will not have been detected one, two, three, or more years hence. If the detection system is a good one, the vast majority of addicts should be discovered within a short time, say two or three years.

The primary use for the cumulative frequency distribution, however, is as a tool to estimate the total number of undetected addicts. We know the number of addicts, N_0, who were first detected in 1965 and

claim to have been addicted for less than one year. The cumulative frequency distribution gives the proportion of addicts who are detected within one year, say F_0. To estimate the number of undetected addicts who started using drugs in 1965, multiply N_0 by the ratio of addicts who are not detected within one year to those detected within one year; that is, multiply N_0 by $(1-F_0)/F_0$. Similarly, we know the number of addicts, N_1, who were detected in 1965 and claimed to have been addicted for at least 12 but less than 24 months, that is for one year. The definition used here is that a person has been a drug addict for n years if he has been addicted for at least n years but less than n years and 12 months.

The cumulative frequency distribution gives F_1, the proportion of detected addicts who have been addicted for one year. To estimate the number of undetected addicts who have been addicted for one year, multiply N_1 by $(1-F_1-F_0)/F_1$ where $(1-F_1-F_0)$ is the proportion of addicts who are not detected in less than two years. We estimated the total number of undetected addicts by using the method just described to estimate the number of undetected addicts who have been using drugs for each number of years that addicts detected in 1965 claimed to have been addicted and then summing the numbers so obtained.

We have slightly over-simplified the ease with which we estimated the number of undetected addicts, in that more than one cumulative distribution is required. We initially felt that the distributions for male recidivists, male non-recidivists, female recidivists, and female non-recidivists could all differ, although early study of the FBN addict file suggested that these distributions differ by sex and not by recidivism. Since deriving the distributions for recidivists requires a large amount of hand calculation relative to that required to derive the ones for non-recidivists, we decided to first consider male recidivists and non-recidivists. Then, if these two distributions for males did not differ appreciably, we would assume that the ones for females were similar and would only derive the more easily obtained distribution for female non-recidivists.

In Figure A-2, points are plotted from the distribution for male recidivists (black squares) and non-recidivists (circled X's). Given the approximate nature of the procedure for estimating these points (discussed in subsequent sections), we decided that these two distributions were sufficiently similar so that little accuracy would be lost by treating them as a single distribution. Our estimate of this common distribution is the solid line plotted in Figure A-2. Since the distributions for males were in accord with our hypothesis, we assumed that the distribution for female non-recidivists was the same as the one for female recidivists and we did not derive the latter.

Deriving the Cumulative Distribution for Male Non-Recidivists

This section describes the procedure used to derive the cumulative frequency distribution of the time to first detection for

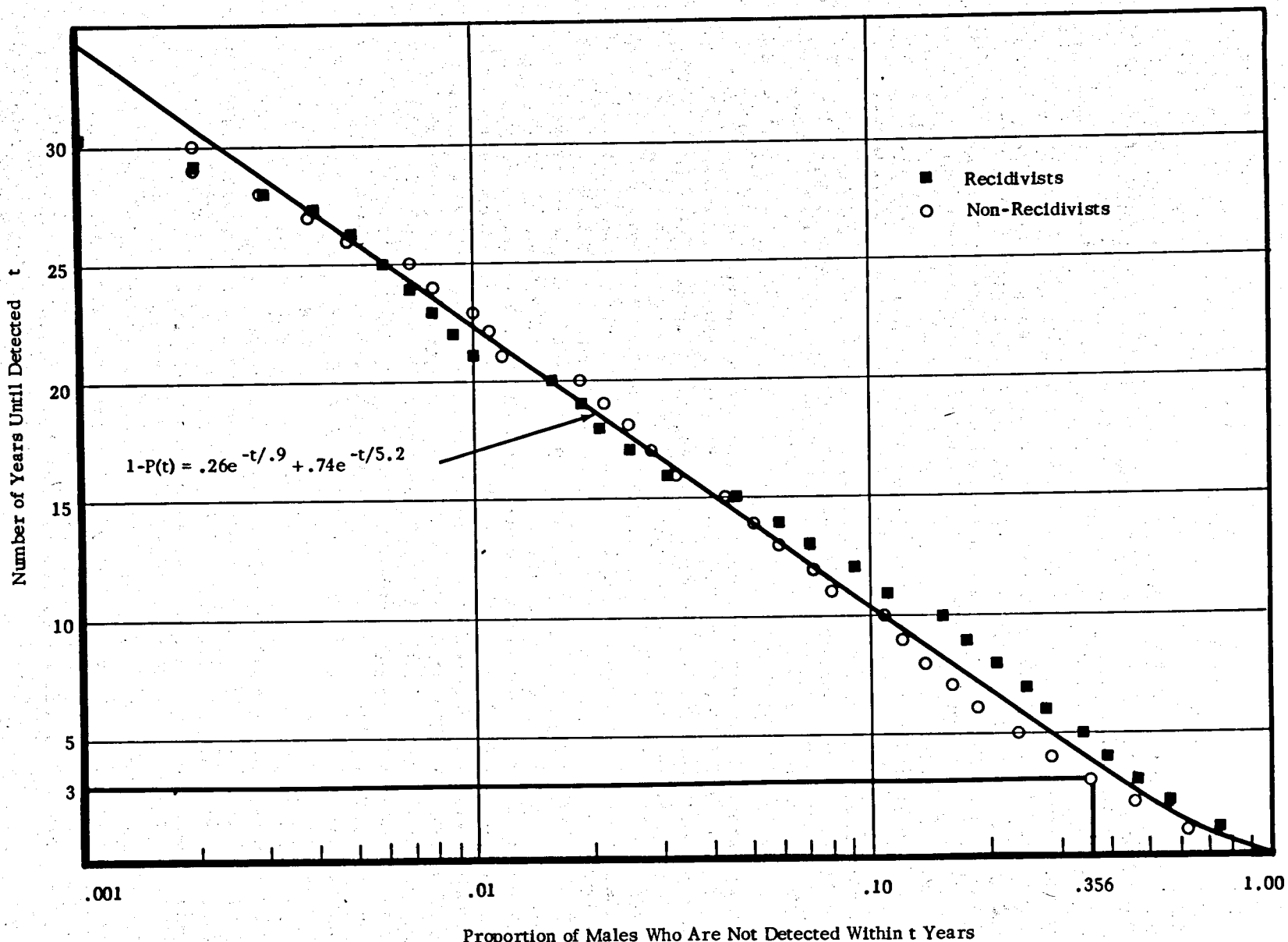


FIGURE A-2 DISTRIBUTION OF TIME TO FIRST DETECTION FOR MALES

male non-recidivists. If the size and age-composition of the population and detection methods had not changed through time, it would be an easy task to calculate percentage points of this distribution. We would first count the number of male non-recidivists in the FBN active addict file who claimed to have been addicted zero, one, two, and other number of years at the time they were reported. We would then calculate by simple addition the number who were detected by the time they have been using drugs for M years where M takes on non-negative integral values. (No addition is necessary to obtain the number of male non-recidivists who were detected by the time they had been using drugs for zero years, that is for less than one year.) The number corresponding to a given value of M divided by the total number of male non-recidivists in the file would be a good estimate of the proportion of male non-recidivists who are detected by the time they have been using drugs for M years.

Since detection practices have remained fairly stable over the past few years, one need only account for the changing size and age composition of the United States male population. An example makes it easier to understand the nature of the adjustment required. Let $N_{63\text{-}65}(15\text{-}19)$ be the number of male non-recidivists detected in 1965 who first became addicted to narcotics in 1963 when they were 15 to 19 years old. Given the number of males in 1963, we can calculate the proportion of males aged 15 to 19 who became addicted in 1963 and were detected in 1965. Note that this proportion is based on 1963 population estimates. To calculate a cumulative frequency distribution, we need to use a population base which is common to all the data we use. For reasons of convenience, we selected 1965 as the base year. This means we had to adjust $N_{63,65}(15\text{-}19)$ to what it would have been had the 1963 population been the 1965 population. If we let $P_{63}(15\text{-}19)$ and $P_{65}(15\text{-}19)$ be the numers of males in the 15 to 19 age range for the years 1963 and 1965, we calculate the standardized number of addicts by multiplying $N_{63,65}(15\text{-}19)$ by $P_{65}(15\text{-}19)/P_{63}(15\text{-}19)$. By standardized number of addicts we mean a number adjusted to a 1965 population base.

The FBN active addict file contains data for the five full calendar years between January 1, 1961 and December 31, 1965. For this period, we would like to calculate the standardized number of male non-recidivists, S(y) who claimed to have been using drugs for $y = 0, 1, 2, \ldots, 25$ years at the time they were detected. In keeping with our previous notation, let $N_{i,j}(m\text{-}n)$ be the number of male non-recidivists detected in year j who became addicted to drugs in year i when they were between m and n years old. Also let $P_i(m\text{-}n)$ be the number of m to n year-old males residing in the United States during year i. The S(y)'s were easily calculated from the $N_{i,j}(m\text{-}n)$'s and the $P_i(m\text{-}n)$'s although the calculations themselves are somewhat lengthy. For example, we calculated S(2) using the formula:

$$S(2) = N_{63,65}(0\text{-}14)P_{65}(0\text{-}14)/P_{63}(0\text{-}14) + N_{63,65}(15\text{-}19)P_{65}(15\text{-}19)/P_{63}(15\text{-}19)$$

$$+ N_{63,65}(20\text{-}24)P_{65}(20\text{-}24)/P_{63}(20\text{-}24) + N_{63,65}(25\text{-}34)P_{65}(25\text{-}34)/P_{63}(25\text{-}34)$$

$$+ N_{63,65}(35\text{-}\infty)P_{65}(35\text{-}\infty)/P_{63}(35\text{-}\infty)$$

$$+ N_{62,64}(0\text{-}14)P_{65}(0\text{-}14)/P_{62}(0\text{-}14) + N_{62,64}(15\text{-}19)P_{65}(15\text{-}19)/P_{62}(15\text{-}19)$$

$$+ N_{62,64}(20\text{-}24)P_{65}(20\text{-}24)/P_{62}(20\text{-}24) + N_{62,64}(25\text{-}34)P_{65}(25\text{-}34)/P_{62}(25\text{-}34)$$

$$+ N_{62,64}(35\text{-}\infty)P_{65}(35\text{-}\infty)/P_{62}(35\text{-}\infty)$$

$$+ N_{61,63}(0\text{-}14)P_{65}(0\text{-}14)/P_{61}(0\text{-}14) + N_{61,63}(15\text{-}19)P_{65}(15\text{-}19)/P_{61}(15\text{-}19)$$

$$+ N_{61,63}(20\text{-}24)P_{65}(20\text{-}24)/P_{61}(20\text{-}24) + N_{61,63}(25\text{-}34)P_{65}(25\text{-}34)/P_{61}(25\text{-}34)$$

$$+ N_{61,63}(35\text{-}\infty)P_{65}(35\text{-}\infty)/P_{61}(35\text{-}\infty)$$

$$+ N_{60,62}(0\text{-}14)P_{65}(0\text{-}14)/P_{60}(0\text{-}14) + N_{60,62}(15\text{-}19)P_{65}(15\text{-}19)/P_{60}(15\text{-}19)$$

$$+ N_{60\text{-}62}(20\text{-}24)P_{65}(20\text{-}24)/P_{60}(20\text{-}24) + N_{60\text{-}62}(25\text{-}34)P_{65}(25\text{-}34)/P_{60}(25\text{-}34)$$

$$+ N_{60,62}(35\text{-}\infty)P_{65}(35\text{-}\infty)/P_{60}(35\text{-}\infty)$$

$$+ N_{59,61}(0\text{-}14)P_{65}(0\text{-}14)/P_{59}(0\text{-}14) + N_{59,61}(15\text{-}19)P_{65}(15\text{-}19)/P_{59}(15\text{-}19)$$

$$+ N_{59,61}(20\text{-}24)P_{65}(20\text{-}24)/P_{59}(20\text{-}24) + N_{59,61}(25\text{-}34)P_{65}(25\text{-}34)/P_{59}(25\text{-}34)$$

$$+ N_{59,61}(35\text{-}\infty)P_{65}(35\text{-}\infty)/P_{59}(35\text{-}\infty)$$

The cumulative frequency distribution was calculated directly from the S(y)'s. To calculate the proportion of male non-recidivists who are detected by the end of their second year of addiction, we divided S(0) + S(1) + S(2) by the sum of the S(y)'s. The calculations were similar for other possible numbers of years of undetected addiction.

Deriving the Cumulative Frequency Distributions for Male Recidivists

The procedure for deriving the cumulative distribution for female non-recidivists is identical to the one just described. The calculations to derive the distributions for male recidivists are slightly more complex, but they are based on the same principles. Although the FBN active addict file contains cards only for addicts who have been reported at least once during the last five years, recidivists in the file may have been first reported many years ago. For non-recidivists each S(y) sum contains five terms for each year of first report, one term for each of five age ranges. For non-recidivists there are exactly five such years represented in the file, but for recidivists there are many more. In deriving distributions for recidivists we followed the same procedure that we used for the non-recidivists except that we considered persons who were first reported in each of the years from 1935 to 1965. The sums we used to calculate the S(y)'s for recidivists therefore contain 80 rather than 25 terms.

Selection of Age Ranges and Sources of Population Data

The selection of age ranges was determined by the epidemiology of drug addiction and by the age ranges for which the Department of Commerce publishes year-by-year population estimates by age and sex. The age ranges chosen, namely 0-14, 15-19, 20-24, 25-34, and over 34 should be sufficiently detailed for the purpose of estimating the percentage points of the cumulative frequency distributions. An overwhelming majority of addicts start using drugs while they are between 15 and 34 years old. Therefore, the most detailed published breakdown of the population by age and sex was used within this range. Since relatively few persons enter the addict population at ages under 15 or over 34, the Department of Commerce age classifications were aggregated for these age groups.

Population estimates by age and sex for non-census years are not readily available for years prior to 1940. Population estimates for the years 1935 to 1939 were, therefore, obtained by linear interpolation between 1930 and 1940 figures. The population data for the years 1940-1965 were taken from a number of issues of Current Population Reports (Series P-25) available from the Bureau of the Census. The 1930 population data were taken from Historical Statistics of the United States Colonial Times to 1957, a book published by the Department of Commerce. All the population figures we used were for the resident United States population which does not include members of the armed forces who are stationed abroad.

Procedural Details of Computing the Frequency Distributions

Table A-II contains the data used to compute the cumulative distribution of the time to detection for male non-recidivists. In the first column, values of y from zero to thirty are listed. The second column contains the values of S(y) corresponding to the y's listed in the first column; each S(y) is found in the row of the corresponding y. The third column contains the cumulative sums of entries in the second column. For example, the third number in the third column is obtained by adding the first three numbers in the second column so that 13,961 = S(0) + S(1) + S(2) = 7781 + 3922 + 2258. The sum of the S(y)'s, that is of the numbers in the second column, is 21,660. The numbers in the fourth column are the numbers in the third column expressed as proportions of 21,660. For example, the third number in the fourth column, .644, was computed by dividing the third number in the third column, 13,961 by 21,660. Columns 5, 6, and 7 contain the same data for male recidivists that columns 2, 3, and 4 contain for male non-recidivists.

Column 8 contains the number of years to detection corresponding to the proportions in columns 4 and 7. Each value for t is one greater than the value for y in the same row, and the ratios in columns 4 and 7 are estimates of the proportions of male non-recidivists and recidivists who are detected in less than t years. For example, the fourth number in the third column, .714, is an estimate of the proportion of male non-recidivists who are detected by the beginning of their fourth year of addiction.

The symbols $P_N(t)$ and $P_R(t)$ which head columns 4 and 7 are used to denote the proportions of non-recidivists and recidivists who are detected by the time they have been addicted for t years. Each point plotted on Figure A-I represents a pair of corresponding values for $1-P_N(t)$ and t or $1-P_R(t)$ and t. For example, the pair $1-P_N(t) = 1-.644 = .356$ and $t = 3$ is represented by the point at the intersection of the line drawn perpendicular to the horizontal axis at $1-P_N(t) = .356$ and the line drawn perpendicular to the vertical axis at $t = 3$. The points for male non-recidivists and recidivists are represented by circled X's and black squares respectively.

When the plotted points are examined, there appear to be cyclic patterns of five years duration. We believe these patterns are caused by reporting biases rather than by characteristics of the addict population. The highest point of each cycle is at a value for t which corresponds to addicts claiming to have been addicted for some multiple of five years when first detected. The apparent cycles reflect the fact that an addict when asked how many years he has been addicted is likely to reply with some multiple of five years.

TABLE A-II*

	Male Non-Recidivists			Male Recidivists				Males	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
y	S(y)	$\sum_{y'=0}^{y} S(y')$	$P_N(t)$	S(y)	$\sum_{y'=0}^{y} S(y')$	$P_R(t)$	t	$1-.26e^{-t/.9}-.74e^{-t/5.2}=P(t)$	1-P(t)
0	7781	7781	.359	7673	7673	.247	1	.3039	.6961
1	3922	11703	.540	5711	13384	.432	2	.4681	.5319
2	2258	13961	.644	3178	16562	.534	3	.5751	.4249
3	1503	15464	.714	2238	18800	.606	4	.6541	.3459
4	1037	16501	.762	1610	20410	.658	5	.7161	.2839
5	1080	17581	.812	1831	22241	.717	6	.7663	.2337
6	609	18190	.840	1122	23363	.753	7	.8073	.1927
7	454	18644	.861	1128	24491	.790	8	.8411	.1589
8	401	19045	.879	1004	25495	.822	9	.8689	.1311
9	263	19308	.891	787	26282	.847	10	.8918	.1082
10	623	19931	.920	1329	27611	.890	11	.9108	.0892
11	174	20105	.928	543	28154	.907	12	.9264	.0736
12	280	20385	.941	630	28784	.928	13	.9393	.0607
13	147	20532	.948	381	29165	.940	14	.9499	.0501
14	182	20714	.956	392	29557	.953	15	.9587	.0413
15	254	20968	.968	499	30056	.969	16	.9659	.0341
16	84	21052	.972	172	30228	.975	17	.9719	.0281
17	72	21124	.975	129	30357	.979	18	.9768	.0232
18	73	21197	.979	98	30455	.981	19	.9808	.0192
19	42	21239	.981	71	30526	.984	20	.9842	.0158
20	169	21408	.988	181	30707	.990	21	.9870	.0130
21	23	21431	.989	36	30743	.991	22	.9892	.0108
22	23	21454	.990	32	30775	.992	23	.9911	.0089
23	23	21477	.992	28	30803	.993	24	.9927	.0073
24	33	21510	.993	25	30828	.994	25	.9940	.0060
25	38	21548	.995	39	30867	.995	26	.9950	.0050
26	36	21584	.996	34	30901	.996	27	.9959	.0041
27	17	21601	.997	32	30933	.997	28	.9966	.0034
28	20	21621	.998	27	30960	.998	29	.9972	.0028
29	19	21640	.999	29	30989	.999	30	.9977	.0023
30	20	21660	1.000	25	31014	1.000	31	.9982	.0018

* For discussion, see text.

Columns 8 and 10 contain pairs of values for t and 1-P(t) which lie on the solid curve plotted in Figure A-2. This curve is plotted on a kind of graph paper (semi-logarithmic) which is designed so that a common distribution called the cumulative exponential distribution appears as a straight line. This is almost the case except that there is a bend in the curve near the lower right-hand corner of the page. The bend means that the curve represents the sum of two cumulative exponential distributions. The mathematical expression for the curve is $1-P(t) = .26e^{-t/.9} + .74e^{-t/5.2}$.

Writing the foregoing mathematical expression to describe the distribution leads to some rather rewarding interpretations; namely, that there are two classes of addicts, one comprising 26 percent of the male addict population, the other 74 percent. Further, members of the former class have an average time to detection of .9 year while members of the latter have an average time to detection of 5.2 years. Unfortunately, the numbers .26, .74, .9, and 5.2 are only rough estimates of the parameters of the cumulative distribution. But it is still reasonable to conclude that there are two groups, of male addicts, one comprising about one-quarter of the male addict population and the other the balance such that members of the former have an average time to detection which is quite short while members of the latter have an average time to detection which is much longer.

Table A-III contains the same information for female non-recidivists that for male non-recidivists is found in column 1 through 4 and column 8 of Table A-II. The pairs of values for $1-P_N(t)$ and t are plotted in Figure A-3. Note that reporting biases are again apparent and that the distribution obtained can again be represented as a sum of two exponential distributions. Columns 5 and 7 of Table A-III contain pairs of values for t and 1-P(t) which lie on the curve plotted in Figure A-3 where $1-P(t) = .34e^{-t/.56} + .66e^{-t/4.6}$. The mathematical representation tells us that about 1/3 of all women non-recidivists have an average time to detection of .56 years while 2/3 of them have an average time to detection of 4.6 years. Since we believe that the recidivists and non-recidivists distributions do not differ substantially, these findings also apply to female recidivists. The important thing to note is that the female addict population also appears to be comprised of two distinct groups having vastly differing average detection times.

Procedural Details of Estimating the Number of Undetected Addicts

Table A-IV contains the data used to compute the number of undetected male addicts. The first column contains values of t from 1 to 8 and a classification for values of t which exceed eight. Recall that F_0 is the proportion of addicts detected within one year, F_1 the proportion detected in at least one but less than two years, and so forth. The numbers in the second column can be calculated from the cumulative frequency distribution using the formula $F_{t-1} = P(t-1) - P(t)$. For example, from column 9 of Table A-II we find that P(2) = .4681 and that P(3) = .5751. To find F_2, the proportion of male addicts

TABLE A-III*

	Female Non-Recidivists				Females	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
y	S(y)	$\sum_{y'=0}^{y} S(y')$	$P_N(t)$	t	$P(t) = 1-.34e^{-t/.56} -.66e^{-t/4.6}$	1-P(t)
0	2081	2081	.415	1	.4119	.5881
1	796	2877	.575	2	.5632	.4368
2	529	3406	.680	3	.6546	.3454
3	317	3723	.744	4	.7231	.2769
4	220	3943	.787	5	.7774	.2226
5	255	4198	.838	6	.8209	.1791
6	128	4326	.864	7	.8559	.1441
7	102	4428	.884	8	.8841	.1159
8	99	4527	.904	9	.9067	.0933
9	52	4579	.915	10	.9249	.0751
10	124	4703	.939	11	.9396	.0604
11	49	4752	.949	12	.9514	.0486
12	66	4818	.962	13	.9609	.0391
13	30	4848	.968	14	.9685	.0315
14	33	4881	.975	15	.9747	.0253
15	47	4928	.984	16	.9796	.0204
16	18	4946	.988	17	.9836	.0164
17	11	4957	.990	18	.9868	.0132
18	11	4968	.992	19	.9894	.0106
19	2	4970	.993	20	.9915	.0085
20	14	4984	.995	21	.9931	.0069
21	2	4986	.996	22	.9945	.0055
22	2	4988	.996	23	.9956	.0044
23	3	4991	.997	24	.9964	.0036
24	4	4995	.998	25	.9971	.0029
25	1	4996	.998	26	.9977	.0023
26	2	4998	.998	27	.9981	.0019
27	1	4999	.998	28	.9985	.0015
28	4	5003	.999	29	.9988	.0012
29	2	5005	.999	30	.9990	.0010
30	2	5007	1.000	31	.9991	.0009

* For discussion, see text.

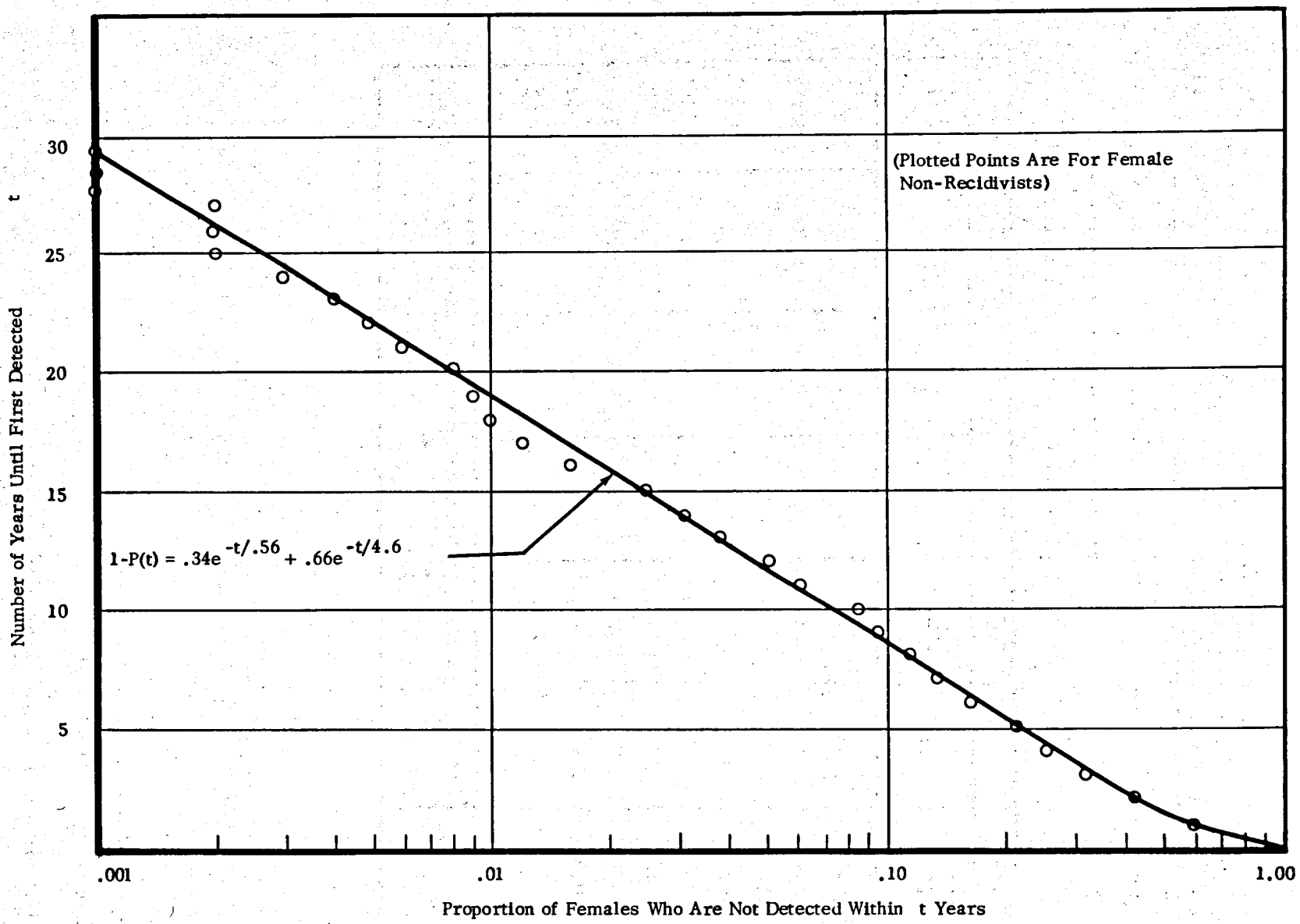


FIGURE A-3 DISTRIBUTION OF TIME TO FIRST DETECTION FOR FEMALES

TABLE A-IV *

				Male Addicts First Reported in 1965 Who Claimed to Have Been Addicted For t-1 Years			
(1)	(2)	(3)**	(4)	(5)	(6)	(7)	(8)
t	$P(t-1) - P(t) = F_{t-1}$	1-P(t)	$\frac{1-P(t)}{F_{t-1}}$	Number Non-Recidivists	Number Recidivists	Total (5) + (6)	A(t-1)
1	.3939	.6961	2.291	1663	505	2168	4966
2	.1642	.5319	3.239	864	210	1074	3479
3	.1070	.4249	3.971	481	117	598	2375
4	.0790	.3459	4.378	316	55	371	1624
5	.0620	.2839	4.579	226	44	270	1236
6	.0502	.2337	4.655	231	53	284	1322
7	.0410	.1927	4.700	105	24	129	606
8	.0338	.1589	4.702	89	15	104	489
9 and over			4.716	405	59	464	2188
		Estimated Number of Undetected Male Addicts =					18,285

* For discussion, see text.

** This column is taken from column (10) of TABLE I.

who are detected in their second year of addiction, we subtract .4681 from .5751 to obtain .1070. Column 3 was taken directly from column 10 of Table A-II.

For $t \leq 8$, the t'th number in column 4 is calculated by dividing the t'th number in column 3 by the t'th number in column 2. For example, the third number in column 4, 3.971, is the quotient of .4249 and .1070. This particular quotient is the ratio of the proportion of male addicts who are not detected in less than 3 years to the proportion detected in exactly two years. For $t > 8$, $[1-P(t)]/F_{t-1}$ is constant at 4. For an exponential distribution the ratio of $1-P(t)$ to F_{t-1} has the same value for each value of t, but because we are dealing with the sum of two such distributions, this ratio is not constant for small values of t. For large values, the amount that $.26e^{-t/.9}$ contributes to the value of $P(t)$ is negligible, and $[1-P(t)]/F_{t-1}$ is constant as it is for a single exponential distribution.

For $t \leq 8$, A(t-1), the t'th number in column 8, is an estimate of the number of undetected male addicts who were undetected at the end of 1965 after having been addicted for at least t-1 but less than t years. The ninth number in column 8 is an estimate of the number of undetected male addicts who, at the end of 1965, had been addicted for eight or more years. The t'th number in column 8 is obtained by multiplying the t'th number in column 7 by $1-P(t)/F_{t-1}$. For example, A(3), the number of male addicts who were undetected at the end of 1965 and had been using drugs at least three but less than four years was estimated to be 1624 by computing the product of 371, the number of addicts first detected in 1965 who claimed to have been addicted for three years, and 4.378, the ratio of the proportion of addicts who are undetected in their first three years of addiction to the proportion detected after at least two but less than three years of addiction. Since $[1-P(t)]/F_{t-1}$ is constant for $t > 8$, we estimated the sum of the A(t-1)'s for t in this range by multiplying 4.71 by 464, the number of male addicts who when first detected in 1965 claimed to have been addicted for eight or more years. The sum of the numbers in the column head A(t-1), 18,285, is our estimate of the number of undetected male addicts.

Because we did not extract the data necessary to derive the cumulative frequency distribution for female non-recidivists from the FBN active addict file, a slightly more complicated procedure was required to estimate the number of undetected female addicts.* Table A-V is similar to Table A-IV except that it is concerned with

*Numbers like those in column 5 of Table A-III were also computed for females, but the numbers corresponding to those in column 6 were not computed.

deriving an estimate of the number of undetected female addicts who will not be reported again during the year in which they are first reported. The same notation is used in both tables, but the numbers in column 5 of Table A-V do not include recidivists who were first reported in 1965 and were subsequently reported again during 1965. Using the same computational scheme we followed in Table A-IV, we estimated the number of undetected female addicts who will not become recidivists during the year in which they were first reported to be 2,497 as of the end of 1965.

The number of undetected female addicts who will be reported at least twice during the year in which they are first reported was estimated to be the product of 2,497 and 1082/4380 or 617. The assumption is that detected male and female addicts will recidivate with the same frequency during the year in which they are first detected. The number of male recidivists, 1082, and the number of male non-recidivists, 4380, first detected in 1965 are the respective sums of the fifth and sixth columns of Table A-IV.

Our estimate of the total number of undetected female addicts as of the end of 1965 is 3114, the sum of 2,497, the number calculated in Table A-V, and 617. When we sum 21,339 and 2,497, our estimates of the number of undetected male and female addicts, we get 21,399 or about 21,400 as our estimate of the total number of undetected addicts.

Estimating the Total Number of Narcotics Addicts

The total number of addicts can be estimated by taking the sum of the estimate of the number of undetected addicts who will eventually be detected and an estimate of the number of addicts who have been reported to the FBN and are still actively using narcotics. Recall that it is assumed that undetected addicts who will never be reported to the FBN comprise a negligible proportion of the real number of addicts. As stated earlier in this appendix, the number of addicts in the general population as of December 31, 1965 is estimated to be 50,400.

TABLE A-V*

(1)	(2)	(3)**	(4)	(5)***	(6)
t	$P(t-1) - P(t) = F_{t-1}$	1-P(t)	$\frac{1-P(t)}{F_{t-1}}$	N(t)	A(t-1)
1	.4119	.5881	1.428	337	481
2	.1513	.4368	2.887	165	476
3	.0914	.3454	3.779	116	438
4	.0685	.2769	4.042	60	243
5	.0543	.2226	4.099	49	201
6	.0435	.1791	4.117	54	222
7	.0350	.1441	4.117	20	82
8	.0282	.1159	4.118	15	62
9			4.118	71	292
and over					
	Estimated Number of Undetected Female Addicts Who Will Not Become Recidivists During the Year in Which They Are First Detected				= 2,497

* For discussion, see text.

** This column is taken from column (7) of TABLE II.

*** N(t) is the number of female non-recidivists who were first reported in 1965 and claimed to have been addicted t-1 years.

D. FLOW OF PEOPLE INTO AND OUT OF THE ADDICT POPULATION

Since the number of addicts newly discovered each year varies somewhat, the number of undiscovered addicts must fluctuate. Making the assumption that the distribution of times to discovery is independent of the calendar year, it is possible to work backward in time and deduce how the undiscovered population has varied. It is also possible to deduce annual input to the total addict population (undiscovered as well as known) and the annual output. By output is meant the number who voluntarily give up the habit each year, not those who are separated from it by jail or prison.

It is important to remember that all the calculations made here assume that only a negligible fraction of all those who use opiates more than sporadically will avoid detection. Unpublished research indicates that this is a valid assumption. Table A-VI shows for the last seven calendar years the variations in input and output to the population, and the variations in real, known and yet-to-be-discovered addicts. The interesting points are: first, the annual input to the addict population has varied only modestly about an average of approximately 7400 new addicts per year; second, the size of the undiscovered population has remained very nearly constant, at roughly 21,600; third, the number of voluntary dropouts has varied widely from year to year and has usually been fewer than the number of new addicts. The input and output variations are shown in Figure 4 of Chapter VII.

The primary point to be noticed is that the total addict population has not been increasing because more people enter each year but because fewer are dropping out. The fact that the yearly input has been fairly constant while the addict population has been increasing suggests that an epidemiological approach to explaining spread of addiction needs to be developed with care.

E. TIME VARIATION OF THE TOTAL ADDICT POPULATION

Table A-VI shows the sum of the real, known and undetected addicts. This sum is also shown in Figure 3 of Chapter VII. It is interesting to note that the number of names on the FBN active list is close to the number of addicts estimated here. The similarity results from the FBN practice of holding ex-addicts for a time roughly equivalent to the mean time required to detect new addicts.

The rate at which the estimated total population has been increasing is steeper than the rate of increase of the FBN list, and the recent percentage increase is greater.

TABLE A-VI

ADDICT POPULATION: INPUT, OUTPUT; TOTALS
(Thousands)

CY	Input	Undis-covered	Detected in Yr.	Real Knowns	Output	Total
		21.7		15.1		36.8
1959	4.9		5.7		7.7	
		20.9		13.5		34.4
1960	9.7		7.5		4.0	
		22.1		17.0		39.1
1961	7.2		7.0		1.8	
		21.9		22.2		44.1
1962	7.7		6.4		5.6	
		21.1		23.0		44.1
1963	7.9		7.5		5.5	
		22.9		25.0		47.9
1964	7.7		10.0		0.5	
		20.6		34.5		55.1
1965	6.8		6.0		6.2	
		21.4		34.3		55.7
Aver:	7.4	21.6				

		U		K	
	I		D		0
		U'		K'	

U from calculation similar to that of Table A-I

D from FBN records

I = D - (U - U')

K from Table A-I

0 = D + (K - K')

APPENDIX B

NARCOTICS AND DANGEROUS DRUGS IN THREE U.S. CITIES

This appendix describes the scope of the narcotics and other dangerous drug problems, the agencies which deal with these problems, and the results in terms of arrests and indictments, for three cities: New York, St. Louis, and Los Angeles (city and county). These cities are taken as representative of the wide variations to be found in the United States.

A. NEW YORK CITY

New York city narcotics and dangerous drug problems are handled by local, state, and federal agencies. The Federal Bureau of Narcotics has 89 agents in the New York office and 18 civilians. A few of the agents spend most of their time in the office (the group leaders, registration and records, senior agents -- about 13 in all), the rest are operating in the field. The number of FDA agents is not known to us, nor is the fraction of Customs' effort which can be assigned to narcotics enforcement. New York Police Department's Narcotic unit put on 20 men in the fall of 1964 and another 100 in the spring of 1966 bringing its current strength to about 300, including clerks. It has been impossible to learn how these men are used: how many in the field, how many attached to DA's offices, etc.

It is nearly impossible to estimate the total commitment of personnel, funds and time to New York City by agencies for narcotics. The study group was unable to find anyone in New York in touch with enough aspects of the problem to make such an estimate. There are dozens of agencies totally or partially involved (city, state and federal police, probation, corrections, parole, judiciary, health, welfare, DAs, etc.), some of which have specific personnel assigned to narcotics (FBN, DAs), some of which incorporate narcotics in their general programs (welfare, judiciary, parole, probation), some of which do both (NYPD, health, etc.). NYPD, for example, not only has its narcotics division, but it also has some detectives who are not in the division assigned to certain DAs offices. Sometimes beat patrolmen and detectives make narcotics cases. A certain portion of precinct staff time is taken by paperwork on addict cases -- where does one start? A summary could be produced, but it would take a long time, more cooperation, and better records and understanding of their own operations by numerous agencies.

Many of the NYPD problems concerning narcotics apply to departmental operations in general. Some of these were outlined in the "Report to Mayor-Elect John V. Lindsay by the Law Enforcement Task Force," submitted December 31, 1965. Among these are: highly skilled police officers perform administrative tasks that could be performed by civilians at lower salaries (typing, filing, switchboards), lack of clerical assistance so detectives spend much of their time not doing their own work, paractice of promoting those who make many or well-publicized cases.

A basic problem in New York is that hardly any agency knows in much detail what all the other agencies are doing; when several dozen agencies with overlapping functions and fiefs operate that way, there is bound to be considerable misapplication of resources. Mayor Lindsay appointed a city Narcotics Coordinator last year, Efren Ramirez, who is supposed to make everything coherent and to organize the whole so New York can have the amazing rehabilitation rate Ramirez is said to have achieved in Puerto Rico. We were unable to contact Mr. Ramirez, a problem with which some city and state officials seem familiar. Mr. Ramirez may be doing some good work in New York, but no one knows what it is.

Governor Rockefeller, in his Special Message to the New York State Legislature, February 23, 1966, made a number of statements concerning the problems of drug abuse, particularly with reference to New York City. These statements have been quoted and paraphrased so many times, they have taken on an aura of truth they do not deserve. Quoting from the speech:

> "The problem of addiction to narcotics is at the heart of the crime problem in New York State. Narcotics addicts are responsible for one-half of the crimes committed in New York City alone -- and their evil contagion is spreading into the suburbs....
>
> Between 1963 and 1964 there were:
>
> -- A 75% increase in the number of children under 16 years of age taken into custody for criminal offenses who were admitted narcotics users;
> -- a 95% increase in arrests for violations of the narcotics law by young people from 16 to 20 years old; and
> -- a 49% increase in arrests for murders by addicts.
> In addition:
> -- 80% of all women arrested for prostitution were narcotics addicts; and
> -- Almost half of all other persons arrested for serious misdemeanors and offenses were admitted narcotics users."

The New York City Police Department narcotic and drug arrest data for 1963-65 are enclosed as Table B-I. The above statements will be examined in light of these data.

a. There has been a 75% increase in the number of children under 16 years of age taken into custody for criminal offenses who were admitted narcotics users.

In 1965, for all offenses, there were 13,408 children under 16 arrested; of these, 100 (0.7%) were drug users; in 1964, for all offenses, there were 13,751 children under 16 arrested; of this 63 (0.5%) were drug users. The increase is not 75%. If 1964 represents a 75% increase over the previous year, then there were about 36 users under 16 arrested in 1963; the increase in real bodies, assuming none of those kids was arrested more than once, was 27 from 1963-1964. Rockefeller's percentage of 75 sounds shocking, but the actual number is rather slight.

b. There has been a 95% increase in arrests for violations of the narcotics law by young people from 16 to 20 years old.

In 1963 there were 1,059 arrests and in 1964, 2,194 arrests of persons from 16-20 for narcotics misdemeanors and felonies, (including possession of needle and hypo) an increase of a little over 100%. In this charge Governor Rockefeller is correct. It is hard to know whether the increase represents more of an increase in police activity than an increase in younger drug users. 1964 was the year of the big narcotics push in New York City; all police were told to make narcotics arrests and the narcotics division was increased about 10%.

c. There was a 49% increase in arrests for murders by addicts.

In 1965, there were 645 arrests for murder; of these 42 were addicts. In 1964, there were 652 arrests for murder; of these 37 were addicts. The numbers for 1963 are not at hand.

d. 80% of all women...

There is no data to support or deny this allegation.

e. Almost half of all other persons arrested for serious misdemeanors and offenses were admitted narcotics users.

This is the important allegation, and no source can be found for it. Arrests for all crimes totalled 203,303 in 1965; of these, 18,688 involved persons who admitted they were narcotics users, about 9.2%. About 1/3 of those arrested for narcotic crimes were not themselves addicts, or would not admit that they were. If certain crimes are deducted the numbers get more interesting.

Offense	Arrests	Known or Admitted Users	%	
All felonies	54,868	6,348	11.6	
	- 3,862	-2,648		(subtracting drug felonies)
	51,006	3,900	7.6	
Serious Misdem.	50,829	10,243	20	
	-10,015	- 7,232		(subtracting drug
	40,014	3,011	7.5	misdemeanors)
	- 1,484	- 874		(subtracting "Misc.
	38,530	2,137	5.5	misdemeanors")
	- 1,000	- 726		(subtracting "Public
	37,530	1,411	3.7	nuisance")

What has been done here is to take out of the offense lists first the specific drug cases, which leaves the other kinds of crime with which addicts and drug users might be credited. From the serious misdemeanor list, there is then subtracted the two miscellaneous charges police often use to arrest addicts or suspected addicts when they have no real information. This brings the addict contribution down to 3.7% of New York crime. This is not a negligible amount, but it is certainly not the 50% the addicts usually get credit for. For both felonies and serious misdemeanors, we have 5,311 addicts or now, out of 88,536 arrests, about 6% of the total.

The analysis can be carried a little further. If from the total of 203,303 arrests and 18,668 users for all offenses, one subtracts the forged prescriptions (138 arrests/59 users), drug felonies, drug misdemeanors, miscellaneous misdemeanors, and "public nuisance, narcotics," deducting 16,499 and 11,539 from the two totals respectively, one finds that all other addict involvement is 3.8%.

To summarize the above: known or admitted narcotic users account for:

11.6% of all felonies in NYC

7.6% of all felonies in NYC if the specific drug offenses are ignored

20% of all serious misdemeanors in NYC

3.7% of all serious misdemeanors in NYC if the specific drug and vague drug-associated charges are subtracted

6% of all felonies and serious misdemeanors if specific drug and vague drug-associated charges are subtracted

3.8% of all New York arrests, if specific drug and vague drug-associated charges are subtracted.

One further qualification: the New York numbers are in terms of charges, not people. It is not known how many of which numbers represent rearrests or arrests with multiple charges. If an addict is arrested for possession of heroin, a charge might also be filed for possession of narcotics paraphenalia. If this sort of duplication were considered, the addict and drug user percentages might very well be less than they appear, even after the reductions made above.

The data can be used to make some further points about young offenders.

Although 20% of those arrested in 1963 and 1964 and 24% of those arrested in 1965 are under 21, less than 1% of those arrested in 1963 and 1964 and 1 1/2% of those arrested in 1965 were under 16. Of the 36,012 arrests recorded for the three years, only 408 involved persons under 16, about 1.13% not an alarming number. Of these 408, 99 were for abuse of amphetamines and/or barbiturates. Since the records do not separate heroin and marijuana charges, it is not possible to determine how many of the 309 arrests (over the three years) were for heroin abuse. The results of drug seizures in New York City, Table B-II, suggest that marijuana may account for a large fraction of the arrests.

Table B-II indicates that over recent years, there has been a marked increase in seizures of marijuana and other dangerous drugs in New York City, but no long-term trend in heroin seizures.

TABLE B-I

NARCOTIC AND DRUG ARRESTS
New York City 1963, 1964, 1965

	NARCOTICS								
	FELONY			MISDEMEANOR			SYRINGES AND NEEDLES		
	1965	1964	1963	1965	1964	1963	1965	1964	1963
Under 16	31	18	9	140	72	33	11	11	5
16	72	34	14	252	177	67	12	14	11
17	96	66	34	378	295	119	22	22	22
18	150	83	49	434	368	175	43	52	40
19	159	124	62	432	411	207	42	62	40
20	169	130	98	379	394	234	58	78	48
21 to 24	840	807	538	1670	1696	1099	330	478	298
25 to 29	829	802	563	1396	1518	1036	330	481	262
30 to 34	647	606	482	1021	1129	761	276	360	197
35 to 39	451	373	283	634	601	400	176	216	99
40 to 44	247	187	127	280	326	180	85	89	50
45 to 49	92	69	53	116	97	70	31	39	9
50 & Over	75	73	72	100	81	82	14	26	17
TOTAL	3858	3372	2384	7232	7165	4463	1430	1928	1098

TABLE B-I (Cont.)

	AMPHETAMINES						BARBITURATES								
	FELONY			MISDEMEANOR			FELONY			MISDEMEANOR			TOTAL		
	1965	1964	1963	1965	1964	1963	1965	1964	1963	1965	1964	1963	1965	1964	1963
Under 16	–	–	–	5	3	1	–	–	–	28	18	23	215	122	71
16	–	–	–	5	6	4	–	–	–	28	45	15	369	276	111
17	–	–	–	11	5	2	–	–	–	72	47	24	579	435	201
18	–	–	–	19	16	7	–	–	–	85	55	12	731	574	283
19	–	–	–	20	22	10	1	–	–	55	51	14	709	670	333
20	1	–	–	25	20	11	–	–	–	40	35	13	672	657	404
21 to 24	–	1	–	124	117	80	–	–	–	166	106	33	3130	3205	2048
25 to 29	–	–	1	137	115	102	–	–	–	124	61	32	2816	2977	1996
30 to 34	–	–	–	125	128	107	1	–	–	79	41	27	2149	2264	1574
35 to 39	–	–	–	66	63	59	–	1	–	31	26	12	1538	1280	853
40 to 44	1	–	–	36	29	27	–	1	–	28	11	8	677	643	392
45 to 49	–	–	–	12	11	9	–	–	–	11	6	9	262	222	150
50 & Over	–	–	–	6	15	16	–	–	–	15	9	3	210	204	190
TOTAL	2	1	1	591	550	435	2	2	–	762	511	225	13877	13529	8606

TABLE B-II

NEW YORK CITY NARCOTIC SEIZURES

	1960	1961	1962	1963	1964	1965
HEROIN	63 lbs. 5 ozs.	24 lbs. 8 ozs.	119 lbs. 10 ozs.	33 lbs. 11 ozs.	46 lbs. 4 ozs.	68 lbs. 12 ozs.
MARIJUANA	100 lbs. 8 ozs.	233 lbs.	436 lbs. 9 ozs.	512 lbs. 12 ozs.	817 lbs. 12 ozs.	1,685 lbs. 1 ozs.
AMPHETAMINE	4 lbs. 3 ozs.	3 lbs. 10 ozs.	1 lb. 6 ozs.	2 lbs. 10 ozs.	13 lbs. 4 ozs.	25 lbs. 5 ozs.
BARBITURATES	12 lbs. 8 ozs.	10 lbs. 6 ozs.	2 lbs. 9 ozs.	11 lbs.	14 lbs. 3 ozs.	69 lbs. 4 ozs.

B. ST. LOUIS

The narcotics unit of the St. Louis Police Department is not an autonomous unit but is part of the Vice Division (under a captain; handles liquor, gambling, morality, drugs). The general police department organization has the chief over various staff units and four line bureaus (Bureau of Inspections, Bureau of Field Operations, Bureau of Investigation, Bureau of Services). The Bureau of Investigations includes laboratory division, homicide-arson division, special services division, vice division, robbery-burglary division.

Current department authorized strength is 2010, actual strength is 1969 (not including 566 civilian personnel). The authorized and actual strength of Vice is 24 men, with effective strength of 19 (4 on "recreation" and 1 on vacation); Vice has civilian strength of 3.

Arrests for 1966 (January to July) were:

	narcotics squad	other divisions
narcotics	60	469
marijuana	6	183
dangerous drugs	74	125

This suggests either that the narcotics squad is not very effective or that there is little heroin in the St. Louis area. Probably both hypotheses are true. The numbers of arrests for other divisions are inflated because the arrest notation goes down even though the pill in the person's pocket turns out to be aspirin. There are no figures available for the number of indictments or convictions resulting from these arrests.

The racial breakdown for drug charges is of some interest. In 1964, there were 47,914 charges by police (for all offenses); drug charges were 1391. Of the total charges, 35.7% involved Negro suspects; of the drug charges 93.2% (1296) involved Negro suspects. There was no separate racial breakdown for narcotics, marijuana, and other drugs, but the bulk of these arrests were for amphetamine possession and sales. Most of the amphetamine abusers are Negro, but not nearly so great a proportion as the arrest records would suggest; the tremendous proportion of Negroes arrested probably reflects Vice Division policy and information access more than abuser distribution. Of the 1391 arrests, only five were 16 years of age and younger, 185 were 18-20.

As noted elsewhere, there is not a great deal of heroin in the St. Louis area. One local sociologist estimated 300-400 heroin users, 3000-15000 amphetamine users. The arrest record of the FBN for the area reflects this: in the entire district (Missouri, Oklahoma, Kansas, Arkansas) FBN had 16 marijuana and 59 narcotics cases in 1964, 28 marijuana and 34 narcotics cases in 1965. Their largest case in two years involved 7 ounces of heroin, none of which was better than 9.2%.

A check with the city prosecutor (St. Louis is not part of any county) revealed that in 1965 there were 3658 warrants (indictments) issued for all offenses, 288 warrants for narcotics and other dangerous drugs. Warrants are issued on about 40-50% of the cases brought by police -- the others are thrown out for bad evidence, etc. Since there were 1391 arrests, this means that the police themselves reject half their own arrests, then the prosecutor rejects another half. Again: arrest statistics do not mean very much. The situation is even a bit worse than it seems -- the city prosecutor also handles numerous FBN and FDA cases because Federal judges in the area are supposed to be more lenient than the state judges.

In St. Louis County -- the towns surrounding the city -- there is not a great deal of drug activity, at least not as reflected by police cases. The prosecuting attorney for the county says he gets 4 or 5 narcotics possession cases and maybe 1 sale-of-narcotics case per year. Before 1965, the county police had separate liquor, vice, and narcotic squads; at that time, there was 1 officer in narcotics. In September 1965, these were combined under one sergeant and 1 more man was added to narcotics.

State police do nothing in the area. For 1960-1964, county police averaged 100 arrests per year, most of the arrests were for the purpose of obtaining information rather than carrying out prosecution. In 1960-1961, there were 55 out of 96 arrests for narcotics addiction; only 5 were ultimately charged and prosecuted. After Robinson there was a shift from quantity to quality. There were a total of 87 cases in 1964 and 55 in 1965, resulting in the same number of prosecutions. Since the department is mixed, the two narcotics officers spend much of their time in gambling and alcohol cases.

A state parole agent in the area stated that there are about 950 men on parole currently, running about 110 men per parole agent. Seven or 8% of those on parole have drug histories, most for amphetamines.

C. LOS ANGELES

On December 31, 1965 there were 6,954,750 people in LA county in an area of 4083 square miles. Within the county border are 76 incorporated cities; 47 of these operate their own police departments, 29 contract with the LA County Sheriff's Department for law enforcement services. The Sheriff's Department polices 3213 square miles (pop. of 1,740,458) -- made up of unincorporated areas and contract cities.

Two of the police departments in the county have separate narcotics units (Los Angeles -- 60 officers and a separate Juvenile Narcotics Detail with 9 officers; Long Beach -- 10 officers). Ten cities have combination vice and narcotics units ranging from 1 to 10 men; these are sometimes assisted by the sheriff's staff. Twenty-four cities have no full-time investigator assigned to narcotics. The Sheriff's Department has in narcotics 87 officers and 7 secretaries (out of a budgeted staff of 3675 sworn personnel and 1819 civilians). The State Bureau of Narcotic Enforcement has 30 agents assigned to the LA office, as does FBN; FDA is planning a unit of about the same size. U.S. Customs has an LA staff of 31.

In 1965, there were 13,375 adults and 2142 juveniles arrested for drug violations in LA county. Adult arrests increased 15% over 1965 and juveniles 32% over 1964. LA adult drug arrests were 62% of the state total (5260 marijuana, 1200 heroin and other narcotics, 2489 narcotic addict or user, 3763 dangerous drugs, 434 other offenses, and 229 Federal offenses). The juvenile arrests in LA county comprised 80% of the state total (1263 marijuana, 15 heroin and other narcotics, 27 narcotic addict or user, 804 dangerous drugs, 33 other offenses). In the entire state in 1965, there were 24,111 persons arrested for drug violations (21,434 adults, 2677 juveniles), an increase of 13% over the previous year. 53% of the adults arrested were new to state records for drug users; most of these were arrested for marijuana or dangerous drugs.

Sheriff's office activity: in 1965, there were 3393 drug cases assigned; 2768 persons arrested (333 juveniles among them). Of the persons arrested 892 were arrested by the narcotics detail, 1719 by sheriff's stations, 157 by other units of the sheriff's group. Arrests were made in 1840 of the 3393 cases assigned; these involved a total of 1757 addicts; in 54 cases there was no violation, 569 had insufficient information, 20 arrested by other agencies, and 643 were closed without arrest; 569 were rejected by the DA for: illegal search/seizure (23), insufficient evidence (508), and other reasons (38). Of the 2160 complaints issued, 237 had to do with heroin, 608 were released or turned over to other agencies, and the others were for dangerous drug and other drug offenses.

The following table summarizes police activity with respect to dangerous drugs for the years 1960 to 1965, both for Los Angeles County and for California as a whole.

STATEWIDE	1960	1962	1964	1965	% Increase 65/64	% Increase 65/60
marijuana	4098	3291	6055	8055	33.0	96.6
heroin & other narc	2244	1971	2601	2030	-22.0	-9.5
narcotic addict or user	6401	3532	3920	3452	-11.9	-46.1
dangerous drugs	3305	5578	4178	5868	40.4	77.5
other offense*	943	1369	1589	1094	-31.2	16.0
Federal offenses	628	509	901	935	3.8	48.9
total	17619	16250	19244	21434	11.6	21.6
LA COUNTY						
marijuana	2653	2256	3964	5260	32.7	98.3
heroin and other narc	1544	1187	1470	1200	-18.4	-22.3
narcotic addict or user	4771	2204	2711	2489	-8.2	-47.8
dangerous drugs	2238	3742	2592	3763	45.2	68.1
other offenses*	545	645	756	434	-42.6	-20.4
Federal offenses	208	166	178	229	28.6	10.1
total	11959	10200	11671	13375	14.6	11.8

*Other offenses include prescription violations, possession of parephenalia, etc. Prior to 1965 also including driving offenses.

offense	total	first arrest	first this year	subseq. this year
statewide	21434	11459	6769	3206
LA county	13375	6720	4521	2134
LA marijuana	5260	3333	1266	661
LA heroin * other narc	1200	378	537	285
LA narc. addict/user	2489	436	1485	568
LA dang. drugs	3763	2301	960	502
LA other off.	434	165	182	87
LA Fed. off.	229	107	91	31

Los Angeles Police Department

Total staff is 5181 officers, 1759 civilians. The Narcotics unit is part of the Detective Bureau, which has 763 detectives, 74 civilians (14.7% of whole department). In 1965 the department made 198,293 arrests (174,342 adults, 23,951 juveniles); 6939 of these were for narcotics violations (about 3.49% of total). With about 1/6 the number of men as the NYPD the LAPD made almost as many arrests last year; with the narcotic unit at 1/5 that of New York, the department made over half as many arrests.

A number of the LAPD arrests were made through their buy program, using undercover agents to make narcotics purchases. (New York has such a program also, but statistics on its success were unavailable.) In 1964, the program operated with 16 officers, had a budget of $22,892, made 879 transactions, arrested 470 persons; in 1961, the program operated with $14,785, 17 officers, made 638 buys, arrested 341 persons. In 1965, they prosecuted 75% of those arrested (5951 by the narcotics unit itself); in 1955 they arrested 3444, prosecuted 55%. Even with court decisions, it appears they are getting more effective. The record of "buy" cases is:

		Convicted		Prison or CYA*		Probation		Jail		CRC	
Year	# Tried	#	%	#	%	#	%	#	%	#	%
1959	236	228	93	162	74	14	6	44	20	0	0
1960	216	190	88	146	77	8	4	36	19	0	0
1961	270	242	90	157	65	5	2	72	30	8	3
1962	264	219	83	121	55	28	13	14	7	56	25
1963	374	334	89	136	41	97	29	13	4	88	26
1964	328	292	89	97	33	118	40	0	0	77	27

1964	persons			transactions			undercover off.	
	#	%		#	%		#	%
negro	357	76	marijuana	481	54	negro	9	56
mexican	59	13	heroin	392	45	mexican	2	12
cauc	51	10	other	6	1	cauc	5	32
other	3	1						

*California Youth Authority

Los Angeles Police Department Undercover Buy Program

Some of the "buy" program is directed at wholesaler, but the major effort is to get at retailers. These violators, more numerous than wholesalers and too dangerous to be treated as no more than a user, are the object of the Department's buy program. This program is

the only phase of law enforcement which has as its prime objective the prosecution of the small peddler. The picture of the dope peddler protrayed by writers as not realistic, but it is he who makes the drugs available to be ferreted out by those defective personalities that are ever present in society. By taking the risks the wholesaler dares not take, he provides the last link in the distribution chain.

The buy section of the Narcotics Division is staffed by 5 permanent and 5 temporary personnel. A lieutenant is in charge of three units. The Control Unit, consiting of two investigators, is responsible for selection, training, coordinating and supervising the undercover officers. The Follow-up Unit is responsible for the identification of peddlers and following up on information developed by the Undercover Unit. The Undercover Unit usually consists of approximately 5 officers but may vary in size. These are probationary officers assigned directly to the Division after completion of Basic Training. Their function is to pose as users of narcotics and make purchases of drugs for subsequent use as evidence.

From 1961 through 1965 there were 24,112 arrests for narcotics violations by the Los Angeles Police Department. Of the total, 8813 were misdemeanors, 9398 felonies. Of the felonies, 15% (1590) were sale cases developed by the buy program. From 1961 through 1964, there were 1236 buy cases taken to trial; convictions were obtained in 1087 cases (88%). For the 4-year period, buys were from 63% Negro, 11% Caucasian, 25% Mexican and 1% other. Officers were 50% Negro, 26% Caucasian and 24% Mexican. Negro cases have fallen off considerably since Watts cancelled the effectiveness of the Negro undercover men. It is not known whether drug abuse by Negroes has changed, or whether the apparent decline resulted from the decrease of undercover men.

For 1965 there were 562 individuals who made drug sales to undercover agents; costs included $21,117 buy money. Outside of salaries and equipment, the cost was $38 per defendant.

No other state has statistical reports that approach the usefulness of those found in California. One gets the feeling that in California the administration wants to know what is happening; elsewhere numbers are used primarily to get appropriations or impress the newspapers. Officers there seem better trained by their departments and seem to have had better qualifications before joining the force. They are well paid, their training seems to be a continuing operation; they exhibit little of the demoralization articulated by New York policemen or the relative inertia exhibited in St. Louis.

Even so, it is hard to evaluate the effectiveness of enforcement in California. Most of the changes reported relate to increases in marijuana and other drugs. How much of this represents better police work and how much increased abuse? There is no way to tell. Certainly the latter factor is a major one.

Because there are so many police agencies in the area -- investigators from LAPD, LA Sheriff, LA DA, State Narcotics Agents, FBN, Customs -- there seems to be good coverage of the traffic. This is enhanced somewhat by a competitive attitude that only on some occasions is dysfunctional. It is unlikely that the traffic there will ever be "stamped out" -- it is small-scale, by small operators; the border is near and big dealers do not develop because no one needs them.

In spite of California's excellent record-keeping, there are no statistical breakdowns, unfortunately, indicating the extent of addict involvement in other criminal activity.

D. SUMMARY

California, more than any other area visited, has committed itself to attacking the narcotics problem. The attack seems relatively the most successful. New York has a big financial and manpower commitment, but does not give the same feel of ernestness. New York seems to be motivated by publicity consciousness; it lacks coordination, coherence, and cooperation. St. Louis seems to be poorly prepared to cope with its problems. Narcotics is only a small part of their drug problem; with respect to other dangerous drugs, however, St. Louis is in serious trouble.

In both Calfornia and Missouri, the Supervision Agent for FBN is located out of the city of highest incidence. The same is true for FDA in Missouri, but not in California. It would seem to us that the Supervision Agent would most efficiently be located in the area of highest incidence, with an Agent in charge of lesser sites.

It has been stated many times that drug dependence is a public health as well as a law enforcement problem. In California the police try to get as many addicts as possible into CRC, not so much because they think they'll be cured but because they know this is one way to get them off the street. They hope some good will result and do not reject the possibility. In New York there was no such association operative -- police still think of drug users as criminals and some are pleased with the new addict commitment program; they think it requires that all addicts be locked up for three years. (At most a 6 months' incarceration is planned.) In St. Louis the notion has not come to town yet. Nowhere was there evidence that police really thought of addicts as belonging more to public health officials than themselves; a massive amount of re-education will be required if that is ever to happen.

APPENDIX C

HISTORY OF THE U.S. ADDICT POPULATION

This Appendix presents the dimension of the addiction problem in the United States, going back to the 1870's, as background for understanding the size of the problem today. Only the number of addicts will be considered here, not their sex, race, or social milieu. With respect to these latter factors it is sufficient to point out that over the decades the membership of the addict population has shifted from female to male, from rural to urban, and from white to negro.

For purposes of analysis the problem of addiction in the United States must be divided into three time periods: (1) prior to 1914; (2) 1915-1945; and, (3) 1946 to the present date. This division is necessary because before September, 1914, except for the restriction placed on the importation of smoking opium in the 1890's and the exclusion of importation of smoking opium in 1909, the non-medical use of opium and opium derivatives was not illegal in the United States. The period from 1915-1945 was one in which there was at first some divergence as to the proper policy of treatment of addiction (i.e. whether addiction was a medical or a legal problem) and in which the present form of police control of addiction was instituted.[1] This was a period of an alleged increase in the problem just after World War I and then a steady decline in incidence until 1945. From 1946 to the present, an increase in the incidence of addiction to opiates and other dangerous drugs has been reported and it is this reported increase that has merited current attention and actions in reference to the problem of drug addiction.

Prior to 1914, only four surveys were completed that were sufficiently adequate methodologically to merit current attention. The first was a survey requesting information about the incidence of addiction from doctors residing in 96 rural towns and villages of Michigan by Marshall[2] in 1878. The survey reported 1,313 opiate addicts in a survey area with a population of 225,633, from which figure Marshall estimated there were 7,763 addicts in Michigan on the basis of a state population of 1,334,031. Charles Terry in 1928, estimated from the Michigan figure, after taking into account errors in procedure and the fact that drug use was more widespread in urban areas, that the total incidence in the United States at that time was 251,936.[3] In 1884, a survey of druggists in the non-urban areas of Iowa was completed by Hull.[4] Hull received reports of 235 addicts from the druggists. Terry estimates the United States total from these figures and derives an incidence of 182,215 which he says "represents a minimal extent."[5]

Until a survey by Terry[6] in 1913, no other surveys of the incidence of addiction were taken, though surveys of amounts of opium preparations sold were. Terry, through a "drug clinic" and the collection of

prescriptions from druggists, found 541 addicts in Jacksonville, Florida, a city with a population of about 65,000 at that time. From this figure Terry estimated that the number of addicts in the United States to be over 1,000,000.

The last study of the pre-enforcement period was that by Lucius P. Brown[7] in 1915, after the passage of an anti-narcotic control law in Tennessee. The law only required registration of addicts and left open legal channels of access to the drug. Since the survey occurred before federal internal enforcement began, it may be included in the pre-Harrison Act period. After one year of operation, 2,370 addicts had registered. From this figure Brown estimated there were 291,670 addicts in the United States.

In 1924, Kolb and DuMex[8] made an estimate of the pre-Harrison Act incidence of addiction on the basis of postulating an average daily dosage of six grains of morphine sulfate or its equivalent in opium or any opium derivative, and dividing this dose into the available supply of all forms of opium preparations. They concluded,[9]

> "These figures (of available drugs) are given for a period prior to the time when restrictions were placed on the traffic in opium and there was no incentive to the smuggling trade as there is today. It is, therefore, believed that at no time have there been more than 246,000 opium addicts in the United States."

The date which may be affixed to this maximum figure is 1890.

A survey was made after passage of the Harrison Act in 1914, and just prior to the extensive internal enforcement program of the Internal Revenue service in 1919. This survey was made by a non-law enforcement body. This Special Narcotic Committee[10] reported to the Secretary of the Treasury on April 15, 1919. The Committee had surveyed through questionnaires, medical practitioners, public health officials, penal and welfare institutions, and police officials. From the medical practitioners' replies, they estimated there were 237,655 addicts from a 30.6% response to the questionnaire which showed an actual count of 73,150 addicts being treated by doctors. From the health officials' replies they estimated 420,000 addicts on a 26% response showing an actual 105,887 addicts. They commented that the replies from penal institutions, welfare institutions, and the police were valueless because none of these had kept any records. This was apparently the result of these agencies not perceiving opiate addiction as a problem worthy of the effort of record keeping. Having these figures in hand, the Committee chose for a variety of reasons, one of which was "the so-called 'under-ground' traffic...estimated to be equal in magnitude to that carried on through legitimate channels," [11] to say "the Committee is of the opinion that the total number of addicts in this country probably exceeds 1,000,000 at the present time." [12]

The study of Kolb and DuMez was considered by the Federal Narcotics Bureau in 1939, "the most accurate previously made". It differed sharply both with the Special Committee and with "a press release of the Narcotics Division of the Prohibition Unit of the Internal Revenue Service dated May 4, 1924". The latter release said, "It is estimated there are upwards of 500,000 drug addicts in the United States". [13] From a study of previous surveys Kolb and DuMez assert,[14]

> "These figures may be, therefore, accepted as the maximum (269,000) and minimum (104,200) numbers for the period 1915 to 1922; but from what has been brought out it would seem that somewhat less than 215,000 is more nearly correct for the beginning and about 110,000 the approximate number for the end of the period."

In 1928, the first estimate published by the Federal Bureau of Narcotics, [15] based on a nationwide survey and two previous field studies, estimated there were no more than 100,000 addicts in the United States. This estimate stood until 1935, when the Bureau of Narcotics [16] estimated that the number of known addicts had fallen to one in every thousand of the total population. This decline was, in fact, not a decline because the ratio given of one addict per every thousand in the population gave a total of 122,000 addicts based on an estimate of the 1935 population.

In 1938, the Bureau of Narcotics said, "It is evident that addiction has decreased to the extent that there are now less than two non-medical addicts known to the authorities in every 10,000 of the population." [17] On the basis of an estimate of the 1938 population of the United States, this ratio gives a total incidence of 26,000 drug addicts. The Bureau of Narcotics revised this figure upwards in 1939, saying "by 1938 it had fallen to not more than one in every 3,000." [18] This last estimate gave a total addict census of 43,000 persons and is the last estimate for the period 1915-1945.

During the period since 1946, many guesses have been made of the total size of the addict population. The guesses were stimulated by what was perceived as a postwar increase in adolescent addiction and fears for the youth of the nation. Considering only the absolute size of the estimates, and not the internal population characteristics, the outcry does not seem to have been warranted (prior to roughly 1960). A representative of the Federal Bureau of Narcotics said in 1955, [19]

> "It is the opinion of our Bureau of Narcotics that this resurgence has leveled off, that the trend has been reversed. We have not by any means reached the addiction rate of the 1920's. It is the estimate of the Commissioner of Narcotics that our present opiate addiction figure probably doesn't exceed 60,000."

This figure is repeated in 1956, by the report of the Interdepartmental Committee on Narcotics to the President of the United States. They stated,[20]

> "The committee regarded the current estimate of the Bureau of Narcotics...as the most accurate available, indicating a current addict census of 60,000...."

If the figure 60,000 is divided into an estimate of the United States population for 1955, the ratio is one addict to every 2,500 persons. An estimate of the Bureau of Narcotics[21] in their 1957 yearly report concluded that there were 44,146 addicts known to law enforcement agencies in the United States. Later figures are shown in the results of Chapter VII. The latest official estimate is 57,000.

It is profitable to place all of the early estimates together by date in order to show the relationships between them. Data for later years are given in Table A-I.

TABLE C-I

Estimates of the National Incidence of Drug Addiction by Author, Year of Study, and Year of Estimate

Date Published	Author	Date of Estimate	National Estimate
1878	Marshall	1878	251,936[a]
1884	Hull	1884	182,215[a]
1924	Kolb and DuMez	1890	246,000[e]
1913	Terry	1913	1,000,000[c]
1915	Brown	1914	291,670
1924	Kolb and DuMez	1915	251,000[e]
1918	Special Narcotic Committee	1918	1,000,000[c]
1924	Kolb and DuMez	1922	110,000[e]
1924	Narcotics Division	1924	500,000[c]
1928	Federal Bureau of Narcotics	1928	100,000[e]
1935	Federal Bureau of Narcotics	1935	122,000[d,e]
1938	Federal Bureau of Narcotics	1938	26,000
1939	Federal Bureau of Narcotics	1938	43,000[e]
1955	Federal Bureau of Narcotics	1955	60,000[e]
1957	Federal Bureau of Narcotics	1957	44,000[e]

a. Estimated by Terry in 1928
b. Estimate year may have been 1883
c. These appear excessively high
d. Possibly an error
e. Estimates judged closest to reality

If the most conservative estimates of the incidence of addiction are used and the Federal Bureau of Narcotic's figures are included in these, except for the unfortunate lapse in 1924, what is apparent is not the constancy of addict and his habit, but rather that

the addict deserts his habit quite easily. The Kolb and DuMez estimate in 1890 was 246,000; by 1915, this figure had declined 31,000 to 215,000 and by 1922, it had declined by 105,000 to 110,000. Four years later the number falls by 10,000 more to 100,000. There is an increase to 122,000 in 1935, but three years later this had decreased by 96,000 or 79,000, depending on whether one reads the 1938 or 1939 yearly report of the Federal Bureau of Narcotics. The sensational increase in addiction between 1938 and 1955, totaled 16,000 or 1,000 persons depending on which year one takes as a closing date, 1955 or 1957. If one were to use the estimate of the Special Narcotics Committee of 1919, which was 1,000,000, the decline by 1928, using the Federal Bureau of Narcotic's figure of 100,000 for that year, would have 900,000 in ten years. From these estimates of total incidence it would appear that drug addiction in the United States really has declined over the long run.

FOOTNOTES

1. Rufus King, "Narcotic Drug Laws and Enforcement Policies" Law and Cont. Prob., V 22, No. 1, pp. 111-131.

2. O. Marshall, The Opium Problem in Michigan, Annual Report, Michigan State Board of Health, 1878. Quoted in C. E. Terry and M. Pellens The Opium Problem, New York, 1928, pp. 9-16.

3. Ibid, p. 16.

4. J. M. Hull, Biennial Report The State Board of Health of Iowa, 1885, Quoted in Ibid, pp. 16-18.

5. Ibid., p. 18.

6. C. E. Terry, Annual Report, Board of Health, Jacksonville, Fla., 1913, Quoted in Ibid., pp. 24-27.

7. L. P. Brown, "Enforcement of the Tennessee Anti-Narcotic Act", Amer. Jour. of Pub. Health, Vol. V, No. 4, 1915, Quoted in Ibid, pp. 27-29.

8. L. Kolb and A. G. DuMez, "The Prevalence and Trend of Drug Addiction in the United States and Factors Influencing It," Public Health Reports, May 23, 1924.

9. Ibid., p

10. U. S. Congress, House Subcommittee of the Committee on Ways and Means, Hearing, Exportation of Opium,,1921, pp. 52-68.

11. Ibid., P. 53.

12. Ibid., p. 66.

13. Terry and Pellens, op. cit., p. 42, n. 25.

14. L. Kolb and A. G. DuMez, op. cit.

15. Federal Bureau of Narcotics, Traffic in Opium and Other Dangerous Drugs, Annual Report, Washington, D. C., 1928, p.

16. Federal Bureau of Narcotics, Traffic in Opium and Other Dangerous Drugs, Annual Report, Washington, D. C., 1935, p.

17. Federal Bureau of Narcotics, Traffic in Opium and Other Dangerous Drugs, Annual Report, Washington, D. C., 1938, p. 3.

18. Federal Bureau of Narcotics, Traffic in Opium and Other Dangerous Drugs, Annual Report, Washington, D. C., 1939, p. 6.

19. U. S. Congress, House, Subcommittee of the Committee on Ways and Means, Hearings, Traffic In, and Control of, Narcotics, Barbiturates, and Amphetamines, Washington, 1956, p. 1409.

20. United Nations "Report of the Interdepartmental Committee on Narcotics to the President of the United States", Bulletin on Narcotics, V. 8, No. 2, 1956, p. 6.

21. Federal Bureau of Narcotics, Traffic in Opium and Other Dangerous Drugs, Washington, 1957, p. 14.

APPENDIX D

AN ECONOMIC ANALYSIS OF DRUG ENFORCEMENT

A. INTRODUCTION

Economic analysis of many problems proceeds best by separating the problem into those factors which affect supply and those which affect demand, and examining the two aspects of the problem separately. This is particularly true when the suppliers of a commodity can be readily distinguished from the users, when factors which affect one aspect of the problem do not also affect the other, and when policy measures to deal with the problem can be generally categorized into those which affect supply and those which affect demand.

The enforcement of the dangerous drug laws has many of these features. Suppliers can be distinguished from users except at the lowest level of the distribution system, the user-pusher level. The factors which affect supply can often be separated from those which affect demand. Enforcement practices can generally be categorized into those which have the reduction of demand as their main goal (e.g. rehabilitation) and those which deal primarily with supply (e.g. customs inspection; detection and conviction of suppliers). Accordingly, the supply-demand framework shall be used in exploring the economic consequences of alternative drug enforcement instruments.

In this section of the report we present, first, a discussion of the concepts of supply and demand functions, as economists typically understand them. Some simple relationships which bear on the drug enforcement problem are then developed. Following this is a discussion of the available data, after which the implications of this analysis for allocation of enforcement effort are discussed.

B. SUPPLY AND DEMAND FUNCTION: THE CONCEPTS

We use two basic concepts from economic theory, the conventional supply and demand functions. By the demand function for a commodity we mean the various quantities offered for sale per unit of time at various prices. Thus, when examining the demand function, we would like to know the amount by which the quantity demanded is expected to change as a result of a given change in price, other things remaining the same; and similarly for supply.

Representative supply and demand functions are illustrated in Figure D-1. The curve DD is a demand function, showing the relationship between the price per unit and the quantity demanded per period of time. When we try to determine how much the quantity demanded is likely to change for a given change in price, we are really trying to determine the

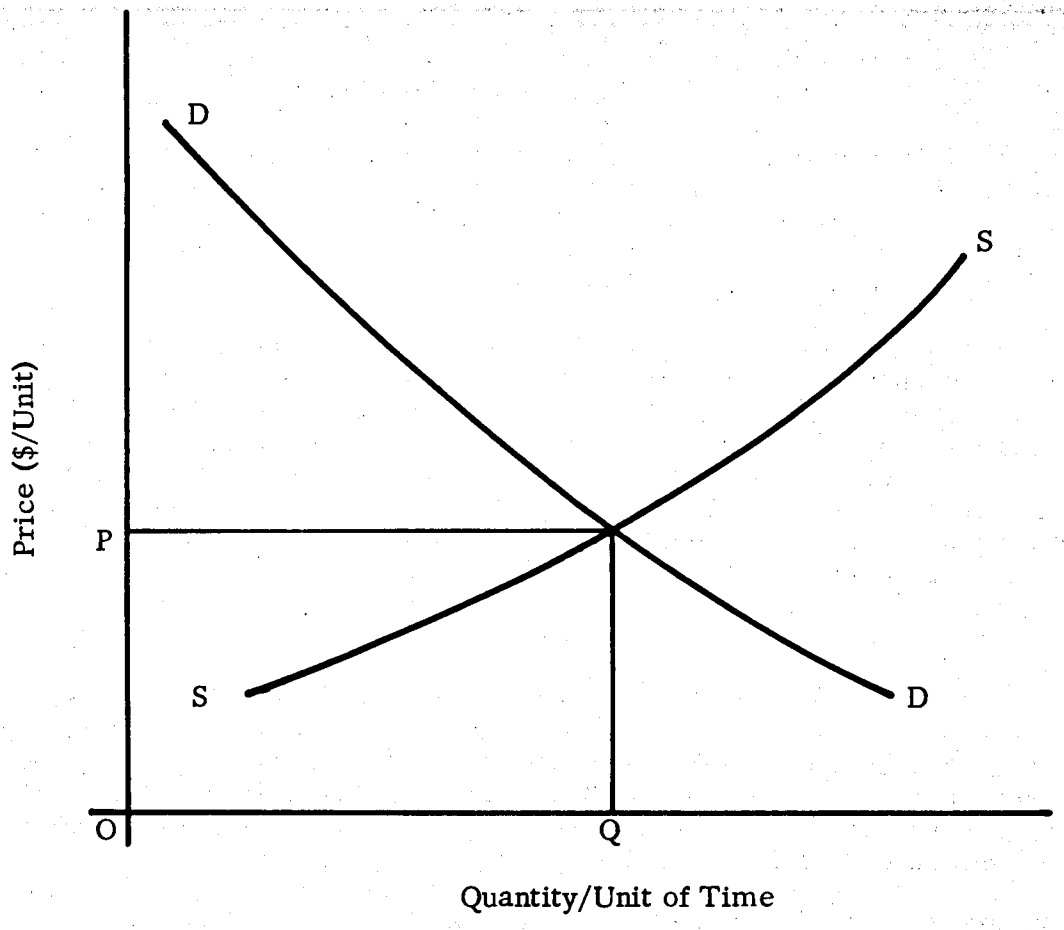


FIGURE D-1 SUPPLY AND DEMAND FUNCTIONS

reciprocal of the slope of the demand curve. The curve SS, of course, is a supply function,relating quantitites offered for sale to prices.

At this point we make two assertions about these curves, both of which seem quite plausible. We assume that the demand curve has a negative slope, which says simply that more of the commodity will be purchased at a low price than at a high price, other things being equal. We also assume that the supply curve has a positive slope, which says that more of the commodity will be offered for sale at a high than at a low price, other things being equal.

The intersection of these two functions yields the equilibrium price (OP) and quantity (OQ) for the commodity. It is an equilibrium because at the intersection the amount demanded at that price and the amount supplied are equal; the market is cleared. If the price were higher, the amount offered for sale would exceed the amount demanded and the excess supply would drive down the price. If the price were lower, the amount demanded would exceed the amount offered for sale and the excess demand would tend to drive up the price.

The effect of enforcement measures which have the reduction of demand as their main purpose is to shift the entire demand function to the left. This is illustrated in Figure 2 by a shifting of the demand function from DD to D'D'. Reducing the level of demand to D'D' means that less of the commodity is demanded at each level of price than had formerly been demanded at DD. This would happen, for example, if the number of users were reduced through incarceration or rehabilitation. Notice that in Figure D-2 the reduction in the quantity purchased is only Q_0-Q_2, even though demand has shifted by Q_0-Q_1. Part of the effect of the shift in the demand curve is offset by a movement along the new demand curve as a result of a lower equilibrium price (OP_1). Relating this to the drug enforcement problem, it implies that a reduction in the number of users (say through rehabilitation) will cause a decrease in price which will lead to an increase in purchases by the remaining users (or new entrants), partially offsetting the effect of the initial reduction in the number of users.

The effect of enforcement measures which reduce supply is to shift the entire supply function to the left. This is illustrated in Figure D-3 by a shifting of the supply function from SS to S'S'. The result is to reduce the amount offered at each price; or to express the same thing in a different way, to raise the price required to maintain each rate of supply.

Figure D-3 shows that a reduction in supply, say from Q_0 to Q_1, leads to a price increase which partially offsets the initial reduction. The actual reduction is therefore only Q_0-Q_2. For example, increasing customs inspection might first reduce supplies of dangerous drugs through increased seizure, and then lead to increased activity by importers in response to the price increase resulting from the shortage in supply caused by the seizures.

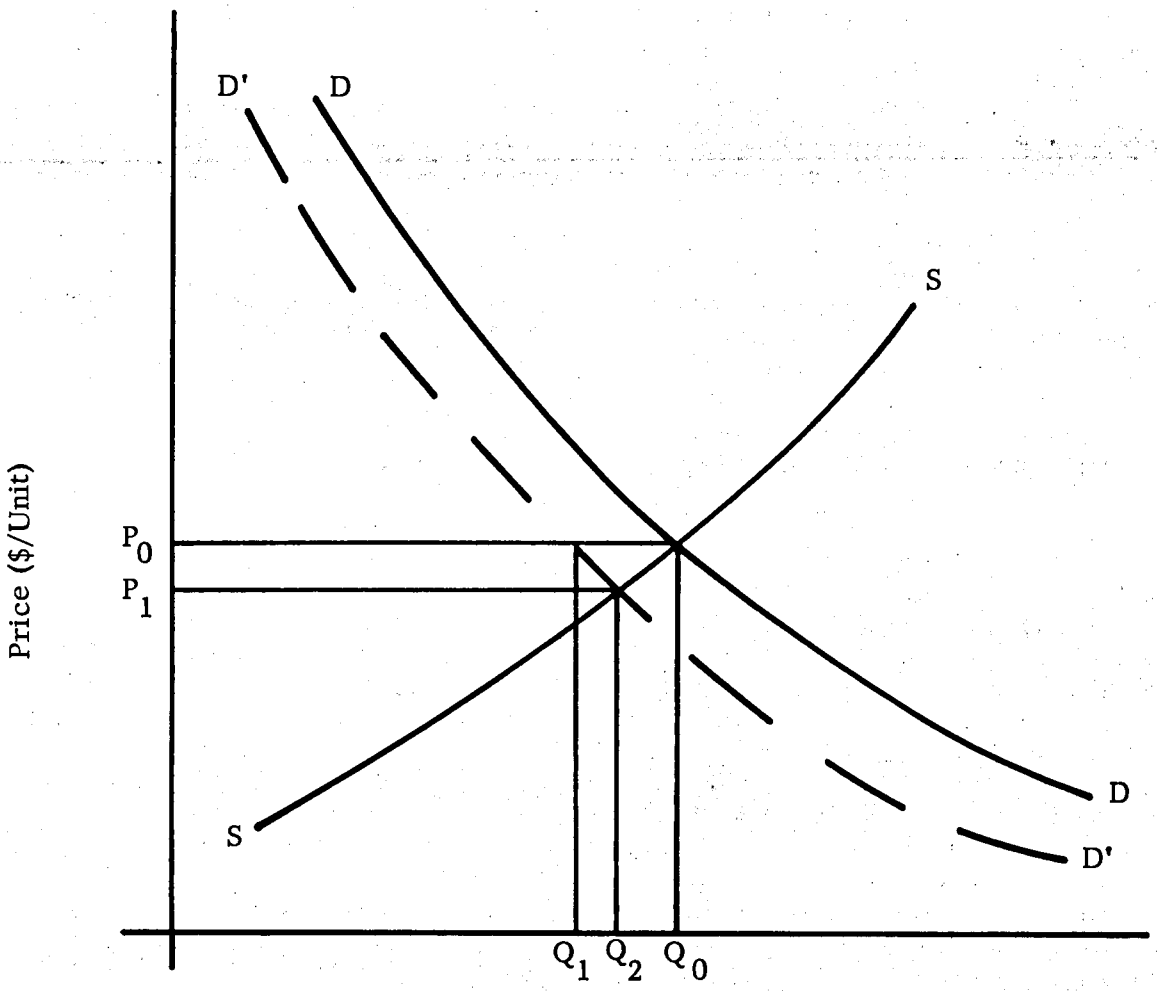


FIGURE D-2 EFFECT OF A REDUCTION IN DEMAND

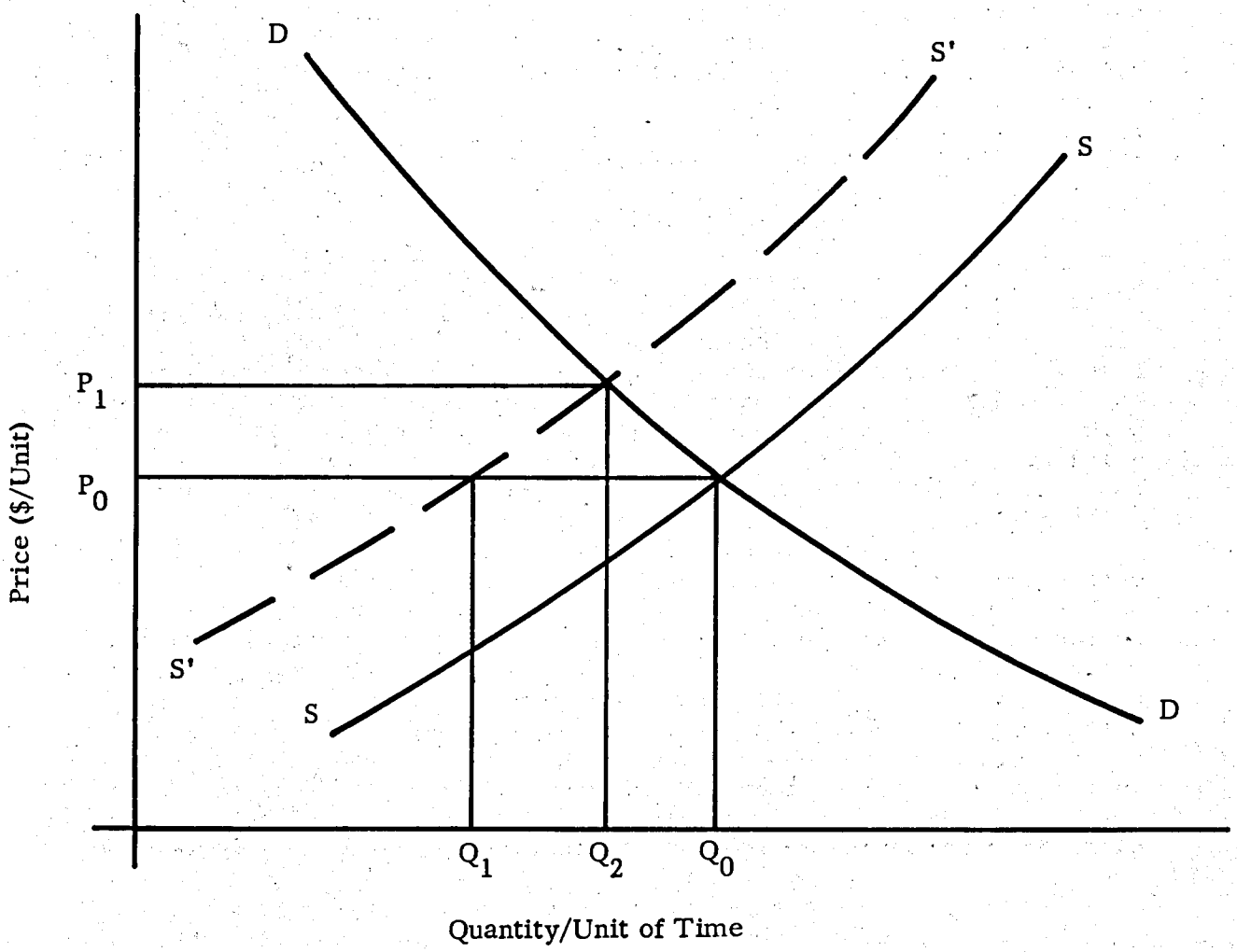


FIGURE D-3 EFFECT OF A REDUCTION IN SUPPLY

Figures D-2 and D-3 show that the net reduction in consumption resulting from any change in policy depends upon the size of the shifts that the new policy induces in the demand and supply functions and upon their slopes. Thus, the effectiveness of a reduction in supply depends to a large extent on the slope of the demand curve; for if the demand curve is very steep, a shift in the supply function will only cause a large increase in price, but very little decrease in the quantity demanded. The high price will stimulate the quantity supplied resulting in very little net reduction in the amount purchased. A steep demand curve indicates that users are very insensitive to price; essentially they make their decisions to purchase almost without regard to price; conversely, a flat demand curve indicates that consumers are very sensitive to price, their decisions to purchase are highly influenced by the price of the commodity. The effectiveness of a reduction in demand depends in large part on the slope of the supply curve. If the supply curve is very steep, a shift in the demand curve will be almost entirely offset by the increased consumption resulting from the drop in price. A steep supply curve indicates that suppliers are relatively insensitive to price; they offer the same amount on the market regardless of the price. A flat supply schedule indicates that suppliers are highly stimulated by price; a small change in price will result in a sizeable change in their efforts to supply the commodity in the marketplace.

In Figures D-2 and D-3 we examined the effects of alternative enforcement practices on the quantity of drugs purchased. We have not yet examined the effects of different types of enforcement on total dollar expenditures for illicit drugs. This is important because much of the money spent on illicit drug purchases comes from illegal activity, chiefly theft and prostitution. Consequently, enforcement practices which reduce the quantity consumed and also reduce dollar expenditures on illicit drugs are to be preferred to those which cause the same reduction in illicit drug consumption but increase dollar expenditures on drugs. This is true because the increase in dollar expenditures would presumably cause an increase in theft and prostitution to raise the additional funds.

Figures D-4 and D-5 show the effects of supply-reducing and demand-reducing enforcement on consumption expenditures. In Figure D-4 supply-reducing enforcement is shown by a shift from SS to S'S'. This raises price from P_0 to P_1 and reduces the quantity purchased from Q_0 to Q_1. Since consumption expenditures are simply price per unit multiplied by the number of units, or P x Q, initial consumption expenditures were $P_0 \times Q_0$. The supply-reducing enforcement changed expenditures to $P_1 \times Q_1$. Graphically, initial expenditures are given by the area of the rectangle OP_0LQ_0, while new expenditures are given by OP_1JQ_1. To see whether the reduction in supply has increased or decreased expenditures, we can compare the areas of these two rectangles. (Or to simplify the comparison, we can compare the rectangles P_0P_1JK and Q_1KLQ_0). Figure D-4 shows that the effect of supply-reducing enforcement on consumption expenditures depends on the slope of the demand curve. If the demand curve is very steep, a reduction in supply will tend to raise price more than it reduces the quantity demanded, and accordingly expenditures will

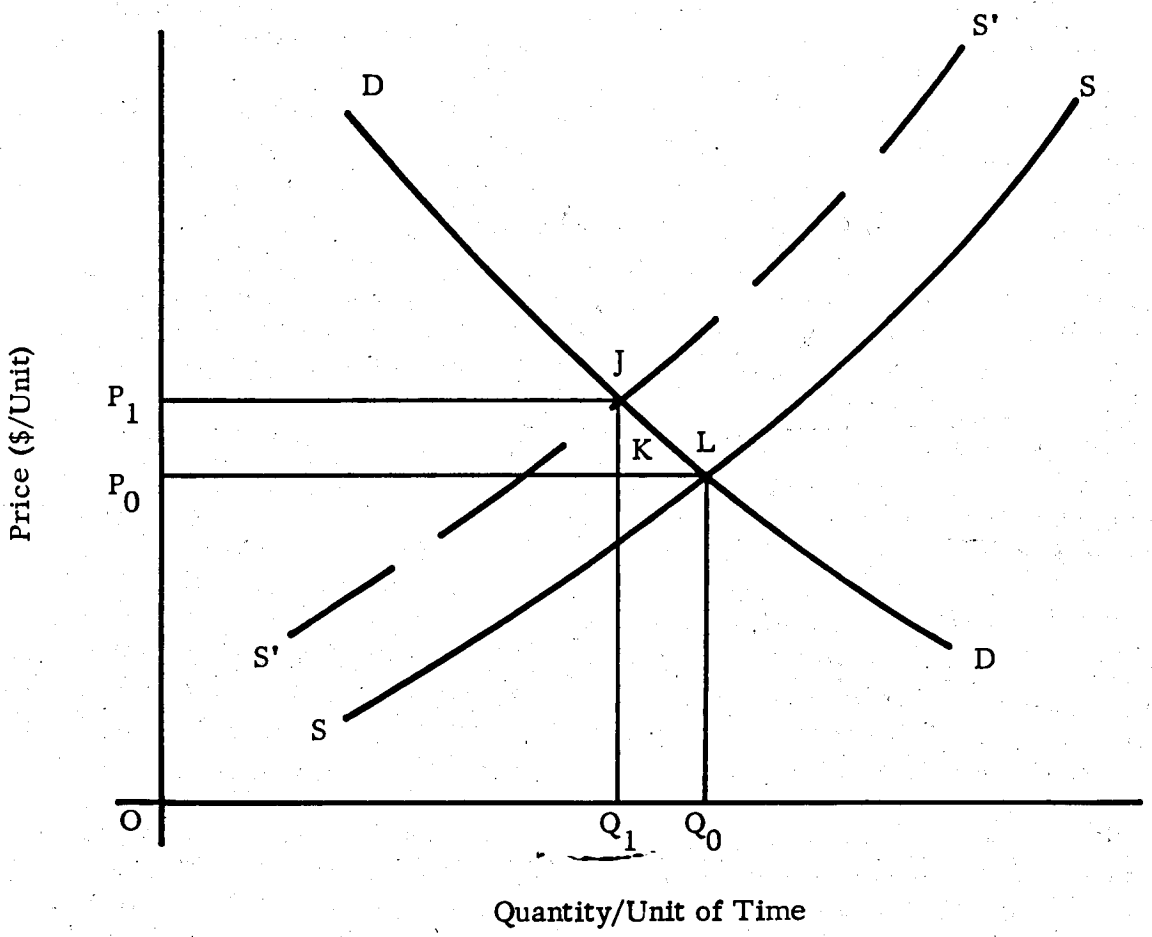


FIGURE D-4 EFFECT ON CONSUMPTION EXPENDITURES OF SUPPLY - REDUCING ENFORCEMENT PRACTICES

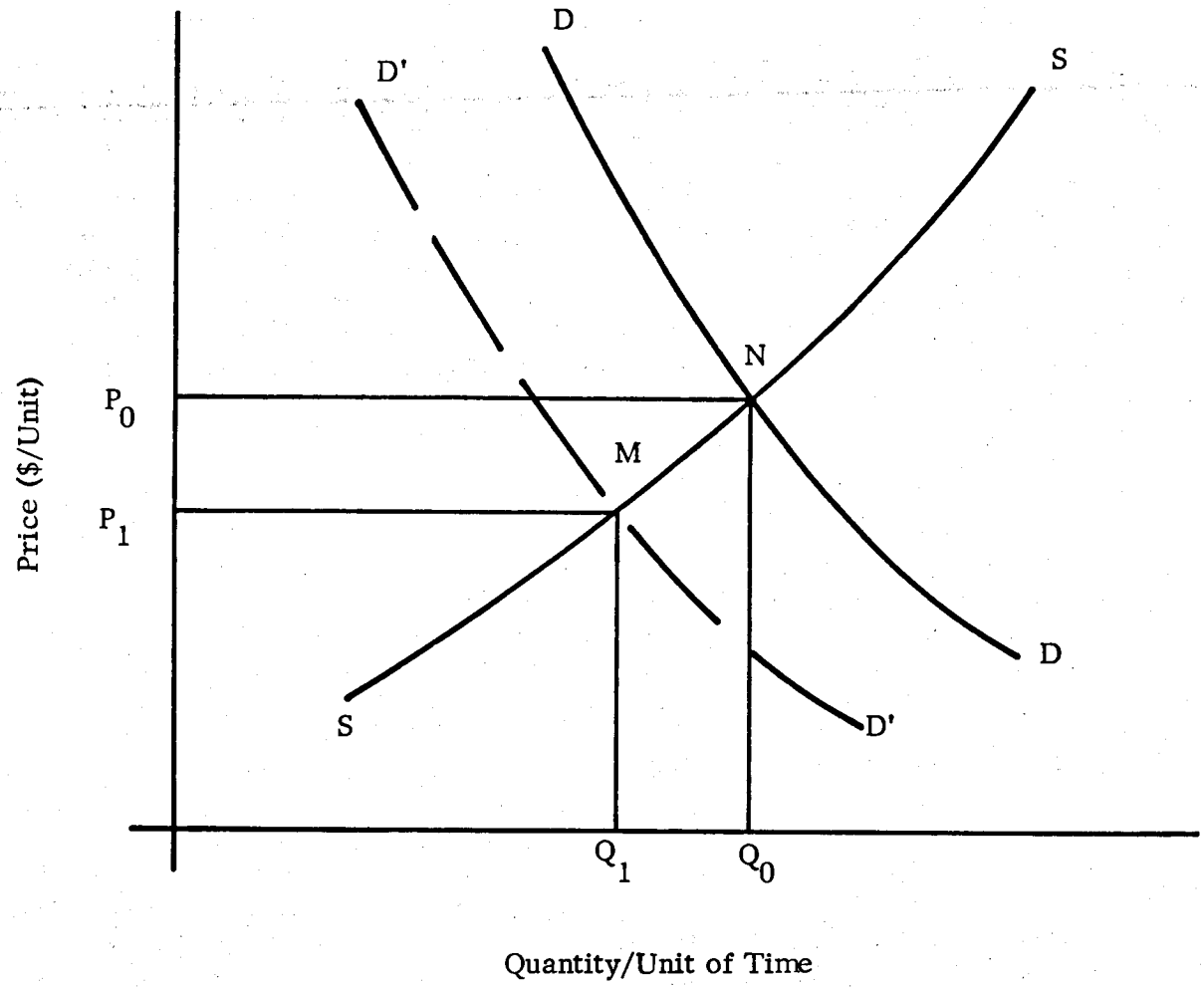


FIGURE D-5 EFFECT ON EXPENDITURES OF DEMAND-REDUCING ENFORCEMENT PRACTICES

rise. If the demand curve is very flat, a reduction in supply will tend to decrease the quantity demanded more than it will increase price, and expenditures will fall.

Thus, examination of Figures D-4 and D-5 shows that demand-reducing enforcement has an important advantage over supply-reducing enforcement. Insofar as it is effective, it unequivocally reduces expenditures on drugs whereas the effects of supply-reducing enforcement on consumption expenditures depends on the price-elasticity of demand. If demand is price-elastic, consumption expenditures will fall, but if it is inelastic expenditures will rise. Indeed, if demand is price-inelastic this analysis indicates that less rather than more supply-reducing enforcement might be warranted. The reason for this is that a decrease in supply-reducing enforcement would shift the supply function outward and to the right in Figure 4. More drugs would be offered for sale at each level of price; or to state this another way, the price would be less for each level of supply. If demand is price-inelastic, the percentage increase in the quantity demanded at the lower price would be less than the percentage fall in price so consumption expenditures would fall. Assuming that this would result in a decrease in drug users' criminal activity, a reduction in supply-reducing enforcement effort might be warranted.

C. DATA

The discussion in the previous section indicates that evidence on the price-elasticity of demand is critical in determining the appropriate allocation of enforcement effort. In this section we discuss estimates of price-elasticity that can be inferred from available data. Three types of evidence exist. The first involves a comparison of:
(1) estimates of price and the incidence of addiction prior to the Harrison Act, against (2) current estimates of price and addiction. The second involves a comparison of the change in price and the incidence of addiction over the post-war period, say 1950-1964. The third type of evidence stems from elasticity estimates made for the most closely analogous commodities, liquor and cigarettes.

1. Comparison of Current Estimates with Estimates Made Prior to the Harrison Act.

There are obvious shortcomings in basing an elasticity estimate on only two observations, both subject to considerable measurement error, and so widely separated in time that the populations to which they refer are completely different; nevertheless, the best estimate of the long-run elasticity is that obtained by comparing the increase in the incidence of addiction since the Harrison Act with the increase in the price of heroin over the same period. The wide time period is in fact, desirable because the possible errors in measurement are so great. To obtain a reasonably accurate estimate of the relationship between two variables--price and usage, in this case--the change in the two variables over the two time periods being considered must be far greater than the likely measurement

errors. Otherwise the relationship between the two variables will be obscured by the errors of measurement. To get a wide enough range in price and usage to be able to estimate the relationship between them with reasonable accuracy, it is necessary to examine the variables over widely separated time periods.

A number of studies of the incidence of addiction were made around the turn of the century when use was legal. The incidences reported in these studies can be compared with the current FBN estimates to measure the percentage change in use. An estimate of the percentage change in price over the same period can also be obtained by comparing current data on prices with prices from periods when use was legal. The negative of the ratio of the percentage change in the incidence of addiction to the percentage change in price gives an estimate of long-run elasticity.

Terry and Pellens* discuss the results of three studies of the number of addicts in the United States prior to 1914, the year in which the Harrison Act was passed. Some details of these studies are given in Table 1. Also given in Table 1 are the details of a number of other studies discussed by Terry and Pellens which were conducted shortly after the passage of the Harrison Act.

From our standpoint, the relative merits and demerits of these studies are less important than the general indication they provide of the incidence of addiction prior to the Harrison Act. The average incidence of addiction represented in the three studies conducted before the Harrison Act is 0.57%. This is almost exactly equal to the result of the Michigan study, which in our view, is the strongest of the eight studies shown in Table 1. The average of the five later studies is, as expected, somewhat lower, about 0.22%, while the average for the entire eight studies is 0.35%. A figure of about 0.5% or one addict per 200 people is probably a reasonable estimate of the incidence of addiction prior to the Harrison Act. It is the approximate average of the three early studies and is somewhat above the rates estimated shortly after the Harrison Act.

The Federal Bureau of Narcotics estimates that there are now about 50,000 addicts. Taking the U.S. population to be about 200 million, this works out to an incidence of 0.025%, or about one addict per four-thousand people. Thus, there has been about a twenty-fold decrease in the incidence of addiction over the past 50-80 years. Estimating the decrease in the incidence of addiction rather than the absolute number of addicts is useful because it adjusts the data for the increase in population.

---

*Terry, C. E. and Pellens, M., The Opium Problem, New York: The Committee on Drug Addiction in Collaboration with The Bureau of Social Hygiene, Inc., 1928; p. 42.

To obtain current price data, we took a random sample of data from the "Buy Book" of the New York City Narcotics Bureau. In the first seven months of 1966, the average price paid for a sample of 56 street purchases was $2.53 per grain; for convenience say $2.50 per grain. In the same period, the average concentration of heroin was 20.8% in the 183 samples subjected to quantitative analysis in the New York Police Laboratory; for convenience say 20%. Based on these figures, the current street price per kilogram of heroin is approximately $190,000.

We have been unable to find retail price figures for heroin before the Harrison Act, but a rough estimate suitable for these purposes can be made from the available data. The Michigan study reported a wholesale price of heroin of $11 per kilogram in the 1870-80 period. Doubling this figure to provide for the retail markup gives an estimate of $22 per kilogram. Adjusting this estimate by the change in the cost-of-living index to convert it to dollars of equal purchasing power approximately triples the price, say $65 per kilogram.* This indicates roughly a 3000-fold increase in price over the 50-80 year period, from $65 to $190,000 per kilogram.

Clearly, the 20-fold decrease in the incidence of addiction and the 3000-fold increase in price of the last 50-80 years are very rough approximations. Nevertheless, the difference between the two figures is so great that, even with reasonable allowances for error, it seems almost certain that prices have risen by a much greater percentage than the incidence of addiction has fallen. Thus, it is highly likely that the demand for heroin is price-inelastic. Indeed, if we adopt the above figures as the best estimates of the change in price versus incidence of addiction, price-elasticity is on the order of 0.0067, which is highly inelastic. (Because of the inverse relationship between price and the quantity demanded, price-elasticity is often expressed as a negative number. We are expressing it as a positive number for ease in presentation.

This figure is an underestimate of the price-elasticity because it does not account for the change in usage per addict. For example, if the usage per addict was halved by the 3000-fold price increase, the estimated price-elasticity would double from 0.0067 (or 20 ÷ 3000) to 0.0133 (or 40 ÷ 3000). It would still be very inelastic, however; and though there are no supporting data such a reduction in usage appears unlikely.

These figures also take no account of the great increase in per capita income over the 50-80 years. For most commodities, demand increases as income rises, so ignoring the growth in income would tend to bias price-elasticity estimates downward. Demand would appear to be less elastic than it in fact is. It is not at all clear, however, that the consumption of heroin rises with increases in income, other things remaining the same.

* For data on cost-of-living see, Statistical Abstract of the United States annually; and A. Rees, Real Wages in Manufacturing, 1890-1914, National Bureau of Economic Research, 1961.

In fact, a casual examination of the evidence suggests just the opposite. Within the United States, drug abuse seems more highly concentrated in the low-than in the high-income groups. Moreover, an inter-country comparison of the incidence of addiction suggests that drug abuse is higher in low-than in high-income countries. Drug abuse seems to be less common in Western Europe and North America, for example, than in South America, many parts of Asia, and the Middle East. These are very gross comparisons, of course, but they indicate that it is by no means clear that the demand for narcotics is positively related to income. Accordingly, there is no clear evidence that elasticity estimates are biased downward by omission of an adjustment for change in income; they may in fact be biased upwards. The demand for heroin may be even less price-elastic than the above figures indicate.

2. The Post-War Period

A price-elasticity estimate based on data for the post-war period would be more meaningful than the above estimate because the environment and characteristics of the population are much more comparable over this period than over the 50-80 years discussed above, and because this reportedly is a period in which the incidence of addiction was increasing very rapidly. On the other hand, the period is so short that the relative change in addiction versus price may be obscured by errors in measuring these variables.

The Federal Bureau of Narcotics estimates a U.S. addict population of about 56,000 in both 1950 and 1964. Since drug abuse is commonly reported to be an urban phenomenon, these figures should probably be divided by the urban population in the two periods, to adjust for the growth in population. An even better adjustment would be the urban adult population, say age 14 and over, since children are unlikely to be drug users. Estimates of the urban population are not available, however, except for Census years, so we have adjusted the addict population only by the population of age 14 and over. These population figures are 113 million for 1950 and 137 million for 1964. Thus, the estimated incidence of addiction has decreased from about one per 5000 to one per 4100 over the 14-year period, a decrease of about 18%.

Prices over the period have risen from about $1.00 per grain to about $2.50 per grain. The $1.00 per grain figure was reported by the FBN in its 1950 Annual Report as the New York City price, while the $2.50 figure was obtained from the sample of 1966 New York City purchases mentioned earlier. The cost-of-living as measured by the consumer price index rose by about 29% over this period so the $2.50 figure should be deflated to compare the two prices in terms of constant dollars. With this adjustment, the New York price of heroin rose by about 195% over the period. No estimates are available on the change in the concentration of heroin per grain over the period. However, most observers report a decline in the concentration level. Since we do not adjust for the decrease in concentration we understate the price rise and as a consequence our estimates of the price elasticity of demand is biased upward.

As was true in the above long-run estimate of elasticity, the changes in both price and incidence of addiction are estimates with considerable uncertainty; however, the difference between the two figures is so great that it is unlikely that it would be completely erased by measurement errors. If the increase of 195% and the decrease of 18% are taken as the best estimates of the change in price and consumption, the corresponding estimate of price elasticity is about 0.09. This is substantially higher than the price-elasticity estimate developed above, but is still highly inelastic.

No allowance has been made for the decrease in usage per addict. As noted above, this omission tends to bias the estimate downward; hence, the figure of 0.09 understates the elasticity. It seems unlikely that the estimated increase in price would halve consumption per user, but if it did, this would imply a price elasticity of about 0.2 rather than about 0.1. The estimate of electricity would remain quite low.

3. Elasticity Estimates for Analogous Commodities: Liquor and Cigarettes.

A number of estimates of price-elasticity have been made both in the United States and abroad for liquor and cigarettes, the two most closely analogous legitimate commodities. A review of these studies supports the foregoing estimates that the demand for dangerous drugs is highly inelastic.

In a recent paper, Julian Simon furnishes a review of previous work and gives the results of his study of the price-elasticity of demand for liquor.[1] The results of these studies are given in Table 2. This summary shows that all the liquor studies except those of Niskanen report very inelastic demand. Niskanen included a number of price-elasticity estimates derived from procedures other than those he finally chose to rely upon; most of the other estimates were inelastic.

Frank Maier reported on the findings of most of the available studies of the price-elasticity of demand for cigarettes up to 1955.[2] The results of these studies are summarized in Table 3. Also included in Table 3 is the estimate obtained by Robert Basmann in an unpublished doctoral dissertation. An attempt to find more recent studies of the demand for cigarettes has been unfruitful. The table shows that most studies found the demand for cigarettes to be highly inelastic with respect to price. Maier obtained elastic coefficients for three of five years, but his findings are very inconclusive. The standard errors of his price coefficients are large enough so that none of the elasticities are significantly different from 1.0 at the conventional statistical confidence levels.

[1] Julian L. Simon, "The Price Elasticity of Liquor in the U.S. and a Simple Method of Determination," Econometrica, Vol. 34, No. 1, (January, 1966).

[2] Frank H. Maier, "Consumer Demand for Cigarettes Estimated from State Data," Journal of Farm Economics, No. 1955.

TABLE D-1

SUMMARY OF SURVEYS AND ESTIMATES OF INCIDENCE OF ADDICTION

Locality	Year	Author	Source	Number of addicts recorded or estimated	Estimated number of addicts in Continental U.S. for given year	Percentage of population affected
Michigan (96 cities)	1877	Marshall	Letters to physicians one in each locality	1,313	251,936	.58%
Iowa (Territory covered by 50 reporting druggists)	1884	Hull	Letters to druggists	235	182,215	.32%
Jacksonville, Fla.	1913	Terry	Clinic and duplicate prescriptions of physicians	541	782,118	.80%
Tennessee	1915	Brown	Registration by state law	5,000	269,000	.27%
New York City	1919	Hubbard	Clinic	7,464	140,554	.13%
New York (State)	1920	Herrick	Registration by state law	3,900	396,978	.37%
Los Angeles, Cal.	1920	Bucher	Clinic	564	102,005	.10%
Shreveport, La.	1920	Butler	Clinic	211	264,276	.25%

TABLE D-2

ESTIMATED OF THE PRICE-ELASTICITY OF DEMAND FOR LIQUOR

Investigator	Region	Time Period	Price Elasticity
R. Stone	England	1920-1938	0.57
A. R. Prest	England	1870-1938	0.57 0.031
S. Malmquist	Sweden	1923-1939	0.2 to 0.4
H. Wattell	Pennsylvania	1935-1951	Very Inelastic
W. Niskanen	U. S.	1934-1954	1.74
W. Niskanen	U. S.	1934-1941, 1947-1960	Around 2.0
J. Simon	U. S.	25 observations from 1955 to 1951.	0.8 0.03 to 0.97

Source: See Simon, Op. Cit.

TABLE D-3

ESTIMATES OF THE PRICE-ELASTICITY OF DEMAND FOR CIGARETTES IN THE UNITED STATES

Investigator	Time Period	Price-Elasticity
(1) E. H. Schoenberg	1913-1931	0.25
	1923-1931	0.68
(2) U. S. Treasury Dept.	1929-1943	0.10
(3) G. R. Rockwell, Jr.	1927-1941	0.30
(4) F. H. Maier	1947	1.48
	1948	1.44
	1949	1.08
	1950	0.31
	1951	0.38
(5)	1926-1945	0.20

Source: For (1) - (4) see Maier, Op. Cit. For (5), R. Basmann, unpublished doctoral dissertation, Dept. of Economics, Ia. State, 1955.

D. IMPLICATIONS

Several interesting implications emerge from the foregoing analysis. Advocates of supply-reducing measures of enforcement say that it is easier to reduce supply than demand because the number of suppliers is so much smaller than the number of users. Let us assume that this is true. The preference between supply-reducing and demand-reducing measures still depends on whether the demand for dangerous drugs is price-elastic or inelastic.

If demand is price-elastic, supply-reducing measures are preferable from the economic point of view. A reduction in supply would cause both a decrease in use as the price increased, and a decrease in total expenditures on dangerous drugs. A reduction in drug expenditures would lead to a reduction in criminal activity, assuming that the money spent on drugs is raised largely through criminal activity.

Our examination of the data, however, indicates that demand is price-inelastic. If demand is price-inelastic, a reduction in supply will cause total expenditures on dangerous drugs to increase. Assuming that much of the increase in expenditures on drugs were raised through criminal activity, the incidence of crime would increase. In this case, demand-reducing measures might be preferable to supply-reducing measures, even if relatively ineffective, because they would produce no increase in crime; and insofar as they are effective they would reduce both drug use and crime.

To put these arguments in perspective, let us examine the consequences of reducing the incidence of addiction by, say, 50 percent by means of supply-reducing enforcement measures. For the purposes of this illustration, assume that the elasticity of the incidence of addiction with respect to price is 0.1. This is about equal to our estimate for the post-war period and approximately fifteen times higher than our long-run estimate. It is slightly less elastic than the estimates obtained by Schoenberg and Basman for cigarettes and by Stone and Simon for liquor, in our view the best of the cigarette and liquor studies. Since the elasticity estimates for these commodities take account of the change in both the incidence of use and the consumption per user, we expect them to exceed the price-elasticity estimate for narcotics which is based on the incidence of use alone.

Current estimates of the addict population place the number at about 50,000. To estimate the price increase that would be needed to reduce this number to 25,000, recall that price-elasticity is defined as the percentage change in consumption divided by the percentage change in price.* Thus, to obtain the percentage change in price needed

---

* The price increase must, of course, stay in effect long enough to exert its full impact on users. Thus, we assume a long-run, not a short-run, change in price.

for a given change in the incidence of addiction, we divide the percentage change in the incidence of addiction (50%) by the price-elasticity(0.1). This gives a required price increase of 500%. Since the current price is about $2.50 per grain, this would imply that a price of $15 per grain would be needed to cut the addict population in half.*

We can estimate the upper limit of the increase in crime that would result from this price rise if we assume that there would be no reduction in use per addict in response to the price rise and that all of the increase in expenditures is obtained through criminal activity. Use per addict presumably decreases as price increases, but since we have no data on this, it is helpful to compute the upper limit. This limit can then be adjusted to reflect a plausible reduction in use per addict. We also have no data on the fraction of drug expenditures that is paid for with money raised by criminal activity, but presumably it is very high.

Given the above assumptions, crime by addicts would <u>triple</u> if the price were increased enough to cut the addict population in half.**

This illustration can perhaps be made more emphatic by estimating the current level of expenditures on drugs and showing what a tripling of this level would mean in terms of dollars. To do this, we need an estimate of the average number of grains purchased per user each day. Assume that four grains per day are purchased on the average. At $2.50 per grain, this implies an average daily expenditure of $10 which is just slightly below the estimated daily expenditure in New York. At four grains per day, the addict population is spending approximately one-half million dollars per day on drugs (i.e., $2.50 x 4 x 50,000 = $500,000). This means that under the foregoing assumptions, crime would rise by about $1,000,000 per day if price were increased enough to cut the addict population in half. This is a $365,000,000 <u>increase</u> in crime per year.

As we noted earlier, the above figure represents an upper limit because it assumes no decrease in use per addict in response to the price rise. Suppose, for the purposes of this illustration, that the average number of grains purchased per day would drop from four to two. Under these conditions, the average daily expenditure on drugs would be approximately $750,000 if the price were raised to $15 in order to reduce the addict population to 25,000 ($15/grain x 2 grains/addict x 25,000 addicts = $750,000). This is an annual <u>increase</u> in crime of about $90,000,000 per year, or one-fourth of the upper bound. The actual amount may well lie somewhere between the two.

---

* This is, $\frac{50\%}{.1}$ = 500%; hence, (2.50) x (5.00) = $12.50; and $12.50 + 2.50 = $15.

** $\frac{25{,}000 \times \$15}{50{,}000 \times \$\ 2.50} = 3.$

Because the demand for dangerous drugs is price inelastic, a reduction in price will not increase the amount consumed very sharply. The calculations used above indicate that reducing the price by a factor of ten would increase the quantity purchased by only nine percent. The total cash flow would be reduced by 89%, with a corresponding reduction in the unknown portion which is paid for by crime. The number of addicts could be expected to increase by nine percent on the assumption that usage per addict remained the same. If usage per addict doubled, the reduction in cash flow would be 78%. The primary point, however, is that the supply and demand process can go in either direction: for this product, raising the price by reducing supply doesn't greatly reduce the amount consumed;lowering the price will not greatly increase the demand, and it will significantly reduce the total amount spent.

APPENDIX E

DRUG ABUSE PROBLEMS IN EUROPE

GENERAL POSITION

There are so many different drugs abused and patterns of abuse in Europe that it is not possible to consider in this report the whole problem in depth. The most important fact is that there is an alarming increase in drug abuse. The countries considered in depth are Britain and Sweden, since these two countries have considerable and increasing drug problems.

A. DRUGS TAKEN

1. Britain

Statistics on drug abuse are wholly inadequate for a number of reasons. Home Office statistics depend solely on information given voluntarily and not mandatorily by general practioners, police officers and prison officials; there exist large numbers of drug abusers whose existence is never officially recognized.

One anomaly in the system is that cannabis, a drug covered by the Dangerous Drugs Act, never appears in Home Office Statistics on drug abusers because it is never prescribed by general practioners. Yet it is one of the most commonly abused drugs in Britain today, and is becoming common not merely as marijuana but also as hashish. The picture is further complicated by the fact that two ministries, the Home Office and the Ministry of Health, look after what is essentially one problem. The Ministry of Health is concerned with the medical aspects and the Home Office with enforcement, statistical, and international aspects of the problem.

The most commonly abused drug in Britain is alcohol; an alarming part of the picture of increase in drug abuse is the increase in juvenile alcoholism. There has also been an increase in the abuse of the following drugs: amphetamines, barbiturates, lysergic acid derivatives and analogues, cannabis, tranquilizers, and opiates.

Although the number of therapeutic opiate addicts has remained fairly constant up to the present date, the number of non-therapeutic heroin addicts has been increasing strongly since 1960. In addition the average age of the opiate addict has been decreasing annually. The Home Office estimates that in Britain there are now approximately 900 opiate addicts. Unofficial but informed estimates place the number at 3,000.

Since the late nineteen fifties the problem of amphetamine abuse has appeared. It already involves probably 20-30 times as many abusers as do the opiates.

Abuse of the hallucinogenic drugs such as L.S.D. started in the very recent past. Its abuse is rapidly increasing and is likely to present a serious problem.

The problem of barbiturate abuse is very difficult to estimate; abusers of this class of drugs do not usually incur social penalties or come to official attention. The combination of licit and illicit use of barbiturates in Britain of course exceeds the approximately 300,000,000 tablets prescribed annually.

No official British statistics on numbers of Cannabis abusers are available; it is likely to be of the order of 50,000. That a sizeable problem exists is indicated by the annual increase in seizures by the relevant agencies, such as customs and police. Last year there were 1037 kg of cannabis seized, the largest of a rising series of seizures.

Considerable complacency concerning drug abuse continues in Britain. This is true despite the sizeable drug abuse problem today, and the great likelihood that it will increase in the future.

2. Sweden

Statistics on the drug abuse problem in Sweden are even less adequate than in Britain. This is because Preludin, which is officially regarded as presenting the gravest problem, is not prescribable, and as a result, there is no abuse data from physicians. Information on the problem comes largely from the police, prison officials and social workers.

Sweden has one of the world's worst alcohol problems. Juvenile alcoholism is also on the increase here. Drug abuse generally shows very much the same abuse pattern as Britain, with the notable exceptions of Preludin and the opiates. Preludin and the amphetamines, in general, are considered officially by the Swedes to present a serious and growing problem. Opiate abuse, on the other hand, has if anything slightly decreased in recent years.

Informed Swedish opinion estimates the number of Preludin abusers to be between 4,000 and 5,000.

B. DRUG TAKERS

Drug abuse seems to be largely a northern European problem at this time. The type and amount of abuse varies with social class from country to country. Several groups of abusers are distinguishable.

1) One group,which seemingly does not arouse much concern in official circles, consists of housewives and "apparently adjusted" working citizens. They do not indulge their habits gregariously, but utilize their drugs to relieve "tension". Traditionally alcohol has fulfilled this need, but annually evidence accumulates that this group of people are abusing other drugs such as amphetamines, barbiturates, and tranquilizers.

2) A second category of abuser, never officially distinguished from hard-core drug abusers, is the spree abuser. Most of the cannabis abusers in Britain can be classified as spree abusers. Drinamyl is the amphetamine abused in the largest quantities in Britain. Spree users account for the bulk of Drinomyl not consumed licitly or by group 1) above. Its use is a weekend habit largely taken to lengthen waking hours, to give an affect related to that of drinking spirits, and to heighten sexual awareness. It is commonly taken in beat clubs and at teenage parties.

Abusers of these drugs may come from any social class but they are mostly concentrated in social classes three and four. Most abusers of cannabis and lysergic acid derivatives form an intellectual elite in the drug taking world, but abuse of these drugs can be found in all socio-economic groups. Users' motives for abuse of these drugs vary.

The spree group takes drugs spasmodically rather than regularly. Just as the man who goes out on a weekend binge in company is normally not considered an alcoholic, one cannot term these social spree abusers as truly drug dependent.

3) A third category of drug abusers is the habitual regular abuser of drugs. In Europe his most common origins are in the beatnik fraternity. The particular drug he abuses tends most commonly to be Preludin in Sweden and heroin in Britain. In addition, in all countries, there are a number of habitual social pill abusers. In the minds of members of this group the social status of drug taking and its accompanying rituals can be likened to those of religious rites. Parenteral abuse is common. That members of this group are deviates is unquestionable; they have opted out of society as a whole and constitute a separate sub-culture. The mechanics of self-administration of the drug are very important to the abusers. The drug itself is less important than socially unifying effects and rituals of drug taking. The addicts--of whichever drug, whether or not causing "physical dependence" - show some remarkable personality traits.

They are expert deceivers. They consistently refuse to accept personal responsibility for their state. While stating a desire for treatment with one breath, with the next they give some reason for procrastinating it.

C. EPIDEMIOLOGY

The epidemiology of drug abuse in Europe bears a striking resemblance to that of tuberculosis in the early part of this century. A city such as Birmingham illustrates this well. In November 1965 there were only six known addicts of heroin in the precincts of the city. By July 1966 this figure had grown to over 40. It was possible to show a chain of contacts leading back to the initial six. It is fair to say that in Europe, at least, spread of abuse by contact is one of the more important factors in the etiology of drug abuse. Availability of drugs, although important, does not appear to be critical. The spread of Preludin abuse in Sweden and heroin abuse in Britain share all the previously mentioned features. A pertinent feature in the spread of drug abuse is that many true hard-core addicts are great evangelizers and go to great lengths to convert people to drug abuse: This can be seen clearly in London.

An important factor in the spread of LSD and Drinamyl abuse in Britain has been poorly conceived press publicity. After one television program dealing with LSD, the price on the London market rose 35% because of increased demand.

It has been proposed that the first step on the road to heroin abuse is the consumption of cannabis. A close scrutiny of the position in Britain suggests that this occurs in such a small proportion of cases as to make the theory untenable. What can be said is that all heroin abusers, indeed almost all hard-core abusers of any drug, have consumed cannabis at some time as they have alcohol and tobacco. What must also be said, however, is that probably at least 98% of these who have at some point in their lives consumed cannabis do not become hard-core drug abusers. In addition, most hard-core drug abusers in Britain and Sweden had abused many other drugs other than cannabis and their drug of choice. There does not, therefore, in Europe appear to be any casual relationship between cannabis consumption and that of heroin or Preludin. What appears to be the critical factor is the personality of the drug abuser and not the particular drug abused.

D. METHODS OF OBTAINING DRUGS

1. Britain

The first category of drug abusers (housewives, etc.) obtain their supplies largely from general practioners or by mild alterations of prescriptions, and by use of several practioners. Other than this they do not infringe the law. One can ask whether British practioners are aware of the abuse liability of preparations which they prescribe. Cursory examination indicates that many are not.

The second and third categories of drug abusers can be considered together as far as supply of drugs is concerned.

a) Amphetamines

The acquisition and distribution of these drugs has become fairly well organized, and is largely undertaken by the criminal fraternity. To date no amphetamine has been discovered which was clearly smuggled into Britain. The criminal element appears to obtain its supplies from three sources: warehouses, pharmacists shops, and trucks in transit. The means they employ are either pilfering, burglary or hijacking. Security in premises which store these drugs in Britain is lamentable, and unlike drugs covered under the Dangerous Drug Act, special security precautions are not mandatory.

A small, non-organized source of supply is prescription forging. Organized crime does not use this means of acquisition.

b) Opiates

The bulk of opiates appear to be derived by addicts from legal sources. Those opiate abusers who make themselves known to practioners (who are prepared to treat them) obtain a regular supply of drugs through the National Health Service. However, addicts are commonly over-prescribed. This allows for leakage of drugs from "known" addicts to a large number of "unknown" opiate abusers who depend on them for their supply. This appears to be the main source of black market heroin in Britain. The normal price is £ ($2.80) for one grain. This source and the direct channel tends to guarantee quality.

There is however, a small sale in London of illicitly imported green powder heroin which has its origins in the near and middle East. It is imported rather as a sideline, and enters the country with consignments of cannabis. Though the bulk of this heroin is still comparatively small, it is handled by a well-organized ring who deal in many drugs, including

cannabis and LSD, and who would be quite ready to accomodate an increased demand. What is alarming is that no responsible agency yet accepts that there is such a ring.

c) Cannabis

Cannabis sold in Britain has four major origins: Near and Middle East, Nigeria, India/Pakistan and the West Indies.

The cannabis which stems from the last three is largely consumed by immigrants from these countries and very little enters the general (illicit) market. How long this will remain true is another problem. The general market has its origin in the Near and Middle East. Importation is still largely in the hands of individuals, but importation and distribution are becoming increasingly organized. The large profits which can be made in trafficking in cannabis are attracting the attention of organized crime.

The cannabis is brought back in individual shipments commonly ranging from 1kg to 25kg. The means of transportation varies, but is usually car or truck. Much of the smuggling is done by amateurs who finance their visit to the Near East by sale of cannabis on their return.

On arrival in Britain the cannabis is cut into 1 cm cubes and sold in clubs, bars and beat joints. Cannabis is bought for £5 per kilo and sold for the equivalent of £500 ($1400) per kilo in London.

The alarming spread of drug abuse in Britain is greatly abetted by the ease with which these drugs can be obtained in the major metropolitan areas.

d) Sweden

The position of Sweden as regards the first group of abusers (housewives, etc.) is comparable to that in Britain. The position as regards amphetamine and cannabis is also comparable. There is no known opiate problem.

The problem peculiar to Sweden is that of Preludin. Preludin is not prescribed in Sweden. The importation and distribution of this drug to the abuser is entirely in the hands of an illicit traffic which is well organized.

Preludin is bought across the counter in Southern Europe in such countries as Spain and Portugal. Individuals from Sweden go to these countries by visiting many hundreds of pharmacists they are able to buy in the order of 100,000 tablets of Preludin. Entry into the Scandinavian customs union is via the Danish border. Since Denmark still has no known Preludin problem, customs officials are not yet especially on guard for this drug. As there

is no customs formality between Denmark and Sweden the drug has effectively entered Sweden when it enters Denmark.

Preludin tablets sell at 2 Kroner (39¢) each in Stockholm; this provides more than a 1000% margin for the trafficker. Distribution is well-organized and has many of the characteristics of heroin distribution in the USA.

That this problem exists at all points to the necessity of uniform international controls on drug availability. As long as there is an easily available source in one country, close control in other countries must remain severely handicapped.

E. POLICE AND GOVERNMENTAL ATTITUDES TO DRUG ABUSE

In Britain, as in Europe as a whole, police forces are not interested in the addict per se. They are only interested in him in so far as he may provide information. Their concern is illicit traffic. They view drug addiction as a medical and sociological problem. The same may be said of most European government agencies. The problem is seen generally as one concerned with public health and social deviance. There is vigorous public debate on how to deal with the growing problem in Europe. Almost all the law enforcement agencies are inadequately staffed and are out of touch with the problem. Those governments in Europe which still proclaim that drug abuse is not a problem are in for a sharp awakening. Drug abuse is on the increase in Europe and should be a primary social problem for Europe in the next decade.

In Britain punitive legislation affecting drug abusers and doctors of medicine treating or maintaining them under proper safeguards is regarded as a dangerous course. Debate centers on proper safeguards and on better control of the traffic. Those in positions of influence in Britain maintain that no counterpart to traditional American enforcement against opiate abusers would be tolerated in Britain.

F. TREATMENT

In Europe it is generally held that the addict must be self-motivated to treatment for there to be any chance of success. In Britain and Sweden ambulatory maintenance treatment is permitted and practiced. As a result of Lord Brain's second interdepartmental report in Britain, the advisability of allowing all doctors to treat addicts is being reconsidered. The general principle, however, of ambulatory treatment is not officially in question. In Sweden, only specialized clinics may treat addicts.

APPENDIX F

TECHNOLOGICAL FACTORS RELATED TO DRUG ABUSE CONTROL

I. INTRODUCTION

Consideration of enforcement against drug abuse must include the technological advances that have been and will be made in the fields of drug development. These include developments in medicinal chemistry, analytical chemistry and laboratory and clinical pharmacology.

The principal technological factors discussed are those which impact on enforcement by making available:

(1) non-addicting substitutes for the opiates,
(2) more potent addicting drugs,
(3) substitute therapy for addicts and
(4) non-addicting euphoriants.

In addition, some consideration is given to the need for simple and inexpensive methods for the detection and identification of drugs of abuse in man.

This discussion is not intended as a detailed essay or review of all the technical aspects concerned. It is rather an assessment of some current and possible future technical developments which bear on law enforcement problems in the drug abuse area.

II. MEDICINAL CHEMICAL-PHARMACOLOGICAL CONSIDERATIONS

In the past few years progress has been made in the long search for non-addicting drugs capable of relieving severe pain, diarrhea, and cough. Several agents have become available which are useful in man and which lack morphine-like misuse liability. It is now possible to consider a future in which the addicting narcotic drugs will no longer have a place in therapy. What are these new agents and what are the possible implications arising from their widespread use?

A. NON-ADDICTING OPIATE SUBSTITUTES

Some years ago the analgesic properties of methotrimeprazine were described.[1,2] This phenothiazine derivative is capable of relieving severe pain in man. It has been tested for addiction liability at the Addiction Research Center at Lexington, Kentucky and found to be free from morphine-like addiction potential.[3] Despite the relatively high incidence of side effects produced by the drug, there is a possibility that methotrimeprazine will become commercially available in the next few years. It is also possible that one or more other agents of this type will be developed.

Perhaps the most important of the new non-addicting analgesics is that class of agents known as analgesic antagonists. These are compounds which counteract or reverse the actions of the morphine-like drugs. The class is typified by N-allylnormorphine (nalorphine). These antagonists have little or no analgesic activity in laboratory animals yet surprisingly are equiactive with morphine in man.[4,5] Nalorphine and other antagonists have been appraised for addiction liability at Lexington and found to have little or no misuse potential.[6,7,8]

Nalorphine never became a useful clinical analgesic because it produced a number of disturbing psychotomimetic effects in man. A new group of analgesic antagonists in the morphinan and benzomorphan series are now available.[9,10,11] Again, these agents are analgesics in man with little or no morphine-like addiction potential. One of these, pentazocine, has undergone widespread clinical trial[12,13,14] and now appears to be a well tolerated, clinically acceptable analgesic.

Several other agents of this type are in varying stages of development. There is a good possibility that if one or more of these drugs becomes clinically acceptable there will be a marked decline and perhaps cessation of the use of the naturally occurring morphine derivatives and their partially or wholly synthetic counterparts. The development of non-addicting anti-tussive (dextromethorphan, etc.) and anti-diarrheal (diphenoxylate)[18,19] agents have also limited the use of morphine derivatives for these purposes.

Thus, one could conceive of the possibility of banning outright all poppy production and even effectively enforcing such a ban. The possible effect of this eventuality is considered in the following section.

B. NEW AND MORE POTENT ADDICTING DRUGS

1. Narcotics

At first glance the possibility of eliminating legitimate opiate production would appear to have a salutary effect on illicit heroin traffic. However, in the last two decades the synthetic organic chemist has been able to modify the morphine molecule[15] or produce wholly synthetic agents[16,17] which have potencies from 1000 to 10,000 times that of morphine. While it is true that relatively sophisticated chemical technology is necessary to produce the most potent of these compounds it is not so difficult as to be prohibitive, particularly if the illicit trade is forced to do so. Moreover, roughly equal potency is found in relatively simple chemical entities such as the meperidines.[16] The ease of chemical synthesis and therefore producibility of such compounds is well within the capabilities of the current illicit producers. In addition, the raw materials needed (e.g., pyridine based chemicals) are readily available in large quantities from many sources. In the case of the less readily obtainable compounds, only a very small supply need be prepared. For instance, a few milligrams of one of the oripavine derivatives[15] would be enough to supply an addict for half a year. This

quantity is practically undetectable. Thus by interfering completely with the production of opium one might create an enforcement problem of much greater magnitude.

2. Other Drugs of Abuse

As a result of the enactment of the new drug abuse law a situation analogous to that of the narcotics might pertain to other drugs of abuse such as LSD, cocaine, amphetamine and barbiturates.

For example, it has been recommended that LSD and its precursor LSA be placed under international control as a Class 1 narcotic.[20] This may offer a practical illustration of the result of effectively banning a drug of abuse. The potency of LSD (microgram for microgram) as compared with heroin per microgram is some 1,000 times greater, although admittedly of a differing class of drugs. This in itself poses severe difficulties in its detection. Thus enforcement agencies might now be presented with the following two possibilities, one positive to enforcement, the other negative to it, i.e.,

(1) The control of the legitimate production of LSD and its key intermediate, lysergic acid (LSA), effectively constitutes a positive aid to enforcement, particularly because these agents clearly cannot be readily synthesized.[21] It should be noted, however, that non-synthetic means for producing LSA-like intermediates are potentially available.[22]

(2) On the negative side, the high potency of LSD could obviously make control (of any illicit production and traffic that may arise) very difficult. A month's supply could readily be shipped under a postage stamp.

Moreover, strict control over this hallucinogen could easily lead abusers of this drug to other agents having similar properties.[22,23] As with the addicting narcotics (above), some of the newer and equally potent agents are simple molecules which could be produced readily. An example of the latter are the class of hallucinogens or psychotomimetic agents derived from the antitryptanergic field.[22b,23] Factors such as this will obviously complicate or compound the problem of enforcement of the new drug abuse law.

C. TREATMENT FOR ADDICTION

In recent years there has been increasing emphasis on the medical aspects of drug addiction and, particularly, treatment of addiction at research centers around the world. Technological developments of the last few years are now providing hope that safe, non-physically dependent substitutes can be found to replace drugs of abuse. As these become more effective and readily available the enforcement problem with the older drugs (heroin, barbiturates, etc.) will change.

1. Substitutes for Narcotics

It has been reported[24] that abstinence symptoms in addicts can be controlled by the oral administration of methadone. These studies indicate that addicts under this treatment are capable of leading useful and relatively sound lives. Although these experiments are subject to criticism[25] they illustrate the possibilities of an effective substitution therapy being developed.

Another interesting development comes from the field of narcotic antagonists.[26] The drug cyclazocine is a potent narcotic-antagonist analgesic, which unfortunately produces a relatively high incidence of psychotomimetic (hallucinogenic) side effects. During studies at the NIMH Addiction Research Center at Lexington, Kentucky, it was found that cyclazocine had some utility in the treatment of narcotic addiction.[27] Other studies are currently in progress to additionally determine the potentiality of this new substitute therapy.[28]

This kind of research constitutes a new approach to the therapy of narcotic addiction which could eventually aid enforcement by reducing recidivism.

2. Substitutes or Antagonists for Other Drugs of Abuse

Unlike the situation pertaining in the field of narcotics, various research efforts by laboratories around the world to develop safe, non-addicting substitutes or antagonists for other drugs of abuse such as barbiturates, amphetamines, etc. have not been successful. No apparent progress is evident to date.[18,19,29] This is an area of acute need for intensive research and development.

3. Positive Pleasure* Drugs

There has always been a segment of the population physiologically and psychologically in need of some support in order to function in society. Some derive this support by the use of drugs which affect the central nervous system. Presently available drugs all have some properties which makes their use undesirable. The development of an ideal spectrum of drugs to fill the need for support in such a population may have a significant, positive effect on law enforcement.

It has often been stated that one of the major components of drug abuse is the positive pleasure induced by these drugs. Some of the problems associated with the various classes of drugs were discussed in Chapter II. For instance, the morphine-like agents produce a high incidence of positive pleasure with little psychotoxic effects during adminis-

* The concept of positive and negative pleasure was introduced by Dr. Nathan B. Eddy in an address to the International Narcotic Enforcement Officers Association in Montreal, Canada on August 26, 1966. An illustration of negative pleasure is the relief of pain, and the corresponding negative pleasure drug is thus an analgesic.

tration. However, they do produce a high degree of physical dependence and marked psychotoxic effects during withdrawal. Similarly alcohol, a non-regulatory control, positive pleasure agent, produces a high degree of physical dependence while it is associated with psychotoxic effects both during administration and upon withdrawal.

The various drugs suffer varying degrees of liabilities. It is conceivable that a spectrum of safe, non-physically dependence producing, non-psychotoxic drugs could be discovered. Such agents might be acceptable substitutes which will satisfy the needs of that portion of the general public which tends to use drugs. If it were not for its psychotoxic effects, marihuana would represent a step in this direction. Indeed, we have only recently had available some of the active constituents of marihuana, [30a] and also the ability to chemically modify the molecules.[30b] The availability of new and pure materials will now allow a more accurate assessment of the pharmacological and clinical effects of this class of drugs.

III. DETECTION AND IDENTIFICATION OF DRUGS OF ABUSE

In previous studies relating to the incidence and prevalence of drug abuse[31] one of the obvious difficulties has been the absence of adequate data. Indeed, the discrepancies between the figures quoted by federal, state and local enforcement agencies have been great enough to render estimates difficult. One way to gather more complete and accurate information on the incidence of drug use or abuse would be to originate a mass screening program. Possibly this could be made part of a general public health testing program. The technical problems associated with such a program are great but not insurmountable. To be acceptable it will be necessary to develop accurate, sensitive and inexpensive methods for the determination of the various drugs involved in body fluids, principally in blood and urine.

Although specific tests are not now available which would meet these criteria, the problem is actively being pursued by a number of research groups.[32] A principal development showing promise involves extraction of the material from urine with ion-exchange impregnated paper, followed by elution and thin-layer chromatography.

Another technique which might warrant investigation is the use of the autoanalyzer. For instance, the latter method has been worked out for the determination of sub-microgram quantities of phenylalanine in small samples (20 microliters) of blood.[33] Because of its simplicity and low cost, this automated method is now routinely employed in all newborns in several states for the diagnosis of possible phenylketonuria. Through suitable modifications, such a method could possibly be adapted for the determination of narcotics, barbiturates, amphetamines,etc.

REFERENCES

1. Paradis, B., Anesthesie, 16, 185 (1959).

2. Lasagna, L. and T. DeKornfeld, J. Am. Med. Assoc., 178, 887 (1961)

3. Fraser, H. G. and D. E. Rosenberg, Clin. Pharmacol. Therap., 4, 596 (1963).

4. Archer, S. and L. S. Harris, Yale Scientific Magazine, Feb. 1965, p5.

5. Archer, S. and L. S. Harris, Progress in Drug Research, Ed. E. Jucker, Birkhauser Verlag, Basel, Vol. 8 (1965).

6. Isbell, H., Fed. Proc., 15, 442 (1956).

7. Fraser, H. F. and D. E. Rosenberg, J. Pharmacol., 143, 144 (1964).

8. Martin, W. R., H. F. Fraser, H. C. Gorodetzky, and D. E. Rosenberg, J. Pharmacol., 150, 426 (1965).

9. Archer, S., L. S. Harris, N. F. Albertson, B. F. Rullar, and A. K. Pierson, Adv. Chem., Ser. 45, 170 (1964).

10. Keats, A. S. and J. Telford, Adv. Chem., Ser. 45, 170 (1964).

11. Lasagna, L., Proc. Roy. Soc. Med., 58, 978 (1965).

12. Gordon, R. A. and J. H. Moran, Jr., J. Can. Anes. Soc., 12, 331 (1965)

13. Sadove, M. S. and R. C. Balagot, J. Am. Med. Assoc., 193, 887 (1965).

14. Stoelting, V. K., Anesthesia & Analgesia, 44, 769 (1965).

15. Bentley, K. W., Endeavor, 23, 97 (1964): Lister, R. E., J. Pharmacol., 16, 364 (1964).

16. Carabateas, P. M. and L. J. Grumbach, Med. Chem., 5, 913 (1962).

17. deStevens, G., Ed., Analgetics, Academic Press, N.Y. and London (1965).

18. Goodman, L. S. and A. Gilman, Pharmacological Basis of Therapeutics, MacMillan Co. (1965).

19. Drill's Pharmacology in Medicine, 3rd Ed., Joseph R. DiPalma, Ed., N.Y., McGraw-Hill Book Co., Inc. (1965).

20. Eddy, N. B., Personal Communication.

21. Kornfeld, E. C., E. J. Fornfeld, G. B. Kline, M. J. Mann, D. E. Morrison, R. G. Jones, and R. B. Woodward, J. Am. Chem. Soc. 78, 3087 (1956).

22a. For example: Pharmitalia Fermentation Process.

22b. Arthur D. Little, Inc., Technical Reports.

23. Downing, D. F., Quarterly Reviews (1962).

24. Dole, V. P. and M. Nyswander, J. Am. Med. Assoc., 195, 646 (1965).

25. Ausubel, D. P., J. Am. Med. Assoc., 195, 168 (1966).

26. Harris, L. S. and A. K. Pierson, J. Pharmacol., 143, 141 (1964).

27. Martin, W. R., C. W. Garodetzky, and T. K. McClene, Clin. Pharmacol. Therap.,7, 455 (1966).

28. Jaffee, J. and L. Brill, Int. J. Addictions, 1, 99 (1966).

29. Done, A., Clin. Pharm. Therap., 2, 750 (1961)

30a. Mechoulum, R. and Y. Gaoni, J. Am. Chem. Soc., 87, 3273 (1965).

30b. Pars, H. G., F. E. Granchelli, J. K. Keller, R. K. Razdan, J. Am. Chem. Soc., 88, 3664 (1966).

31. Report by Presidential Ad Hoc Committee on Drug Abuse, 1964-1965.

32. For instance, see reports of a National Institutes of Mental Health sponsored meeting in Puerto Rico, 1966; Private Communication, Dr. Jonathan B. Cole.

33. Hill, J. B., G. K. Summer, M. W. Pender, and N. O. Roszel, Clin. Chem., 11, 541 (1965).

APPENDIX G

DATA ON THE STREET SCENE

This brief Appendix presents information which didn't seem to fit into any other location but which may be of use to a person trying to get a better picture of the street scene.

A. PRICES OF PROSCRIBED DRUGS

1. Heroin prices vary considerably, not only within a community from week to week, but also from dealer to dealer on any particular day; there is considerable variation from city to city, depending how near one is to a major supply. Even so, few heroin addicts seem to get very much for their money. The drugs are adulterated and diluted with a variety of chemicals (mannitol, lactose, quinine, procaine, Dormin, methapyrilene, caffeine, etc.). The amount of heroin in any package varies tremendously -- in one recent New York survey the contents of street bags were found to range from 0 to 77% heroin. Sample street prices and concentrations gathered during the summer of 1966:

City	Weight	% heroin	total dose	price
Los Angeles	1-2 grns	5-15	0.05-0.3 grns	$5
	3-4	5-15	0.15-0.6	$10
Houston	1 (#5 cap)	7-11	0.07-0.11	$7
Chicago	100mg (#2cap)	1.5-5	0.23-0.8	?
New York	1	33	0.3	$3
	2	33	0.7	$5

In larger quantities there are considerable savings. In California, for example, a kilogram of heroin costs $6000-8000 (Mexican heroin is slightly more than half as strong as the heroin produced by European manufacturers); $175-300/ounce; $30-40/spoon (1 gram). Heroin is also sold there in small balloons, which range in price from $5-25, depending on the quantity sold and supply on hand, and also in "papers" for the same price range.

2. Pill prices vary from seller to seller. The price seems more dependent of what the customer will pay than any local condition.

High school students, for example, who do not have any other connections, usually pay about twice the amount charged adults. In New York, pills run from 10 cents to 50 cents. In Houston, pills are about 25 cents each, $2.25/dozen; in California, the prices range from 10 cents-$1.00. Accurate prices are not available for larger quantity sales.

3. Marijuana prices vary with one's proximity to the Mexican border and the season. In Texas, the price is $85-100 per pound in the late summer (when the Mexican crop is in) and about $125 the rest of the year. A Prince Albert Can sells for $35; there are about 8 cans/pound. A match box of marijuana, enough for 8-12 cigarettes, costs $5. Individual cigarettes cost 50 cents. Marijuana that costs $25-50/pound in Mexico sells in Los Angeles for $70-80; $120-150/kilo; $12-15/can. Since there are 800-900 cigarettes per pound, it is quite economical to buy in kilogram lots. Because a kilo of marijuana takes the same space and carries the same penalties as a kilo of heroin, the marijuana traffic seems to be nearly completely in the hands of amateurs and small operators; the economics of the trade are usually too impractical for a large operator or organized crime to bother with.

4. LSD comes in a variety of forms. It has been found in #5 caps, impregnated sugar cubes, dried on pieces of blotting paper or airmail stationery. Because LSD is colorless, odorless and tasteless, it is extremely easy to conceal and transport. Prices seem to range from $2.50-$10/dose, averaging around $5. We do not have reliable data about large quantity sale prices.

5. Amphetamine, in the powdered form as found in the St. Louis area, seems to sell for heroin-like prices. It is cut, sometimes, with baking soda or quinine; frequently it is sold uncut. The user, as with heroin, is never quite sure how much (or what) he is getting. One dealer said he would peddle a small Bufferin bottle of "splash" (amphetamine sulphate) for $50, the equivalent of 3 bottles for $100, and the equivalent of 5 or 6 bottles for $150. A user said a $5 bag (or a #5 cap) would give him a high that lasted 7-8 hours. The markup is fantastic and should be attractive to professional criminals. One dealer said $9 worth of commercial amphetamines would wholesale for $500; the wholesaler would sell this to three peddlers for $1500; the peddlers would cut their splash and sell it for a total of $4500. It is hard to evaluate these figures, but it is obvious that there is currently in the St. Louis area a sizeable traffic in this drug, that the economy is similar to that of heroin, and that should the market and fashion expand it would create a considerable problem for law enforcement officers.

In San Francisco, powdered amphetamine sells for $20 per "spoon" (weighing 1/16 ounce). There has been some tightening of supply there in the last few years and much of the amphetamine on the market is, according to police, bootleg. Previously, the San Francisco area had a considerable problem with ampules of methamphetamine hydrochloride (Methedrine, Desoxyn). Sales in the area went from 287,800 in 1960 to 585,800 in 1961; the latter year is reported as a "panic year" for heroin addicts. Prices ranged from

18 cents to $1; the ampuls are not much harder to get today and the street price is reported as $3. In Harlem, where the ampuls are used along with heroin to form a "speedball" they sell for about $1; during heroin panics, the price for an ampul (contains 20 mg methadrine) goes as high as $5, i.e., more than heroin itself.

B. SLANG NAMES USED ON THE STREET

Heroin: horse, H, stuff, shit, smack (European heroin is white, Mexican heroin is brown. Sold in glaseine bags; condoms, small balloons, tinfoil, #5 capsules.)

Cocaine: Coke, C, snow, dust

Marijuana: grass, tea, pot, weed, hemp, reefer, gage, Mary Jane, boo (cigarettes, envelopes, Prince Albert cans, kilo bricks)

Morphine: M. (white powder; ampul)

Nembutal (pentobarbital sodium); yellow jackets, Membie, Nimby, yellows

Seconal (secobarbital sodium): reds, red birds, red devils, Seccy

Tuinal (amobarbital sodium and secobarbital sodium): rainbows, red and blues, Christmas trees

Amytal (amobarbital sodium): blues, blue birds, blue devils, blue heavens

Amphetamine tablets: pep pills, bennies, copilots, hearts, cartwheels, leapers

Amphetamine ampul: bombita

Amphetamine crystal: spaghetti, grease, splash, spliven, rhythm.

Paregoric: P. G.

APPENDIX H

PERSONS CONSULTED; PLACES VISITED

There follows a list of places visited, arranged by area, together with persons consulted in each area. The list of persons does not include numerous members of the underworld who were interviewed.

NEW YORK

Albany

New York State Department of Health
- Dr. Fleck, Deputy Commissioner
- Dr. Granville Larimore, First Deputy Commissioner
- John J. Bellizzi, Director, Narcotics Control Section

New York City

Federal Bureau of Narcotics
- George Belk, District Supervisor
- Lawrence Cohn, Agent
- Arthur Fluhr, Agent

Food & Drug Administration
- E. Kelly, Director, Bureau of Drug Abuse Control

New York Police Department
- J. Walsh, First Deputy Commissioner
- Sanford Garelick, Chief Inspector
- Fred Lussen, Chief of Detectives
- Capt. Anthony Bouza, Office of Chief Inspector
- Ira Bluth, Deputy Chief Inspector, Narcotics Bureau
- Francis J. Wolfe, Deputy Inspector, Narcotics Bureau
- Burt Alvins, Detective, Narcotics Bureau
- Ray Imp, Detective, Narcotics Bureau
- Al Koch, Detective, Narcotics Bureau
- Michael Santacrose, Detective, Narcotics Bureau
- Ray Viera, Detective, Narcotics Bureau
- Lt. Stanley Esko, Special Investigations Unit, Narcotics Bureau
- Capt. J. H. Berryman, Crime Laboratory
- Capt. Jack Spiegel, District Attorney's Office, King County
- Michael Duffy, Detective, Narcotics Bureau
- Edward Gowski, Detective, Narcotics Bureau

NEW YORK (CONT.)

New York City (Cont.)

Bureau of Customs
James A. Flynn, Assistant Customs Agent in Charge
John Fallon, Agent

Supreme Court of State of New York
Joseph A. Shelly, Chief Probation Officer, Second Judicial District
Dr. Alexander Bassin, Director of Research & Education, Probation Department

Life Magazine
James Mills, Associate Editor

New York State Department of Employment
Janet Piner

Greenwich House
Maxwell Powers, Director

New York State Senate
Senator Whitney N. Seymour, Jr.

East Harlem Protestant Parish
Rev. Lynn Hagemann

Daytop Village, Inc.
James Germano

New York State Narcotics Control Commission

Dr. Henry A. Brill, Deputy Chairman
Dr. Donald Louria, Member
Irving Lang, Counsel

New York University

Dr. Isador Chein, Professor of Psychology

Men's House of Detention
Albert N. Nenna, Warden

Women's House of Detention
Mary Kay Lindsay, Superintendent

Criminal Court of New York City
John Murtagh, Chief Judge

NEW YORK (CONT.)

New York City (Cont.)

Manhattan General Hospital
Dr. Vincent P. Dole

American Civil Liberties Union
Henry Disuvero

Manhattan District Attorney's Office
Alvin Geller, Assistant District Attorney in Charge of Narcotics Prosecutions
Maurice Nadjari, Special Trial Assistant

Eliot H. Lombard, Governor Rockefeller's Special Assistant for Law Enforcement

MISSOURI

St. Louis

Federal Bureau of Narcotics
George O'Connor, District Supervisor
Fritz Engleking, Agent

St. Louis Metropolitan Police Department
Lt. Del Watts, Director, Criminal Laboratory
Louis Schmidt, Cpl., Vice Div. Narcotics Unit
John Schomberg, Det., Vice Div. Narcotics Unit

St. Louis County Police Department
R. Woerther, Sgt., Vice Squad

St. Louis County Prosecuting Attorney's Office
Robert K. Spaulding, First Assistant Prosecutor

City of St. Louis Welfare Office
J. P. Lynes, Director

Bureau of Customs
Glendon R. Howson, Agent in Charge
Harold Henderson, Agent

U.S. Probation Office
John L. Brennan, Jr., Chief Probation Officer

Human Development Corporation of St. Louis
Donald Checkett, Director, Social Services

St. Louis Crime Commission
Arthur B. Shepley, Jr., Chairman

U.S. Attorney's Office
William Martin, Assistant, U.S. Attorney

Circuit Courts of City of St. Louis
Edward F. Tripp, Director, Probation & Parole

City of St. Louis Circuit Attorney's Office
James E. Darst, Assistant Circuit Attorney

City of St. Louis Prosecuting Attorney's Office
Thomas W. Shannon, Prosecuting Attorney

MISSOURI (CONT.)

St. Louis (Cont.)

St. Louis Public Defender's Office
Joseph Noskay

Missouri State Board of Probation & Parole
V. W. Harris, Regional Supervisor

Food & Drug Administration
Evert L. Atkinson, Director, Bureau of Drug Abuse Control

CALIFORNIA

Berkley

University of California
Joseph D. Lohman, Dean, School of Criminology
Dr. Herbert Blumer, Professor of Sociology
Frank Han, Instructor, FDA Special School for Investigators
(formerly FBN Agent)

Oakland

Oakland Police Department
Thoruald Brown, Capt., Narcotics Division

San Francisco

Federal Bureau of Narcotics
Fred Dick, District Supervisor

Sacramento

California Bureau of Narcotics Enforcement
John Storer, Chief
Eugene Hollingsworth, Assistant Chief

San Diego

Federal Bureau of Narcotics
Larry Katz, Agent in Charge

San Ysidro

Bureau of Customs
Thaine Ellis, Agent

Santa Monica

Synanon
John A. Ciampa, Counsel

Venice
Billie Peterson, Psychologist

Corona

California Rehabilitation Center
Roland Wood, Director
Dr. Mancini, Psychiatrist

CALIFORNIA (CONT)

Los Angeles

Federal Bureau of Narcotics
Ben Tyson, Agent in Charge

Bureau of Customs
Melvin C. Johnson, Supervisory Customs Agent
Joseph B. Jenkins, Assistant Supervisory Customs Agent

Food & Drug Administration
Pat Fuller, Director, Bureau of Drug Abuse Control

Sheriff's Department Los Angeles County
C. E. Serrano, Capt., Narcotics Detail
R. A. Rodriguez, Lt., Narcotics Detail
Kenneth Miller, Sgt., Narcotics Detail
Lee Nesmith, Sgt., Narcotics Detail
John McCrane, Det., Narcotics Detail
Antonio Trujillo, Det., Narcotics Detail
Mrs. Beej Sherbak, Bureau of Adm. Research
Ted Kobayashi, Bureau of Adm. Research, Data Processing Section

Los Angeles Police Department
Thomas Sena, Lt., Narcotics Detail
B. E. Sanderson, Sgt., Narcotics Detail
Jack White, Sgt., Narcotics Detail
Lt. William King, Police Laboratory

U.S. Attorney's Office
John Van de Kamp, First Assistant U.S. Attorney

Los Angeles County Public Defender's Office
Richard Buckley, Head

Los Angeles County District Attorney's Office
Lynn Compton, Assistant D.A.

California Bureau of Narcotics Enforcement
B. H. Blanchard, Agent

Los Angeles County Probation Office
Harold R. Muntz, Chief Deputy Probation Officer

Federal Probation & Parole Office
Daniel McCarty, Chief

CALIFORNIA (CONT)

Los Angeles (Cont)

Central Testing Clinic
Dr. G. R. Turgeon, Head
Barney Phelan

Los Angeles County Superior Court
Walren W. Weiss, Psychiatric Department

KENTUCKY

Lexington

National Institute of Mental Health Addiction Reseach Center
William Martin, Director
John A. O'Donnell, Director, Social Science Section
John C. Ball, Chief, Sociology Unit
William Martin, Director of Research

University of Kentucky
Harris Isbell, Professor of Clinical Pharmacology

DISTRICT OF COLUMBIA

Department of the Treasury
Davis C. Acheson, Assistant Secretary
Anthony A. Lapham
Vincent Rock

Bureau of Narcotics
Harry Giordano, Chief
John T. Cusack, Director Foreign Operations
Patrick O'Carroll, Director of Training

Bureau of Customs
Lawrence Fleishman
Irving Brown

President's Commission on Law Enforcement & Administration of Justice
James Vorenberg, Executive Director
Bruce Terris, Assistant Director
Roland Chilton
Al Blumstein, IDA
Charles Rogovin

National Institutes of Mental Health
Dr. Jonathan Cole

St. Elizabeth's Hospital
Dr. Dale Cameron, Superintendent

Department of Health, Education & Welfare
John Finlator, Food & Drug Administration

National Academy of Science
Nathan B. Eddy, Executive Secretary, Committee on Drug Dependence

INDIANA

Bloomington

University of Indiana
Dr. Alfred R. Lindesmith, Professor of Sociology

PENNSYLVANIA

Philadelphia

University of Pennsylvania
Dr. Manuel M. Pearson, Professor of Psychiatry

Legal Aid Society of Philadelphia
Carolyn Temin

Smith Kline & French Laboratories
M. C. Russell
Donald Fletcher

MICHIGAN

Ann Arbor

University of Michigan
Dr. Maurice Seevers, Professor of Pharmacology
Yale Kamisar, Law School

MASSACHUSETTS

Cambridge

Harvard University
Jack McDonough, Harvard Business School
Brian MacMahon, M.D., School of Public Health

TEXAS

Austin

Austin Police Department
Harvey E. Gann, Lt., Vice & Narcotics Detail

Austin State Hospital
Dr. W. O. Wheeler, Chief of Admissions

Texas Department of Public Safety
Dub Taylor, Agent in Charge, Narcotics Division
R. E. Scholl, Agent, Narcotics Division

Houston

Houston Police Department
Herman Short, Chief
Jack B. Renois, Capt., Narcotics Division
M. E. Gentey, Investigator, Narcotics Division
Marion Hambrich, Investigator, Narcotics Division
Don McMannes, Investigator, Narcotics Division
Mike Chaven, Investigator, Narcotics Division
Robert Crawford, Chemist

Federal Bureau of Narcotics
Jerry Corbitt, Agent in Charge

Huntsville

Texas Department of Correction
George Beto, Director
Jack Heard, Assistant Director

Harris County
Edmund B. Duggan, Judge
Wendell Odom, Judge
Daniel Walton, Judge
Carrol Vance, District Attorney

ILLINOIS

East St. Louis

East St. Louis Police Department
Col. Virgil Baltezor, Chief
Cornelius O'Sullivan, Lt., Commander, Vice Division

Illinois Youth Commission
Earl Huch, Supervisor
James Hendricks

Edwardsville

Southern Illinois University
Dr. J. Robert Russo, Director, Delinquency Study & Youth Development Project
John W. Rawlins, Delinquency Study & Youth Development Project

Chicago

Chicago Police Department
Capt. Dan T. Dragel, Director, Crime Laboratory
Sgt. Irwin Haviland, Adm. Assistant

Institute for Juvenile Research
Henry McKay, Head, Sociology Division
Nate Berman

Illinois Bureau of Narcotics
Philip Fisher, Supervisor, Division of Narcotics Control

Northwestern University
Professor Fred E. Inbau, Law School

University of Chicago
Dr. Hans Mattick, Assistant Director, Center for the Study of Criminal Justice

American Bar Foundation
William B. Eldridge, Author, Narcotics & the Law

Chicago Police Department
Lt. Kiernan, Head, Narcotics Detail
John Flynn, Sgt., Narcotics Detail
Henry Patge, Detective, Narcotics Detail
Robert Frawley, Detective, Narcotics Detail
John Kelly, Detective, Narcotics Detail

ILLINOIS (CONT)

Chicago (Cont)

Chicago Police Department (Cont)
Thomas King, Detective, Narcotics Detail
Walter Kienzle, Detective, Narcotics Detail
William Maloney, Detective, Vice Detail (formerly Narcotics Detail)

Illinois Bureau of Racetrack Police, Inc.
Andrew Principe, Chief Chemist
John McDonald, Chemist

Illinois Youth Commission
Ray Raymond, Supervising Sociologist
A. H. McDade
Mrs. Velma Lewis
William Pryor
John Giampa

OHIO

Cincinnati

University of Cincinnati
Claude R. Sowle, Dean, Law School

Cleveland

Cleveland Police Department
Sgt. Dombrowsky, Chief Chemist, Crime Laboratory

Cuyanoga County Coroner's Office
Dr. Irving Sunshine, Chief Toxicologist

Cleveland Metropolitan General Hospital
Dr. Donald Laskowski, Head, Clinical Laboratory Testing
Dr. W. S. Morgan, Chief Pathologist

BRITISH COLUMBIA

Vancouver

Narcotic Addiction Foundation of British Columbia
Ingeborg Paulus, Research Associate

National Parole Service
B. K. Stevenson

Simma Holt, Journalist
Jack Wiseman, Journalist

GREAT BRITAIN

London

Ministry of Health
B.A.R. Smith, Advisor to the Minister

Tooting Belk Hospital
Dr. Bewley

Home Office
C. G. Jeffery, Dangerous Drug Division

Narcotics Anonymous
Rev. MacNichol

London Probation Service
R. Fenner

Dr. Ollendorf, General Practioner, Treating approximately 100 addicts

Surrey

Cane Hill Hospital
Dr. Beckett

Battersea

St. John's Hospital
Dr. Chapel

GREAT BRITAIN (CONT)

Edinburgh

Probation Office
Mr. Edgar, Chief Probation Officer

Criminal Investigation Division
Sgt. Henderson, Drugs Branch

Glasgow

Glasgow City Police
Chief Constable Robertson, Dangerous Drugs Department
Sgt. Johnson, Dangerous Drugs Department

Birmingham

Birmingham City Police
Inspector Chough, Drug Squad

All Saints Hospital
Dr. Ownes, Narcotics Treatment Unit

SWITZERLAND

Geneva

United Nations Commission on Narcotic Drugs
M. Sotinoff, Permanent Secretary
Harry Anslinger, U. S. Delegate

SWEDEN

Stockholm

Swedish National Police Force
Commissioner Gustavsson, Narcotics Squad

Karlminska Institute of Stockholm
Dr. Kjell Bjerber, Institute of Alcoholic Research

Karlminska Hospital
Dr. Ture Aruidsson, Alcoholic Clinic

FRANCE

Paris

Interpol
Secretary General Nepote

APPENDIX I

HYPOTHETICAL STRUCTURE OF THE HEROIN TRADE

This appendix presents a hypothetical structure of the heroin trade, based on what few data are available plus some reasonable economic arguments.

The report, Organized Crime and Illicit Traffic in Narcotics (U.S. Senate Committee on Government Operations, 1964) has a supplement, published in 1965 after the original five volumes were issued. In this supplement there is given a detailed description of the heroin trade, including average prices at various points in the distribution system. For the lower end of the trade, closest to the addict, these prices have been corroborated from police records and interviews with members of the trade. Table I-I shows the price used in the analysis to follow for a kilogram of pure heroin, as a function of level in the trade. At dealer level and below the heroin is adulterated, as is well known: the prices here are for equivalent pure drug. The street price to the addict may go as low as $190,000 per kilogram, but we assume a nominal price of $225,000.

TABLE I-I

HEROIN PRICE VS. LEVEL IN THE TRADE
(Price in Thousands)

	1 KG HEROIN (PURE)	
	Bought at	Sold at
Importer	10	18
Wholesaler	18	32
Dealer	32	70
Pusher	70	225
Addict	225	-

Table I-II shows the normal lot size purchased by operatives at each level of the trade, the price paid for the lot and the probable frequency with which purchases are made. The last quantity is a result of the calculations whereas the other numbers are inputs. Pushers may pick up as little as 15 to 25 decks at $5 per deck, but we assume here that an established pusher will be able to afford an ounce at a time.

In developing a model of the trade people are counted in units and dollars in thousands. As an example of the process, consider the relationship of addicts to pushers. Let:

A = Number of addicts associated with one pusher

Q_a = Annual requirement per addict = 1/45 KG

I_p = Pusher's desired income after "insurance and interest"

k = Insurance and interest factor

The pusher's net income is:

$$A(225 - 70)\, Q_a = (1 + k)I_p \qquad (1)$$

To have a concrete and simple example we assume $k = 1$, which is equivalent to assuming that the pusher uses up half his income paying off loans at five percent per week, making bribes and payoffs, and putting something aside to cover the periods he will spend in jail. It is assumed that $k = 1$ for pusher, dealer and wholesaler but $k = 0$ for the importer.

TABLE I-II

ESTIMATED LOT SIZE, COST, AND FREQUENCY VS. LEVEL IN THE TRADE

	Probable Lot Size	Cost	Estimated Frequency
Importer	10 KG	$ 100 K	2 1/2-3 times/yr.
Wholesaler	1 KG	$ 18 K	3 times/yr.
Dealer	1/4 KG	$ 8 K	8 times/yr.
Pusher	1 OZ (1/140 KG)	$ 2 K	once a month

Equation (1) becomes, with k = 1:

$$I_p = 1.73\ A \qquad (2)$$

from which:

I_p	A
10	5.8
20	11.6
30	17.4

A similar equation can be set up for each pair of levels in the trade structure. The solutions have to be self consistent and this can be brought about only by making some assumptions as to how profits are distributed over the trade levels.

The total profits extracted from the paying addicts will be distributed, the question is how. It is assumed that the amount of profit a man at a given level will expect is related to the amount of money he has tied up and to the risk associated with being in the trade. Table I-III shows the assumptions concerning capital tied up and desired income after "insurance and interest." The ratio of income to investment is also shown. The pusher is given a large ratio of income to investment to balance the fact that he is most likely to go to prison. The wholesaler and dealer are assumed to have roughly equivalent and lower risks and therefore get a smaller return. The importer may seem to be fairing badly but it must be remembered that his take includes not only the markup but also the usurious interest collected from the small people at the bottom. If half the pushers are working on borrowed money the syndicate will reap another $700,000 per year on interest charges.

The particular choice of relative incomes makes the internal trade structure look like the estimate shown in Table I-IV. It must be emphasized that any alternate choice of relative incomes would shift the ratios importer/wholesaler, etc., but would not change the numbers of people in the whole structure significantly. Under the assumptions used it appears that one importer might control the distribution to some 4300 addicts. This would be possible with an organization of fewer than sixty inside men who in turn deal with some 300 pushers. The number of pushers may be underestimated, since the assumption of $25,000 for their income may be high. The number of organization men is more likely to approximate the real situation. From the table given below, it is evident that a pusher could survive comfortably with a retinue of only four or five addicts. The pusher's problem is one of balancing greed and risk: the more addicts he services the more likely is he to be caught.

TABLE I-III

ASSUMED INCOME/INVESTMENT

	Capital Tied Up At One Time	Assumed Annual Income After "Expenses"	Income Investment
Importer	$ 100 K	$ 200 K	2.0
Wholesaler	$ 18 K	$ 85 K	4.7
Dealer	$ 8 K	$ 40 K	5.0
Pusher	$ 2 K	$ 25 K	12.5

TABLE I-IV

ESTIMATE OF INTERNAL STRUCTURE OF HEROIN TRADE

	RATIOS				Totals	Organization Men
Importer					1	
Wholesaler	1/8				8	57
Dealer		1/6			48	
Pusher			1/6	1/15	288	
Addict					4320	

APPENDIX J

NOTES ON TEXT

CHAPTER II

1. Nathan B. Eddy, M.D., H. Halbach, Dr. med. Dr. Ing., Harris Isbell, M.D., and Maurice H. Seevers, M.D.,"Drug Dependence: Its Significance and Characteristics," Bulletin of the World Health Organization 32 (1965), 722. (cited below as WHO).

2. Robert E. Edwards, "Abuse of Central Nervous System Stimulants," American Journal of Hospital Pharmacy, 22:3 (March 1965), p. 148.

3. Jerome H. Jaffe, "Drug Addiction and Drug Abuse," in Louis S. Goodman and Alfred Gilman, eds., The Pharmacological Basis of Therapeutics,(New York 1965), p. 294. (Further references to this article will be cited as Jaffe, p...).

4. Jaffe, p. 291.

5. Jaffe, p. 294.

6. Jaffe, p. 300.

7. Jaffe, p. 300-301.

8. The Marijuana Problem in the City of New York: Sociological, Medical, Psychological and Pharmacological Studies, by the Mayor's Committee on Marijuana (New York, 1944), reprinted in David Solomon, ed., The Marijuana Papers (New York, 1966), (unpaged prepublication galleys). This is usually referred to as the "La Guardia Report."

9. Ibid.

10. The La Guardia report, cited above,mentions this characteristic of marijuana use frequently, passim.

11. "The Dangerous Drug Problem," New York Medicine, XXII:9 (5 May 1966) p. 3.

12. WHO, p. 729.

13. Jaffe, 298-299.

14. Ian R. Innes and Mark Nickerson, "Drugs Acting on Postganglionic Andrenergic Nerve Endings and Structures Innervated by Them (Sympathomimetic Drugs)", in Goodman and Gilman, op. cit., pp. 500-501

15. John William Rawlin, "Street Level' Abusage of Amphetamines," paper presented at the First National Institute on Amphetamine Abuse, Southern Illinois University, February 21, 25, 1966.

16. "The Dangerous Drug Problem," p. 4

17. Jaffee, p. 296.

18. WHO, p. 725.

19. WHO, p. 726.

20. WHO, p. 731.

21. WHO, p. 731

22. The Medical Society of the County of New York, in "Dangerous Drug Problem," divides hallucinogens into three groups according to potency:

    1. Mild hallucinogens: aeroplane glue, nutmeg, marijuana (American type) and morning glory seeds.

    2. Moderately potent hallucinogens: dimethyltryptamine (when smoked), psilcybin, bufotenine, peyote, mescaline, more potent preparations of cannabis (marijuana) including Indian hashish and charas.

    3. Highly potent hallucinogens: LSD-25 (d-Lysteric acid diethylamide) is the only member of this group. (p. 4).

CHAPTER III

1. Chein et al. The Road to H: Narcotics, Delinquency and Social Policy, Basic Books, Inc., New York, 1964.

CHAPTER VIII

1. Statistical Abstract of the United States, 1966, Table 213, page 152.

2. Ibid. Table 215, page 153.

3. This number is based upon FBN expenditures as given in the annual U. S. Budget. It is suspected that costs per agent are more in California and less in New York City.

4. This estimate is obtained as an extrapolation of the number of agents per addict, averaged over the three cities of Appendix B.

5. Informal estimates by state prison authorities give $2000 per man per year for prison costs. It is assumed that this rough estimate holds for Federal prisons.

6. Statistical Abstract, Tables 540, 217, 219 and 223. The U. S. District Courts, in which almost all Federal Narcotics trials are held, account for roughly 60% of the Federal judicial expenses of $66 million. Drug act proceeding form roughly 1/15th of the total, for a cost per case of approximately $1300.

7. This number is based on informal estimates obtained from a state department of mental health.

8. The U. N. Statistical Annual for 1965 gives the Turkish per capita annual income as $290. It is assumed that the opium farmer's income falls below the national average since poppies characteristically grow in rather poor soil.

APPENDIX K

CONTRIBUTORS

Douglas B. Brown, ADL, statistical analysis
Thomas A. Domencich, ADL, economic analysis
Ian R. Ferrier, University of Edinburgh Medical School, European and International narcotics problems; pharmacology
John Gagnon, Indiana University, Sociologist
Anthony Granucchi, Harvard University Law School, legal problems
Louis S. Harris, University of North Carolina School of Medicine, pharmacology
Bruce Jackson, Harvard University Society of Fellows, criminology
Jack A. Kinney, ADL, criminology
Robert Lister, ADL, Ltd., Musselburgh, Scotland, pharmacology
William Nordhaus, ADL, economics
Harry G. Pars, ADL, pharmacology
Simon Rothenberg, Duke University, economics
B. Alva Schoomer, ADL, statistical analysis
Stephen Waldron, ADL, Associate Case Leader
H. B. Wissmann, ADL, Case Leader