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BARBITURATE ABUSE IN THE UNITED STATES

REPORT OF THE SUBCOMMITTEE TO INVESTIGATE JUVENILE DELINQUENCY

BASED ON HEARINGS AND INVESTIGATIONS, 1971–1972

BY

SENATOR BIRCH BAYH, Chairman

TO THE

COMMITTEE ON THE JUDICIARY UNITED STATES SENATE

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PART I

BARBITURATE ABUSE IN THE UNITED STATES

Introduction

This report is the result of an intensive investigation of barbiturate abuse conducted by the Subcommittee during the past year and a half. The objectives of the investigation, begun in July 1971, were to explore the nature and seriousness of barbiturate abuse, the extent to which legitimately produced barbiturates are diverted to the illicit market, and the adequacy of current Federal controls on the production and distribution of barbiturates.

The Subcommittee conducted a total of seven days of hearings in December 1971, and May and June 1972. The forty witnesses testifying at these hearings included Federal, state, and local law enforcement officials; representatives of the medical community; sociologists and criminologists expert in emerging patterns of drug abuse; representatives of barbiturate manufacturers and wholesalers; and individuals who had experienced the horrors of barbiturate dependency and addiction.

In order to obtain first-hand knowledge of the problems of barbiturate abuse and illicit diversion, the Subcommittee Chairman and staff investigators visited a number of barbiturate treatment programs as well as several major barbiturate production plants. In addition, to gather detailed information on the extent of barbiturate abuse and diversion throughout the country, the Subcommittee submitted lengthy questionnaires to law enforcement officials in every state. The responses to these questionnaires have been analysed and form the basis of the second half of this report.

The investigation and hearings conducted by the Subcommittee reveal barbiturate abuse to be both a substantial public health problem and an ever-increasing concern of law enforcement officials. Numerous witnesses attested to a dramatic increase in the extent of barbiturate abuse—many characterized it as epidemic. This escalating abuse coupled with the ready availability of these dangerous drugs at low prices led several medical experts to predict that 1972 would be known as "the year of the downer".

The physiological consequences of barbiturate abuse are extremely serious. Even casual, intermittent abuse, particularly if combined with use of alcohol, exposes an individual to possible death by overdose. Moderate to heavy levels of barbiturate abuse produce more severe withdrawal symptoms than heroin addiction and can be deadly. Many doctors believe that barbiturate addiction is even more difficult to cure than heroin addiction.

The tragic effects of barbiturate abuse are generally not known by the American public. The Subcommittee found that many people dis-

tinguish "hard" drugs, such as heroin and cocaine, from non-narcotic "soft" drugs which are produced for legitimate medical purposes. This unfortunate distinction has served to perpetuate the belief that "soft" drugs, such as barbiturates, involve little risk to the abuser. As the many Subcommittee witnesses, particularly the former barbiturate abusers, made abundantly clear, nothing could be further from the truth.

Barbiturate abuse is not restricted to the street culture of multiple drug abusers. It reaches into every area of American life, affecting such diverse groups as school children, college students, industrial workers, middle-class party-goers, residents of our ghettos and barrios, and middle-aged adults who started using barbiturates under a physician's supervision. The youngest fatality reported to the Subcommittee was a 30-day old infant, born a secobarbital addict, who failed to survive the violent convulsive consequences of its tragic entry into this world.

The actual number of barbiturate abusers in this country is not known, although various estimates have been made. The National Commission on Marihuana and Drug Abuse reported that between 500,000 and 1,000,000 Americans are barbiturate addicts.[1] Surveys of secondary and college students from 1966 to 1971 found that 8 to 15 percent—two to four million young people—have used barbiturates for non-medical purposes.[2] The abuse rate among dropouts is even higher. For example, A Utah study found that 31 percent of high school dropouts abused barbiturates.[3]

Based on the Subcommittee's findings, the Chairman, Senator Birch Bayh, introduced in April 1972, a bill to transfer four commonly abused shorter-acting barbiturates—amobarbital, butabarbital, pentobarbital and secobarbital—from Schedule III to Schedule II of the Controlled Substances Act. The proposed rescheduling would subject these particular barbiturates to production quotas, stricter distribution controls, and more stringent import and export regulations. Twenty-six members of the Senate co-sponsored this measure.

Since that time, the Subcommittee has substantiated even more fully the urgent need for rescheduling. The extent of bariturate abuse, the high incidence of barbiturate diversion, and the clear potential for greater abuse have been documented in this report and the many hundreds of pages of testimony recorded at Subcommittee hearings.

The data contained in the section of this report titled "The National Survey of Barbiturate Abuse and Illicit Traffic" confirmed the need to facilitate police efforts in tracing barbiturates diverted to the illicit market. The Subcommittee Chairman has introduced two measures designed to accomplish this. The first bill, introduced in April 1972, would require all manufacturers of solid oral form barbiturates to place identifying marks or symbols on their products. The second bill, introduced in July 1972, would require the incorporation of tracer ingredients in controlled substances including barbiturates.

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[1] The National Commission on Marihuana and Drug Abuse, *Marihuana a Signal of Misunderstanding*, March 1972, Appendix Vol. 1, p. 422.

[2] Testimony of Robert Brandon, Task Force on Drug Abuse, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, (May 3, 1972).

[3] "Drug Use Among High School Dropouts in the State of Utah," *in Advisory Commission Report on Drug Abuse,* Governor's Citizen Advisory Commission on Drugs, State of Utah, September, 1969.

On November 16, 1972, the United States Bureau of Narcotics and Dangerous Drugs released a report recommending the rescheduling of nine barbiturates, including those covered by the Chairman's bill.[4] This action was acknowledged by the Bureau to be based in part on testimony before the Subcommittee which focused nationwide attention on the escalating problem of barbiturate abuse. The corroboration of the Subcommittee's findings by the Bureau is significant, particularly in light of the Bureau's previous position that adequate information was not available to support barbiturate rescheduling.

The transfer of the shorter-acting barbiturates to Schedule II will have a direct impact in reducing diversion by establishing production quotas, stricter, more secure distribution controls, and more stringent import and export regulations. The urgent need for applying Schedule II controls to the shorter-acting barbiturates has been clearly established by the Subcommittee investigation.

It is well documented that the over-production of barbiturates leads to diversion from legitimate channels to the illicit barbiturate market. On behalf of the American Medical Association, Dr. Henry Brill, testifying before the Subcommittee in December 1971, reiterated a 1965 statement of the AMA Committee on Alcoholism and Addiction which concluded that, "current production of all sedative drugs doubtless exceeds legitimate medical need by a considerable margin." Moving these barbiturates to Schedule II would require the Attorney General to establish production quotas based on legitimate medical, scientific, research, and industrial needs.

Many witnesses have described how easy it is to obtain barbiturates through forged prescriptions, legitimate prescriptions from careless doctors, and numerous refills of old prescriptions. The transfer of the popular, shorter-acting barbiturates to Schedule II would tighten prescription practices, and thereby reduce the chances for careless over-prescription without affecting the legitimate use of these drugs when prescribed under careful medical supervision. Rescheduling would also require approved order forms for all transfers of these drugs, separate and segregated recordkeeping, and more detailed reports on production and inventory. These measures would permit more effective monitoring of barbiturate distribution and detection of diversion.

In addition, Schedule II would subject the shorter-acting barbiturates to more rigid security requirements throughout the legitimate chain of distribution which would reduce the chance for employee pilferage and thefts by burglary. More rigorous import and export controls would also be imposed. Specifically, Schedule II requires documentation by the exporter that the drugs will be used for legitimate, necessary medical purposes, and that the drugs will not be re-exported from the destination country. Under Schedule II imports are limited to situations where there is a domestic shortage or where domestic competition is inadequate. Current Schedule III control permits importation of barbiturates for "legitimate purposes." Thus, rescheduling would appreciably reduce the legal flow of bar-

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[4] Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, "A Study of Current Abuse and Abuse Potential of the Sedative-Hypnotic Derivatives of Barbiturate Acid with Control Recommendations," November 16, 1972. P. 65.

biturates across our borders and provide substantially fewer opportunities for illicit diversion.

Rapidly increasing barbiturate abuse presents a growing threat to the health and safety of all our citizens. We cannot afford any further delay in rescheduling these dangerous drugs. We have learned from the experience of major urban areas, especially those on the west coast, that barbiturate abuse and addiction are natural outgrowths of the abuse of psychedelic drugs and amphetamines, and that many heroin addicts and methadone users are abusing or are addicted to barbiturates. Epidemic patterns of abuse experienced in recent years in California are now emerging in cities and towns throughout our country. This "ripple effect" should clearly alert us to the need to control more effectively the production and distribution of barbiturates.

The warning to the Subcommittee by Dr. Sidney Cohen, Chief of the Center for Study of Mind-Altering Drugs, University of California at Los Angeles, vividly describes what this country can expect if barbiturate diversion and abuse go unchecked:

> If the situation continues to deteriorate, we can anticipate certain developments:
>
> 1. Increasing numbers of grammar to high school students will become involved in barbiturate abuse.
>
> 2. Many infrequent or low dose users will escalate and become consistent high dose habitues including some who will inject the drug intravenously.
>
> 3. Other drugs will be taken concurrently, particularly the amphetamines and heroin.
>
> 4. The number of deaths in children from barbiturate overdose, acute withdrawal and in accidents will increase.
>
> 5. Those involved in the "downer" scene, even if they avoid the associated illnesses, injuries and fatalities, will sustain a significant defect in their personality development. They will have spent long periods during their maturation evading with chemicals the very elements of existence which promote human growth: the frustrations, problems and stresses of daily life. It is this aspect of bedrugged adolescence which is particularly tragic—the loss of the opportunity to grow up psychologically.

Dr. Cohen's views on the tragic consequences of unchecked barbiturate abuse have been confirmed by the hearings and investigations of this Subcommittee, and make a compelling case for the rescheduling of the shorter-acting barbiturates.

The Subcommittee report is in two parts. The first part, based on Subcommittee hearings, medical literature, and Federal drug control data, discusses the nature and extent of barbiturate abuse and diversion. The second part contains a detailed analysis of the responses by law enforcement officials throughout the country to the Subcommittee questionnaire on barbiturate abuse and illicit traffic.

The Barbiturates

Barbiturates, derived from barbituric acid, are central nervous system depressants. They are most commonly used as tranquilizers and as sedative-hypnotics (sleeping pills).

Barbiturates have a long history of medical usefulness. The first barbiturate was introduced into clinical medicine in 1903. Nearly half a century elapsed, however, before the addictive qualities of barbiturates were conclusively confirmed. Earlier publications describing barbiturate intoxication and withdrawal had either been ignored or had been been interpreted to mean that the abuse of barbiturates could be associated with psychic dependence, but not with addiction.

Today, barbiturates are both widely used and abused. Of the psychotropic drugs commonly administered in the United States, they rank second only to the non-barbiturate tranquilizers in extent of usage.[5] With the exception of alcohol, the barbiturates are the most commonly abused depressants.[6] Barbiturates are dangerous because they induce psychological and physiological dependence and are highly toxic. Such dependence is more destructive to personality than is narcotic dependence and the barbiturate withdrawal syndrome is both more painful and life-threatening than that associated with narcotic dependence.

Barbiturates are versatile drugs. Each barbiturate, however, differs in the amount of the drug and in the time necessary to produce the various degrees of depression, ranging from the relief of anxiety and tension, to sleep, anesthesia, coma, or even death. Because of these differences, barbiturates have been classified on the basis of their length of action onset and duration of action.

Phenobarbital and barbital are long-acting barbiturates. When taken orally, up to two hours is required for these drugs to take effect. Their effects last from six to twenty-four hours. These barbiturates are used extensively to maintain day-long sedation in anxiety-tension states (peptic ulcers, hypertension or related cardiovascular disorders) and are used in various types of convulsive disorders caused by such conditions as epilepsy, tetanus or drug dependence. Although phenobarbital alone accounts for nearly half the total of all barbiturates legally sold in the United States, there are relatively few recorded instances of phenobarbital abuse.[7]

Amobarbital and butabarbital are intermediate-acting barbiturates. When taken orally, the drug effect occurs in approximately 45 to 60 minutes and lasts from 4 to 6 hours. Secobarbital and pentobarbital are short-acting barbiturates. The onset of action usually occurs within 15 to 30 minutes after oral ingestion and lasts from 2 to 4 hours.

The shorter-acting barbiturates—those classified as short and intermediate—are used for preanesthetic sedation but are primarily used as sleep producing medication in the treatment of insomnia. Because these drugs are more rapidly absorbed from the gastrointestinal tract, they have a higher propensity to produce a quick and intense disinhibition euphoria or pleasant effect. Thus, it is not surprising that abusers prefer secobarbital, pentobarbital, and amobarbital or combinations of these drugs.

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[5] Sedatives: Some Questions and Answers, National Clearinghouse for Drug Abuse Information, Public Health Service Publication No. 2098 (1970).

[6] Testimony oof George R. Spratto, Ph.D., Department of Pharmacology and Toxicology, School of Pharmacy and Pharmacal Sciences, Purdue University, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, (December 16, 1971).

[7] Testimony of Dr. H. Frank Fraser, Chairman of the National Research Council Committee on Problems of Drug Dependence, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, (December 15, 1971).

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Thiopental and methobexital are ultrashort-acting barbiturates. The onset of these drugs occurs in 1 or 2 minutes and may last 15 minutes. They are employed in short-term medical and dental anesthesia. They are not available in oral form, and have not appeared to any extent as drugs of abuse.

Dependency and Addiction

Barbiturates are capable of producing psychological dependence, tolerance and physical dependence. Psychological dependence refers to a strong need to experience the drug effect even in the absence of physical dependence. Tolerance refers to the adaption of the body to the drug in such a manner that larger doses are required to reproduce the original effects. Physical dependence refers to the establishment of objective signs of withdrawal which occur after the drug is abruptly discontinued.

In testimony before the Juvenile Delinquency Subcommittee, Dr. George Spratto, Associate Professor of Pharmacology, Purdue University, Lafayette, Indiana, discussed a typical sequence of events which leads to psychological dependence, tolerance and physical dependence. In part, Dr. Spratto said:

> * * * let us consider a hypothetical situation by supposing that a man is taking sedative doses of a barbiturate. One day he decides to take a 'couple of extra' barbiturate capsules since he is more tense than usual. He finds that he is pleasantly surprised by the result: he likes the feeling these extra capsules have provided. We can say that he has been *positively reinforced* by the drug. Drugs may also produce effects that might be considered undesirable by certain people. Such drugs would then be referred to as *negative reinforcers.* Since this man did enjoy the feeling provided by the extra capsules, he decides to take a "couple of extra" capsules again the next day. Within a few days he feels he "needs" the extra capsules to get through the day. He feels that the effects produced by the drug are necessary to maintain what he thinks is his best state of well-being, in short he "likes" the drug. He might then say this man is *psychologically dependent* on the barbiturate. In other words, he really does not need the drug to get through the day, but he feels that he needs it. Eventually, he finds that the "couple of extra" capsules just do not provide the effect he is seeking, and he must again increase his daily consumption of the barbiturate to obtain the desired effect. What has now occurred is *tolerance.* * * * This man soon discovers to his amazement that he must have the barbiturate all day. every day, or he becomes restless, anxious, and very weak. What has now developed is *physical dependence* and the three symptoms just mentioned are three of the earliest symptoms of the withdrawal syndrome from barbiturates. Thus, physical dependence (a term which is replacing the older, more familiar term "addiction") is a state in which there has been an actual change in the physiology of the body so the body actually does need the drug to function 'normally.' If the drug is stopped or removed, a withdrawal or abstinence syndrome is observed. This man is now both psychologically and physically dependent on barbiturates. Any other barbiturate, or most of the other marketed drugs classified as sedative-hypnotics, will prevent withdrawal symptoms if the person cannot get the particular barbiturate he has been taking. This phenomenon is called *cross-dependence.* What has just been described is the very typical sequence of events of an individual who started taking sedative doses of a specific barbiturate, but through abuse ends up being psychologically dependent, tolerant, and physically dependent to all barbiturates.

How much of a certain barbiturate is required to produce psychological dependence. tolerance or physical dependence?

Prolonged use of barbiturates, even in therapeutic doses, may result

in psychological dependence. Dr. H. Frank Fraser, Chairman, Committee on Problems of Drug Dependence, National Academy of Sciences, National Research Council, told the Subcommittee that this feature of barbiturates reduces their clinical usefulness. Dr. Fraser explained that:

> If used (barbiturates) to induce sleep, tolerance to this effect develops progressively, and after about 70 days no effect is observed. An increase in dosage is necessary if the original hypnotic effect is attained.

Yet, since psychological dependence is subjective, it never develops in some people while it develops very quickly in others. In susceptible individuals, such dependence leads to frequent self-administration until compulsive abuse becomes an established pattern. The effects of low doses, particularly the lowering of inhibitions, resemble alcohol intoxication. Paradoxically, once an abuser develops a tolerance for the initial dosage, the drug tends to stimulate and excite him. As the dosage is increased, the abuser is likely to experience periods of acute intoxication, intellectual impairment, and emotional instability often engendering paranoid thoughts and aggressive behavior. The chronic abuser neglects appearance and personal hygiene and periodically falls into states of semi-consciousness. Once the doses exceed those recommended and prescribed by the physician, the likelihood of developing physical dependence and withdrawal syndrome also increases.

The barbiturate withdrawal syndrome is similar to delirum tremens produced by the withdrawal of alcohol. In its mildest form, the syndrome consists of anxiety, sleeplessness and irritability. In severe form, withdrawal may include convulsions, psychosis, or even death. The severity of withdrawal depends upon the amount and pattern of use and the individual physiological differences of the users.

Dr. H. F. Fraser explained to the Subcommittee the varying degrees of withdrawal based on the amount of dosage taken. He reported that in the case of 18 patients who received 400 mgs. of secobarbital or pentobarbital daily (usual therapeutic dosage is 100–200 mgs.), none had a seizure or delirum, and only one had minor symptoms; however, when 18 patients received 600 mgs. of these drugs, 2 had convulsions, none developed delirium, but 9 had minor symptoms (anxiety, tremors, insomnia, weakness, nausea, and vomiting). When 18 were given daily dosages in excess of 800 mgs, 14 had convulsions, 12 had delirium and all had minor symptoms. Thus, 4 to 8 times the sleep producing dosage, taken per day, not at once, over a period of several weeks can lead to chronic barbiturate addiction and the withdrawal syndrome.

A regular abuser will suffer severe withdrawal symptoms when the drug is suddenly terminated. However, severe withdrawal may be brought on even by a moderate reduction of the accustomed dose.[8] Within the first 12 to 16 hours after the barbiturate is withdrawn, the levels of the drug in the body decrease and the person may even seem to improve, but then he becomes increasingly restless, anxious, and weak, with shaking of the arms and legs. Often the abuser will sustain abdominal cramps, nausea and vomiting; fainting may occur. Within

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[8] Testimony of Drs. Donald Wesson and David Smith of the Haight-Ashbury Free Clinic, San Francisco, California, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, (December 15, 1971).

the first 24 hours he may be too weak to get out of bed. The tremors increase, anxiety mounts, delirium, disorientation as to time and place and unpleasant hallucinations, usually of a persecutory nature, are frequently experienced. The symptoms usually peak during the second or third day. It is during this time that convulsions may occur. A person severely dependent on barbiturates may experience an alarming increase in body temperature and violent, life-threatening convulsions.

In contrast to heroin withdrawal, such effects as runny eyes, intestinal spasms and diarrhea are less pronounced in barbiturate withdrawal. Convulsions, however, are not seen in withdrawal from heroin. In fact, several witnesses likened heroin withdrawal to a bad case of influenza.

Both heroin and barbiturates are strongly addictive. Dr. Sidney Cohen, Chief, Center for Study of Mind-Altering Drugs, University of California, Los Angeles and Clinical Professor Psychiatry, UCLA, told the Subcommittee that barbiturate withdrawal is more severe than heroin withdrawal:

> There are (in barbiturate withdrawal) severe tremens, the shakes, there even may be convulsions, the fits. There may be hallucinations and delusions, the horrors, as it is called on the street. This can be so severe that death is a real possibility during barbiturate withdrawal. A good deal of medical skill is required to rescue such a person. . . . Considering the quality of heroin on the street, the withdrawal from heroin is by no means severe. Some people describe it as a little shakes or a case of the flu. . . . People cold turkey on heroin and survive but this may be a lethal experience for the barbiturate addict.

Barbiturate withdrawal is a severe medical emergency, requiring hospitalization, more life-threatening and dangerous than heroin withdrawal.

Overdose

The effects of an overdose of barbiturates should be distinguished from the psychological and physiological dependence which accompany regular abusive barbiturate ingestion. Many overdoses and deaths occur because individuals, both non-dependent and dependent, have taken too many barbiturates over too short a time.

Statistics illustrate the public health implications of barbiturate abuse. Nationally, acute intoxication, or poisoning, from barbiturates accounts for 25 percent of all patients admitted to general hospitals with some form of poisoning. The trend is escalating. Typical is the recent one month survey at a large county hospital indicating that sixty percent of all admissions for drug overdose involved barbiturates, primarily the short-acting Seconal®.[9]

Barbiturates are a common cause of accidental and suicidal deaths. While it is commonly stated in the literature that each year 3,000 deaths in the United States result from abuse or incautious use of barbiturates, a recent study by the United States Bureau of Narcotics and Dangerous Drugs concluded that the "actual number of such deaths may be somewhat larger."[10] In Los Angeles County alone, 971 deaths were attributed to barbiturates in 1971 as compared to 242 narcotic

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[9] Testimony of Joseph Busch, District Attorney for Los Angeles County, California, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, (May 17, 1972).

[10] Report dated May 8, 1972, from Mr. Gene Haislip, Special Assistant to the Director, Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, to Honorable Birch Bayh, response Number 14, p. 2.

deaths. In the age group 19 years and younger, there were 42 accidental deaths, 60 suicides, and 16 undertermined deaths due to barbiturates.[11] Suicidologists believe that if these drugs were less easily available, fewer suicide attempts would result in death, though the total number of attempts might not be reduced.

Frequently an individual is unaware that he has taken a dangerous amount of barbiturates. The individual who takes a barbiturate before retiring, particularly if he or she has resorted to abusive self-medication, may awaken and take more capsules. The more barbiturates consumed, the more disorganized and confused the person becomes. This may continue until many capsules have been ingested, leading to coma or even death. This pattern has been referred to as automatism.

Similarly an episodic abuser or a chronic abuser may be so "high" that inordinate amounts of barbiturates are ingested. If abused in combination with alcohol, which unfortunately is a popular mode of abuse, the chance of overdose is more likely.

Many factors affect the possibility of overdose. The short-acting barbiturates such as pentobarbital and secobarbital act rapidly and are therefore more capable of producing a coma or even death in a short period of time. A person already under the influence of barbiturates, whose central nervous system is depressed, is more susceptible to an overdose. The intravenous abuser is exposed to an even greater chance of accidental overdose.

The most significant factor, however, is the amount of barbiturate taken. Dr. George Spratto, explained the impact of various dosages to the Subcommittee:

> What determines the degree of depression produced by a barbiturate? The most important factor in determining the degree of depression is the dose. For example, if we let "x" represent the dose for a barbiturate that is needed to produce sleep, then we might construct the following scale with respect to degree of depression:
>
> ¼x=dose to produce relief of anxiety and tension
> ½x=moderate sedation with drowsiness
> x=sleep producing dose
>
> The person taking an "x" dose would behave with confusion and incoordination resembling that from alcohol intoxication. Also, between doses of ½x and x, one would begin to experience euphoria or a sense of well being (a "high" feeling); which is, incidentally, what most barbiturate abusers are seeking. Thus a dose of only four times the tranquilizing dose can produce an intoxicated state.
>
> 5x=the dose to produce coma
> 10x=the dose that might be lethal
>
> This dose of the drug would depress the part of the brain which controls breathing so that the area can no longer function properly and death would result. It is important to note that there is only a ten fold difference between the dose that produces sleep and the dose that might cause death. Thus, if a person takes one capsule to produce sleep, then 10 of these capsules might be enough to cause death. This is why it is so important to carefully follow the physicians instructions. This is also the reason why barbiturates are so widely used in suicide attempts—that is, the margin between the sleep producing dose and the lethal dose is not great.

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[11] Statement and attachments of Robert E. Litman, M.D., Chief Psychiatrist and co-director, Suicide Prevention Center and the Institute for Studies of Self-Destructive Behaviors, Los Angeles County during 1971, January 21, 1972.

While the potential danger of accidental overdose for the casual or episodic abuser is ever present, an overdose is almost certain for those who are tolerant. As tolerance develops, the dose required to achieve a "high" increases, and so the abuser increases his dosage. But the lethal dose level does not increase as rapidly. Therefore, the margin between the intoxicating and the fatal dose diminishes.

Dr. Wesson told the Subcommittee that an individual who is tolerant to the intoxicating dose may have only a 10 to 20 percent range of safety, whereas the non-tolerant individual may have a safe range as great as 300 percent of the intoxicating dose. If a person requires 20 to 25 secobarbital capsules a day, the margin for safety is very small. It may be only a few pills.

Patterns of Abuse

The classic long-term barbiturate abuser takes barbiturates orally as a chronic intoxicant. These individuals are typically 30 to 50 years old.[12] They are frequently trying to function in what they see as an intolerable situation. The majority of these abusers become addicted while being legitimately treated for an undefined anxiety, stress or depression. They are usually able to maintain this medical orientation throughout their careers, purchasing their drugs relatively inexpensively from legal suppliers.

While traditionally most chronic abusers were of middle or upper socio-economic class, other groups are now reportedly seeking what is referred to as a "functional" high. A nationwide survey of a large industrial union shows that 8 percent of its members have used sedatives for non-medical reasons—the survey stresses that those workers who take these drugs on-the-job do so to continue working at a job they find unsatisfactory.[13] These abusers have no identification with the so-called "drug-using subculture." However, they often obtain their barbiturates in a manner similar to many youthful abusers—frequent visits to a physician or sequential visits to several physicians with complaints of sleeplessness or nervousness. Because of their relatively conventional appearance, pharmacists are inclined to fill and refill their prescriptions without suspecting that they are dealing with drug addicts. Thus, these individuals often go undetected until their inability to work, binges of intoxication or an overdose draws attention to their addiction. Drs. Wesson, Gay and Smith of the Haight-Ashbury Free Clinic recently described a typical case:[14]

> A 44 year-old woman was referred by her internist for evaluation and treatment of barbiturate addiction. Four years previously, he had begun prescribing Seconal® (secobarbital) for her sleep disturbances which developed during a period of illness of her husband. At that time, she was functioning well at her job, a junior executive-type position. Gradually she increased the amount of Seconal® she was taking for sleep and then began taking them during the day, as well. As her intake of pills increased to 20 per day, she developed progressive difficulty concentrating at her job and was eventually placed on medical leave of absence.
>
> Her physician was unaware of her addiction until he began receiving calls from various pharmacists from whom she was frequently refilling his prescrip-

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[12] See footnote 8.
[13] See footnote 2.
[14] "Clinical-Political Issues of Barbiturate Use and Abuse," *Contemporary Drug Problems*, Summer 1972, p. 459.

tions. By taking different prescriptions to different pharmacies, she had been able to obtain her increased supply.

Thus, at no time had she obtained drugs "illegally," and her value orientation was such that she had little patience with "hippies" and "illegal drug abusers."

Estimates in the literature suggest that one in every four adults is currently using one or more of the psychotropic family of drugs, i.e. tranquilizers, amphetamines, and barbiturates. While the actual extent of abuse of these drugs by adults has not been determined, numerous reports indicate that it is widespread. Although these chronic abusers do not fit within typical notions of the "drug culture" and "street use," they are very much a part of the former and it appears that they are intimately related to the latter.

Dr. Richard Blum of the Stanford University Institute for Policy Analysis recently reported that drug use among middle-class teenagers and young adults can be predicted with 90 percent accuracy using such factors as class and religion, and particularly parental drug use and attitudes.[15] In effect, Dr. Blum concluded that the home is often a spawning ground for drug abuse. Several large scale studies in New Jersey, California and Ontario, Canada, involving thousands of teenagers, support Dr. Blum's conclusions.[16] These studies show that drug abuse is far higher than average among young people whose parents regularly use psychotropic medications and that drug abuse was lowest among students whose parents did not use such drugs. The Canadian data indicated that the teenager whose mother is a daily user of tranquilizers is three times as likely to use marihuana, LSD, or glue as is the child whose mother does not use tranquilizers. While the study did not measure the relationship to barbiturate abuse, these teenagers were five times as likely to have taken amphetamines by injection and six times as likely to have used opiates, such as heroin.

Barbiturates and amphetamines are not viewed with the alarm that we view heroin and morphine, although when they are used improperly, the effects of these drugs may be even more devastating. Unfortunately, actual abuse by parents and others in a household is often viewed as quasi-medical treatment, and apparently many of these youngsters develop similar casual, non-discriminating drug-taking attitudes. These children seldom understand the difference between proper medical use and abuse of these pills. The importance of the link between adult over-dependence on these legitimate mood-affecting drugs and the current epidemic of youthful drug abuse should not be underestimated.

The pattern of barbiturate abuse most commonly associated with juveniles and young adults is the sporadic oral abuse for social or recreational purposes. A common cultural pattern in our society is the use of intoxicants as lubricants in social situations such as parties. Alcohol is commonly used in this manner. Drs. Donald Wesson and David Smith, experts in youthful drug taking behavior, told the Subcommittee that many young people who come from families in which alcohol is used in this way view alcohol as "establishment," and they

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[15] Blum, R. H., and Associates, *Horatio Alger's Children*, S.F; Jossey-Bass, Inc., 1972.

[16] Testimony of Dr. Donald Louria, Professor and Chairman, Department of Public Health and Preventive Medicine, New Jersey College of Medicine and Dentistry, before The Select Committee on Small Business, Subcommittee on Monoply, "Advertising of Proprietary Medicines," Part 2, 1971, pp. 507–516.

have turned to barbiturates thinking that they are doing something different. However, the pattern of abuse is essentially the same and, like alcohol abuse, it seldom comes to the attention of medical clinicians before it has reached a chronic stage.

Such occasional use is usually in response to pressures to conform to peer group behavior or to deal with specific frustrating events. Curiosity and boredom are also frequent reasons for intermittent abuse.

The casual use of sleeping pills by adolescents and preadolescents has become a major juvenile drug abuse problem. Barbiturates are inexpensive and readily available. In most communities an intoxicating amount of barbiturates can be purchased for less than a dollar. Without exception, the many doctors, law enforcement officials and drug program experts who testified before the Subcommittee agreed that barbiturate abuse is increasing generally, but particularly among the young.

Dr. Sidney Cohen explained why barbiturates were becoming increasingly popular with young people:

> For the youngster barbiturates are a more reliable "high" and less detectable than "pot." They are less strenuous than LSD, less "freaky" than amphetamines, and less expensive than heroin. A school boy can "drop a red" and spend the day in a dreamy, floating state of awayness untroubled by reality. It is drunkness without the odor of alcohol. It is escape for the price of one's lunch money.

In addition to minimal cost and ready availability, other factors help explain the increasing level of abuse. The youthful urge to experiment is often a key factor. Much drug taking these days is not the result of a specific personal or psychological defect, but rather is part of the growing-up process for young people, a "rite of passage," according to Dr. Cohen.

A further explanation for the proliferation of barbiturate abuse was proffered by Dr. Brian Finkle, Forensic Toxicologist for the Santa Clara County California District Attorney's Office, who described the abuse of secobarbital in his county as epidemic. Dr. Finkle explained that many youngsters regard barbiturates as safe. He commented that an impetus for the epidemic of secobarbital abuse was:

> * * * the incredible but widespread assumption that "speed kills" but "reds are safe." This tragic non-sequitur was lent substance by many "speed" users who found secobarbital a convenient means of sleeping-off the unpleasant mental depression which characterizes the final effects of methamphetamine overdosage.

Oral use to obtain a "social" high is not limited to youths. We are witnessing the disappearance of the old taboo against the non-medical use of drugs. A special drug use survey conducted by the New York Addiction Control Commission found that 31,000, or in excess of 8 percent of the 361,000 regular users of barbiturates, took the pills in a social setting.[17] Although it is not clear what portion of these individuals used barbiturates to obtain a "high," the survey authors speculate that the proportion is high.

The primary difficulties associated with this pattern of casual or episodic abuse are accidental overdose, and escalating involvement

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[17] New York State Narcotic Control Commission, "An Assessment of Drug Use in the General Population," 1971, p. 26.

with drugs. Episodic cases are rarely associated with the "drug scene" and seldom come to medical attention, unless an injury is sustained. (Barbiturate abuse makes one accident-prone.)

The youthful abuser who receives public attention is usually one out of the many thousands of youths who regularly abuse barbiturates. When these individuals attempt to discontinue their use of drugs, they experience jitters and discomfort for a few days. The discomfort keeps the habit going. As tolerance develops, greater quantities of barbiturates are used to procure a "high" or reduce anxiety. At this point the young person is physically addicted in addition to being psychologically dependent. As with the older chronic or "functional" barbiturate addicts, sudden discontinuance of the drug would precipitate serious withdrawal symptoms. This is a medical emergency which requires hospitalization.

A sixteen year-old barbiturate abuser explained to the members of the Subcommittee why he started taking barbiturates:

> People we consider people to be with were doing it. I used to hang around with them so I decided to do it too. I had heard they were pretty good. It was better than drinking because you don't have to put up with booze and its taste and all of that.

This young boy started with one or two "reds" (secobarbitals) a day. Within a matter of weeks he had built up a tolerance, and required 6 to 8 "reds" to obtain the same "high." For the next 3 months, the youth explained, he "didn't even know where he was going or exactly what was going on." Afraid to go to a doctor for fear that he would be sent to reform school, he went home to kick his habit. He described what ensued:

> When I woke up it was worse than tripping (acid trip). I was hallucinating. I didn't know what was going on. I learned later it was because I was addicted to barbiturates; that I didn't have them so I had withdrawals. They lasted for three days. It was just like going through hell!!

Particularly alarming is the evidence that intravenous abuse of barbiturates is increasing. Subcommittee surveys as well as numerous witnesses echoed the testimony of Dr. Frank Fraser who warned that there has been a dramatic increase of barbiturate abuse by injection, particularly among our youth. This pattern of abuse usually indicates a strong commitment by these individuals to the drug-using subculture, many of whom have "graduated" to mainlining from multiple pill popping.

Those seeking intense euphoria or isolation from reality learn that these can be obtained more rapidly by dissolving the powder from the capsules and tablets and injecting the solution into a vein. Immediately after injection, a "rush," an intensely pleasurable warm and drowsy feeling, is experienced.

This is by far the most hazardous pattern of barbiturate abuse. The individual rapidly develops a tolerance to the intoxicating qualities of barbiturates and subsequently increases the dose. As with oral dependence, tolerance to the fatal dose does not increase as much as tolerance to the intoxicating dose. Because of the immediacy of the action and the rapid development of tolerance to the intoxicating dosage, the danger of overdose is magnified when barbiturates are used intravenously.

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Although reported instances of intravenous abuse have been increasing, little is known about the intravenous barbiturate abuser. Dr. Wesson startled the Subcommitte members when he revealed that his attempt to conduct a longitudinal study of persons seriously involved with the intravenous use of barbiturates had failed because he had encountered difficulties in keeping the subjects alive!

The near certainty of possibly fatal overdose is not the only danger facing the intravenous barbiturate abuser. It is also likely that the abusers will develop enormous abscesses near the point of injection.

These sterile abscesses are formed when the strongly alkaline barbiturate is inadvertently injected into the tissue around the vein, a frequent occurence. These large, hard, excruciatingly painful sores are the trademark of the intravenous barbiturate abuser. They occur in some individuals who do not fit the stereotype of the "barb freak."

Dr. Wesson related the facts of a recent intravenous case to the Subcommittee. He said in part:

> I remember not long ago treating a secretary who came to the Haight Ashbury clinic because she couldn't go or didn't feel that she could go to the more straight treatment facilities in the city. She was very straight appearing in dress and manner. She claimed that she had hurt her arm. In fact she had a sterile abscess. She carried her own injection equipment which she kept very clean. During her work day she would leave her desk job several times to shoot up barbiturates in the ladies' room. The abscess is very painful. She couldn't for instance, straighten her arm or type. She couldn't perform her usual job. She was shooting three to five capsules per day, which is just under an addicting dose.

If the barbiturate is mistakenly injected into an artery, instead of a vein, gangrene may develop. If the abuser is already "high"—thus intellectually and physically incapacitated—and attempts a subsequent injection, this is very likely to happen.

Dr. Max Gaspar, Clinical Professor of Surgery, University of Southern California School of Medicine, and Senior Attending Surgeon, Los Angeles County-University of Southern California Medical Center, told the Subcommittee that over the past three to four years, coincident with the increasing abuse of barbiturates, there has been an increasing incidence of intra-arterial injection of these drugs. At the Medical Center, they have treated 34 such cases. In the majority of these cases, the short-acting barbiturate secobarbital was the offending drug. Dr. Gaspar discussed these tragic instances at some length:

> The usual procedure is to empty the contents of a capsule of Secobarbital into a small quantity of tap water in a teaspoon and draw up the mixture through cotton into a syringe containing a needle. The needle and syringe are usually boiled in an attempt at sterilization. Sometimes the skin surface is prepared with alcohol and other times it is not. In our series the amount of drug injected could not be determined in each case. The capsule usually contained 100 milligrams of the drug, and at times two capsules were used. When by mistake an artery was injected, the injection was often stopped because of intense pain. However, frequently the patient had a tight tourniquet on the extremity, and the entire dose was injected, and the pain was not realized until the tourniquet was released. Each of the patients relates an immediate, intense pain in the area of injection and downstream from the site of injection. Swelling, purplish discoloration and coldness of the extremity began soon after the injection. Many patients have come to the hospital soon after the injection because of the intense pain. The average time, however, has been 12 hours and they have gone as long as 36 hours. By proper therapy we believe we have prevented

some of the ultimate disability. Other patients have come to the hospital much later. Most of them have developed gangrenous changes necessitating amputation. Six of the patients, or 30 percent of the first 20 we saw, have had amputations of part of the hand or foot.

In 1912 the first report of gangrene secondary to intraarterial injection of drugs was reported. Many drugs, such as the amphetamines, Demerol and Valium, have been implicated. Most of the reports up until the last 3 years have been associated with anesthesia or treatment. Only recently has drug addiction become a major factor, although it may become more important in the future. Most of the damage is done immediately upon injection, so that this one mistake many lead to a lifetime of tragedy. All of the patients whom we have treated and who have injected a barbiturate have stated that they used Seconal capsules. Inasmuch as these are rather easy to obtain, the problem may be expected to increase.

A series of slides, shown to the Subcommittee by Dr. Gaspar, graphically illustrated the potential risks involved for the barbiturate abuser. What follows is a selection of his comments which accompanied the showing:

* * * here, a very badly clawed hand and gangrenous fingertips * * *
She injected a vein between her fingers and one time she missed and got in the the artery * * * she lost those fingers * * *
Here is a foot that was injected, and as you can see, the toes are gangrenous * * * this boy lost a good part of his foot * * *
* * * another hand and mostly all of that hand was lost.

At the Subcommittee's May 17, 1972 hearing, Los Angeles County was characterized by the County District Attorney Joseph P. Busch as the "barbiturate abuse capital of the United States." In Los Angeles County, barbiturate abuse is the number one drug problem in the schools. Barbiturates are the number one killer, accounting for 4 times as many deaths as narcotics. No age group seems immune. Mr. Busch reported the case of an eight year-old child, who dropped a red every day after school. The child said that he enjoyed the feeling that the pills gave him. While the Los Angeles County barbiturate epidemic does not typify the experience of many communities in this country, Dr. Gaspar's case load is symbolic of the tragedy that accompanies an epidemic of barbiturate abuse. The potential impact on any community is clear.

If an awareness is developed regarding the unfortunately little-known dangers associated with barbiturate abuse and addiction, it is possible that many youngsters more fortunate than a young woman from Norfolk, Virginia, will not have to learn the hard way. She testified about her battle with multiple drug addiction, in particular barbiturate addiction, and described the incident that led to her eventual abstinence, but which nearly resulted in tragedy:

I went to a party and a guy at the party had a bag of barbiturates so I shot one of them up right here in a vein I had been using for about 3 or 4 years, and the vein has sunken really deep so I had to put the needle in real deep to get it, and I went right through the vein and hit an artery, like, you know, and I could not even tell the difference. I didn't even think about, you know, there would be an artery underneath. I could not tell the difference between the color of the drug, so I put it in, and as soon as I shot it in my arm was just paralyzed and, you know, it just cut off all of the circulation. And it is the worst pain I have ever been in and so I pulled the plunger to see if there was blood, and there was. So, I called my doctor and he said I probably got a bad needle which I guess was just a dirty needle. But, I knew that a bad needle could not do that to my arm, so I went to the hospital and it was 12 hours before they operated, and they cut it from right down here to down passed my wrist into my hand, and it opened

up, and it was completely black inside. It was almost dead because of all of the oxygen in the blood supply had been completely cut off. And I guess I saw a guy who did it with heroin, and it was not half as bad because the heroin when you cook it up it is pretty clear and the barbiturates, when you stir it up in the water it is real milky and it is hard to pour it even into a syringe because it is so milky, you know, and you cannot cook it up clear. So, it just cut off all of the circulation. And I would say for 2 or 3 weeks after they operated they told my parents they did not know if they could save my arm, and they thought they might have to amputate it, but then after they thought I could keep it, they thought I would be paralyzed for a long time or the rest of my life. But, you know, I have done a lot of work on it, and I can write, and I can do just about everything I did before. But, I have quit shooting up then altogether. It was a hard way to learn but I did learn. I do not know if I am glad it happened or not. I kind of am because I think I might still be doing drugs now if it did not happen, but I am not. So, I guess it was a good thing. It is kind of a hard way to learn though.

Barbiturates and Other Drugs

Many individuals take barbiturates in association with other drugs. For these individuals barbiturates are not the drug of choice, but are an integral part of a multiple drug abuse pattern.

Barbituates and Alcohol.—It has been well documented that alcoholics abuse barbiturates and that many barbiturate addicts abuse alcohol. Unfortunately, alcohol and barbs, used together, have a synergestic effect on the central nervous system—the total effect is greater than simply the additive effects of the two drugs. Teenage drinkers and others have become aware of this potentiation and it is common for oral abusers to take barbiturates with liquor, beer or wine. The use of secobarbital with Ripple wine is sufficiently popular that even grade school age youths attend so-called "ripple and reds" parties.

Dr. David Lewis of the Harvard Medical School testified before the Subcommittee in December, 1971 that the dangers attending the combined use of alcohol and barbiturates are considerable and actually lead to unintended overdoses and deaths. He explained, "if someone starts fresh without having taken either alcohol or barbiturates, death has been reported with as little as 300 milligrams of the short-acting barbiturate plus a couple of ounces of hard liquor."

Thus, even mild to moderate consumption of alcohol while taking prescribed (or abused) doses of barbiturates might be sufficient to cause motor incoordination, drowsiness, confusion, and even coma and death.

Barbiturates and Stimulants.—Youths in the drug subculture use barbiturates, particularly secobarbital, as self-medication for overdoses of methamphetamine and cocaine and for bad LSD trips. "Reds" are used to deaden the effect of "crashing" (the fast emotional and physical let-down which comes after the abrupt cessation of high dose amphetamine use) to suppress the anxiety of LSD flashbacks, or to ease the symptoms of heroin withdrawal.

The widespread abuse of "speed" has given rise to this pattern of barbiturate abuse. Dr. Roger Smith, criminologist and Director of the Marin Open House Drug Clinic, told the Subcommittee that during the 2 years he spent in the Haight-Ashbury doing research on patterns of high dose amphetamine abuse, intravenous barbiturate abuse increased dramatically.

Often this self-medication leads to compulsive injection of secobarbital and physical dependence, as illustrated by the following case:

An 18-year-old white female came to the Haight-Ashbury Medical Clinic in a state of acute anxiety. She began using methamphetamine 1 year ago and injected the drug compulsively for 6 months. She described the gradual evolution of acute panic reactions, agitation and paranoia. These psychiatric symptoms become so disturbing that when she was told "reds"—secobarbital—were a good "downer" she began injecting this drug. There was no "flash" to the reds (the orgasmic effect achieved by injection of methamphetamine) but she described a pleasurable euphoric "rush." Of greater significance to her the "speed" induced psychiatric symptoms disappeared and she felt much better. She gradually increased her use of intravenous barbiturates to a point where she felt "hooked" and uncomfortable. When she tried to stop the barbiturates she developed acute anxiety and came to the clinic in the early stages of barbiturate withdrawal.[18]

Dr. Smith observed that most of these abusers, predominately white, middle class, and with little prior experience with needle drugs, were initially accepting of barbiturates. Barbiturates were a familiar substance within their own homes and they did not have the same addictive connotation as heroin. In fact, the use of amphetamines during the day requiring barbiturate use as a sleeping medication is a feature of medically prescribed stimulants and barbiturates. Numerous adults, members of so-called the hidden addict group, have likewise found themselves in the vicious addictive cycle of the uppers and downers.

Thus in the adult population as well the abuse of barbiturates is compounded by the abuse of amphetamines or other pep pills. The following case illustrates this tragic pattern of abuse:[19]

At the age of fifty-five, S. G. began taking a sleeping pill each night, and was soon taking four pills to get to sleep. Waking up tired, he turned to amphetamines to make him more alert during the morning working hours. The pep pills in turn made him feel agitated, and so he began taking barbiturates during the day, gradually building the dosage up until he was taking twenty-four pills every twenty-four hours. His speech grew slurred, it became difficult for him to think clearly, and he suffered from a staggering gait, fits of depression and anger, and uncontrollable talking jags. At last S. G. consulted a physician but neglected to tell him of his barbiturate abuse. The doctor sent him to a hospital to be examined for a possible brain tumor. Twenty-four hours later he became markedly agitated and developed fever, delirium, and finally convulsions. These manifestations were due to the abrupt stopping of his barbiturates. It was only when his history of barbiturate use was divulged by a relative that a cure became possible. Treated for withdrawal, he recovered after a prolonged hospital stay.

In the Haight-Ashbury district of San Francisco, barbiturates rapidly gave way to heroin. Because intravenous barbiturate use was so physically and mentally debilitating and because of the development of abscesses, motor disfunction, and irrational and aggressive behavior associated with barbiturates, abusers were rarely able to maintain this pattern of use for long. In most instances, the tendency was to switch to opiates.

Barbiturates and Heroin.—Barbiturates are frequently used with heroin. The first recorded case of barbiturate abuse by a narcotic addict was reported in Germany only one year after the clinical intro-

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[18] D. E. Smith, D. R. Wesson, R. A. Lannon, "New Developments in Barbiturate Abuse," *Drug Abuse Papers 1969*, U.C. Berkeley Extension, p. 3, 1969.
[19] Louria, Donald, *Nightmare Drugs*, Pocket Books, Inc., New York, p. 26, 1966.

duction of barbiturates. Barbiturates modify the high of heroin and allegedly prolong its effect. Barbiturates are used as a substitute for heroin by an addict when the heroin supply is low, or perhaps used unknowingly by the addict, whose pusher "cut" the heroin with barbiturates.

The following are typical examples of mixed heroin and barbiturate addiction: [20]

> A 30 year old white female was admitted to San Francisco General Hospital for treatment of a "mixed addiction" involving barbiturate and heroin dependence. She had been using increasing doses of Nembutal® for one year and was now using 3500 to 4500 mgm per day. In addition, she was using "2 bags" of heroin per day.
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> A 40 year old white, male was admitted to San Francisco General Hospital for treatment of barbiturate dependence and possible opiate dependence. He had been taking 2500 mgm of Nembutal® and Seconal® per day and varying amounts of heroin and codeine.

The incidence of barbiturate addiction in heroin addicts is increasing. Two surveys of admissions to the U.S. Public Health Service Hospital in Lexington, Kentucky, indicate an increasing proportion of narcotic addicts also abuse barbiturates. In 1957, 18% of the narcotic admissions were treated for sedative withdrawal. By 1966, the level had increased to 35%.[21] In a study of multiple drug use among heroin addicts in New York State, 45% admitted using barbiturates for non-medical reasons. Of all these addicts, 29% used barbiturates before they began using heroin.[22]

England has experienced a similar coincidence of heroin and barbiturate abuse. A 1970 study of 65 heroin addicts in London found that 62 had taken barbiturates, and of those, 52 had injected them intravenously.[23]

Studies of barbiturate abuse among heroin addicts in England link the increased abuse of barbiturates to the diminished supply of amphetamines resulting primarily from stricter controls recently imposed on the distribution of amphetamines, and to the reduction in quantity and quality of heroin available. Thus, an imbalance of controls has led to an increasing demand for sedatives in the illicit market.

Many heroin addicts in the United States find their way to barbiturates in much the same manner as the England addicts have. Finding the supply of heroin limited, costly and of low quality, they shift to other drugs. Usually methamphetamine is the alternate drug. A current example of this pattern is occurring in Washington, D.C. Because of the poor quality of the heroin available in Washington, addicts have dramatically increased the intravenous use of amphetamines. The drug of choice is Desoxyn®, a popular diet pill.[24]

Typically, the stimulant properties of the amphetamine are too dis-

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[20] *See,* footnote 18, p. 5.

[21] Carl D. Chambers, "Barbiturate-Sedative Abuse: A Study of Prevalence Among Narcotic Abusers," *The International Journal of the Addictions,* March 1969, pp. 45–57.

[22] Langrod, "Multiple Drug Use Among Heroin Users," Bureau of Applied Social Research, Columbia University, 1969 (mimeographed).

[23] Mitcheson, M., Davidson, J., Hawks, D. V., Hitchins, L., and Malone, S., "Sedative Abuse by Heroin Addicts," *Lancet,* 1970. 1 :606.

[24] Statement of Mr. Frank H. Rich, Chairman of Mayor's Advisory Committee on Narcotics Addiction, Washington, D.C., released October 19, 1972.

ruptive for the addict "acclimatized" to the euphoric depression induced by heroin. The addicts begin using barbiturates as a substitute for the heroin. The following case illustrates this progression: [25]

> A 22-year-old white female came to the Haight-Asbury clinic in the early stages of barbiturate withdrawal after shooting approximately 15 reds (1.5 grams of secobarbital) per day for approximately 4 weeks. Her history of drug use was long and varied. She began using heroin at age of 17 in New York and was hospitalized on 2 separate occasions. One year ago she decided to come to the "Haight scene" as New York was too much of a "hassel." She found that "west-coast" heroin was "over-cut" and very costly. As a substitute she began "shooting speed" but found this drug "to heavy." Finally she began using secobarbital, but found herself "hooked" and having heard of barbiturate convulsions she sought treatment.

As heroin use has spread, so has the associated use of barbiturates. While barbiturates are often taken orally, a significant number of heroin addicts take them intravenously. Thus, the initiation of more individuals into the needle culture by way of heroin (or stimulants) is a factor in the rise in the intravenous use of barbiturates.

A problem related to the use of barbiturates by heroin addicts is the growing evidence of barbiturate abuse by persons enrolled in methadone programs. While it blocks the euphoric properties of heroin, methadone does not, as commonly assumed, inhibit "highs" from barbiturates, stimulants, or other drugs.

Estimates of the proportion of methadone patients who abuse barbiturates range from 1 to 30 percent. Mr. Don Devereux, Direction of the El Vicio Drug Rehabilitation Center in Santa Fe, New Mexico, told the Subcommittee that even though they are treating heroin addiction successfully with methadone, 20 percent of the heroin addicts in the El Vicio methadone program are addicted to secobarbital.

Dr. Roger Smith explained that the use of non-opiate drugs by methadone patients can often be explained by their need to "get down," to obtain relief from anxiety that one does not get from methadone. Until methadone programs are better equipped to deal with the root causes of drug addiction, methadone patients will continue to seek escape with barbiturates and other non-opiates.

Barbiturates and Violence

Violent behavior may accompany barbiturate abuse. The heavy abuser is confused, agitated, aggressive, and prone to hostile activities.

Dr. Roger Smith, Director of the Marin Open House in California, a criminologist specializing in gang behavior and drug abuse, testified that barbiturates are commonly used by gangs in situations of conflict. Dr. Smith reports that members of motorcycle gangs such as the Hells Angels and the Gypsy Jokers swallowed barbiturates by the half-dozen to obtain a euphoric high and to demonstrate their *machismo*. He was told of a runaway girl who refused sexual intercourse with

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[25] *See*, footnote 18, p. 5.

seven motorcycle riders and was then injected with 8,000 milligrams of secobarbital. Such gangs have also been implicated in the illicit traffic of barbiturates.

When barbiturate abuse swept the Haight-Ashbury in the early months of 1969, violence and crime were rampant. One barbiturate addict told Dr. Smith that:

> Barbs are what make you really mean and nasty, specially if you want to be. It's the combination of the two. Once you've got enough goofers (barbiturates) so you're ready to kill some cat, you have to shoot up the crank (amphetamine) so you get the energy to do it. Barbs really tear your head apart. They overpower the speed (amphetamine) and the speed gets you where you're paranoid and when you're coming down it's real fear. But everybody out here is looking for a mellow downer (barbiturate). I don't know a speed freak alive who doesn't use barbs.

Another barbiturate addict told Smith, "Rip-offs are quite the fashion now that reds [barbiturates] are big. People who used to pride themselves on dealing would rather go and rip these days."

Unlike opiates, which frequently serve to contain aggressive urges, barbiturates permit the ventilation of aggressive feelings. Witness after witness emphasized the often violent character of the barbiturate abuser. Los Angeles District Attorney Busch's comments were typical:

> The common characteristic of barbiturate abusers is immense violent tendencies. Officers in arrest situations use extreme caution because of the violent nature of barbiturate abusers and the great difficulty in subduing them. Officers say they are worse than the meanest fighting drunks.

A young man, formerly a barbiturate addict, explained that he had experienced a considerable number of very irrational feelings while under the influence of barbiturates. He said that he felt as if he had "a very bad hangover, . . . a feeling of extreme sensitiveness, and irritability—felt ready to lash out at anyobdy."

Dr. Wesson, claimed that youths "stoned" on barbiturates were among the most obnoxious people he had treated. He said that:

> It was not infrequent to have someone brought in who was stoned on reds who had been to a party. They would become belligerent under the influence of barbiturates—distorted impressions of physical prowdess would lead such an individual to take on 3 members of the police force.

Thus, even those involved in casual or episodic barbiturate abuse are susceptible to violent tendencies. Once inhibitions are lowered, hostile attitudes and behavior emerge.

Several witnesses cited specific cases involving senseless and brutal acts of violence committed by individuals while under the influence of barbiturates. A Los Angeles cab driver was stabbed thirteen times after giving his money to a barbiturate addict during a robbery. A 66 year-old man was killed by eleven shots pumped into him by a 16 year-old high on barbiturates. Lt. Hurst of the Norfolk, Virginia, Narcotics Squad reported a case in which two brothers, known to be barbiturate addicts, participated in the severe stabbing of a U.S. soldier, the murder of a U.S. sailor, and the wounding of another within minutes of each other at two different locations.

Recently, NBC news aired a chilling television documentary entitled "Thou Shalt Not Kill." For nearly 35 minutes the viewer witnessed two inmates, incarcerated on death row in the Utah State Prison, excitedly describe the macabre details of their half dozen

brutal murders. What may have escaped the typical viewer were the many references to the beer and pills taken by these men during their murderous binge. During a three day period they reportedly ingested pentobarbital capsules by the handful approximately every 3 hours. They were described as edgy, grimy, laughing, walking zombies, all consistent with chronic barbiturate intoxication.

While the actual number of crimes committed by individuals who are barbiturate abusers is unknown, several recent surveys indicate the number is substantial. A United States Bureau of Narcotics and Dangerous Drugs study of 1889 persons arrested for non-drug felony violations in six cities across the nation (Los Angeles, New York, San Antonio, Chicago, New Orleans and St. Louis) found that 17 percent of these individuals were current abusers of barbiturates and that more than a third of the drug-using arrestees had abused barbiturates. The barbiturate abusers had the highest rate of aggravated assault among all arrestee drug users, 11.3 percent as opposed to 3.1 percent for heroin users and 6.7 percent for amphetamine users. In fact, in Chicago, New Orleans and Los Angeles barbiturates were the principal drug of abuse among the arrestees, outranking even heroin. In the case of robbery, barbiturate abusers were second, only .6 percentage points behind amphetamine abusers (19.4 percent versus 20.0 percent), and were second only to heroin users with regard to burglary.[26]

A 1972 survey of inmates at the Ohio State Reformatory found that 33 percent (330) of the inmates responding to the survey had abused barbiturates.[27] A 1972 Drug Abuse Survey of the Indiana Boy's School, a state reformatory for boys ages 13 to 18, found that 34 percent had abused barbiturates; that a majority of these were serious abusers, including 13 percent who had abused barbiturates five times a week for at least six months; and, that a significant portion of the boys had been incarcerated for acts committed while under the influence of a drug.[28] A survey conducted by the Task Force on Drug Abuse found that 25 percent of the police departments responding associated violent behavior with the abuse of barbiturates.[29]

A recent unpublished study of drug use among youthful male offenders incarcerated at a moderate security prison in California found that the use of barbiturates prior to an offense was clearly associated with criminal behavior, especially assaultive behavior. Out of a total of 50 assaultive offenses—4 murders, 7 cases of manslaughter, 6 episodes of rape with battery and 33 episodes of assault and battery—barbiturates, although reportedly used only one-fourth as frequently as alcohol, ranked second to alcohol in the number of instances in which an individual under the influence of a drug committed an offense. Barbiturates, particularly secobarbitals, were involved alone or in combination with other drugs in 13 of these assaultive offenses. The study revealed that secobarbital was overwhelmingly selected by these youths as the drug most likely to en-

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[26] *See*, footnote 4.

[27] Saylor, Duane, coordinator, Narcotics Group Survey, Ohio State Reformatory, June 2, 1972. (To be found in the files of the U.S. Senate Subcommittee to Investigate Juvenile Delinquency.)

[28] Bennett, Alfred R., Superintendent, Indiana Boys' School, State of Indiana, "1972 Drug Abuse Survey," 1972, pp. 1–11.

[29] *See* footnote 2, referring to, Task Force on Drug Abuse, "National Survey of Police Departments," January 1972.

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hance aggression. In fact, of 16 subjects who reported having deliberately taken a drug to induce courage to commit a crime, 5 indicated that they had taken "reds" (secobarbitals) and 3 indicated that they had taken "reds" combined with alcohol.*

The violence associated with barbiturate addiction is frequently personal, directed at the self, the family, or the neighborhood. These are not acts committed for profit or to obtain drugs, but acts induced by the intoxication itself. It is a violence that destroys families and the neighborhoods in which they reside. New Mexico's Special Assistant Attorney General Gallegos put it this way, "it is not violence that goes outside of the barrio. It is violence that occurs between a man and a woman in their apartment, it is violence that occurs on the streets with kids in the barrio."

Whether the criminal conduct associated with barbiturates is fostered by the drugs themselves or by the need to obtain these drugs, it is clear that increasing barbiturate abuse is intimately related to the growing numbers of violent and non-violent crimes committed each year.

Diversion of Legally Manufactured Barbiturates

During the course of the Subcommittee investigation of barbiturate abuse, a number of sources for illicit barbiturates were reported. Witnesses at Subcommittee hearings, including former barbiturate addicts and law enforcement officials, testified that illicit barbiturates are obtained from friends, street dealers, and unethical physicians and pharmacists; by forged prescriptions; and by pilfering abundantly supplied family medicine cabinets. Thefts from drug manufacturers, wholesalers, pharmacies, and doctors' offices are also a significant source of supply. Additionally, a substantial percentage of barbiturate abusers obtain their drugs legitimately for a recognized medical need and then gradually resort to self-medication for non-medical reasons or to illicit traffic.

Two factors relating to the availability of barbiturates are widely recognized. First, barbiturates are readily available in most communities in this country. As one sixteen-year old boy remarked at Subcommittee hearings in December 1971, "it is less of a hassle to obtain downers (barbiturates) than it is to purchase cigarettes." Second, although specific estimates differ, there is a consensus * among drug abuse experts and law enforcement authorities that a significant proportion of legitimately produced barbiturates find their way into the illicit market.

All available evidence indicates that to date, most illegal barbiturate traffic has involved the diversion and illicit distribution of legitimately produced barbiturates, both in bulk and dosage unit forms. As John Ingersoll, Director of the United States Bureau of Narcotics and Dangerous Drugs, informed the Subcommittee in May 1972, "unlike the case of all other major drugs of abuse, it appears that *barbiturates are*

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* Communications with Dr. Jared Tinklenberg, Department of Phychiatry, Stanford University Medical Center, regarding *A Survey of Drug Use, Patterns Among a Group of Incarcerated Offenders in California.*

*Representatives of some pharmaceutical companies do not accept this view.

supplied exclusively from what begins as legitimate production." [emphasis added] In fact, the Bureau has not found a single working clandestine barbiturate laboratory in the United States. This contrasts sharply with illicit amphetamine and hallucinogen traffic, which in recent years has been supplied at least in part from clandestine laboratories.

Various estimates have been made of the amount of barbiturates diverted from legal to illegal channels. However, as BNDD Director John Ingersoll has said, "the figures we are dealing with here are relatively unimportant. It is the substance which matters and the indicators reflect a continuing diversion problem with which we must concern ourselves." The Federal Bureau of Drug Abuse, predecessor of the United States Bureau of Narcotics and Dangerous Drugs, reported in 1968 that of the 3.1 billion barbiturate dosage units produced, 16 percent, or 500 million dosage units, were sold on the black market. On June 23, 1970, Vice President Spiro Agnew, in an address before the National Sheriffs Association, commented that "10 billion sedative dosage units will be produced this year * * * the equivalent of 50 for every man, woman, and child in the country. One-half of this supply will get into the illicit markets." One year later on June 22, 1971, President Richard Nixon, addressing the American Medical Association, said that five billion doses of barbiturates were legally produced in this country in 1970, and estimated that half of this annual production was diverted into illegal sales.

The only attempt to assess the extent of barbiturate diversion scientifically was the report released in July 1971, by Dr. Joseph Greenwood of the Bureau of Narcotics and Dangerous Drugs Office of Scientific Support.[30] Although the Subcommittee has discovered a significant error in the Greenwood study resulting in a gross under-estimation of barbiturate diversion, the study's findings nevertheless suggest that substantial quantities of legitimately produced barbiturates find their way into the illicit market.*

Based on 1967 bulk barbiturate production data, Dr. Greenwood estimated that 3.11 percent of barbiturate production plus imports was "unaccounted for," or diverted to illicit channels. (This estimate, statistically the "best" estimate, lies between the "0.95 confidence limits" of 0.0 percent and 6.38 percent. Such imprecision results from the use of sampling procedures.) This quantity of diverted barbiturates amounts to 235,115,000 dosage units of 50 milligrams each—enough to supply 85,884 addicts a year with a daily dose of 750 milligrams. Application of the 3.11 percent diversion figure to 1970 data on produc-

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[30] Greenwood, Joseph A., "A Study to Determine Total Legitimate U.S. Usage of Amphetamines and Barbiturates in CY 1967," July 1971.

* The error concerns his category "production added to inventory" (74,307 kgs.) which he treats as a "use" of barbiturates, accounting for a substantial proportion of total production. However, the Subcommittee has discovered that this figure, called simply "inventory" on other BNDD documents, represents the difference between bulk production and *bulk* sales of barbiturates. Therefore, this "inventory" figure actually includes *dosage form* sales by producers of bulk barbiturates. In short, Dr. Greenwood has treated the entire dosage form production of such major producers as Eli Lilly and Abbott as additions to inventory.

The Subcommittee has no information concerning actual inventory change in 1967. However, as production in 1967 was lower than in any other year from 1966 through 1970, it is likely that inventory growth was closer to zero than to 74,307 kgs. This means that Dr. Greenwood's estimate of diversion should be closer to 86,162.75 kgs. than to his actual estimate of 11,755.75 kgs., an increase of over 500 percent.

tion and importation yields nearly 300,000,000 dosage units, or 109,609 addicts a year.

Based on Subcommittee investigations, the Greenwood report reveals only the tip of the iceberg. Diversion from the numerous retail outlets was not assessed. For example, a consignee who legally received a shipment of barbiturates, a portion of which was subsequently diverted to the illegal market, would not be covered by the Greenwood estimate. Nor do the Greenwood figures take into account barbiturates obtained by fraudulent prescriptions, by multiple visits to several doctors, by thefts from medicine cabinets, or from unethical doctors and pharmacists. Although testimony at Subcommittee hearings and the comments of numerous law enforcement officials indicate that substantial quantities of barbiturates are diverted by these methods, the Greenwood diversion estimate does not include them. In fact, BNDD Director John Ingersoll, testifying before the National Commission on Marihuana and Drug Abuse on July 19, 1972, stated that:

> Dr. Greenwood's estimate of unaccountability are, of necessity, conservative since his study did not take into account the practice of overprescribing, the diversion of drugs from the household medicine chest, or the illegal filling of prescriptions. At present, we have no means of estimating the extent to which Greenwood's minimum percentages should be increased to include these sources of diversion.

Regardless of which estimate of diversion is accepted, it is clear that substantial quantities of legitimately produced barbiturates are finding their way into the illicit market. Diversion occurs at every level of the drug production-distribution system—from bulk and dosage form manufacturers, from wholesalers, from retail pharmacies, and from physicians.

Manufacturers

Diversion of bulk barbiturates usually occurs in transit from the raw material manufacturer to dosage-form manufacturers or to the several hundred brokers, exporters, and dealers throughout the country. At Subcommittee hearings in June 1972, Percy R. Pyne, Vice President of Gane's Chemical Works in Carlstadt, New Jersey, one of the largest producers of shorter-acting bulk barbiturates, reported a total of 180 pounds of secobarbital—the equivalent of 1,630,080 dosage units of 50 milligrams each—taken in several recent thefts of drugs in transit to customers.

Numerous thefts of encapsulated barbiturates in transit from manufacturers to wholesalers and distributors were reported to the Subcommittee by the Bureau of Narcotics and Dangerous Drugs. Although BNDD data did not reflect all known thefts, the thefts reported to the Subcommittee resulted in the loss of 470,000 barbiturate dosage units between October 1968 and November 1969. Typical of these cases was the loss of 40,200 Seconals® (secobarbital) and 14,800 Tuinals® (amobarbital-secobarbital) enroute from Indianapolis, Indiana, to Oakland, California. These drugs were not recovered.[31]

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[31] *See*, footnote 10, Response Number 9, p. 5.

Thefts from manufacturing plants which produce barbiturate dosage units are also a source of supply for the illicit barbiturate market. According to BNDD, on November 2, 1971, Danbury Pharmacal Inc., in Danbury, Connecticut, discovered the theft of appoximately 1,351,000 secobarbital capsules (100 milligrams each).[32] On December 21, 1971, Table Rock Laboratories in Greenville, South Carolina, was burglarized and 1,022,504 barbiturate dosage units were stolen.[33]

The BNDD has discovered few instances in which barbiturate manfacturers have been involved in overt illegal sales. However, some companies occasionally unwittingly make direct sales of large quantities of barbiturates to drug pushers posing as legitimate customers. For example, on May 12, 1971, BNDD agents arrested a suspect as he accepted a monitored shipment of 4,000 dosage units of amphetamines and barbiturates. Over a period of several months, this subject had used fraudulent means to obtain 17,000 dosage units of these drugs.

Diversion of barbiturates at the manufacturer's level also results from the illegal activities of company employees. For example, in August 1970, state and local law enforcement officials in Danbury, Connecticut, arrested an employee of the Davis Edwards Pharmacal Corporation as he attempted to sell 90,000 secobarbital capsules to the officers.[34]

In an effort to discover possible points of illicit diversion in the distribution system, BNDD audits the records of those authorized to handle dangerous drugs, including barbiturates. Although many of the records are incomplete and tend to underestimate the actual shortages, BNDD auditors discovered 125 incidents involving shortages of 6,422,718 barbiturate dosage units from April 1, 1970, through April 1, 1972. Regarding the implications of these shortages, the recent BNDD report on barbiturate abuse concludes that:[35]

> These shortages may represent erroneous records or other problems in failing to document every legitimate distribution of a substance. However, from our experience it is likely that they represent diversion of drugs from legitimate channels. For example, a pharmacist who dispenses Nembutal® (pentobarbital) without a prescription will be "short" that quantity of Nembutal® * * *

As a result of these investigations, BNDD, in Fiscal Year 1971 alone, seized 62,337,840 dosage units of depressants, including substantial amounts of barbiturates. Of this total, 56.676,000 dosage units were seized from six manufacturers and nine distributors.[36]

These seizures were made because the Bureau believed there was a high probability that substantial amounts of these drugs were actually being diverted or would, in the future, be diverted into the illegal market. For example, an August 1971 audit of Cord Laboratories Inc. in Detroit, Michigan, revealed discrepancies in the firm's recordkeeping practices which resulted in large overages and shortages of both raw materials and finished products. As a result of this investigation, BNDD agents seized 19,935,278 barbiturate capsules and tablets and 1,047.45 kilograms of barbiturate powder. According

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[32] *See,* footnote 10, Response Number 9, pp. 3–4.
[33] *See,* footnote 10, Response Number 9, p. 4.
[34] *See,* footnote 10, Response Number 9, p. 1.
[35] *See,* footnote 4, p. 91.
[36] Materials provided to U.S. Senate Subcommittee to Investigate Juvenile Delinquency, by Mr. Gene Haislip, Special Assistant to Director, Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, February, 1972.

to BNDD reports, "Cord Laboratories has a history of loose practices and its products have frequently turned up in illicit traffic." [37]

The manufacturing companies represented at Subcommittee hearings generally expressed support for a measure requiring manufacturer identification symbols on individual dosage units. In addition, some companies indicated that stronger regulations, including rescheduling, might be necessary. For example, Richard D. Wood, President of Eli Lilly and Company, one of the largest barbiturate manufacturers in the country testified, "If it is determined that transferring certain barbiturates to Schedule II would be a step toward ending their misuse, Eli Lilly and Company would not oppose it." [38]

Wholesalers

Thefts by employees provide a constant source of diversion from wholesalers. Frank L. Capers, President of McKesson and Robbins Drug Company Division, one of the largest wholesale distributors of barbiturates, commented on problems of diversion at the Subcommittee's hearings in June 1972:

> The problem is not so much one of protection against robbery when the warehouse is closed, as it is of control during working hours—control of the place to which the barbiturates are delivered, the quantities delivered, and control against mysterious disappearance and pilferage.

Mr. Capers described a recent case in which a youthful employee secreted 500 secobarbital tablets from warehouse stocks in each of his high-top boots. This case was one of 10 investigations conducted by McKesson during 1971 at several of their 93 warehouses located throughout the country. Mr. Capers said that McKesson had no way to determine the actual quantity of barbiturates diverted other than the admissions of employees once apprehended and questioned. However, he estimated that the 10 investigations uncovered diversions of 150,000 barbiturate dosage units. He noted that even when a computer is used to check inventories, a physical count, although still necessary for accuracy, is only rarely made. Mr. Capers further commented that, although no "large shortages" of barbiturates were discovered in 1971, "shortages of a small number of packages do not automatically come to light."

Large thefts occur less frequently than employee pilferage, but are a significant source of illegal barbiturates. At Subcommittee hearings in May 1972, Los Angeles County District Attorney Joseph Busch reported a theft of approximately 500,000 barbiturates from a Los Angeles warehouse. According to the Bureau of Narcotics and Dangerous Drugs, on June 1, 1971, the Abbott Laboratories warehouse at Stone Mountain, Georgia, was burglarized of 146,200 barbiturate dosage units.[39]

The Bureau of Narcotics and Dangerous Drugs' analysis of barbiturate thefts from manufacturers and distributors reveal that thefts of the popular shorter-acting barbiturates—amobarbital, butabarbital,

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[37] *See,* footnote 10, Response Number 9, p. 3.
[38] Testimony of Richard D. Wood, President of Eli Lilly and Company, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, (June 12, 1972).
[39] *See,* footnote 10, Response Number 9, p. 6.

pentobarbital, and secobarbital—account for more than three-fourths of all the barbiturates stolen. The profits involved in the black market sale of these drugs are substantial. According to Drs. David Smith and Donald Wesson of the Haight-Ashbury Free Clinic, 1,000 secobarbital capsules (100 milligrams each), which can be purchased wholesale for $5.35, have a street value in excess of $250.00.[40]

Retail Pharmacies

Because they distribute vast quantities of babiturates and because of their relatively ineffective security measures, retail pharmacies are more vulnerable to illicit diversion than most other components of the drug distribution system. According to Dr. Henry Simmons, Director of the United States Food and Drug Administration Bureau of Drugs, 41,026,000 prescriptions for barbiturates were filled in 1970.[41] Since an average single prescription for the shorter-acting barbiturates is approximately 50 dosage units, the total prescriptions filled by pharmacies in 1970 amounted to more than two billion barbiturates. The potential for diversion is tremendous.

In addition to legally dispensed barbiturates, some of which eventually reach the illicit market, substantial quantities of barbiturates are illicitly diverted from pharmacies by theft, pilferage, illegal sales, unauthorized refills, and forged prescriptions. Robert Brandon, Co-Director of the Task Force on Drug Abuse, testified at Subcommittee hearings in May 1972, that prescription forgeries are a substantial source for abused barbiturates. While there is no way to determine the exact number of forged prescriptions which are filled, a national survey conducted by the Task Force revealed that at least 150,000 forged barbiturate prescriptions are detected by pharmacists each year.

The ease with which barbiturates can be obtained by forged prescriptions was demonstrated by Richard Oliver, a reporter with the *New York Daily News*. At Subcommittee hearings in May 1972, Mr. Oliver testified that, with the knowledge of the district attorney, he approached local printing companies who prepared prescription pads for his use. Although he used the address of a drug treatment clinic and claimed to be "Dr. D. M. Sugob," which in reverse spells "Bogus M.D.," he had no trouble obtaining the prescription blanks at nominal cost. Using these blanks, he wrote numerous prescriptions for barbiturates, many of which were filled without question. He noted that even though his prescriptions did not contain the Bureau of Narcotics and Dangerous Drugs number required by Federal law, they were infrequently challenged.

Attorney General Jim Guy Tucker of Arkansas testified at Subcommittee hearings in May, 1972, that drugstores were the number one source for barbiturate diversion in his area. He reported that during the first four months of 1972, there were eleven drugstore burglaries involving barbiturates in metropolitan Little Rock. During the same period in 1971, only five such burglaries were reported.

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[40] *See*, footnote 8.

[41] Testimony of Dr. Henry Simmons, Director of the U.S. Food and Drug Administration, Bureau of Drugs, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, (May 2, 1972).

Mr. Tucker also commented on the ease with which fraudulent prescriptions are accepted and concluded that:

1. Legitimate prescriptions by our physicians are not handled with enough care and control;
2. Pharmacists are not strict enough in double checking the validity of physician prescriptions;
3. Prescription pads are too easily available to members of the public.

The Subcommittee has received some reports of pharmacists who intentionally engage in illicit sales of barbiturates. For example, in 1969, a California pharmacist was arrested while in the process of selling 31,000 secobarbital capsules to a Bureau of Narcotics and Dangerous Drugs agent. The pharmacist was subsequently convicted of illegal sale and sentenced to a term in prison. Another example, reported by Burton Roberts, District Attorney of Bronx County, N.Y., involved a 1970 case in which a pharmacist illegally dispensed 190,000 dangerous drugs—many of which were barbiturates—during a four-month period. District Attorney Roberts noted that this was the equivalent of seven years of normal sales for a pharmacy of the size involved.

Physicians

The Subcommittee has received many reports of thefts from physicians. Usually these thefts take the form of burglaries of doctors' offices. Drug samples and supplies are the primary objectives; however, prescription pads are also sought. Doctors are also vulnerable away from the office: robberies and pilferage of unattended physician's bags are not uncommon.

In addition to thefts, there are many other means of illicitly diverting barbiturates from physicians. One common practice involves a single barbiturate abuser who visits numerous doctors and complains of the same ailment. From each doctor, the abuser will request and receive a prescription for barbiturates. These prescriptions will be filled and refilled at numerous pharmacies. The abuser is often able to obtain large quantities of barbiturates in this manner without being detected.

In a few instances, physicians themselves are actively engaged in illicit barbiturate traffic. The Director of the Bureau of Narcotics and Dangerous Drugs, John Ingersoll, reported such a case at Subcommittee hearings in May 1972:

> In February, a doctor in New Jersey was discovered by local police to be a flagrant prescriber of barbiturates. The police came to us. We introduced an undercover agent into the situation, who purchased prescriptions, and the doctor was then arrested. At the time the doctor was arrested, there were some 26 people in the office waiting for false prescriptions from the doctor.

Fortunately, this type of physician is the exception among medical practitioners; however, as Mr. Ingersoll pointed out to the Subcommittee, "there are enough exceptions to represent significant sources of diversion."

Subcommittee hearings have revealed that a significant source of abused barbiturates, especially for the very young, is the family medicine cabinet. Several witnesses linked the availability of barbiturates

in the family medicine cabinet to overprescription by physicians. Dr. David Lewis of the Harvard Medical School, testifying at Subcommittee hearings in December 1971, reported that his survey of Boston physicians revealed that two-thirds of the physicians questioned believed that other physicians prescribed too many barbiturates.

Although research on the prescribing habits of physicians on a national scale is not available, a recent study at the Los Angeles County-University of Southern California Medical Center provides persuasive evidence of the extent of barbiturate overprescription.[42] The Center fills prescriptions for large numbers of physicians in the Los Angeles area and makes an entry of each into its computerized records. A panel of five physicians and two pharmacists established objective medical and scientific criteria for determining which prescriptions were excessively large. Among the facts considered were the type of drug prescribed, its potential for abuse, the need for physician supervision and observation, excessive patient case load, and the possibility of serious side effects. In June 1972, the Center provided the Bureau of Narcotics and Dangerous Drugs with data of prescription practices from January 1969 through May 1972. Based on these data, the recent BNDD report on barbiturate abuse concluded that:[43]

> * * * approximately 14–15 percent of the prescriptions for sedative-hypnotic barbiturates (i.e., secobarbital, pentobarbital and amobarbital) were considered excessive under the limits set, and approximately 35 percent to 40 percent of these same barbiturates in terms of actual dosage units dispensed during the yearly time intervals were considered as exceeding the safe limits.

More attention should be focused on the prescribing habits of physicians. A busy or careless physician may contribute to the misuse of barbiturates. A physician may fail to adequately examine the basis for a patient's complaints, or may overprescribe pills or permit multiple refills of the prescription without supervision to assure they are being properly used.

Dr. Donald Wesson expressed his concern to the Subcommittee that "prescribing habits are frequently passed on more on the basis of tradition than on sound pharmacology." The medical community played an important role in curbing the overprescription of amphetamines. Through educational efforts and voluntarily limitations on prescribing and dispensing of amphetamines, numerous medical societies throughout the country are attempting to assure that amphetamines are prescribed only when sound medical judgment supports their use. A similar endeavor with barbiturates could assist efforts to curb the non-medical use of these drugs as well as provide a sounder basis for assessing true medical needs if production quotas are to be established.

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[42] Maronde, R. F., Lee, P. V., McCarron, M. M., Seibert, S., "A Study of Prescribing Patterns," *Medical Care*, vol. 9, No. 5, October 1971, pp. 383–395.
[43] *See*, footnote 4, p. 85.

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PART II

NATIONAL SURVEY OF BARBITURATE ABUSE AND ILLICIT TRAFFIC

(Conducted by: Senate Subcommittee to Investigate Juvenile Delinquency, December 4, 1972)

Introduction

In order to obtain information on barbiturate abuse throughout the country, the Subcommittee submitted detailed questionnaires to the attorneys general of every state and territory, to 148 police departments, to 197 district attorneys, and to 160 forensic toxicologists. The questions elicited the experience of these officials regarding the extent and seriousness of barbiturate abuse within their jurisdictions, the age groups most frequently affected, the kinds of barbiturates involved, and the sources of supply for these drugs. Two hundred and forty written responses were received; these were supplemented by additional letters and telephone calls to obtain more detailed information.

The extent and seriousness of abuse was measured primarily by law enforcement contact with barbiturates and barbiturate abusers. Arrest statistics are a prime indication of such contact; however, they are not always available. Since many police departments record all non-narcotic drug arrests in a single category, separate barbiturate arrest statistics are often not maintained. Moreover, drug arrest statistics are not entirely reliable as a measure of the extent and seriousness of abuse. Police officials exercise a considerable amount of discretion as to when to make an arrest and on what charge. As a hypothetical example, in a raid on the establishment of a suspected drug pusher who is found to be in possession of illegal heroin, cocaine, amphetamines, and barbiturates, police frequently file charges only for illicit possession of narcotics, since possession of those drugs carries the heaviest penalties. The Subcommittee received numerous reports of this sort of practice. A typical comment was made by Major Everett Price of the Savannah, Georgia, Police Department who noted that "in a large number of instances, barbiturates were found at the scene of raids in which heroin and other narcotic drugs were found . . . [but] those arrested were only charged with the more serious offenses."

The Subcommittee also was informed by many law enforcement officials that because of limited resources, they have concentrated their efforts primarily on combatting illicit heroin traffic. The response of James T. Hannan, Chief of Police of Paterson, New Jersey, was characteristic of the attitude of many police departments:

> With the limited personnel and finances at our disposal, it is my decision that more good can be accomplished by concentrating on the illegal traffic and use of "hard" drugs.

Thus, rising arrest statistics for a particular drug offense may reflect the seriousness with which the police view the problem and not necessarily an actual increase in abuse of a particular drug. This is recognized by many law enforcement officials who report that their arrest statistics underestimate the actual extent of barbiturate abuse.

Furthermore, many experts believe that a substantial number of barbiturate abusers have little or no contact with the criminal justice system because they obtain their drugs from legal sources. Since they have ready access to barbiturates, many of these abusers need not engage in criminal acts to obtain their drugs and remain undetected, perhaps for their entire drug-taking career. If their abuse of barbiturates becomes known at all, it is to the toxicologist who investigates a barbiturate related death, the emergency room doctor who diagnoses a barbiturate overdose, or to the family physician who learns that his patient has become physically or psychologically dependent. Thus, a significant number of barbiturate abusers are unknown to law enforcement personnel and are not reflected in arrest statistics.

Because of the deficiencies of arrest statistics, the Subcommittee examined other indices of barbiturate abuse regularly compiled by the police. Drug seizure statistics provide another source of information reflecting law enforcement contact with barbiturate abuse. Some police departments record all drugs seized in the course of an arrest even though the individual is charged with only one particular drug violation. Since these records usually note the size of seizures, some idea of the amount of drugs in the illicit market may be gained. However, some department reporting practices underestimate the actual number of barbiturates seized. John F. Nichols, Police Commissioner for Detroit, explained this problem:

> The confiscations of barbiturates * * * are not indicative of the total amount seized. Due to the large drug confiscations, and limited personnel at the Scientific Section for analysis, only those drugs likely to be utilized for court presentation are processed. Thus determinations are not made of many confiscated substances which might substantially add to the total.
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> Another factor that affects the total confiscations is that the Precinct Narcotic Unit, implemented in 1971, seized a total of 119,983 doses of dangerous drugs during 1971, and which were not differentiated by class. Many of these drugs were barbiturates, however, the total was not determined.

In order to supplement the information from law enforcement officials the Subcommittee also sought the experience of forensic toxicologists. In some jurisdictions, drug seizure statistics are not available. However, where court action is warranted, the police typically turn over samples of seized drugs to the toxicologist for identification. While the number of barbiturate samples recorded by the toxicologist does not indicate the quantity of drugs seized by the police, it does indicate the approximate number of times the police have encountered barbiturates.

Other indices of barbiturate abuse used by the Subcommittee are reports of barbiturate related deaths, overdose cases, and voluntary admissions of abuse compiled in national and regional polls. For example, in 1969, the Gallup survey of drug abuse on college campuses across the nation reported that 11.7 percent of the college students inter-

viewed abused barbiturates.[1] More recent surveys of high school and junior high school students reveal even higher levels of abuse than those reported by Gallup among college students. Among these younger school children, barbiturates typically are the third most abused drug, following only alcohol and marihuana in frequency of abuse.

Another indication of the seriousness of abuse, somewhat less obvious than those already discussed, is intravenous use of barbiturates. According to Drs. Donald Wesson and David Smith of the Haight-Ashbury Free Clinic in San Francisco, intravenous barbiturate abuse is the most extreme form of abuse. Barbiturates are often injected by heroin addicts and multiple drug abusers. Not only is intravenous use extremely dangerous physiologically, it also demonstrates "a strong commitment to a drug-using subculture."[2] Thus, any report of intravenous use is worthy of note, and extensive intravenous use is an extremely serious matter.

Information on the types of barbiturates which are most frequently abused and their sources are important to define more clearly patterns of abuse and to suggest methods of reducing abuse. Testimony at Subcommittee hearings suggested a number of possible sources of supply for abused barbiturates. Many witnesses, including John Ingersoll, Director of the United States Bureau of Narcotics and Dangerous Drugs, testified that illicit diversion from legitimate channels is the primary source of abused barbiturates. Illicit diversion includes all "leaks" from the legitimate drug distribution system. Typical means of diversion reported to the Subcommittee are thefts from pharmacies, physicians, drug manufacturers and drug wholesalers, fraudulent prescriptions; and pilferage from the home medicine cabinet.

The Subcommittee also received some reports of illegally imported barbiturates—the so-called "Mexican reds." The United States Bureau of Narcotics and Dangerous Drugs, after extensive investigation, has concluded that the barbiturate materials used in these "reds" are legitimate, although not American, in origin. Witnesses noted that these drugs are principally encountered in the West and Southwest and are almost unknown elsewhere. Additionally, some suggestions have been made that abused barbiturates might be supplied from clandestine laboratories, as has been discovered in recent years with amphetamines and hallucinogens. This suggestion, however, has never received much substantiation. To date, the United States Bureau of Narcotics and Dangerous Drugs has not found a working underground barbiturate laboratory in the United States.

In order to obtain more detailed information on the sources of supply, the Subcommittee sought the views of state attorneys general, district attorneys, and police departments as to where abusers obtain their barbiturates. The consensus of the law enforcement personnel responding to the Subcommittee questionnaire was that illicit diversion of legitimately manufactured barbiturates is virtually the exclusive source. Only in the Southwestern region, California, and Hawaii, were foreign barbiturates, especially those smuggled from

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[1] "Diet Pill (Amphetamine) Traffic, Abuse and Regulation," hearings before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, February 7, 1972, p. 449.

[2] Testimony of Drs. Donald Wesson and David Smith, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, December 15, 1971.

Mexico, identified as a major problem. However, even in these areas, illicit diversion was regarded as an important secondary source of supply. In the East, the Midwest, and the South, reports of illicit diversion were overwhelming. Notable exceptions to this pattern were reported in cities such as New Orleans and Miami, which are major ports of entry for foreign commerce. Although clandestine laboratories were occasionally cited as a possible source, they were never regarded as a significant factor in supplying the illicit barbiturate market.

The Subcommittee questionnaire also requested information on which barbiturates are most commonly abused. The responses corroborated testimony received at Subcommittee hearings which indicated that the shorter-acting barbiturates are most frequently abused. The barbiturate most commonly encountered by law enforcement personnel was clearly secobarbital. Secobarbital-amobarbital combinations, and pentobarbital were the next most commonly encountered barbiturates. Thus the three most abused drugs reported by law enforcement personnel were all short-acting barbiturates. Certain intermediate or long-acting barbiturates were also reported, but to a much smaller degree. The drugs most commonly reported in this category were amobarbital, an intermediate acting barbiturate, and phenobarbital, a long-acting barbiturate. However, some information suggests that butabarbital abuse is increasing. The United States Bureau of Narcotics and Dangerous Drugs reports "an increasing amount of abuse information" regarding butabarbital.[3]

The information received by the Subcommittee was further supplemented by extensive discussions with law enforcement officials, criminologists, doctors, and drug abuse experts throughout the country. The information is organized into five regional reports.* Where sufficient information is available, individual states are discussed in detail. We have learned that there is significant regional diversity in the patterns and degree of barbiturate abuse throughout the country. We have attempted to present a comprehensive view by drawing on as many sources as possible.

Introduction to Eastern Region

Serious problems of barbiturate abuse are reported by the more densely populated states in the Eastern region of the country. The seven states which constitute more than 90 percent of the region's total population (New York, Pennsylvania, New Jersey, Maryland, Mas-

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[3] A Study of Current Abuse and Abuse Potential of the Sedative-Hypnotic Derivatives of Barbiturate Acid with Control Recommendations, Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, November 16, 1972, p. 5.

*For the purposes of this report, the states have been divided into the following five regions:

Eastern Region: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwestern Region: Illinois,Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

Southern Region: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

Southwestern Region: Arizona, Colorado, Nevada, New Mexico, Oklahoma, Texas, and Utah.

Western Region: Alaska, California, Hawaii, Idaho, Montana, Oregon, Washington, and Wyoming.

sachusetts, Connecticut, and Rhode Island consistently report rising barbiturate abuse, particularly among young people. The number of arrests on drug charges involving barbiturates is increasing rapidly, and reports indicate that seizures of millions of dosage units of illicit barbiturates are being made by law enforcement officials.

The Subcommittee received very little information from the less popuplous rural states (Maine, Vermont, New Hampshire, Delaware). While some of the officials who responded noted that some problem existed, the more typical replies indicated that statistics were not maintained or could not be gathered because of budgetary and staff constraints.

One notable exception to the regional trend toward more serious barbiturate abuse is the District of Columbia which reported only 55 arrests between 1967 and 1971 and the seizure of 8,000 dosage units from 1969 to 1971.[4] While it is possible that barbiturates have simply not made an impact in Washington, it is more likely that heroin and amphetamine abuse have masked a large portion of barbiturate abuse especially among multiple drug users.

Baltimore, Maryland, a city of almost a million people, affords a graphic example of the barbiturate abuse problem facing many large Eastern cities. In 1967, 81 arrests for barbiturate abuse were reported. Two years later the figure had jumped to 211 arrests. By 1971, there were 257 such arrests reported, more than triple the 1967 figure. During this same period, barbiturate overdose cases in Baltimore were also increasing rapidly. In 1969, 327 cases were reported; in 1970, 460 such cases were reported—a 40 percent increase. In the first 6 months of 1971, 370 cases were reported—more than the number of cases for the entire year 1969.

In the largest states in the Eastern region, New York and Pennsynvania, the barbiturate abuse problem has reached serious proportions. A statewide survey of Pennsylvania school children in 1970 showed that 20 percent of high school juniors and seniors abused barbiturates.[5] However, barbiturates were also found to be a problem of younger children. Sixteen percent of the seventh graders questioned abused barbiturates. Among Pennsylvania school children, barbiturates were the third most abused drug after alcohol and marihuana. In New York, barbiturate abuse has reached "epidemic proportions," in the words of one law enforcement official. In New York City alone, police have seized nearly 2.5 million dosage units of barbiturates between 1967 and 1971. Barbiturate arrests in that city during the same period rose more than 700 percent.

As in most of the other regions, the illegal barbiturate traffic in the East appears to be almost exclusively supplied by illicit diversion from legitimate sources. Law enforcement officials, when asked where barbiturates are obtained, consistently cite unethical activities of medical personnel; forged prescriptions; illegal mail orders; pilfering from family medicine cabinets; and thefts from manufacturers, wholesalers, and retailers. For example, Massachusetts reported more than 250 drugstore thefts during 1970 and 1971. One theft from a Danbury,

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[4] Letter to Senator Birch Bayh from District of Columbia Chief of Police, Jerry V. Wilson, dated February 11, 1972.

[5] See *Infra*, p. 40.

Connecticut, manufacturing plant resulted in the loss of 1.3 million secobarbital dosage units. Another case in New York involved one pharmacy which sold 190,000 barbiturate dosage units during one four-month period. Generally, there was very little evidence to show substantial use of imported barbiturates such as "Mexican reds" or of barbiturates produced by clandestine laboratories.

The prevalence of police reports of illicit diversion as the source for barbiturates adds credence to the widely held view that domestic manufacturers are the primary source of illegal drugs. As John Ingersoll, Director of the United States Bureau of Narcotics and Dangerous Drugs, testified before the Subcommittee on May 3, 1972: "Unlike the case of all other major drugs of abuse, it appears that barbiturates are supplied exclusively from what begins as legitimate production." Reports to the Subcommittee often showed that brand-name barbiturates were frequently encountered by law enforcement personnel. While there is some evidence that police identifications of brand-name drugs are not always accurate, reports of illicit diversion, which is virtually the exclusive source of abused barbiturates in the East, tend to corroborate the validity of police identifications of brand-name drugs.

The Eastern region exhibits the most pervasive pattern of barbiturate abuse in the country. While other regions have alarming concentrations of serious abuse, no other region approaches the consistently high levels of serious abuse found throughout the larger states in the Eastern region. Nor is there any indication that barbiturate abuse has reached a plateau. Quite the opposite. Recent trends indicate that abuse is increasing and that the traditional preference for amphetamines and hallucinogens may be waning in favor of what abusers mistakenly consider the less severe effects of "downers."

NEW YORK

William Cahn, District Attorney of Nassau County and President of the National District Attorneys Association, testified before the Subcommittee on May 17, 1972, that barbiturate abuse has reached crisis proportions:

> For the past ten years we in law enforcement have noted the steady increase in the availability of these pills on the streets and the dramatic upsurge in their use among our young people. No longer is there just a steady rise. Our communities are literally flooded and the trends of barbiturate abuse have reached epidemic proportions.

Barbiturates caused 205 deaths in Nassau County from 1967 to 1971.

According to District Attorney Cahn, the barbiturates most frequently encountered in Nassau County are domestically manufactured secobarbital capsules, which account for about 80 percent of all barbiturates seized. He informed the Subcommittee that clandestine laboratories are very rare and that in Nassau County "we have had very little contact with foreign manufactured pills." He noted that "in the East we are not in any way affected with this Mexican import problem." He also noted that barbiturate abusers are primarily supplied with "legitimate pharmaceutically manufactured pills"; this diversion results "from the failure of pharmaceutical manufacturers, whole-

salers, and retail pharmacists properly to inventory and account for their supplies and maintain security over such supplies."

John Ingersoll, Director of the U.S. Bureau of Narcotics and Dangerous Drugs, testified at Subcommittee hearings on May 3, 1972, that "few violators have been known to deal in barbiturates exclusively." Unlike the heroin pusher who deals in only one product, "most persons who deal in illicit barbiturates would also handle amphetamines, hallucinogens, and perhaps marihuana as well." This led Mr. Ingersoll to conclude that arrest statistics of those who sell dangerous drugs "would more accurately reflect a true picture" of the extent of the barbiturate problem than simply the arrests of barbiturate pushers.

New York City Police Commissioner Patrick Murphy supplied arrest statistics for sale of barbiturates and amphetamines but did not include hallucinogens and marihuana sales arrests. This category of arrests limited to only two dangerous drugs, is even more restricted than the broader category discussed by Mr. Ingersoll. Nonetheless, these statistics show a startling increase since 1967. In 1967, only 93 sales arrests were made. By 1971 the numbers of arrests had risen to 676—an increase of more than 700 percent. During that five year period, New York City police arrested 2,024 illegal sellers of barbiturates and amphetamines.

Barbiturate seizures have also been very large and steadily increasing in New York City. In 1968, the New York Police Department seized the equivalent of 172,581 dosage units.* Two years later, in 1970, this figure climbed to 880,353 dosage units. During the 5-year period from 1967 through 1971, New York City police seized the equivalent of 2,455,512 dosage units.

With the exception of some cities in California, more illicit barbiturates have been seized in New York than in any other city. Although the U.S. Bureau of Narcotics and Dangerous Drugs reports having traced some "Mexican reds" as far as New York, Commissioner Murphy noted that "generally, barbiturates are legal medications syphoned out of legitimate channels into the illicit market."

Burton Roberts, District Attorney of the Bronx, reported that during the 17-year period from 1954 through 1970, 3,925 New York City residents died from overdose of barbiturates. More than one-third of those deaths occurred in the last four years of the period. This increase in barbiturate-caused deaths and the rise in police seizures of illicit barbiturates led Mr. Roberts to recommend "that the legislature impose stricter controls on the drug industry." He believes that such measures could help to stem the illicit diversion of legitimate drugs, illustrated by a recent case in the Bronx:

> In 1970, my Office conducted an extensive investigation into the activities of two doctors and two pharmacists who owned a retail pharmacy. The investigation revealed that during a four month period this pharmacy dispensed approximately 190,000 pills containing dangerous drugs (this would be a normal seven years supply for a drug store) and that nearly all of the 9,000 prescriptions for these drugs were written by the two doctors. Moreover, an audit of the pharmacy records disclosed a shortage of approximately 33,000 pills.
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> Furthermore, the investigation showed that a vast majority of the prescrip-

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*Throughout the Subcommittee's survey, where seizure data is provided in terms of "equivalent" dosage units, 50 mg. is assumed to be the unit of dosage.

tions were made out to either persons who did not live at the address given or to persons who denied that they ever used dangerous drugs. Some of the prescriptions stated addresses which, in fact, do not exist. Finally, a careful examination of the prescription records disclosed that the amount of drugs prescribed to an individual were grossly excessive, and in some instances would have amounted to lethal dosages.

Both the doctors and the druggists were indicted by the Grand Jury for illegally dispensing dangerous drugs, and three of them have entered pleas of guilty. At present, the case against the remaining defendant is awaiting final disposition.

John M. Braisted, Jr., District Attorney of Richmond County, Staten Island, focused on the barbiturate problem in the schools. He wrote the Subcommittee "that the use and sale and possession of barbiturates in our public schools has become an acute problem. Last week approximately six (6) arrests were made for the sale of barbiturates in one of our public high schools."

Reports from other areas of New York State indicate that barbiturate abuse is becoming more serious, and law enforcement personnel are becoming increasingly concerned. Dr. Bernard Newman, Director of the Police Laboratory in Suffolk County, reported that barbiturates were identified four times more often in 1971 than in 1967. The Police Department of the City of Yonkers, in the New York metropolitan area, reported 541 arrests for possession or sale of barbiturates from 1967 to 1971.

Thomas A. Rejent, Chief Toxicologist of the Erie County Laboratory, the crime laboratory which serves Buffalo, wrote that the extent of barbiturate abuse is "quite significant in this area, but the major abusers are certainly not in the juvenile age bracket." He commented that there were a "staggering number" of drug overdose cases in the previous five years and that "alcohol and/or barbiturates are involved in the highest percentage grouping."

Other cities in upstate New York also reported experience with barbiturate abuse. Commissioner John Mastrella of the Rochester Police Department reported 46 arrests for sale or possession of barbiturates from 1967 to 1971. 1,000 dosage units were seized in 1971, and smaller amounts in previous years. Police Chief Thomas Sardino reported that the Syracuse Police Department seized 1,900 dosage units of barbiturates in 1971, a large increase over the previous four years during which a total of only 108 dosage units were seized. He also noted that "forged prescriptions" and "thefts from wholesale drug distributors, drugstores and physicians' offices" were the major source of abused barbiturates in his community. Chief Edward McArdle of the Albany Police Department reported that thefts from drugstores and "stolen prescriptions" were sources of barbiturates. He also noted that the home medicine cabinet and "older addicts" supplied barbiturates to younger abusers. He reported a few arrests and limited seizures of barbiturates in Albany between 1967 and 1971.

New York, along with Texas and California, has the most serious barbiturate abuse problem in the nation—clear evidence of the coast-to-coast spread of barbiturate abuse in recent years. However, in New York, unlike the other two states, barbiturate abuse is unevenly distributed. The most serious abuse problems are concen-

trated in New York City. In California and Texas, barbiturate abuse is found much more uniformly throughout the states.

MASSACHUSETTS

Robert H. Quinn, Attorney General of Massachusetts, reported that barbiturate abuse is "increasingly prevalent" in Massachusetts. However, he indicated that arrest data substantially underestimate the extent of abuse because the barbiturate laws are very difficult to enforce:

> Data regarding the numbers of arrests involving the illegal use of barbiturates in Massachusetts are incomplete and misleading, in large part because of the difficulties inherent in implementing the Massachusetts Statutes which regulate the use of barbiturates . . . Since the statutory penalties for barbiturate abuse are misdemeanors, a police officer would have to have obtained an arrest warrant, unless the barbiturates are discovered pursuant to a lawful arrest for a separate crime. This requirement seriously restricts the police in their efforts to monitor the illicit use of barbiturates.

For this reason, it is not surprising that the Boston Police Department reported an average of only 25 barbiturate arrests a year from 1967 to 1971.

Evidence other than arrest statistics indicates that barbiturates are a substantial problem in the Boston area. Dr. David Lewis, Assistant Professor of Medicine at Harvard Medical School and a member of the Coordinating Council on Drug Abuse of Boston, testified before the Subcommittee on December 16, 1971, that he was "impressed with the increase in the street use of barbiturates by young people" over the last three years. He noted that in May 1971, the Medical Foundation of Boston conducted a drug abuse survey of 700 elementary and high school students in an upper middle-class suburb of Boston. The survey found that 2 percent of the sixth graders, 5 percent of the seventh graders, 9 percent of the eighth graders and 14 percent of the high school students had illicitly used barbiturates during the 1970–1971 academic year. Barbiturates were the third most frequently abused drug after alcohol and marihuana and were preferred over amphetamines.

Clinchem, an independent testing laboratory which performs drug assays for hospitals and other independent laboratories in the Boston area, reported that between 1969 and 1971, of their 3,670 drug sample tests, 1,516 or 41 percent, were found to be barbiturates. The tragic results of barbiturate abuse were made graphically clear by George G. Burke, District Attorney for the Norfolk District, which includes a large area of suburban Boston. Mr. Burke forwarded to the Subcommittee 81 death certificates from his district for the past 6 years—each of the deaths resulted from an overdose of barbiturates.

As in other Eastern states, barbiturate abuse in Massachusetts appears to be supplied largely through illicit diversion from legitimate channels of distribution. The Task Force on Drug Abuse, in an investigation of drugstore thefts in Massachusetts in 1970 and 1971, found that a total of 111,403 barbiturate dosage units were stolen in 256 reported thefts:[6]

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[6] Letter to Senator Birch Bayh from Steven Wax, Co-Director of the Task Force on Drug Abuse, dated June 2, 1972.

BARBITURATE THEFTS (BY BRAND NAME) IN MASSACHUSETTS

	1970 (Jan. 1–Dec. 31)	1971 (Jan. 1–Nov. 1)
Seconal	12,666	19,064
Nembutal	10,385	28,614
Tuinal	6,236	14,329
Amytal	2,826	3,828
Butisol	100	1,292
Carbrital	4,090	7,973
Total	36,303	75,100

District Attorney George Burke informed the Subcommittee that a recent investigation in the Norfolk District resulted in the seizure of 30,000 barbiturate dosage units. They were being sold by an assistant druggist from his home. According to Mr. Burke. "To obtain these drugs, it was only necessary to make one phone call to a wholesale house in Pennsylvania."

Another source of barbiturates, especially for young abusers, is the home medicine cabinet, Dr. David Lewis of the Harvard Medical School testified that he frequently encountered young people who obtained their drugs in this way, noting that overprescription contributes to the ease of pilfering from the medicine cabinet. A survey of physicians in the metropolitan Boston area which Dr. Lewis conducted in 1971 asked whether the physicians felt that other physicians were prescribing just the right amount, too few, or too many barbiturates. Two-thirds responded that they felt other physicians were prescribing too many barbiturates.

PENNSYLVANIA

A major statewide survey conducted by the Pennsylvania Department of Health in 1970, which questioned 6,969 Pennsylvania school children on their use of drugs, found that a significant percentage abuse barbiturates.[7] Abuse as reported ranged from "a few times" through "almost every day." The survey specifically excluded students who legitimately used barbiturates prescribed by a physician.

The survey found that the incidence of abuse was greatest among older students, increasing from 16 percent of the seventh graders to 20 percent of the high school juniors and seniors. Although barbiturates were abused less frequently than alcohol and marihuana, the students reported that they abused barbiturates more frequently than amphetamines and more than twice as frequently as LSD or heroin.

Reports from the State Department of Health and from several of Pennsylvania's major cities indicate that barbiturates are becoming a serious law enforcement problem. Zilian D. Rumberger, Director of the Division of Drug Control of the State Department of Health, reported that in the years 1968, 1970, and 1971, a total of 146,675 dosage units were seized. Between April 1971 and February 1972 (the first year separate statistics were maintained), 447 people were arrested for possession or sale of barbiturates in Philadelphia. Taras M. Wochok, Chief of the Narcotics Division of the District Attorney's Office, cited diversion from legal sources as the primary source of barbiturates:

[7] *Pennsylvania's Health,* Volume 32, No. 4, Winter Issue 1971, p. 16.

"The primary source of confiscated barbiturates are the major drug manufacturing companies . . . ." He noted that no precise percentage of illicit barbiturate traffic attributable to legitimately manufactured barbiturates is available. However, estimates are that it would be in the 90% range." In Philadelphia, 115 deaths due to barbiturates were reported from 1967 to 1971. During the same period, 44 percent of the drug overdose cases reported by the Philadelphia Medical Examiner involved barbiturates.

The Pittsburgh Coroner's Office reported that based upon drug samples analyzed, barbiturates are being used with increasing frequency. Between 1967 and 1971, 1,357 seizures of barbiturates in varying amounts were made. However, 38 percent of those seizures were discovered in 1971, the last year reported. The Coroner's Office noted that the abuse of barbiturates in Pittsburgh resulted in 118 deaths from 1967 to 1971—more barbiturate deaths than Philadelphia, a city three times as large as Pittsburgh, experienced during the same period.

Barbiturate abuse in Pennsylvania is probably much more widespread than the statistics indicate. As in many states, possession or sale of barbiturates is only a misdemeanor. The Subcommittee has frequently received reports indicating that where barbiturates are treated as only a misdemeanor, police tend to concentrate their efforts on more serious offenses. According to Zilian Rumberger, Director of the Division of Drug Control of the State Department of Health, "the courts in many instances only admonish first offenders" in order to avoid placing a "conviction on their record." These reports make it probable that a significant quantity of abuse is escaping discovery in Pennsylvania.

NEW JERSEY

A report of cases before the New Jersey Municipal Court and Juvenile Court between 1966 and 1970 indicates that barbiturates are a growing problem, especially among young people. The average age of individuals appearing before the Juvenile Court in dangerous drug cases is 16, while the average age of individuals before the Municipal Court is 22. Of the Juvenile Court dangerous drug cases, 11 percent involved barbiturates, while of the Municipal Court cases, 26 percent involved barbiturates. In both courts there were a total of 1,442 cases between 1966 and 1970 involving barbiturate abuse. Most of these cases have occurred in recent years; 54 percent of all the barbiturate cases occurred in the last two years of the survey, 1969 and 1970.

Reports from two New Jersey cities which noted only minor barbiturate abuse before 1970 reflect a recent increase in illicit barbiturate activity. Before 1970, Paterson police made no barbiturate arrests. In 1970, 11 arrests were recorded, and in 1971, 22 arrests were made. Barbiturate seizures also increased. In 1969 and 1970, a total of 227 dosage units were confiscated. In 1971, seizures jumped to 3,500 units. While these statistics indicate increased barbiturate abuse, they do not fully reveal the extent of the problem. As Paterson Police Chief James Hannan noted, limited resources have forced him to concentrate "on the illegal traffic and use of 'hard' drugs" and to ignore barbiturates. Elizabeth, an even smaller city than Paterson, reported 224 arrests for

possession and sale of barbiturates in 1970 and 1971, and seizures of four thousand dosage units between 1967 and 1971.

While increased police contact is an indicator of increased barbiturate abuse, an even clearer indicator is the steady rise in barbiturate casualties over the years. According to Chief Hannan, 186 people suffered barbiturate overdose in Paterson between 1967 and 1971. More than a third of all the reported cases (65) occurred in 1971.

RHODE ISLAND

The Forensic Toxicology Laboratory of the Rhode Island State Department of Health, which makes identification analyses of virtually all samples taken in drug cases by the Division and the police departments within the state, reported that in 1965, barbiturates were the most frequently identified drug of abuse, accounting for more than half the samples tested. During the period 1965–1971, the number of barbiturates tested increased nearly 400 percent. In 1971, barbiturates were identified more than twice as frequently as either heroin or amphetamines.

Joseph Cahill, Drug Control Administrator for Rhode Island, estimates that barbiturate seizures during the last five years have averaged 50,000 dosage units per year. He believes that the sources of these drugs are "massive diversions from licit inventories by prescription forgeries, over-prescribing, theft and deliberate conversion to contraband by persons lawfully authorized to have such drugs under their control."

Mr. Cahill has found "much evidence of the intravenous use of barbiturates both by admission of use and medical evaluation. This pattern of barbiturate abuse extends through all cultural, intellectual, social, and economic strata of society." The intravenous abuse of barbiturates is corroborated by Alfred V. Villatico, Principal Toxicologist, Department of Health, who reported that examinations of syringes confiscated by state and local police departments revealed the presence of barbiturates.

The Providence Police Department reported 68 arrests for possession and sale of barbiturates in 1971, the only year for which data is available. Chief of Police McQueeny indicated that illegal barbiturates are obtained "through prescription from medical doctors of questionable character, by theft from pharmaceutical warehouses and drugstores, and by uttering false prescriptions."

CONNECTICUT

Connecticut law enforcement and public health officials report a substantial amount of barbiturate traffic in the state. Robert C. Grieb, Chief of the Narcotics Control Section of the State Department of Public Health, reported the seizure of 92,000 secobarbital dosage units by police in New Haven on November 22, 1970. Lt. Hogan of the Special Service Squad of the Fairfield County Police Department reported the purchase of 90,000 secobarbital capsules by police in Fairfield County. John Ingersoll, Director of the United States Bureau of Narcotics and Dangerous Drugs, testified before the Subcommittee

in May 1972, that over 1,350,000 secobarbital capsules had been stolen from a pharmaceutical company in Danbury, Connecticut, on November 2, 1971. Dr. Abraham Stolman of the Connecticut Department of Health supplied information that the number of barbiturate samples discovered in drug tests has increased over 900 percent during the last 5 years—from 82 in 1967 to 781 in 1971.

While barbiturate identifications have increased substantially during recent years, barbiturate abusers have not been arrested in large numbers. Sgt. John Telesky of the Hartford Police Department's Narcotics Division believes that many abusers do not encounter the police because unlike heroin addicts they do not need to support their habit by street crime, and they do not have to buy from pushers. Sgt. Telesky reported, however, that "barbiturates are being used in conjunction with other types of narcotics. * * * We have found barbiturates in raids * * * where heroin, marihuana, cocaine, and amphetamines were seized."

Where barbiturates have been encountered, police report that illicit division is virtually the exclusive source of the abused drugs. Fairfield County and Waterbury officials, for example, noted that thefts from drugstores and wholesalers, and pilferage of medicine cabinets are typical sources.

MARYLAND

The State Department of Health and Mental Hygiene reported that "barbiturates, whether obtained through legal prescriptions or illegal sources, constitute a substantial health problem in the counties as well as in Baltimore City." The exact dimensions of the barbiturate abuse problem are difficult to assess, since, as the report notes, "unlike the narcotic abuser, there is no sound basis for assuming addicted individuals [to barbiturates] come into contact with law enforcement, or treatment sources in a relatively short period of time." The report observes that "cases for whom statistics are available represent emergency situations for the most part and usually involve overdoses some of which are accidental while others are intentional." In the majority of such cases, the barbiturates used were prescribed medicines rather than illicit "street" barbiturates. Many serious abusers and addicts are probably never detected by law enforcement or medical personnel. The report concludes that:

> * * * it is not possible to estimate with even rough approximation the number of persons in Maryland abusing barbiturates. It is reasonable to assume however, that only a small proportion of the abusers are seen in treatment facilities. Therefore, on the basis of available figures, it can be expected [that] the number of abusers certainly exceeds 1,000. How many more than 1,000 is anybody's guess at this time.

Although the true extent of barbiturate abuse in Maryland may be impossible to estimate, a substantial amount of abuse has come to the attention of the Baltimore authorities. The City Health Department reports that barbiturate overdose cases have risen rapidly in recent years. In 1969, 327 barbiturate overdose cases were reported; in 1970, 460 were reported; and in the first six months of 1971, 370 were reported (a projected annual total of 740 overdose cases). The Baltimore Police Department reports that barbiturate arrests have more than

tripled in recent years—from 81 in 1967 to 257 in 1971. Tragically, the statistics show that most of the growth in abuse has taken place among young people. In 1967, children under 17 accounted for only 8 arrests, or about 10 percent of the total barbiturate arrests reported. By 1971, this age group accounted for 93 arrests, or 36 percent of all those arrested. According to the Baltimore Police, legitimately manufactured barbiturates are most frequently encountered and are obtained by illicit diversion from "manufacturers, warehouses, or other sources."

Introduction to Midwestern Region

Reports from the Midwest indicate a remarkably uniform barbiturate abuse problem. With the exception of North and South Dakota which provided almost no information, most Midwestern states are experiencing moderate barbiturate abuse which is growing steadily. Although amphetamines and hallucinogens are still considered a greater problem in most states, the growth in barbiturate abuse in certain areas has eclipsed these other drugs. For example, surveys in Indiana and Missouri indicate that among young people barbiturates are third in abuse only to marihuana and alcohol. Similar information comes from the Des Moines, Iowa, Police Department which notes that the only more frequently abused drugs are marihuana and hashish.

The growth of barbiturate abuse in the Midwest is reflected in steadily rising arrest statistics. In Milwaukee, Wisconsin, arrests climbed from 7 in 1967, to 17 in 1968, to 99 in 1970, and dropped slightly in 1971 to 86. In Kansas City, Kansas, with a population of 168,000, barbiturate arrests of persons under 21 have risen from zero in 1966 and 1967, and only 6 in 1968, to 70 arrests in 1970, and 83 arrests in 1971.

The growth of barbiturate abuse is reflected also in the increasingly large seizures which have been made in recent years. In Minneapolis, Minnesota, 8,500 barbiturates dosage units were seized in 1969, and 150,000 units in 1970. The Illinois Bureau of Investigation reported seizures of 75 pounds of bulk barbiturates in 1970 and 1971, the equivalent of more than 650,000 dosage units. Barbiturates which escaped even seizures of this magnitude supplied the drugs involved in the unfortunate case recently reported in Livonia, Michigan, where several teenage abusers were apprehended after a car accident with 15,000 pentobarbitol capsules. Evidence that barbiturate abuse is spreading into lower age brackets is provided by the report from this same city that in the spring of 1972, 6 barbiturate overdose cases occurred in a single junior high school in one day.[8]

Barbiturate abuse is a growing concern of law enforcement officials in the Midwest. A number of cities like Toledo and Cincinnati, Ohio, report the creation of special drug details in recent years. While these new details are not solely a response to the problem of barbiturate abuse, "downers" are recognized to be an increasingly large factor in the pattern of drug abuse in the Midwest.

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[8] Subcommittee Staff Telephone Interview with Sergeant Grieve, Division of Police, Department of Public Safety, Livonia, Michigan, on September 23, 1972.

OHIO

Barbiturates were practically unknown as a law enforcement problem in Ohio before 1969. In 1968, three of Ohio's largest cities—Akron, Toledo, and Columbus—reported a total of 29 arrests for possession and sale of barbiturates. However, by 1971, the same three cities reported a total of 240 arrests. Of the three cities, Akron had the most rapid growth in arrests. In 1967, only 2 arrests for possession or sale of barbiturates were made; however, four years later, in 1971, the number of arrests had jumped to 96.

Barbiturate offenses may come to the attention of the authorities only when individuals are arrested on other charges. One dramatic example in Toledo of barbiturate abuse among young people involved a group of teenagers who were arrested as apparently drunk after a traffic accident. The police went to their nearby home and found hypodermic syringes and a bottle of 5,000 pentobarbital capsules which the youngsters had been injecting.[9] Incidents of this type caused Toledo to organize a special Drug Abuse Squad in 1970. According to Captain Norbert Declercq of the Morals and Narcotics Squad of the Toledo Police Division, the city did not have a serious drug problem before 1970; however, "due to the rapid increase of drug abuse cases in 1970," the Drug Abuse Squad was formed.

In Cleveland, barbiturates have become increasingly prevalent in poisoning fatality cases. In 1967, 29 people died from barbiturates; by 1970, the annual toll had risen to 51. According to the Cleveland Coroner, Samuel Gerber, barbiturates have become the most common cause of poisoning fatality, and "we have no reason to believe this trend will be reversed." The Cleveland Police Department also reports that barbiturate abuse has rapidly become more serious among young people.

According to Akron Chief of Police Harry Whiddon:

> The intravenous use of barbiturates is on the increase. In many of our arrests for possession of hypodermic syringes there was an indication that barbiturates were the drug of abuse. In most instances the type of drug abused is sodium seconal and sodium pentobarbital, the powder being removed from the capsules and injected. On few occasions liquid injectable barbiturate has been found, this being taken from doctors' offices or pharmacy burglaries.

Ohio law enforcement officials responding to the Subcommittee's questionnaire reported that drugstore burglaries, thefts from doctors, forged prescriptions, over-prescription by doctors, and pilferage of medicine cabinets are all common ways of obtaining barbiturates. Lt. Burt Miller of the Narcotics Division of the Cleveland Police Department noted one remarkable case in 1970 involving the disappearance from a drug warehouse of 7 million dosage units—many of them barbiturates.

INDIANA

The 1972 Drug Abuse Survey of the Indiana Boys' School, which houses juveniles from all parts of the state, reported that only marihuana was abused more frequently than barbiturates. Thirty-four

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[9] Subcommittee Staff Telephone Interview with Captain Norbert Declercq of the Morals and Narcotics Squad, Toledo Police Division, on September 25, 1972.

percent of all the boys at the school abused barbiturates. The survey also found that barbiturates were abused more days per week than any other abused drug. The survey noted that this was "rather surprising" since barbiturates were abused even more frequently than heroin, "a substance which leads to a strong addiction." The only explanation offered by the report was that "barbiturates are less expensive and more available than heroin." However, an additional explanation which the researchers may have overlooked is that barbiturates, like heroin, are extremely addictive. Thus, the regular abusers discovered by the survey may actually be barbiturate addicts.

As in other Midwestern states, barbiturate abusers in Indiana are reported to be almost exclusively supplied with legitimately manufactured drugs. According to Captain William Owen of the Narcotics Branch of the Indianapolis Police:

> * * * regarding the sources of illegal barbiturates, most come from larcenies from manufacturers, wholesale houses, doctors' offices, forged prescriptions, etc. To our knowledge there have been no counterfeit (clandestine) barbiturates confiscated in our area.

Noble R. Pearcy, Prosecuting Attorney of Marion County, which includes Indianapolis, reported that 59 persons over the age of 18 were arrested for possession of barbiturates in the last seven months of 1971. Mr. Pearcy also reported that the quantity of barbiturates seized by the police has been increasing yearly.

Reports from Hammond indicate that not only are the more common barbiturates being abused, but some abusers are also injecting less common barbiturates intravenously. Chief George Wise of the Hammond Police Department informed the Subcommittee that an amobarbital-secobarbital combination

> * * * is a very popular barbiturate in this area and seems to be abundant in supply. The street name of the capsule is "Christmas Trees" or "Trees" . . . Another barbiturate which is common and taken intravenously is Phencyclidine, "Angel Dust," which is used as an animal tranquilizer.

NEBRASKA

The Nebraska State Patrol, Division of Drug Control, in its most recent report, notes that in 1970 barbiturate abuse was the third most frequently encountered drug problem. Of the eight reported drugs, only marihuana and hallucinogens resulted in more arrests. Barbiturates accounted for more than twice as many arrests as all other forms of narcotics. The Nebraska State Department of Health, Division of Laboratories, reported that in 1970, the last year of published information, barbiturates were identified 300 percent more frequently than in 1969. The Nebraska State Patrol also reported an upward trend in seizures between 1967 and 1970. In 1967, only 121 barbiturate dosage units were seized. In 1968, 783 dosage units were seized, and in 1969 this figure increased to 1,662 dosage units. By 1970, the total seizures jumped to 4,337 dosage units—almost 40 times the 1967 total.

While these statistics present a general picture of increasing barbiturate abuse in Nebraska, the comments of the Lincoln Police Department summarize the difficulties in dealing with the problem. A relatively small community of 149,000; Lincoln has not experienced

widespread drug abuse. However, according to Chief of Detectives R. J. Sawdon, barbiturate abuse is an exception:

> Lincoln has been fortunate in that the deluge of drug abuse has been late in coming, but is causing great concern since it has been foreign to most of our citizens.
>
> Barbiturates would be the one possible exception to this in that we have had abuse for some time but not among juveniles for the most part. We still find this to be true in that barbiturates are the least abused of the various drugs by our youth. Unfortunately, when they are used, the results are often fatal, and of course, this is also applicable to those in the older age brackets. We have had some accidental deaths of young people who have used barbiturates usually in conjunction with alcohol, but the number has been minimal. I feel that barbiturate addiction will become more troublesome in the future among our youth since we know that many are using amphetamine and barbiturate combinations and will eventually become addicted to the barbiturate side. Those deaths of which we are knowledgeable have usually been due to overdosage of sodium pentobarbital or sodium secobarbital.
>
> One of our biggest problems with the barbiturates and amphetamines has been the careless manner in which physicians, hospitals, etc. control their prescription blanks with the end result that the drug abuser gets a valid script, steals a portion or all of the pad, and proceeds to forge his own script.
>
> I would recommend that prescriptions for controlled drugs be written on uniform numbered blanks provided by some supervisory agency, such as the BNDD, who would receive copies of the script. This would tend to discourage some of the few unscrupulous practitioners who prescribe and or dispense with very little concern for the patient and would of course eliminate the blank piece of paper for which the physician does not have to make account.
>
> On behalf of the Lincoln Police Department, I would like to thank you and your committee for your endeavors in this field. I am fully cognizant of the pressures brought to bear by various medical and pharmaceutical organizations whenever legislation of this type is proposed. I get a little tired of all the hand-wringing going on regarding drug abuse when much of it can be laid at the door of companies who are over-producing many times what can be used in the field of medicine legitimately. As you are well aware, the medical profession is making attempts to curb the abuse of these drugs and it takes legislators with real intestinal fortitude to buck the powerful lobbyist and those they represent.

ILLINOIS

Illinois does not maintain separate records of barbiturate arrests but includes them in the general category of dangerous drug arrests. As a result, an accurate gauge of barbiturates as a law enforcement problem cannot be obtained from arrest statistics. However, it should be noted that dangerous drug arrests in Chicago, for example, more than doubled between 1966 and 1970; and according to Sergeant Duggen of the Narcotics Bureau of the Chicago Police Department, barbiturates contributed to the increase. Although arrest statistics are not provided, Peoria police note:

> * * * that in the past couple of years there has been an alarming increase as far as juveniles using barbiturates and other types of narcotics such as marihuana, hashish and LSD.[10]

A better measure of the extent of barbiturate abuse in Illinois can be gathered from seizure statistics. In 1970 and 1971, the Illinois Bureau of Investigation seized 3,183 barbiturate dosage units and 75 pounds of bulk barbiturate powder, or the equivalent of 685,000 dosage units. The Chicago Police Department reported that between 1968 and 1971,

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[10] Letter to Senator Birch Bayh from Robert W. Latham, Acting Superintendent of Police, Peoria, Illinois, dated March 13, 1972.

286,835 barbiturate dosage units were seized, the largest seizures occurring in 1969 and 1970. While the 1971 seizure was only 43,000 units, information submitted to the Subcommittee by the Chicago Police Department indicates that they "have reason to believe" that this total underestimates the actual number of barbiturates seized.

According to the Illinois Bureau of Investigation, barbiturate thefts from physicians, pharmacies, wholesalers, and manufacturers are common. They also report that forged prescriptions, overprescriptions by physicians, and fraudulent orders to wholesalers or manufacturers are used to obtain barbiturates.

MICHIGAN

Barbiturate abuse in Michigan appears to be concentrated primarily in the Detroit metropolitan area. While other cities, such as Grand Rapids, report some arrests and some thefts of barbiturates, especially from doctors' offices and pharmacies, Detroit has clearly experienced the most abuse.

A particular tragic example of the consequences of rising barbiturate abuse is provided by Livonia, a middle income, suburban community of 110,000 people, 5 miles from the Detroit city limits. While drug sale cases in Livonia are extremely rare, the numerous possession cases reported reflect the rapid rise in non-narcotic drug abuse. Between 1967 and 1971, arrests for posssesion of dangerous drugs, which include barbiturates, increased 1,200 percent. The Livonia Police Department reported that most of those arrested purchased their drugs in downtown Detroit and brought them back to the suburbs. Barbiturates are a significant part of the dangerous drug problem; in 1971, of the total dangerous drug arrests, police estimated that 90 were for possession of barbiturates. In 1972, individual seizures as large as 15,000 capsules were reported by the Livonia Police Department. Particularly alarming is the recent spread of barbiturate abuse into Livonia's high schools and junior high schools. In the spring of 1972, for example, 6 barbiturate overdose cases were reported by a single junior high school in one day.

Although large scale arrests have not been made, John Nichols, Commissioner of the Detroit Police Department, reports that the Detroit police have seized substantial quantities of barbiturates in recent years. However, he informed the Subcommittee that reported seizures are much smaller than actual seizures, since "only those drugs likely to be utilized for court presentation are processed." Nevertheless, since 1967, Detroit police have never seized less than 17,000 barbiturate dosage units a year. In 1970, for example, they reported seizures of approximately 49,000 dosage units. In 1971, seizures appeared to drop to a low of 17,000 units; however, according to Commissioner Nichols, this figure does not accurately reflect the total number of barbiturates actually seized:

> Another factor that affects the total confiscations is that the Precinct Narcotic Unit, implemented in 1971, seized a total of 119,983 doses of dangerous drugs during 1971, which were not differentiated by class. Many of these drugs were barbiturates; however, the total was not determined.

Like the experience of other Midwestern cities, Commissioner Nichols reports that over 99 percent of Detroit's illegal barbiturates derive from illicit diversion of legitimate drugs.

Until recently, it is very likely that most of Michigan's barbiturate problem escaped the notice of the police. According to William Delhey, Prosecuting Attorney in Ann Arbor, "prior to April 1972, in the State of Michigan there was no criminal penalty for use of * * * barbiturates." Until that time, the only penalties for possession and sale of barbiturates were 90 day misdemeanor sentences. More severe penalties became effective on April 1, 1972. Experience from the other states indicates that where possession and sale of barbiturates are not treated as serious offenses, the police tend to concentrate law enforcement efforts on other types of drug violations.

MISSOURI

According to reports from the Western Missouri Mental Health Center, in Kansas City, barbiturate abuse is increasing. A survey conducted by the Metropolitan Kansas City Drug Abuse Information Center found that barbiturates are becoming a particularly serious problem among Kansas City school children. During the spring of 1972, 6,000 junior and senior high school students in metropolitan Kansas City were questioned on their personal experience with drug abuse. Thirteen percent indicated that they had abused barbiturates, making barbiturates the third most abused drug after alcohol and marihuana. Barbiturates were abused 30 percent more frequently than amphetamines and nearly twice as often as LSD. These results are similar to survey findings in Boston, Massachusetts,[11] and San Mateo County, California, [12] which also report serious barbiturate problems among school children. In those surveys, barbiturates were abused by 14 percent and 14.8 percent of the student populations respectively.

Law enforcement authorities from a number of Missouri cities have reported increasing contact with barbiturates in recent years. According to officials of the St. Louis Police Department, barbiturates are frequently used as calming agents by users of amphetamines and LSD. Detective Dawkins of the St. Louis Police Department's Narcotics Division noted that barbiturates are regarded, by the police, as a problem primarily among young abusers. Kansas City police report an average of 50 to 60 barbiturate arrests a year. Individual seizures in Kansas City range as high as 5,000 dosage units. In nearby Independence, Colonel George Owen, Chief of Police, informed the Subcommittee that intravenous barbiturate use is "extensive."

As in other states in the Midwest, Missouri law enforcement officials report that barbiturates are generally obtained through illicit diversion. Clandestine laboratories are not reported. According to the St. Louis Police Department, drugstore burglaries recently reached an all time high, and barbiturates were the most common drug taken. Kansas City police report that in addition to burglary, typical methods of obtaining barbiturates include forged prescriptions and pilferage of medicine cabinets.

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[11] See *Supra,* p. 39.
[12] See *Infra,* p. 69.

Introduction to Southern Region

Patterns of barbiturate abuse in the South are most clearly comparable to those found in the Midwestern region. Like the Midwestern states, the Southern states have only recently begun to view barbiturate abuse as a law enforcement problem. In many cities in the South, barbiturate arrests were relatively uncommon until 1970. As noted in the main body of this report, barbiturates have always been abused by adults, most of whom usually obtain their drugs with legal prescriptions and never have contact with the police.* The growth in recent years of barbiturate abuse as a law enforcement problem has largely been among younger abusers. In that sense, the new barbiturate problem is part of the current drug scene which has shifted law enforcement attention from older, hard core addicts to the "pill-popping" kids. As the Tennessee Bureau of Investigation noted, "the emphasis of law enforcement has changed from the over-30 group to the under-25 age group."

This same trend exists in the Midwest. Unlike the Midwest, however, barbiturates in the South are not a secondary problem when compared with other dangerous drugs like amphetamines and hallucinogens. School systems in Little Rock and Miami report that barbiturates and marihuana are the drugs most frequently abused by their students. One youth-oriented drug treatment program in the Miami metropolitan area noted that 90 percent of their 1,800 clients had serious problems with "downers." [13]

Barbiturate abuse is expanding rapidly in the South—far faster than in the Midwest. In Memphis, for example, there were 31 barbiturate arrests in 1969, 64 arrests in 1970, and 109 arrests in 1971.[14] The arrest rate more than tripled in three years. The Georgia State Board of Pharmacy reports that between 1967 and 1971 barbiturate arrests increased by 250 percent.

Because barbiturate abuse has expanded so quickly in the South, certain areas have experienced crisis situations. In Georgia, an incredible 73.6 percent of all drug related deaths were caused by barbiturates in 1969. In Miami, barbiturates have accounted for nearly half the drug related deaths beween 1967 and 1971. Even small southern cities have experienced serious barbiturate abuse. Rockville, South Carolina, a community of 33,800, recorded 93 barbiturate arrests from 1967 to 1971, more than one-third of which were youths under the age of 18. Montgomery, Alabama, which has a population of only 133,000, had 33 barbiturate abuse arrests in the last six months of 1971. More than 3,900 pills were seized during that period.

While barbiturate abuse is not generally considered to be an important cause of crime, most of the abused barbiturates in the south are reported to be illicitly diverted from legitimate sources, primarily through burglaries of pharmacies and doctors' offices. In Orange County, Florida, which has a population of 344,000, 89 burglaries of

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*"Barbiturate Abuse in the United States," Report of the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, December, 1972, p. 10.

[13] "Drug Abuse in Schools," hearings before the U.S. House of Representatives Select Committee on Crime, July 6, 1972, p. 667.

[14] Letter to Senator Birch Bayh from Bill Price, Chief of Police, Memphis, Tennessee, dated April 14, 1972.

doctors' offices and pharmacies were reported in the first seven months of 1970. Accordingly to a Grand Jury study, most of the abused barbiturates are obtained through burglaries of local pharmacies and physicians offices.[15] During the first four months of 1972, Little Rock, Arkansas, had 11 drugstore burglaries, in which more than 23,000 barbiturates were taken. These examples are not atypical. Nearly every Southern city which responded to the Subcommittee questionnaire noted that drugstore burglaries were a common source of barbiturates.

Information received by the Subcommittee indicates that barbiturate abuse is becoming one of the South's most serious drug problems. While most law enforcement officials continue to focus their attention on heroin and marihuana, barbiturates are creating a new class of addicts. Because it is still easy to purchase the most popular barbiturates—secobarbital, a secobarbital-amobarbital combination, and pentobarbital—only a small percentage of these new drug abusers have come to the attention of the police.

VIRGINIA

According to the Virginia State Department of Health, barbiturates have been the leading cause of drug-related deaths during recent years. In 1970, there were 130 deaths due to drugs; in 44 of those cases, barbiturates were involved. In 1971, 158 drug-related deaths occurred, of which 34 were caused by barbiturates. The easy availability of barbiturates was cited by Chief Toxicologist Robert N. Blanke as the reason why barbiturates were the leading drug killer in Virginia:

> Certainly the barbiturates as a class of drugs is still the leading cause of drug deaths either when taken singly or in combination with other drugs and have been in this category for the past 6–8 years. It is our impression that the chief reason for the frequency with which barbiturates are seen in drug deaths is due to the frequency with which this class of drugs are prescribed, or perhaps over-prescribed.

Testimony at Subcommittee hearings indicated that barbiturates are easily obtainable and increasingly abused in Virginia. Lieutenant Lewis Hurst of the Norfolk Police Department noted a "steady increase in the illegal use and distribution of barbiturates" during the past four years. He supplied statistics which indicated that seizures by police have increased 1,000 percent from 1968 to 1971. In 1968, Norfolk Police made 34 arrests for possession and sale of barbiturates. Arrests rose steadily: in 1971, 80 arrests for possession and sale of barbiturates were made by the police. Lt. Hurst testified that burglaries of doctors' offices "are increasing at an alarming rate" and are a major source of illegal barbiturates. He noted that "there are unusual quantities of drugs being kept under skimpy security in many doctors' offices throughout our area." However, Lt. Hurst believes that overproduction of barbiturates is an underlying reason for their easy availability. Much of the unnecessarily large quantity of barbiturates produced each year is "finding its way into the illegal market, and subsequently ends up in the hands of our young."

Reports from law enforcement officials in numerous other Virginia cities supplemented the reports from the State Health Department

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[15] *Infra*, p. 54.

and the hearing testimony, and indicated barbiturate abuse in many parts of the state. Lt. Higgins of the Vice Division of the Richmond Police Department reported that barbiturate arrests have increased rapidly since 1966 and that 15,604 dosage units, were seized in 1971, whereas only 1,875 were seized in 1970 and 2,071 in 1969. He noted that drugstore burglaries in which barbiturates are the major drug taken have become very prevalent in 1972. According to Lt. Higgins, intravenous use is appearing for the first time, especially among the heroin addicts who use barbiturates when heroin is unavailable. The Virginia Beach Police Department reported that 45 arrests for possession and sale of barbiturates were made between 1969 and 1971 and that 6,523 dosage units were seized during that period. Arlington police reported that barbiturates were abused especially by young teenagers; half of the barbiturate arrests since 1968 were of persons 16 years old or younger. The Portsmouth police reported 30 arrests for possession and sale of barbiturates from 1969 to 1971.

Although barbiturate abuse was widely documented in Virginia, it is very likely that a substantial portion of the abuse which comes to the attention of police is never reported. According to William J. Hassan, Attorney for the Commonweath in Arlington, ". . . on many occasions barbiturates are seized, but no charge is made if felony offenses are involved since possession of barbiturates is a misdemeanor."

GEORGIA

Information provided by Lewis Slaton, the District Attorney of Atlanta, indicated that during the first four months of 1972, barbiturate abuse cases were the third most numerous drug cases handled by his office. Only heroin and marihuana cases appeared more often. In many other parts of Georgia as well as in the state capital, law enforcement officials are reporting frequent contact with barbiturate abuse.

The State Board of Pharmacy reports that arrests for possession and sale of barbiturates in Georgia between 1967 and 1971 increased nearly 2½ times, from 311 arrests in 1967 to 847 arrests in 1971. Although records have been maintained only since 1969, barbiturate seizures have increased nearly 50 percent from 41,450 dosage units in 1969 to 60,400 dosage units in 1971.

Statistics provided by the State Department of Public Safety revealed that barbiturates are the most frequent cause of drug related deaths in Georgia. During the three year period for which reports were furnished, barbiturates accounted for more than half the drug related deaths each year. In 1969, a staggering 73.6 percent of all drug related deaths were caused by barbiturates. Barbiturate identifications by the State Department of Public Safety have multiplied more than 2½ times since 1967 when only 700 barbiturate identifications were made. By 1971, 1,968 barbiturate identifications were recorded. June K. Jones, Senior Toxicologist of the Department of Public Safety, called barbiturates "very dangerous drugs which are misused and abused more than any other class except alcohol." She noted that:

> Although the number of cases involving barbiturates has risen consistently over the years it is my opinion that there are probably more barbiturates possessed illegally than our 1969–1971 statistics reflect because law enforcement

officers have been putting greater emphasis on getting the 'hard' narcotics and hallucinogens since the vast explosion of drug abuse in 1969.

That police tend to concentrate on other drugs was confirmed by Major Everett E. Price of the Investigations Bureau of the Savannah Police Department. During 1970 and 1971, only 12 arrests were made for illegal possession of barbiturates. However, according to Major Price, this figure vastly underestimates the size of the problem:

During the two years that this office has been in existence only a small number of individuals have been arrested for possession and/or sale of barbiturates * * * however, in a large number of instances, barbiturates were found at the scene of raids in which heroin and other narcotic drugs were found; consequently, those arrested were only charged with the more serious offenses.

Major Price also reported increased intravenous abuse of barbiturates, particularly among former heroin users who are unable to obtain heroin. Major Price called for the imposition of "additional controls" over the "legitimate manufacture" of barbiturates because in his estimation "barbiturate abuse and addiction is perhaps one of the most serious drug problems that this country is faced with at the present time."

Regarding the sources of barbiturates, Major Price informed the Subcommittee that:

Barbiturates most commonly abused in Savannah appear to be obtained from diversion from legal sources such as drugstores and wholesale drug companies * * * and one major source seems to be permissive precribing of the various barbiturates by some physicians.

FLORIDA

Hearings held in Miami on July 6, 1972, by the United States House of Representatives Select Committee on Crime revealed that barbiturate abuse is the most serious drug problem among Miami area school children. The director of one youth service program, which has provided services to 1,800 school age children from Dade and Broward Counties, testified that "ninety percent of our kids have been well into downs—barbiturates, tranquilizers. That is the dangerous thing today." John Tyler, Director of Security Services of the Dade County Public Schols, testified that barbiturates are abused by more school children, especially senior high school students, than any other drug, except for marihuana.

While barbiturates are a particularly serious problem in the Miami area schools, barbiturate abuse is reported among all age groups. Spectrum Programs, Inc., a comprehensive drug rehabilitation program in Dade County, reported treating 319 barbiturate abusers during the second half of 1971. Patients ranged in age from 11 to 78; however, more than half were between 18 and 25 years old. The Reverend Frederick Harrison, Jr., Director of Spectrum Programs, Inc., noted that more people were treated for abuse of barbiturates than of any other drug. Information provided by Arthur J. Fish, Director of Laboratories, Miami Medical Examiner's Office, indicates that nearly half of all deaths in the Miami area caused by drugs or poisons between 1967 and 1971 were the result of barbiturates. During the same period, three-quarters of all suicides were caused by bar-

biturates. During the five-year period reported, a total of 373 people died from barbiturate overdose.

The Miami police also have noticed a marked increase in barbiturate abuse. In 1967, almost no arrests for posession and sale of barbiturates were made. However, by 1971, barbiturates accounted for approximately 60 percent of all dangerous drug arrests. According to Chief of Police Bernard Garmire, "it is quite evident by the escalating number of arrests over the past five years that a serious problem does exist in the abuse of dangerous drugs." Moreover, the extent of the problem may be underestimated. Chief Garmire notes that many of the 13,000 persons arrested for intoxication each year are suspected barbiturate abusers.

Other areas in Florida also report some incidence of barbiturate abuse. The St. Petersburg Police Department reported 52 arrests over the past five years for sale and possession of barbiturates. Fort Lauderdale police recorded 58 arrests for possession and sale of barbiturates between 1966 and 1970. While no data on seizures was available, the Chief of the Fort Lauderdale Police Department, Robert W. Johnston, noted that seizures were also on the rise.

All of the cities responding to the Subcommittee questionnaire indicated that illicit diversion from legitimate sources was the exclusive source of street barbiturates. Drugstore burglaries, forged prescriptions, and the pilferage of medicine cabinets were especially common. The report of Chief Johnston of the Fort Lauderdale Police Department is typical of the Florida law enforcement experience: "Sources of illegal barbiturates confiscated have all been thefts from legitimate drug sources."

A detailed study of the diversion problem was made by the Grand Jury of Orange County, a medium-sized county in central Florida which includes the city of Orlando. The Grand Jury noted that in the first seven months of 1970, 89 burglaries of doctors' offices or pharmacies were recorded. All of the burglaries had drugs as their objective. The Grand Jury found that "the largest source" of barbiturates which were "illegally possessed, sold and used in the county are the burglarized pharmacies and doctors' offices." To alleviate this situation, it recommended that far stricter controls be placed on these drugs:

> The Grand Jury recommends legislation effectively limiting the amount of drugs that a physician may maintain in his office to that reasonably required by his practice, prescribing minimum standards of security in accordance with the amount and type of drugs on hand.
>
> The Grand Jury recommends legislation requiring more stringent inventory control of physicians' drug stocks, with legible records available to all law enforcement authorities.
>
> The Grand Jury recommends frequent random inspection of drug inventories of hospitals, clinics and nursing homes, without prior notice, by the Florida State Department of Health and Rehabilitative Services.
>
> The Grand Jury recommends that practicing physicians take all precautions to protect their prescription pads from theft and that the Orange County Medical Society consider the practicality of consecutively numbered prescription forms in triplicate and the use of their narcotics number on all prescriptions for dangerous drugs, including amphetamines and barbiturates, in order to reduce the likelihood of forged prescriptions.[16]

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[16] Report of the Orange County Grand Jury in the Ninth Judicial Circuit of Florida, on September 18, 1970.

ARKANSAS

Statistics provided by the State Health Department indicate that barbiturate abuse is growing more rapidly than any other form of drug abuse in Arkansas except marihuana. The Department's laboratory noted that between 1966 and 1970 discoveries of depressants increased 944 percent. This rate of increase was faster than the rate of increase for stimulants and more than twice as fast as the rate of increase for narcotics This trend is continuing. In 1971, 50 percent more barbiturates were identified by the State Health Department than in 1970.

Little Rock has the most serious barbiturate problem in Arkansas. During the first four months of 1972, the State Health Department estimated that 65 percent of the 6,000 barbiturate dosage units received from local police departments originated in the Little Rock area. Moreover, reports received from Teen Challenge, a drug rehabilitation program in the Little Rock metropolitan area, indicate that much of Little Rock's problem is found in its schools, particularly among students ranging in age from 14 to 17. According to Dr. Donald Roberts, Assistant Superintendent for Pupil Personnel in the Little Rock Public School System, barbiturates and marihuana are the two most frequently encountered drugs in the schools; however, Dr. Roberts views barbiturates as the most dangerous drug readily available to young people.

Jim Guy Tucker, Attorney General of Arkansas, informed the Subcommittee that barbiturates are a new and growing problem among young people:

> Historically, alcoholic abuse has been our country's number one drug problem; barbiturate abuse has been more of a factor among adults in middle class suburbia and the pressurized business community. Now, more recently, the cancer of barbiturate abuse has spread more and more to our young people. In keeping with the national trend, my area has shown a marked rise in barbiturate abuse—a problem which cuts across age, racial and economic lines.

Attorney General Tucker reported that 90 people have been arrested in Little Rock for barbiturate abuse since 1969, and approximately two persons a month die from barbiturate overdose.

Bernard Redd of the Arkansas Bureau of Narcotics and Dangerous Drugs reports that most, if not all, of the illicit barbiturate traffic in Arkansas is the result of illicit diversion from legitimate domestic sources. No Arkansas official reported any contact with illegally manufactured barbiturates. Troy Collier, Director of Teen Challenge, notes that many young abusers begin by taking barbiturates from their parents' medicine cabinets. Attorney General Tucker reports that drugstore burglaries are frequent in the Little Rock area. He indicated that during the first four months of 1972, 11 burglaries occurred in which 23,688 dosage units of barbiturates were taken. According to Mr. Tucker, this was more than twice the number of burglaries which occurred during the same period in 1971. Mr. Tucker also notes that instances of forged prescriptions to obtain barbiturates have "increased markedly in 1971." This is affirmed by Woodrow Little of the Arkansas State Board of Pharmacy who reports that he has collected as many as 40 prescription forgeries in a single week.

LOUISIANA

New Orleans, a city of approximately 600,000 people, has recorded more barbiturate arrests than almost any other city in the country. During the four-year period from 1968 to 1971, the New Orleans Police Department made 1,113 arrests. Research done by Clint Bolton, an investigative reporter writing for *New Orleans* magazine, indicates that these arrests represent only a small portion of barbiturate abusers in that city.

Barbiturate seizure statistics for New Orleans have also increased in recent years. Prior to 1970, no barbiturate seizures were reported. However, in 1970, 4,390 dosage units were confiscated by the police. In 1971, seizures nearly tripled to 12,308 dosage units.

According to Clarence Giarrusso, Superintendent of Police in New Orleans, illicit diversion through forged prescriptions and burglaries is the primary source of street barbiturates. New Orleans is one of the Gulf Coast's major ports, and unlike other cities in the Southern region, Superintendent Giarrusso reports that some barbiturates are being smuggled from Mexico.

The Shreveport Police Department reports that between 1968 and 1971, 133 arrests for possession of barbiturates were made and approximately 39,000 barbiturate dosage units were seized. (Accurate statistics on arrests for distribution of barbiturates could not be provided.) Illicit barbiturate activity in Shreveport has increased in very recent years: in 1971, more than twice as many arrests were made and three times as many dosage units were seized as in 1968. As in New Orleans, the Shreveport police believe that illicit diversion is the leading source of "street" barbiturates. No mention is made of Mexico as a possible source.

NORTH CAROLINA

Reports from North Carolina's four major cities indicate that, as in other Southern states, barbiturates have become a problem only in very recent years. Between 1967 and 1971, Charlotte, the largest city in the state, reported 144 barbiturate arrests. Greensboro, the second largest city, recorded 96 arrests during the same period. Winston-Salem, the third largest city, reported 41 arrests, and Raleigh, only slightly smaller than Winston-Salem, reported 60 arrests. However, in each city where records are available, most of the arrests were made in the last several years. In Charlotte, approximately 60 percent of the barbiturate arrests occurred in 1970 and 1971. In Winston-Salem, 27 of the 41 arrests occured in 1971 and another 19 arrests were reported during the first three months of 1972. In Raleigh, half of the city's arrests for the four-year period occurred in 1971.

During the two and a half year period from January 1, 1969 to June 30, 1971, the North Carolina State Bureau of Investigation made 297 seizures of barbiturates ranging as high as 50,000 dosage units. Sources of illegally used barbiturates are reported to be burglaries, forged prescriptions, and illegal pharmaceutical sales. The State Bureau of Investigation reports that "most barbiturates received by this laboratory are legitimately manufactured products diverted into illegal drug traffic."

KENTUCKY

A survey of Kentucky colleges and universities, released by the Kentucky Legislative Research Commission in 1969, found that barbiturates were the third most frequently abused drug after marihuana and amphetamines.

Captain Thompson, Commander of the Narcotics Bureau for the Louisville Police Department, reports that the Louisville General Hospital treats approximately 200 people for barbiturate overdose each year. However, Captain Thompson believes these figures do not fully reflect the true extent of the problem, since they "do not include persons who die from barbiturates who do not go or make it to the hospital for treatment." Captain Thompson noted that barbiturates are used as a substitute by addicts when heroin is not available and "to 'come down' off other drugs."

Unlike most other cities in the Southern region which have reported to the Subcommittee, Louisville police note that phenobarbital is the most prevalent barbiturate. They report that legitimately produced barbiturates make up the bulk of the illegal traffic, and are obtained primarily from drugstore burglaries and forged prescriptions.

Introduction to Southwestern Region

The Southwestern region exhibits varied patterns of barbiturate abuse. The major metropolitan areas of east Texas, for example, report that with the possible exception of marihuana, barbiturates are the most frequently abused drug. In other cities such as Tucson, Arizona, and Albuquerque, New Mexico, amphetamines are abused more frequently than barbiturates. At the same time, certain less populated areas have experienced barbiturate epidemics which surpass in intensity any other areas in the country. Santa Fe, New Mexico, with a population of 41,000, has had nearly as many drug related deaths as the State of Virginia; however, unlike Virginia, the overwhelming majority involved barbiturates. Jefferson County, Texas, reported more arrests for possession and sale of barbiturates than any other respondent to the Subcommittee's questionnaire, regardless of population.

In Reno, Nevada, barbiturates are the second most abused drug following marihuana. According to the Reno Police Department, after a shipment reported to be as large as 30,000 dosage units reached the high schools in December 1971, 21 teenagers had to be hospitalized.[17] A random sample, conducted by the Utah Governor's Citizen Advisory Committee on Drugs, of high school dropouts in 30 of the state's 40 school districts between 1967 and 1969, found that 31.2 percent had abused barbiturates.[18] Researchers concluded that very probably "this study underestimates drug usage among high school dropouts."

Although the Southwest is an area of great diversity, one common factor appears to be increased barbiturate abuse throughout the region in recent years. A typical example is Denver, Colorado, the fifth largest city in the region. T. E. Rowe, Chief of the Investigative Division

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[17] Subcommittee Staff Telephone Interview with Lieutenant Schumaker, Reno, Nevada Police Department on September 23, 1972.
[18] See footnote 1, p. 457.

of the Denver Police Department, reports that dangerous drug arrests have been increasing since 1969. In 1970, there were 891 arrests for possession and sale of dangerous drugs in Denver. In 1971 there were 973 such arrests, and during the first ten months of 1972, 710 arrests were recorded. According to Chief Rowe, separate barbiturate arrest statistics are not maintained; however, he reports that "the barbiturate problem has grown along with the increase and availability of all types of drugs and narcotics." Another indication of barbiturate abuse in the Denver area was provided by a survey of drug abuse among college students in the Denver-Boulder metropolitan area. The 1969 survey was conducted by the Department of Psychiatry of the University of Colorado Medical School. It found that 10 percent of the responding students from nine institutions of higher learning in the Denver-Boulder metropolitan area had abused barbiturates.

Another common factor is the crucial role of Mexico in the illegal barbiturate traffic of the Southwest. While illicit domestic diversion is commonly reported to be an important source of barbiturates, most law enforcement personnel are quick to add that Mexico is the leading source of barbiturates. With the possible exception of California, no other area reports such extensive contact with illicitly imported barbiturates—the so-called "Mexican reds"—as does the Southwestern United States.

Although many barbiturates are illegally brought across the border, the evidence gathered by the Subcommittee indicates that Mexico may not be the original source of the drugs. Unlike amphetamines, barbiturates are difficult to synthesize. The process is more complex and the equipment involved is costly. As a result, many law enforcement officials doubt that barbiturates are produced by clandestine laboratories, as is common with amphetamine traffic. Instead, they believe that the barbiturate powder found in "Mexican reds" was originally exported from the United States. According to Special Assistant Attorney General Eugene Gallegos of New Mexico, "irresponsible drug buyers" purchase "great quantities of barbiturates 'legally' from American manufacturers and then route them back into the Southwest's black market through Juarez and El Paso, Tijuana and Los Angeles, and the deserted borders of Arizona and New Mexico."

The pattern of distribution reported by Mr. Gallegos is also reported by Deputy Chief McWhorter of the Fort Worth, Texas Police Department. He notes that "in a large number of local cases" the barbiturates involved "originated in the United States," were legally shipped to Mexico and then "were smuggled back into the United States for illegal sale."

"Mexican reds" have received a considerable amount of attention from law enforcement agencies, especially in the Southwest where they are very prevalent. However, it is important to note that most of the police reports received by the Subcommittee from the Southwest comment that illicit diversion from domestic sources is also a problem. The response of Major Clarence W. Dupnik, of the Field Operations Bureau of the Tucson, Arizona Police Department is characteristic: "the prime source of supply in Tucson is from Mexico. Our secondary source of supply is a result of drugstore burglaries and forged prescriptions."

Texas

With the exception of California, the Subcommittee has received more reports of barbiturate abuse from Texas law enforcement officials than any other state. Eight cities from all parts of the state responded to the Subcommittee questionnaire. The most populous regions in the eastern part of the state provided the most information. In 1971, Houston police reported 328 arrests for possession of barbiturates—a 60 percent increase over the previous year. According to Captain Jack Renois of the Narcotics Division of the Houston Police Department, there were more barbiturate arrests in Houston than for any other drug except marihuana in 1970 and in 1971. Ferrin B. Moreland, Chief Toxicologist of the Houston Medical Examiner's Office, reported that 39 deaths resulted from barbiturate abuse in 1971. In that same year, Houston police seized 16,467 barbiturate dosage units and 22 bottles of liquid barbiturates.

Nearby Jefferson County, which includes the city of Beaumont, reported a similarly extensive barbiturate problem. Information supplied by the District Attorney's Office reveals that Jefferson County police have made more barbiturate arrests than any other metropolitan area of comparable size in the country. Between 1967 and 1971, 2,575 arrests for possession or sale of barbiturates were reported by Tom Hanna, Jefferson County District Attorney. Nearly one-third of those arrested were under the age of 18, and 250 of these were under the age of 14. According to Lawrence Gist, Chief of the Jefferson County District Attorney's Trial Division, "barbiturates are roughly twice as prevalent as amphetamines." He estimated that 10 percent of abusers use barbiturates intravenously. Mr. Gist noted that barbiturates are obtained from home medicine cabinets and from drugstore burglaries in which "barbiturates are almost exclusively taken."

The Dallas-Fort Worth metropolitan area, which is comparable in population to Houston and Jefferson County, is experiencing a similar barbiturate problem. Between 1967 and 1971, 922 arrests for possession or sale of barbiturates were reported by Dallas police and 436 arrests for possession or sale of barbiturates were reported by Fort Worth police. According to police officials in both cities, barbiturates seizures were also substantial, averaging many thousands of dosage units per year. In 1969, Dallas police made an exceptionally large seizure of 527,000 barbiturate dosage units. The Forth Worth Police Department reported seizing 25,000 barbiturates in 1970, primarily from one dealer. According to D. L. Burgess, Director of the Vice Control Division of the Dallas Police Department, most barbiturates taken from arrested abusers come from "forged prescriptions and from burglaries and thefts."

According to Deputy Chief McWhorter of the Fort Worth Police Department:

> The majority of illegal barbiturates confiscated are manufactured by pharmaceutical companies in the United States. Diversion of drugs from legal shipments accounts for a large quantity of drugs illegally sold in the United States. In a large number of local cases developed against illegal drug suppliers, it was found that the source of the drugs originated in the United States, then through legal shipment to Mexico and then the drugs were smuggled back into the United States for illegal sale.

Four other Texas cities also report incidences of barbiturate abuse during the past few years. El Paso, located at the western tip of the state on the Mexican border, reported 168 arrests for possession and sale of barbiturates from 1969 to 1971. According to Inspector George M. Wagnon, Jr., of the El Paso Police Department, 98 percent of confiscated barbiturates were smuggled from Juarez, Mexico. He noted that barbiturates are used by a "large majority of heroin addicts" to avoid withdrawal when heroin is in short supply. The San Antonio Police Department reported 236 arrests from 1967 to 1971 and seizures ranging as high as 16,000 dosage units. Arrests in 1971 were more than 3 times as high as in 1967. According to Lt. Preston Slocum, Jr., of the San Antonio Narcotics Bureau, while some barbiturates are illicitly diverted through drugstore burglaries, the majority are smuggled from Mexico.

NEW MEXICO

The source of much of New Mexico's barbiturate abuse is reported to be illicit importation and distribution of legitimately manufactured barbiturates from Mexico. E. H. Williams, District Attorney of the Third Judicial District, reported that Dona Ana County, just north of Juarez, has suffered "numerous barbiturate deaths" in the last five years, "the majority of which were attributed to accidental overdose." According to Mr. Williams, "the majority of arrests for possession of barbiturates have fallen within the 18 to 21 year bracket," and there is "substantial evidence" of intravenous use of "almost all barbiturates."

Eugene Gallegos, Special Assistant Attorney General, testified at Subcommittee hearings on May 3, 1972, that, "as we are beginning to turn the corner on the substantial heroin problem in New Mexico and the Southwest with medical treatment efforts, barbiturates have emerged as a much more serious problem." The state capital, Santa Fe, which has a population of only 41,167, reported 156 drug overdose deaths in 1971.* According to Mr. Gallegos:

> The overwhelming majority of those deaths involved barbiturates * * * while some fatalities were in the older age groups, the young were disproportionately represented. The youngest * * * was only 30 days old, an infant born a seco-barbital addict of an addicted mother * * *

Mr. Gallegos testified that barbiturate addicts now outnumber heroin addicts by 5 to 1 in Santa Fe. To supply the addict community, large quantities of pills are smuggled from Mexico and drugstore burglaries are frequent. Most of the Mexican barbiturates are secobarbital and according to Mr. Gallegos, were originally produced by American pharmaceutical companies and exported to Mexico. Mr. Gallegos noted that the illegal barbiturates traffic approaches 40,000 dosage units every few weeks and that, "the black market volume today seems to have reached proportions that rival the legitimate, prescribed pharmacy sales."

OKLAHOMA

Arnold Moseley, Commissioner of the Oklahoma State Office of Narcotics and Dangerous Drugs, reported that in 1970, 77 arrests for possession or sale of barbiturates were made. In 1971, arrests more than

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*By way of comparison, the entire State of Virginia, with a population of more than 4,800,000, reported 158 drug deaths in 1971—only 2 more than Santa Fe.

doubled to 162. Prior to 1970, no barbiturate arrest statistics were available nor were barbiturate seizure statistics reported prior to 1971. In 1971, Commissioner Moseley estimated that more than 6,000 dosage units were seized. According to Donald Ranson, statistician for the Public Health Statistics Division of the State Department of Health, barbiturates are the leading cause of drug-related death in Oklahoma.

Lt. Jack Shaw of the Oklahoma City Police Department reported that barbiturate abuse arrests have increased steadily since 1967. While statistics are maintained only for dangerous drug arrests, barbiturates comprise a "high percentage" of this category of arrests. The Tulsa Police Department recorded 263 arrests from 1967 to 1971, and seizures of 122,000 dosage units.

Both Oklahoma City and Tulsa report that illicit diversion is the exclusive source of drugs, particularly through pharmacy burglaries and forged prescriptions. According to Commissioner Moseley of the Oklahoma State Office of Narcotics and Dangerous Drugs, drugstores are a prime target for addicts:

> Because of the lack of true heroin, addicts are forced to steal drugstore narcotics. * * * These barbiturates are usually melted down and injected intravenously.

Introduction to Western Region

Unlike any other region of the country, in the West the experience of one state dominates. Because of the large quantity of information submitted to the Subcommittee by California officials, there is a great temptation to view barbiturate abuse in California as extreme and dissimilar to the experience of other states in that region. However, it must be remembered that California's population is nearly two and one-half times greater than the total population of all the other states in the Western region. Thus, even counties in California which do not include a large city may be larger and report more barbiturate abuse than most of the other Western states. For example, Orange County, a suburban county south of Los Angeles, provided more information on barbiturate abuse than any state in the region except Washington. However, of all the Western states, only Oregon and Washington have larger populations than Orange County, and the next largest state, Hawaii, is approximately half the size of Orange County. Thus, the attention which must naturally be focused on California because of its large population should not obscure the fact that most of the other states in the Western region have had significant experience with barbiturate abuse.

Alaska, which for the purposes of this report has been included in the Western region, is the smallest state in the region with a population of 302,000. Charles D. King of the Alaska Medical Laboratories, which serves as the State Crime Laboratory, reports that of the 225 overdose cases investigated from 1967–1971, more than half—144 cases—involved barbiturates. However, this underestimates the actual number of barbiturate overdose cases in Alaska, because, as Mr. King noted, in 1969 "two of the largest hospitals in the state upgraded their laboratory services and now perform their own barbiturate determinations." Thus, a substantial number of cases involving barbiturates are discovered without ever coming to the attention of Alaska Medi-

cal Laboratories. Mr. King also reported "increasing misuse of barbiturates amongst the young." He commented that:

> On the day we received your inquiry the local police brought in a spoon and paraphernalia from a juvenile that they "just knew" was mainlining heroin and would I confirm the fact from the residue on the spoon. Heroin was absent—barbiturates were present.

The Subcommittee received information regarding barbiturate abuse from several jurisidictions in Montana and Idaho. Jim Meeks, Sheriff of Billings, Montana, reported 64 arrests for illegal possession or sale of barbiturates in 1971. Sheriff Meeks reported that "99% of the illicit barbiturate traffic is attributable to legitimately manufactured barbiturates that have been diverted into illicit channels of distribution." He cited "pharmaceutical companies" as one source of barbiturates seized in Billings. He also noted that there is some intravenous use of barbiturates in his jurisdiction.

In Boise, Idaho, Prosecuting Attorney James Risch, reported that 75 arrests were made for possession and sale of barbiturates from 1967 to 1971 and "thousands of doses" of barbiturates were seized. Mr. Risch noted that barbiturates are abused intravenously; however, most abusers take barbiturates orally. Mr. Risch commented that "85 to 95 percent" of barbiturates seized by the police are "attributable to legitimately manufactured barbiturates."

Oregon and Washington are the largest states in the Western region with the exception of California and report growing contact with barbiturate abuse. Lt. Ronald Still, Commander of the Special Investigation Division of the Portland Police Department, reports that barbiturates are generally used when there is "a shortage of available heroin on the streets and to balance the system after methamphetamine abuse." Captain R. G. Howard of the Criminal Division of the Oregon State Department of Police reported that during 1971, 49 barbiturate arrests were made in Eugene, Pendleton, and Medford. Captain Howard also noted that 24 barbiturate-related deaths occurred in Oregon in 1971.

Lt. Grayson of the Seattle, Washington, Police Department reported 105 arrests for possession and sale of barbiturates during the first six months of 1972. Christopher Bayley, Prosecuting Attorney in Seattle, wrote that "heroin and amphetamines constitute the majority of cases we handle." While barbiturates are not as large a law enforcement problem in Washington as other drugs, some law enforcement officials consider them very dangerous. According to Chief of Police Lyle E. Smith, "In the City of Tacoma, Washington, approximately 95 percent of deaths by overdose of drugs are attributed to barbiturates. This estimate includes the deaths by overdose of heroin."

Although Hawaii has a population of only 770,000, law enforcement officials have reported more arrests in recent years than in any other Western state except California. (For the purposes of this report, Hawaii has been included in the Western region.) According to Attorney General George Pai, there were only 28 arrests for possession and sale of barbiturates in 1966. Since that time, however, arrests have steadily climbed. In 1967, 107 arrests were reported; in 1968, 96 arrests; and in 1969, 169 arrests. By 1970, Attorney General Pai noted that 235

arrests were made—8 times the 1966 figure. According to Francis Keala, Chief of Police of Honolulu, most of the abused barbiturates are "Mexican reds." Chief Keala wrote that "the vast majority of illegal barbiturates confiscated during arrests apparently originate in Mexico." He noted that intravenous use is "very extensive," and that "it involves not only hard core drug users but also younger school age children."

Barbiturate abuse in the West shows more diversity than in any other region. While California has experienced widespread abuse for a number of years, many of the less populous states have recently begun reporting barbiturate abuse. Especially among the smaller states, the concern of officials about this relatively new and serious problem is expressed in a tone of dismay. As Charles King of Alaska Medical Laboratories commented, "We regret that in our State of approximately 300,000 people we have a microcosm of all the bad you have Outside."

WASHINGTON

Information received from Washington law enforcement agencies indicates that barbiturate abuse results in fewer arrests than amphetamine abuse. Lt. Grayson of the Narcotics Detail of the Seattle Police Department reported that while barbiturate abuse does not yet threaten to overtake amphetamine abuse a significant number of arrests are being made. According to Lt. Grayson, separate barbiturate arrest statistics were not maintained prior to 1972. However, he noted that in the first six months of 1972, 105 barbiturate arrests were made—a significant increase over previous years. Spokane Police Chief Wayne Hendren told the Subcommittee that separate barbiturate arrest statistics have been maintained since May 1969. During recent years, barbiturate abuse encountered by the Spokane police has expanded significantly—from 2 arrests in 1969 to 28 in 1970 to 24 arrests in the first six months of 1971, the last report received.

The police departments of Washington's three major cities—Seattle, Spokane, and Tacoma—all report that illicit diversion is the primary source of drugs. While these reports are similar to others received by the Subcommittee from many other police departments, it is interesting to note the close connection which the police in Spokane are able to draw between drugstore thefts and the appearance of barbiturates and other drugs on the street. According to Sheriff Reilly of Spokane County:

> The County of Spokane has suffered a large number of pharmacy burglaries which have resulted in the loss of several thousand tablets and capsules of various drugs, the majority of which are barbiturates, amphetamines and combination products. The majority of the drugs taken appear on the street within a short period of time in the hands of local street dealers. Drugstore burglary for the purpose of stealing drugs for resale to the pusher has become a profession in itself and is being practiced by a small number of semiprofessional burglars. The days of the addict-burglar who broke into a pharmacy to obtain drugs mainly to support his own habit are virtually gone and the average drugstore burglar today keeps a small amount of the stolen drugs for his own use and sells the major portion to a pusher or a "front-man." Pharmacy burglaries in the Spokane area are estimated to be up at least 75% in the past two years.

CALIFORNIA

California is thought by many drug abuse experts to be in the vanguard of the drug culture; patterns of abuse evident today in California usually emerge in other parts of the country several years later. In light of this "ripple effect," the testimony of Lieutenant Norbert Currie of the San Francisco Police Department before the House Select Committee on Crime in 1969 is especially disturbing:

> Among our school children, those under the age of 18, there has been a change also. The change among our young people has been from marihuana to barbiturates. . . . Three years ago, 82 percent of the young people who came to our attention were abusing marihuana. Last year it broke down to 69 percent. As of January 1, this year, we find that only 49 percent of our young people are misusing marihuana and 51 percent are misusing other drugs. So there is a change. It is within this field of the involvement or the abuse of the barbiturates where we have noticed the greatest change among our young society in San Francisco.[19]

This same change was noted by Dr. Roger C. Smith, Executive Director of Marin Open House, a drug clinic in the San Francisco area, when he testified at Subcommittee hearings in December 1971:

> Most high school and junior high school drug usage surveys suggest that if the late 1960s were the era of the "uppers" (amphetamines), the 1970s have started as the era of the "downers" (barbiturates). Santa Clara County, just south of San Francisco, reports that barbiturates are the biggest drug problem in the schools currently.

The Subcommittee has received so much information from California that the state will be examined by geographic area as well as on a statewide basis.

Statewide.—Evelle Younger, Attorney General of California, reported that arrest statistics are maintained only for the dangerous drug category as a whole and are not maintained separately for possession and sale of barbiturates. However, he indicated that statewide statistics are maintained for barbiturate seizures by the California Bureau of Narcotics Enforcement. Mr. Younger noted that "these data relate only to seizures by BNE (Bureau of Narcotic Enforcement) and not by any other local or Federal agency."

Between 1966 and 1970, the Bureau's barbiturate seizures multiplied four times from 43,429.06 grams in 1966 to 158,522.19 grams in 1970. The Bureau's 1970 seizures are the equivalent of more than 3 million barbiturate dosage units.

Barbiturate seizures in California by the United States Bureau of Narcotics and Dangerous Drugs are even larger: from April 1970 to April 1972, the Bureau reported seizures of 7,600,000 barbiturate dosage units. Not included, according to the Bureau, was the seizure by Mexican police of 3,140,000 dosage units en route to California in December 1971.

Mr. Younger believes that most of the seized barbiturates are the "product of clandestine manufacture or smuggled into California." His predecessor as Attorney General, Thomas C. Lynch agrees that Mexico is a leading source; however, he noted that the "major part" of dangerous drugs seized by California authorities "have their origin

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[19] "Crime in America, Illicit and Dangerous Drugs," Hearing before U.S. House of Representatives Select Committee on Crime, October 23, 1969, p. 37.

in export shipments" from legitimate American drug companies to Mexican citizens.

John Ingersoll, Director of the United States Bureau of Narcotics and Dangerous Drugs, concurs with Mr. Lynch's assessment of the original source of "Mexican reds." He noted that "unlike the case of all other major drugs of abuse, it appears that barbiturates are supplied exclusively from what begins as legitimate production." [20] In 1972, the Bureau of Narcotics and Dangerous Drugs made an extensive effort to identify the sources of barbiturates which it seized throughout the country. The Bureau found, as Mr. Ingersoll relates, that "in all cases it appears that the barbiturate itself was derived from a legitimate production source, even though it may be incapsulated or tableted in a clandestine activity or operation." Mr. Ingersoll is quick to add that the "Mexican red" problem is "a special situation superimposed on a broader barbiturate abuse pattern affecting the entire nation." This broader problem involves the illicit diversion of legitimate barbiturates produced by American pharmaceutical companies. The extent to which illicit diversion is a problem will be documented in the reports from local California police departments.

San Diego.—According to the San Diego Police Department, 89 people died in 1971 in San Diego from an overdose of barbiturates taken alone or in combination with other drugs. The police department notes that most of the drugs seized are smuggled from Mexico but are legitimately manufactured:

> The source of illegal barbiturates confiscated by our department ranges from the prescribed supply found in home medicine cabinets and clandestine laboratories, to those barbiturates that originate with Mexican pharmaceutical firms. We feel, at the present time, the main source of illegal barbiturates seized in the San Diego area comes from Mexico.
>
> As close as can be determined, a large percentage of illicit barbiturate traffic is attributable to legitimately manufactured barbiturates, diverted into illicit channels of distribution. Estimates based on our seizures would put this percentage at approximately 90%.

According to John Duffy, Sheriff of San Diego County, an estimated 5 percent of barbiturate abusers take barbiturates intravenously.

Los Angeles.—The District Attorney of Los Angeles County, Joseph P. Busch, testified at Subcommittee hearings in May 1972 that:

> The word on the street in Los Angeles is that 1972 is "the year of the barb." Barbiturates have always played a major role in the illegal drug traffic in Los Angeles and in resent years they have become the growth drug.

Mr. Busch considers barbiturates the growth drug because "seizures of barbs by California law enforcement agencies have risen 2,000 percent in the past five years—more than any other drug." According to Mr. Busch, 6,000,000 dosage units were seized in 1970 in Los Angeles County.

Information supplied by E. M. Davis, Chief of the Police Department in the City of Los Angeles, whose population is more than one-third of the entire county, supports District Attorney Busch's testimony. Data submitted by Chief Davis reveals that barbiturate seizures

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[20] Testimony of John Ingersoll, Director, U.S. Department of Justice, Bureau of Narcotics and Dangerous Drugs, before the U.S. Senate Subcommittee to Investigate Juvenile Delinquency, May 3, 1972.

in his jurisdiction have risen 400 percent, from 236,846 dosage units in 1967 to 1,057,842 dosage units in 1971.

According to District Attorney Busch, barbiturates caused more deaths in Los Angeles County in 1971 than any other drug except alcohol. In 1971, 971 deaths were attributed to barbiturates, more than four times the number of people whose deaths were related to "hard narcotics." * Mr. Busch also referred to a survey of the County General Hospital for one month which showed that 60 percent of all drug overdose admissions involved barbiturates. According to Mr. Busch, barbiturates are also an extremely serious problem in the schools. He cited a survey of Los Angeles schools which "shows barbiturates to be the No. 1 school drug problem—ahead of both marihuana and alcohol."

Both Mr. Busch and Chief Davis agree that abusers in the Los Angeles metropolitan area obtain their barbiturates either by illicit diversion from domestic sources or by importation from Mexico. According to Mr. Busch, "both users and law officers are convinced that many of the Mexican pills are produced from American-made ingredients." Moreover, he notes that illicit diversion is common but that clandestine laboratories have not been discovered in his jurisdiction:

> Aside from the traffic in illicit pills, we know that persons in Los Angeles continue to obtain large quantities through forged prescriptions, robberies of warehouses, diversions of drug shipments, and from family medicine cabinets. I must emphasize, we do not find the illicit factories, as we do in the amphetamine traffic.

Orange County.—Extensive information received from Orange County, a suburban, affluent county south of Los Angeles, indicates the existence of a severe barbiturate problem. During the first 6 months of 1972, the Coroner's Office reported 62 deaths caused by barbiturates taken alone or in combination with other drugs. According to Robert H. Cravey, Chief Toxicologist in the Coroner's Office, "Although other drugs are abused, we continue to find more accidental and suicide deaths due to barbiturates than to any other group of drugs." Not only do barbiturates appear in death cases, they are also the most frequently discovered drug in analyses done of police seizures. According to the Coroner's Office, 46 percent of all drug analyses have proved to be barbiturates. Moreover, the information supplied by the Coroner's Office revealed that barbiturates are being discovered far more frequently now than in the past. Nearly three times as many barbiturate samples were discovered in 1971 as in 1968.

A number of law enforcement officials from Orange County also supplied information to the Subcommittee. Alicemarie Stotler, Deputy District Attorney for Orange County, gathered information from throughout the county "to convey to the Senate the magnitude of the problem and our earnest desire to see the availability of illegal barbiturates cease." She observed that:

> We are perhaps most concerned with the marked increase in the use of barbiturates by those committing crimes of violence. * * * Our estimate for 1972 is that at least one-half of the homicides were perpetrated by relatively young persons (18–25) who call themselves "red freaks."

Captain Harold Mays, Commander of the Detective Division of the Police Department of Huntington Beach, a community of 116,000,

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*By comparison, New York City, which has 863,000 more people than Los Angeles County, recorded 380 barbiturate deaths in 1970, the last year of record.

reported 279 arrests for the sale and possession of barbiturates in 1970 and 316 arrests in 1971. Increasingly large quantities of barbiturates have been seized in recent years. In 1969, 28,745 barbiturate dosage units were seized; by 1971, total barbiturate seizures had risen to 109,332 dosage units. According to Captain Mays, Mexico is a leading source of barbiturates: "To the best of our knowledge, the majority of barbiturates in unmarked capsules are brought in from Mexico."

In Fullerton, a city of 86,000, Sergeant R. S. Kvancz of the Fullerton Police Department notes that "approximately 85 percent of reported drug overdose cases are barbiturates." According to Sergeant Kvancz:

> The overwhelming number of arrests of barbiturate users in this jurisdiction usually involve driving under the influence of barbiturates, and pedestrians under the influence of barbiturates and unable to care for themselves.

In Santa Ana, California, a community of 156,000 the crime laboratory of the police department reports seizures of large amounts of barbiturates in recent years. In 1970 and 1971, a total of 3,444.68 grams of barbiturates were seized, the equivalent of 68,893 dosage units.

Fresno.—Fresno, a small central California city of 165,000, appears to have a substantial barbiturate problem. H. R. Morton, Chief of Police, provided information which indicates that between 1967 and 1971 barbiturate arrests have multiplied nearly 12 times. In 1971, 656 arrests involving barbiturates were recorded, and 128 of those arrested were under 18 years old.* Fresno police report very large seizures of barbiturates—in 1970, for example, 760,500 dosage units were seized.** While this seizure was extraordinarily large, Fresno police also reported the seizure of 307,800 dosage units in 1968 and 64,000 dosage units in 1971.

Sacramento.—William J. Kinney, Chief of Police in Sacramento, reported 258 arrests for possession or sale of barbiturates in 1971.*** Especially alarming is the fact that young barbiturate abusers are quite prevalent in Sacramento. According to Chief Kinney, half of those arrested in 1971 were under 18 years old.

Chief Kinney noted that "the majority of illegal barbiturates confiscated came originally from legitimate manufacturers," and that secobarbital is the most popular drug:

> Simply stated, secobarbital * * * is the most widely abused barbiturate in this area. The drug is popular to the point that very little else is seen on the street.

San Francisco Bay Area.—The San Francisco Police Department does not maintain separate statistics on arrests for possession and sale of barbiturates. However, according to Lt. John F. Kerrigan of the Police Department Narcotics Bureau, barbiturate seizures have increased substantially. In 1967, police seized 31 ounces (the equivalent of 15,546 dosage units). By 1971, barbiturate seizures had risen more than 1,000 percent—to 338.7 ounces (the equivalent of 193,540 dosage units). From 1967 to 1971, seizures rose steadily with the exception of

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*By way of comparison, Baltimore with more than five times the population, reported less than half the number of arrests.

**Placed in the perspective of population. Fresno's seizures in 1970 are five times larger than the seizures reported by Los Angeles County in the same year. That is, five times as many dosage units per person were seized in Fresno as in Los Angeles in 1970.

***This is one more arrest than recorded for Baltimore by police in the same year. However, Sacramento has a population of 255,000 and Baltimore's population is over 900,000.

an extraordinarily large seizure of 498 ounces (the equivalent of 218,-868 dosage units) in 1969.*

The number of barbiturate related deaths has also steadily increased in San Francisco. According to Dr. C. H. Hine, Director of the Hine Laboratories, Inc., which provides toxicological services to the city of San Francisco, the death rate from barbiturates has doubled in the past 15 years. In 1971, approximately 100 people died from over-ingestion of barbiturates. Dr. Hine also noted that "we find barbiturates as an additional drug taken by narcotics addicts in about 10 percent of the fatal cases." Kenneth Parker, Toxicologist/Criminologist with the Hine Laboratories, wrote that:

> The extent of barbiturate abuse is considerable in both urban and rural communities and that the trend will be towards an increased problem unless there are greater controls placed on availability and distribution.

Other Bay area cites also report barbiturate problems. The Berkeley Police Department recorded the seizure of 3,800 barbiturate dosage units in 1970, and approximately 4,500 dosage units in 1971. B. R. Baker, Chief of Police, indicates that "most of the barbiturates confiscated by this agency were obtained by forged prescriptions from local drugstores." An alarming aspect of Berkeley's barbiturate problem is the high incidence of intravenous use. Chief Baker commented that:

> Barbiturate abuse usually starts out of curiosity and is followed by addiction. About 40 percent of those persons arrested for barbiturate offenses in Berkeley are administering the drug intravenously. * * *

Santa Clara County.—In Santa Clara County, abuse of secobarbital is a special problem. Brian Finkle, Forensic Toxicologist in the Laboratory of Criminalistics of the Department of the District Attorney in Santa Clara County, testified at Subcommittee hearings in May 1972 that he believes that Santa Clara's special problem with secobarbital is based on "the incredible but widespread assumption that 'speed kills' but 'red are safe'." He indicated that secobarbital as a drug of abuse rivals "marihuana and threatens to replace it as the leader in the popular illicit drug league." He noted that secobarbital has risen from "obscurity" to "epidemic misuse" with "phenomenal" rapidity. Mr. Finkle testified that between July 1, 1969 and June 30, 1970 the County Laboratory of Criminalistics processed a total of 2,295 cases involving all types of drugs, narcotics, and poisons. Mr. Finkle reported that "59 percent of the cases yielded a positive result" for barbiturates and 75 percent of the barbiturate cases "involved the drug secobarbital." He also noted that fatalities specifically due to secobarbital have risen dramatically in Santa Clara County. During the period from July 1, 1968 to June 30, 1969, 10 secobarbital overdose fatalities occurred. During the ten month period ending April 30, 1972, 46 secobarbital fatalities were recorded—an increase of more than 400 percent.

A two-year study of traffic offenses reported by Mr. Finkle revealed that almost half of the motor vehicle accidents in Santa Clara County involved secobarbital. Mr. Finkle noted that 25 percent of the accidents involved "secobarbital alone in significant concentrations sufficient to cause impairment in the driver and render him under the influence of the drug." Almost all of the remaining accident cases in-

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*The 1971 figure represents an alarmingly high seizure rate for a city of that size. San Francisco is only one-tenth the size of New York City but it had the equivalent of one-fourth of New York's seizures.

volved "secobarbital in combinations with alcohol." A few other cases involved secobarbital in combination with other drugs. Mr. Finkle testified that 150 injuries and 13 fatalities were caused by drivers who were under the influence of secobarbital alone or in combination with other drugs.

San Mateo.—San Mateo, a middle-income, suburban county, provides an interesting example of how serious barbiturate abuse has become in California. The San Mateo County Department of Public Health and Welfare has surveyed the abuse of drugs in county high schools since 1968. In the early surveys, questions about barbiturate abuse were not included. According to a Department report comparing the surveys of 1968, 1969, and 1970, entitled *Five Mind-Altering Drugs (Plus One)*, barbiturate abuse was not widespread among high school students in 1968. The report notes that:

> In 1968 when the original full-scale survey was planned, the inclusion of barbiturates was discussed. This was not included in the study because it appeared that the young people were not very well acquainted with these drugs * * * During 1969 it became increasingly apparent that this was a widely used drug, often in combination with alcohol, and for this reason it was added to the 1970 survey.[21]

The 1970 survey discovered that 15.5 percent of the student population abused barbiturates. In 1971, the survey noted that abusers had grown to 17.8 percent of the student population. According to Dr. David Schwartz, Chief of Psychiatric Clinical Services of the San Mateo County Mental Health Services:

> I would state that barbiturate usage began * * * primarily to counteract the effects of amphetamines and psychedelics. In '70 and '71 when amphetamines, and to some extent psychedelics, were less frequently used, one finds an increased use of barbiturates and alcohol often in combination.

According to the Preliminary Report for the 1972 survey, "barbiturates showed a very definite downward trend." The report found that 14.8 percent of the high school students abused barbiturates. While the decline in the level of abuse is encouraging, barbiturate abuse is still a "serious problem" according to Dr. Schwartz. He notes that "two to four percent of our high school population" are heavy barbiturate abusers. These are the "drug dependent" children who have "built up a tolerance" and use "four to six caps, even eight, caps a day." There are approximately 1,000 of these abusers. However, Dr. Schwartz notes that there are many other abusers who do not abuse barbiturates as frequently. This group is characterized by "the inexperienced barbiturate experimenter or the party user" who often takes barbiturates in combination with alcohol and is a "high risk potential for overdose, coma and possibly death."

The decline in barbiturate abuse, according to Dr. Schwartz, occurred because many young people "reached the conclusion that the use of barbiturates, as with the amphetamines in the past, were [sic] dangerous." Although the 1972 survey notes that abuse has declined, it still must be recognized, as Dr. Schwartz points out, that barbiturate abuse among school children in San Mateo County presents serious problems.

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[21] Letter to Senator Birch Bayh from Dr. David J. Schwartz, Chief of the Psychiatric Clinical Services, San Mateo Mental Health Services dated November 2, 1972.

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