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90-32 INCREASED CONTROLS OVER HALLUCINOGENS AND
OTHER DANGEROUS DRUGS

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HEARINGS
BEFORE THE
SUBCOMMITTEE ON PUBLIC HEALTH
AND WELFARE
OF THE
COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE
HOUSE OF REPRESENTATIVES
NINETIETH CONGRESS

SECOND SESSION

ON

H.R. 14096

A BILL TO AMEND THE FEDERAL FOOD, DRUG, AND COSMETIC ACT
TO PRESCRIBE PENALTIES FOR THE POSSESSION OF LSD AND
OTHER HALLUCINOGENIC DRUGS BY UNAUTHORIZED PERSONS

H.R. 15355

A BILL TO AMEND THE FEDERAL FOOD, DRUG, AND COSMETIC
ACT BY INCREASING THE PENALTIES FOR ILLEGAL MANU-
FACTURE AND TRAFFIC IN HALLUCINOGENIC DRUGS (INCLUD-
ING LSD) AND OTHER DEPRESSANT AND STIMULANT DRUGS,
INCLUDING POSSESSION OF SUCH DRUGS FOR SALE OR OTHER DIS-
POSAL TO ANOTHER, AND BY MAKING IT A MISDEMEANOR TO
POSSESS ANY SUCH DRUG FOR ONE'S OWN USE EXCEPT WHEN
PRESCRIBED OR FURNISHED BY A LICENSED PRACTITIONER, AND
FOR OTHER PURPOSES

(And Similar Bills)

FEBRUARY 19, 26, 27, AND MARCH 19, 1968

Serial No. 90-32

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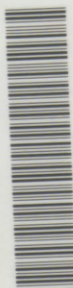
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INCREASED CONTROLS OVER HALLUCINOGENS AND OTHER DANGEROUS DRUGS

MONDAY, FEBRUARY 19, 1968

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PUBLIC HEALTH AND WELFARE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice, in room 2123, Rayburn House Office Building, Hon. Paul G. Rogers presiding (Hon. John Jarman, chairman).

Mr. ROGERS. The subcommittee will come to order, please.

The hearings today are on H.R. 15355 introduced by the chairman of the full committee, Mr. Staggers, at the request of the administration, and H.R. 14096, sponsored by myself, Chairman Staggers, and 23 other members of the Committee on Interstate and Foreign Commerce relating to penalties for possession of LSD and other hallucinogenic drugs subject to the controls of the Drug Abuse Control Amendments of 1965.

In 1965, the Congress considered legislation which became the drug abuse control amendments, focusing primarily on problems arising out of increasing use and abuse of barbiturates and amphetamines. That legislation also provided the same restrictions and controls for hallucinogenic drugs as was provided for barbiturates and amphetamines. The principal purpose of this legislation was to curb the illicit traffic in those central nervous system stimulants and depressants through increased recordkeeping and controls over the manufacture and distribution of these drugs.

At the time this legislation became law, the report of this committee stated:

The committee felt that imposition of rigid controls (of the type applicable to hard narcotics) is not warranted at the present time, at least until the milder form of regulation contained in this legislation has been tried. Of course, if the problem continues to be a serious one, other approaches will be required in the future.

It appears that the time has come for the "other approaches" referred to in this committee's report in 1965 to be warranted. The abuse of LSD and other hallucinogens appears to be widespread, with serious dangers to young people who are misled into abusing these drugs.

Today, possession of LSD and other hallucinogens for one's own use is not an offense under Federal laws. These bills would make possession, in and of itself, a misdemeanor and thereby would discourage young people from taking these drugs.

In addition, there appears to be some evidence that organized crime is moving into the illicit distribution of barbiturates and amphetamines. The legislation recommended by the administration, therefore, provides for increasing penalties for illicit distribution of these drugs.

Related to these developments is the proposal contained in Reorganization Plan I of 1968 to transfer control of hard narcotics from the Treasury Department to the Justice Department, and to transfer controls over barbiturates, amphetamines, LSD, and similar hallucinogens from the Food and Drug Administration to the Justice Department, as recommended by the Prettyman Commission in 1963.

I might say, too, as I recall, the Hoover Commission made a very similar recommendation as to transferring the narcotics into the FBI, into one unit.

We expect in these hearings to develop a record to aid the Congress in determining the best course of action to be followed at this time.

(The bills, H.R. 14096 and H.R. 15355, and departmental reports thereon, follow :)

[H.R. 14096, 90th Cong., first sess.]

A BILL To amend the Federal Food, Drug, and Cosmetic Act to prescribe penalties for the possession of LSD and other hallucinogenic drugs by unauthorized persons

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) (1) section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321) is amended by adding at the end thereof the following new paragraph:

"(w) The term 'hallucinogenic drug' means lysergic acid diethylamide or any other depressant or stimulant drug which the Secretary, after investigation, has found to have, and by regulation designates as having, hallucinogenic properties similar to those of lysergic acid diethylamide. The provisions of subsections (e), (f), and (g) of section 701 shall apply to and govern proceedings for the issuance, amendment, or repeal of regulations under this paragraph."

(2) Section 511(g)(1) of such Act (21 U.S.C. 360a(g)(1)) is amended (A) by inserting "or under section 201(w)" immediately after "section 201(v)" the first time it appears in such section, and (B) by inserting "or pursuant to section 201(w)" immediately after "section 201(V)" the second time it appears in such section.

(b) Section 511(c) of such Act (21 U.S.C. 360a(c)) is amended—

(1) by inserting "(other than a hallucinogenic drug)" immediately after "depressant or stimulant drug" in the first sentence;

(2) by striking out in the second sentence "of this subsection" and inserting in lieu thereof "of the preceding sentence"; and

(3) by adding at the end thereof the following new sentence: "No person, other than a person described in subsection (a) or subsection (b)(2), shall possess any hallucinogenic drug; except pursuant to a prescription by a duly licensed practitioner."

[H.R. 15355, 90th Cong., second sess.]

A BILL To amend the Federal Food, Drug, and Cosmetic Act by increasing the penalties for illegal manufacture and traffic in hallucinogenic drugs (including LSD) and other depressant and stimulant drugs, including possession of such drugs for sale or other disposal to another, and by making it a misdemeanor to possess any such drug for one's own use except when prescribed or furnished by a licensed practitioner, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Dangerous Drug Penalty Amendments of 1968."

SEC. 2. (a) Section 511(c) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360a(c)) is amended to read as follows:

"(c) No person, other than a person described in subsection (a) or subsection (b) (2), shall—

"(1) possess any depressant or stimulant drug for sale, delivery, or other disposal to another, or

"(2) otherwise possess any such drug unless such drug was obtained directly, or pursuant to a valid prescription, from a practitioner licensed by law to prescribe or administer such drug, while acting in the course of his professional practice."

(b) Clause (3) of paragraph (q) of section 301 of such Act (21 U.S.C. 331(q) (3)) is amended to read as follows: "(3) (A) the possession of a drug in violation of section 511(c) (1), or (B) the possession of a drug in violation of section 511(c) (2);".

SEC. 3. Section 303 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 333) is amended—

(1) in subsection (a), by (A) inserting "other than a provision referred to in subsection (b) of this section," after "Any person who violates any of the provisions of section 301"; (B) striking out "shall be guilty of a misdemeanor and"; (C) inserting "or is committed with intent to defraud or mislead," after "has become final"; and (D) striking out "Provided, however," and all that follows and inserting in lieu thereof a period; and

(2) in subsection (b), by striking out all of that subsection and inserting in lieu thereof the following new subsection:

"(b) (1) Any person who violates any of the provisions of clause (1), (2), or (3) (A) of section 301(q), or violates, with respect to a depressant or stimulant drug, any of the provisions of paragraph (3) of section 301(i), shall, except as otherwise provided in paragraph (2) of this subsection, on conviction thereof be subject to imprisonment for not more than five years, or a fine of not more than \$10,000, or both such imprisonment and fine.

"(2) In the case of a person who, having attained his eighteenth birthday, violates clause (2) of section 301(q) by selling, delivering, or otherwise disposing of any depressant or stimulant drug to a person who has not attained his twenty-first birthday, such person shall be subject to imprisonment for not more than ten years or a fine of not more than \$15,000, or both such imprisonment and fine, except that, if such violation is committed after a conviction of such person under this paragraph has become final, such person shall be subject to imprisonment for not more than fifteen years, or a fine of not more than \$20,000, or both such imprisonment and fine."

SEC. 4. The amendments made by this Act shall be effective with respect to violations occurring after the date of enactment of this Act.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., March 7, 1968.

HON. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Bureau of the Budget on H.R. 14092, H.R. 14096, H.R. 14699, H.R. 15242, H.R. 15355, H.R. 15502, and H.R. 15572, similar bills, which would amend the Federal Food, Drug, and Cosmetic Act to prescribe penalties for the possession or manufacture, possession and sale of LSD and other hallucinogenic drugs by unauthorized persons.

The President, in his message of February 7, 1968, on the Challenge of Crime to our Society, proposed that "the Congress immediately enact legislation to make the illegal manufacture, sale or distribution of LSD and other dangerous drugs a felony and the illegal possession of these drugs a misdemeanor."

The President's recommendations are contained in the provisions of H.R. 15355 and H.R. 15572. We recommend favorable consideration of those bills in lieu of H.R. 14092, H.R. 14096, H.R. 14699, H.R. 15242, and H.R. 15502.

Enactment of H.R. 15355 or H.R. 15572 would be in accord with the program of the President.

Sincerely yours,

WILFRED H. ROMMEL,
Assistant Director for Legislative Reference.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., March 8, 1968.

HON. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on H.R. 15355 and H.R. 15572, identical bills, "To amend the Federal Food, Drug, and Cosmetic Act by increasing the penalties for illegal manufacture and traffic in hallucinogenic drugs (including LSD) and other depressant and stimulant drugs, including possession of such drugs for sale or other disposal to another, and by making it a misdemeanor to possess any such drug for one's own use except when prescribed or furnished by a licensed practitioner, and for other purposes."

The President in his message on the Challenge of Crime to our Society recommended enactment of legislation to make illegal manufacture, sale or distribution of LSD and other dangerous drugs a felony and the illegal possession of these drugs a misdemeanor. H.R. 15355 and H.R. 15572 incorporate the provisions of a draft bill prepared by the Department of Health, Education, and Welfare to carry out the President's recommendations. The Treasury Department recommends the enactment of the proposed legislation.

The Department has been advised by the Bureau of the Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

FRED B. SMITH, *General Counsel.*

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., March 8, 1968.

HON. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN:

Reference is made to your request for the views of this Department on H.R. 14092, H.R. 14096, H.R. 14699, H.R. 15242, and H.R. 15502, similar bills, amending the Federal Food, Drug, and Cosmetic Act to prescribe penalties for the manufacture, possession, and the sale of LSD and other hallucinogenic drugs by unauthorized persons.

The President, in his message on the Challenge of Crime to our Society, proposed that Congress immediately enact legislation to make the illegal manufacture, sale, or distribution of LSD and other dangerous drugs a felony and the illegal possession of these drugs a misdemeanor. His recommendation is contained in the bill, H.R. 15355, which was introduced on February 15, 1968, and referred to your Committee.

The Department recommends the enactment of H.R. 15355 in lieu of further consideration of H.R. 14092, H.R. 14096, H.R. 14699, H.R. 15242, and H.R. 15502.

The Department has been advised by the Bureau of the Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

FRED B. SMITH, *General Counsel.*

Mr. ROGERS. We shall hear first this morning from several Members, who are cosponsors of one of the bills under consideration, H.R. 14096. Our first witness will be a distinguished member of our full committee, the Honorable Samuel Friedel. Please proceed as you wish Mr. Friedel.

**STATEMENT OF HON. SAMUEL N. FRIEDEL, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF MARYLAND**

Mr. FRIEDEL. Mr. Chairman, it is a pleasure to express my views to my colleagues on the committee in support of a bill I cosponsored, H.R. 14096, to make possession of hallucinogenic drugs illegal.

We have come full cycle, Mr. Chairman, with Dr. Goddard in 1966 urging that no punitive action be taken against the possessor but that we should use our energies to attack distribution to his testimony before our committee last year during the agency hearings wherein he conceded, well, maybe, but it should be the State's problem. My own State of Maryland recognized the need for action in May 1967, and enacted a provision under the new subtitle "Drugs" making it a misdemeanor for any person to administer, take internally, or possess LSD, punishable by a fine not to exceed \$500 and/or imprisonment up to 1 year.

What brought about this change in public attitude? How did Timothy Leary, the chief Pied Piper, convince young Americans, and the well educated to take a drug that profoundly affects consciousness and the efficiency of mental functioning in ways that are difficult to predict and may be potentially dangerous to the person who uses it. The most instrumental chemical substance in the spread of the use of the drug is printer's ink. Whatever else may or may not be true about LSD, there is no doubt that these articles not only sell newspapers, they also sell LSD.

The lure for "taking a trip" has been emphasized by stories of heightened creativity, ecstasy, and inspiration likened to a deeply religious experience. The lure is strong for those wanting to try something "new," for those who want to go along with the crowd, and for those rebelling against parental authority. The bait is made even more attractive because it is odorless, tasteless, and colorless and unlike narcotics, dependence may not develop. A speck of LSD—as little as 1/280,000 of an ounce—may produce effects which will last from 8 to 10 hours and which may recur without taking the drug again.

There is some evidence that there may be serious physiological consequences in taking LSD, such as the mutation of chromosomes resulting in birth defects not unlike thalidimide. But the more pressing problems lie in the psychological area. In illustrating some of the reactions to LSD, Dr. Sidney Cohen, chief psychiatrist at the Wadsworth VA Hospital in Los Angeles and the individual who has done most of the in-house research on LSD, pointed out cases where a young man violently beat a companion while under the influence of LSD and then hurled the victim from a fourth floor window; of another young man who stepped directly in front of onrushing traffic with his hand raised to halt the vehicles as if he were omnipotent; of a student who quit school after using LSD only a few weeks before he was to receive his bachelor's degree, and who, when he was alone, was observed to carefully unwrap and fondle his sugar cubes. Hazardous experiences among users of LSD and other hallucinogenic drugs have continued to grow with spreading abuse. The Food and Drug Administration reported about a college student who recently jumped to his death from a window either in the belief that he could fly or to attempt

to flee the panic which he experienced. A young man in Brooklyn murdered his mother-in-law for no apparent reason after taking LSD. And a girl in London "flew" out of a window—her proposed destination the United States—and fell to her death on the sidewalk below.

Persons who have had "successful" or "safe" trips cannot be assured that their next experience with LSD will be either worthwhile or without danger. Dr. Cohen noted: "The emotional responses vary markedly both during any single session, between a series of exposures in the same individual, and between individuals." For these reasons, persons taking the drug for the first time or those taking it successively have been likened to individuals who are playing a kind of "Russian roulette with a sugar cube." The effects of the drug on the psyche of the user and upon his behavior are very unpredictable.

We have heard testimony that LSD, for all its innocuous appearance, is more deadly than marihuana. A recent Gallup poll indicated that 600,000 college students had tried marihuana. How many more have been attracted to LSD? Authorities do not know for sure but one report indicated that 1 percent of our college population has tried LSD—yet another report says that 10 percent of all young people have tried LSD; almost half of the users of LSD had also used marihuana; the great majority of LSD users started as undergraduates; among the users, the primary reason given for first taking LSD was the belief that it would be an interesting and worthwhile experience.

We cannot permit this to continue. One of the main dangers lies in the delayed mental reaction (psychosis) which can put an uninformed and unsuspecting user in a mental hospital for weeks, months, or years. It appears that LSD can induce an acute psychotic state in normal individuals which usually—but not always—disappears in 48 hours or less. Further, LSD can aggravate a latent or compensated psychosis or neurosis, and this may result in long-term hospitalization in mental institutions.

We must face the fact that we are dealing with substances that are potentially very dangerous. Just last year, we worked together on additional amendments to the Mental Health and Mental Retardation Act right here in this committee to combat mental illness. Yet, we have taken no concrete steps to prevent young people from becoming inmates in these same mental hospitals. I respectfully urge favorable consideration of H.R. 14096 by the members of this subcommittee.

Thank you, Mr. Chairman.

Mr. ROGERS. Thank you for your views, Mr. Friedel.

We will hear next from another member of the full committee, the Honorable Horace Kornegay. Please proceed as you wish Mr. Kornegay.

STATEMENT OF HON. HORACE R. KORNEGAY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH CAROLINA

Mr. KORNEGAY. Mr. Chairman, for the record, my name is Horace R. Kornegay. I am a Member of Congress and have the privilege to represent the Sixth District of North Carolina.

I am grateful for the opportunity to express myself on this proposed legislation.

I am proud to have joined with you, Mr. Chairman, and 23 other members of the House Committee on Interstate and Foreign Commerce in the introduction of H.R. 14096, a bill which would amend the Federal Food, Drug, and Cosmetic Act by increasing the penalties for illegal manufacture and traffic in hallucinogenic drugs.

Unfortunately, not enough is known about what we call LSD and some of the other newly formulated mind-expanding drugs. But, from what those in the scientific community have been able to ascertain through investigation and experimentation that is still continuing, we know these new hallucinogenic drugs to be extremely dangerous—with their potential danger far exceeding the lifetime of the user. Preliminary studies have found that not only is the user in danger of severe temporary and even long lasting effects, but the offspring of the user of LSD can be damaged with respect to breakdown of inherent genes and chromosomes.

It has been estimated that 1 percent of the college-age population has resorted to the use of LSD. Another figure has put the figure as high as 10 percent. Regardless of the accuracy of the number of those now using or those who might use this potentially dangerous drug, the Congress should now exercise its powers to prevent any further widespread usage of this drug.

There is now no Federal law prohibiting the use or possession of LSD. The proposed legislation now before you will fill this void in our law and I wholeheartedly support the passage of such legislation.

Mr. ROGERS. Thank you for your concise statement, Mr. Kornegay.

At this time we shall hear from another member of our full committee, the Honorable John Murphy.

STATEMENT OF HON. JOHN M. MURPHY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. MURPHY. Mr. Chairman, thank you for the opportunity to testify today in support of legislation to amend the Federal Food, Drug, and Cosmetic Act to prescribe penalties for the possession of LSD or other hallucinogenic drugs by unauthorized persons.

The illegal use of drugs is a growing and serious problem in this Nation today. More and more of our young people are "turning on" and "dropping out" ostensibly because they are alienated from our society or just out for "kicks."

But there is more to the use of drugs than getting "kicks." There is a growing and increasingly conclusive body of evidence which shows that LSD and similar drugs can do permanent damage to the human body, and particularly the brain. An increasing number of our young people, their brains irreparably damaged by LSD, are winding up in mental hospitals, some of them never to come out.

In addition to the often tragic effects of LSD on the individual taking the drug, the drug may damage the unborn children of those who use it. Just recently, a child was born in Iowa with severely deformed limbs; its 19-year-old mother had taken four LSD "trips" during pregnancy, and laboratory analysis showed breaks in both the mother's and father's chromosomes. Research has already demonstrated that

LSD can damage chromosomes in animals, but this was the first documented case in human beings.

While the human tragedy is foremost in our minds, the burgeoning use of drugs provides fertile ground for the extension of organized crime. The illegal manufacture and sale of dope is already largely controlled by organized crime, and LSD and other hallucinogenic drugs are beginning to fall under their control.

A partial answer to the problem is education, because many young people do not know, or are not convinced, of the dangers which may result from taking LSD. This education must be based on extensive research which is now being carried out, and which should be rapidly expanded. The family, of course, should bear the brunt of the education task, but schools and community organizations must also recognize their obligations in this area.

Education, however, is only part of the answer. It must be combined with strong laws prohibiting the illegal manufacture, sale, possession, and use of LSD and other similar drugs; the legislation being considered by this subcommittee today, which I cosponsored, would provide the necessary legal remedies to our drug problem.

Basically, the legislation now being considered would strengthen existing law; it would provide that the following offenses shall be punishable by imprisonment of up to 5 years and/or a fine of up to \$10,000:

Illegal manufacturing, compounding, or processing of a depressant or stimulant drug;

Illegal sale, delivery, or other disposition of such drug; or

Illegal possession of such drug for sale, delivery, or other disposal to another.

All of these offenses are now misdemeanors, punishable by imprisonment for not more than 1 year and/or a fine of not more than \$1,000.

In addition, the legislation would make the possession of a depressant or stimulant drug a misdemeanor offense with a 1-year maximum sentence unless the drug was prescribed by a qualified physician; possession of these drugs for personal use is not unlawful under present Federal law.

Finally, any person over 18 years of age who sells or furnishes such drugs to a minor may be imprisoned for up to 10 years and/or fined up to \$15,000 for a first offense.

Mr. Chairman, this is strong legislation, and it is urgently needed; I hope this subcommittee will take prompt, affirmative action.

Mr. ROGERS. Thank you for your views, Mr. Murphy.

At this time we will hear from a distinguished member of this subcommittee, the Honorable Ancher Nelsen. You may proceed as you wish, Mr. Nelsen.

STATEMENT OF HON. ANCHER NELSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. NELSEN. Mr. Chairman, as a cosponser of H.R. 14096, it is my hope that our committee and the Congress as a whole will give speedy approval to this legislation. We need go no further than our daily newspaper accounts of the rapidly increasing use of LSD, marihuana, and other hallucinogenic drugs to realize that additional statutory aids to the control of traffic in these drugs are overdue.

This is one of the most important crime fighting weapons we can provide. Step by step, users too often graduate from the less potent drugs to narcotics addiction. The result is crime on a staggering scale. It has been estimated 50 percent of the street crime in New York City can be attributed to narcotics.

Whether the drug user is a mere curiously-pleasure seeker, whether he is consciously, though mistakenly, attempting a sort of self-improvement, with the drugs as a vehicle to that improvement, or whether he is one of the disenchanted, taking a "trip" away from an existence or society with which he disagrees, the evidence is mounting every day as to the ultimate harmful effects the hallucinogens can have on this user and on society. While no one, not even a trained psychiatrist, can say for sure whether a person will or will not have complications if he takes LSD, or even that the effect will not vary on this same person from time to time, this is the very reason its manufacture, use, and possession must be rigidly controlled. Young people often think: "It won't hurt to try it just once." With LSD, "just once" can be too often. A recent study at a New York hospital showed 26 of 52 patients with LSD-induced psychosis had taken the drug only once. Evidence is mounting that permanent damage to the brain, hereditary genes, and chromosomes can be the penalty for a single "trip." Birth defects have also been traced to its use.

Just a word about marihuana. Marihuana is probably used by our youth more than any other hallucinogen. Those who would legalize marihuana or discount the dangers of its use make the point that it does not inevitably lead the user to experiment with "hard" drugs such as heroin and that it does not cause addiction or physical deterioration. These arguments tend to cloud the fact that it is in these comparatively milder effects from its use as compared to other hallucinogens that the chief danger in marihuana lies. Having tried it, the user finds himself often discontented with the experience or expects ever-increasing pleasurable effects and does not get them. The jump to the LSD or heroin wagon can then be relatively easy. The point is that he has been given a start into the morass of drug abuse; whether he moves on or stops will vary with given individuals, their situations and environments at the time of their introduction to "pot," and there is no way for society to measure or control in advance what these individual responses will be.

Then, of course, we have the proponents of legislation of marihuana, faced with the data on the potential dangers of its unrestricted use, relying on the argument that it is no more dangerous than alcohol. The American Medical Association has pointed out in this connection that it may take only one or two reefers to bring the user to the point of intoxication. The action of marihuana is far more rapid in its interference with social and economic productivity than alcohol. The false sense of ability which is created can lead to serious consequences more devastating than those experienced by the casual drinker, according to the AMA. But to my mind the most important answer to this argument of marihuana's proponents is that the major criterion for legalization of any drug should not be a comparison with the dangers of alcohol, but rather the inherent dangers in the drug's indiscriminate use. Surely society has an obligation to limit the distribution and possession of potentially dangerous drugs, especially when weighed against

the common denominator of all the arguments of its proponents—that they want to have the uninhibited right to use the drug simply because it gives them pleasure.

Mr. Chairman, the prevention of drug abuse by those who are susceptible is necessarily dependent on a judicious mixture of education, and congressional action. This bill is a small but proper step toward this end and one which surely needs to be taken by this Congress.

Mr. ROGERS. Thank you, Mr. Nelsen, for your testimony.

We have yet another Member to hear from before we get to departmental witnesses. Our next witness is also a member of our full committee, and cosponsor of H.R. 14096, the Honorable Dan Kuykendall.

STATEMENT OF HON. DAN KUYKENDALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mr. KUYKENDALL. Mr. Chairman, as a cosponsor of H.R. 14096 regarding the use and possession of hallucinogenic drugs, I want to take this opportunity to commend you and the other members of your subcommittee for holding hearings on the legislation pending on this subject. My bill amends the Federal Food, Drug, and Cosmetic Act to make it unlawful to use or possess hallucinogenic drugs, including LSD and other depressant and stimulant drugs having hallucinogenic properties, and to prescribe penalties for violation of these prohibitions.

There is an abundance of evidence to substantiate the growing concern in our Nation over the alarming increase in the use of drugs and narcotics by our young people. In addition to the common abuses of the more traditional harmful drugs and narcotics, such as marihuana, opium, and so forth, there has now arrived on the scene a relatively new group of hallucinogenic drugs which have proven to be extremely popular as well as extremely dangerous.

A recent Gallup poll indicated that 1 percent of our college population has tried LSD. That sounds like a small figure, but in numbers that represents around 60,000 and the figure is constantly growing. It should also be noted that this does not include those young people under college age or those out of college.

Another report says that 10 percent of all young people have tried LSD. Regardless of the exact count, the number is significant and since there is presently no legal deterrent or restriction against the use of these hallucinogenic drugs authorities have been unable to stop or materially reduce their use. The result has been that the use of LSD and varieties thereof has increased tremendously and it is now readily accessible by most anyone interested in trying it.

There seems to be little doubt that the hallucinogenic drugs are harmful to the individual and are frequently dangerous to others who happen to come in contact with the user while he is under their influence. There have been numerous articles in the news media describing the violence and sometimes death which often accompanies the use of these drugs. In addition, there is sound evidence that these drugs can mutate chromosomes so that an individual's offspring are also affected. Dr. Goddard, Commissioner of the Food and Drug Administration, in his testimony before the full committee stated that in his opinion LSD was more dangerous to an individual than was mari-

huana. This opinion has been reiterated and corroborated by many other medical experts.

The harmful effects of marihuana were discovered some time ago and appropriate laws were enacted to discourage its use. However, our laws are totally inadequate to cope with the serious problems posed by the use of the hallucinogenic drugs and it is imperative that we rectify this situation by enacting appropriate legislation to fill this void.

I submit that H.R. 14096, which provides penalties of up to 1 year in jail and/or a fine of \$1,000 for first offenders and 3 years in jail and a fine of \$10,000 for a second offender, will offer an effective solution to the unlawful use of hallucinogenic drugs and I strongly urge its favorable consideration.

Mr. ROGERS. Thank you, Mr. Kuykendall.

Our next witness this morning will be the Assistant Attorney General, Criminal Division, Department of Justice, the Honorable Fred M. Vinson, Jr. It is a pleasure to have you here, Mr. Vinson, and to hear your testimony.

STATEMENT OF FRED M. VINSON, JR., ASSISTANT ATTORNEY GENERAL, CRIMINAL DIVISION, DEPARTMENT OF JUSTICE

Mr. VINSON. Thank you, Mr. Chairman. It is my pleasure to be here.

Chairman Rogers, distinguished members of the subcommittee, I have a short prepared statement which I would like to read into the record, if I may.

Mr. ROGERS. That will be fine.

Mr. VINSON. President Johnson, in his recent message to Congress the week before last proposed that Congress immediately "enact legislation to make the illegal manufacture, sale, or distribution of LSD and other dangerous drugs a felony and illegal possession of these drugs a misdemeanor."

H.R. 15355 which you are considering this morning is such legislation. Other legislation, introduced by Chairman Rogers and others, is also before this committee, relating generally speaking to a possession penalty with respect to hallucinogens such as LSD.

The act which the Administration proposes amends the Food, Drug, and Cosmetic Act to provide that the following offenses shall be punishable by imprisonment up to 5 years or a fine of up to \$10,000, or both.

These offenses are: No. 1, illegal manufacturing, compounding or processing of a depressant or stimulant drug;

No. 2, the illegal sale, delivery or other disposition of such drug, or;

No. 3, the illegal possession of such drug for sale, delivery, or other disposal to another.

The same penalties are also made applicable to counterfeiting of depressant and stimulant drugs.

All of the foregoing offenses are presently misdemeanors in the law punishable by imprisonment for not more than 1 year or a fine of not more than \$1,000, or both. The effect of this legislation, therefore, will be to raise the limits of punishment for these particular offenses.

Possession of a depressant or a stimulant drug for personal use will be made an offense—a misdemeanor, 1 year maximum—unless the drug

was obtained pursuant to a valid prescription, from a practitioner licensed by law to prescribe or administer such drug, while acting in the course of his professional practice. Today, the possession of these drugs, including LSD, for personal use is not unlawful under Federal law.

Enactment of the Administration proposal will not remove all of the inconsistencies in the laws concerning narcotics and dangerous drugs. To bring order and reason to what he described as the "crazy quilt of inconsistent approaches and widely disparate criminal sanctions," the President has already requested the National Commission on Reform of the Federal Criminal Laws to review all of our narcotic and drug abuse laws and to recommend a balanced and a consistent approach to this problem as soon as is practicable.

We feel, however, that increases in the scope and the sanctions of the dangerous drug laws should not be postponed even for the time required for the Commission's study. We must sharpen our weapons at this time against the traffickers of LSD and other dangerous drugs.

H.R. 15355 authorizes other very substantial sentences, up to 10 years imprisonment and/or \$15,000 fine for any person over 18 years of age who sells or otherwise furnishes any depressant or stimulant drug to a minor. For a second such offense the punishment is up to 15 years imprisonment or a \$20,000 fine, or both.

At the Federal enforcement level we are interested primarily in the major traffickers, those who are pouring large volumes of drugs into illicit channels. It is desirable, however, to subject to punishment those persons who possess the illegal drugs only for their own use and whom we cannot prove have an intention to sell to others. The laws against possession act, we feel, as deterrents but more importantly, possession laws are very valuable in enforcement work against traffickers.

In the first place, it makes the Government's case easier to prove by obviating the necessity of proving a sale or the intention of sale where those in law enforcement are confident that they have apprehended a trafficker but they do not have hard proof of a specific sale.

Secondly, this sort of sanction is helpful to law enforcement in furnishing an incentive for a person apprehended for simple possession to cooperate with the police by disclosing the source of that person's supply.

I will not dwell on the many and various evils of drug abuse and the damaging effects which these drugs can have upon users. I think we all recognize the dangers involved. Even the medical authorities at this point in history do not understand all of the "whys" and the "hows" and one of the real problems in the area of enforcement of dangerous drug laws is the rapid order with which new compounds, new dangerous drugs come on the market. Obviously, much research has to be done and increased efforts have to be made to educate people, and particularly our young people, to the dangers involved. But education and research alone will not solve the problem. We need strong laws to deter through criminal sanctions those unscrupulous persons who prey on the weak or misguided users of LSD and similar drugs. H.R. 15355, we feel, is a good step in this direction and it will be a useful tool to the enforcement community against drug abuse and its consequences.

Thank you, Mr. Chairman.

Mr. ROGERS. Thank you very much, Mr. Vinson, for that statement. Mr. Satterfield?

Mr. SATTERFIELD. Thank you, Mr. Chairman.

Mr. VINSON. I have one question. I notice in H.R. 15355 sentence is imposed on persons over 18 years of age who sell or furnish stimulants or depressants to persons under 18. I wonder why the age of over 18 is specifically spelled out in the statute rather than making it applicable to all persons who sell to minors?

Mr. VINSON. I think you have a similar provision in present law, actually the sale by one over 18 to one under 21. The two ages are not consistent. We adopted that pattern because of a present provision in the law which provides that the sale or delivery by persons 18 or over to one under 21 will receive a maximum of 2-year penalty.

We felt that those who traffic with young people should be dealt with much more harshly. We merely raised the penalty.

Mr. SATTERFIELD. Do you feel there is any danger in spelling out the age that those over 18 might tend to recruit people under 18 so as to avoid penalties.

Mr. VINSON. I suppose that danger is present, Mr. Congressman. I think it is a minimal one and one that is not necessary to recognize by way of legislation.

Mr. SATTERFIELD. Thank you, sir. That is all, Mr. Chairman.

Mr. ROGERS. Mr. Nelsen.

Mr. NELSEN. No questions.

Mr. ROGERS. Mr. Kyros.

Mr. KYROS. No questions, Mr. Chairman.

Mr. ROGERS. Actually as I recall these ages 18 and 21—we put in age 21 to change it from 18 so that we would include those who sold it to college people. It had first been proposed that it would only be if they sold to 18 and under. Actually, the college population goes up toward 21 so it went up to 21 to make sure it took in the college population.

Let me ask you about page 2 of H.R. 15355 on line 23, paragraph C, “inserting ‘or is committed with intent to defraud or mislead.’”

Now as I read that, I am not sure that I see the significance of it in relation to the drug abuse laws which pertain to all drugs. What do you mean that we are going to have to have intentionally defraud or mislead with LSD?

Mr. VINSON. This really has nothing to do with the direct enforcement of the law with respect to trafficking in dangerous drugs. This was language that was suggested by the Bureau of Drug Abuse Control.

I would be delighted to check back with the Bureau and furnish that information. Mr. Durham tells me that that is merely a retention of present law and that is in the present law, but the way the law was amended and redrafted it was deleted and it was put back in.

Mr. ROGERS. As I read it now it looks like it goes to section (b) of the present law. It says, “with intent to defraud or mislead.” I think it would be helpful to the committee if you would let us have a memorandum on that and the necessity for it. I am not sure that it needs to be placed there. It might be well to let us have your thinking on that.

Mr. VINSON. I don't think it has any relationship to the principal problem we are addressing ourselves to this morning. It is not a part of a case against the trafficker in dangerous drugs. I will be delighted to submit a statement to the committee.

(The following memorandum was received by the committee :)

DEPARTMENT OF JUSTICE MEMORANDUM ON PURPOSE AND EFFECT OF LANGUAGE
CONTAINED IN SECTION 3(1) (C) OF H.R. 15355

Question: What is the purpose and effect of the language "or is committed with intent to defraud or mislead", which is contained in H.R. 15355, p. 2, lines 23-25?

Answer: The aforementioned language in H.R. 15355 is a restatement of present law and makes no change in present law.

Presently subsection 303(b) of the Federal Food, Drug, and Cosmetic Act provides that the penalty for violations of section 301 with intent to defraud or mislead shall be imprisonment for not more than three years, or a fine of not more than \$10,000, or both. In H.R. 15355 this provision is retained, but it is moved up into subsection 303(a). The provisions of H.R. 15355, p. 2, lines 23-25 simply incorporate this provision in subsection 303(a). Subsection 303(b) is then completely re-written (H.R. 15355, p. 3, lines 3-25) to provide the new felony penalties for trafficking which are the subject of H.R. 15355.

The revised subsection 303(a) will read as follows:

"Sec. 303. (a) Any person who violates any of the provisions of section 301, other than a provision referred to in subsection (b) of this section, shall on conviction thereof be subject to imprisonment for not more than one year, or a fine of not more than \$1,000, or both such imprisonment and fine; but if the violation is committed after a conviction of such person under this section has become final or is committed with intent to defraud or mislead, such person shall be subject to imprisonment for not more than three years, or a fine of not more than \$10,000, or both such imprisonment and fine."

Mr. ROGERS. Let me ask you, under the President's proposed reorganization plan, which has not yet been approved by the Congress, the enforcement of this law would be under your jurisdiction?

Mr. VINSON. That is correct, sir. The Bureau of Drug Abuse Control and the Bureau of Narcotics would be combined in a single agency under the roof of the Department of Justice.

Mr. ROGERS. Would they be, in effect, combined with the FBI or not?

Mr. VINSON. No, sir.

Mr. ROGERS. It would be a separate body?

Mr. VINSON. That is correct, a separate and very strong agency. They presently each have manpower of about 300 agents, a total of 600 agents. That is with jurisdiction throughout the entire country.

In respect to the Bureau of Narcotics, they have certain overseas duties, too. This would combine the two agencies and would add funds that would increase the total enforcement personnel by more than 30 percent. We would wind up with one agency with approximately 850 agents.

Mr. ROGERS. Now would the FBI have jurisdiction if they came upon this to make arrests?

Mr. VINSON. No, sir. The situation in that respect would be unchanged.

Mr. ROGERS. So if an FBI agent came in a place where there was abuse of drugs he would have no authority?

Mr. VINSON. That situation arises with virtually every investigative agency coming upon evidence indicative of violations outside their

jurisdiction. There are strong liaison links between such agencies. It causes no problem.

Mr. ROGERS. I thought one of the purposes was to broaden the enforcement people who would be concerned with this problem. How many FBI agents do we have?

Mr. VINSON. About 6,000.

Mr. ROGERS. I thought this would increase the force in this regard but the present intention is not to allow the FBI to have jurisdiction?

Mr. VINSON. Not directly, Mr. Chairman, but the force would be substantially increased. Instead of having 300 agents with jurisdiction, you would wind up, Congress willing, with approximately 850 agents.

Mr. ROGERS. Have you had an opportunity yet to look at the widespread problem of drug abuse?

Mr. VINSON. Yes; we have. As you know, it is a fairly recent phenomenon. The Bureau of Drug Abuse Control was created in 1966. They have had what I think is a phenomenal record, both in creating an enforcement agency and getting about their duties. I think in the last year they made over 590 arrests having to do only with hallucinogenic drugs.

Mr. ROGERS. Has the record indicated an increase also in the hard narcotics or have you had an opportunity to deal with this?

Mr. VINSON. I think we need to define what we mean by hard narcotics. If we are talking about hard narcotics as I view them, heroin, cocaine; I hesitate to say that that has increased.

Our enforcement program was very successful last year. There were times when the supply was very much diminished. That is one measurement.

Another measurement is addicts. That is a figure that I don't have readily available, Mr. Chairman.

Mr. ROGERS. Now, have you had any indication that the Mafia or the criminal element of the country is moving into the trafficking of the drugs, the dangerous drugs?

Mr. VINSON. Again, we have to define what we mean by organized crime. If we are talking about the hard-core Cosa Nostra, there is very little indication. However, they generally are found where there is money to be made illicitly.

However, there is an indication that there are large substantial organized conspiracies operating in the area of illicit drugs.

Mr. ROGERS. Thank you very much.

Mr. Carter, do you have any questions of Mr. Vinson?

Mr. CARTER. No; Mr. Chairman, I just got in. I am reviewing his statement.

Mr. ROGERS. Are there any other questions?

Also with Mr. Vinson is Dr. George A. Silver who is the Deputy Assistant Secretary for Health and Scientific Affairs of the Department of Health, Education, and Welfare. We are delighted to see you here this morning, Dr. Silver. We are pleased to have your statement. I understand you do have a statement.

Dr. SILVER. Thank you, Mr. Rogers. I have a brief statement which I will read, if I may.

Mr. CARTER. Mr. Chairman, after scanning Mr. Vinson's statement, I think it is pretty much to the point. It certainly points to the dangers

involved with LSD. It is an extremely dangerous drug, perhaps the most dangerous that we have in the United States today, even probably as dangerous as heroin. Certainly I think we should take some steps to control it.

Thank you, Mr. Chairman.

Mr. ROGERS. Are there any other questions?

Thank you, Mr. Vinson. We appreciate your statement.

Dr. Silver, now if you will proceed with your statement, please.

STATEMENT OF DR. GEORGE A. SILVER, DEPUTY ASSISTANT SECRETARY FOR HEALTH AND SCIENTIFIC AFFAIRS, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Dr. SILVER. I appreciate this opportunity to testify on the Dangerous Drug Penalty Amendments of 1968, H.R. 15355, introduced by Chairman Staggers, and on similar bills which have been introduced to curtail drug abuse.

In his February 7 message on the challenge of crime to our society, President Johnson stated: "We must mobilize now to halt the growing trade in narcotics and drugs."

He went on to urge the Congress to enact legislation to make the illegal manufacture, sale, or distribution of LSD and other dangerous drugs a felony, and the illegal possession of these drugs a misdemeanor.

The Department of Health, Education, and Welfare supports H.R. 15355, which would carry out the President's recommendations.

As you know, the Department has the responsibility for controlling hallucinogenic and other depressant and stimulant drugs. Since February 1966—when the FDA's Bureau of Drug Abuse Control was established—we have given the highest priority to stamping out the source of supply of dangerous drugs—the illicit manufacturer, the trafficker. This priority was advocated by the Department during the hearings before this committee on the Drug Control Amendments of 1965. This was the policy adopted by the Congress. This remains our policy today.

In administering the Drug Abuse Amendments of 1965, we have also devoted considerable effort to a program of education about the harmful effects of using dangerous drugs, in the belief that a balanced program of education and enforcement will provide the long-term solution to the drug-abuse problem.

As of today, we know that we do not have the problem under control. Certainly we are well aware that LSD in particular remains a hazard to our people.

In previous testimony before the Congress, representatives of the Department have shown that abuse of this agent is associated with four types of serious adverse results:

1. Severe panic states occurring during the acute effects of the drug.
2. Prolonged schizophrenic-like states which may continue for weeks or months after a single dose.
3. Recurrent flashbacks, or waves of symptoms resembling the original LSD state, which may occur weeks or months afterwards.
4. A gradual deterioration of effective work, study, and social relationships.

Although the evidence is not yet clear, and its significance to human beings cannot be fully analyzed at this time, there is at least an indication that LSD use is associated with damage to the genes or chromosomes. We cannot yet state with assurance the relationship of LSD abuse to the development of leukemia, or the production of congenital malformations.

In the Department of Health, Education, and Welfare, research on these and other aspects of the problem is receiving growing attention. Since fiscal year 1966, approximately \$7.5 million has been provided by the National Institute of Mental Health for such investigations. Currently, some 58 studies, involving \$3.2 million, are underway.

We recognize that there is still misunderstanding and debate in the area of hallucinogenic drugs. We believe much of this stems from lack of adequate knowledge. We are hopeful that the research we are supporting—and will continue to support—will fill the gaps in our knowledge.

Thank you, Mr. Chairman, for the opportunity to appear today. I will be glad to answer any questions you may have on the health hazards associated with abuse of these drugs.

Mr. ROGERS. Thank you, Dr. Silver.

Mr. Satterfield?

Mr. SATTERFIELD. No questions.

Mr. ROGERS. Mr. Nelsen?

Mr. NELSEN. I have no questions.

Mr. ROGERS. Mr. Kyros?

Mr. KYROS. No questions, Mr. Chairman.

Mr. ROGERS. Dr. Carter?

Mr. CARTER. There is the problem concerning the manufacture of LSD. It is really not very difficult for this to be done, is it?

Dr. SILVER. No, it is relatively simple but the pure substance is difficult to manufacture.

Mr. CARTER. But we do find that many, many students are manufacturing it themselves, are they not?

Dr. SILVER. We suspect that they are.

Mr. CARTER. It is going to be rather difficult to control because of its ease of manufacture. It presents quite a problem for this reason: Many other drugs are brought into the country and we have an opportunity to get them. But this, almost anyone can make. Here in the District I understand that very thing has been done. I regret this is true.

Certainly our distinguished chairman has introduced a bill for this control and Mr. Rogers, who is the present chairman of this subcommittee, and Mr. Nelsen believe the same, that we should control the manufacture as well as the possession and illegal distribution of it.

Thank you, Dr. Silver.

Mr. ROGERS. Actually one of the results of LSD, as I understand from the experts that I have read who have made statements, is that the danger of suicide and psychotic reaction has been under-reported.

Would you say that that is a correct statement?

Dr. SILVER. I think the problem of suicide is always under-reported. I would suspect in this instance it would be a factor as well.

Mr. ROGERS. I think many people don't realize how serious it is. I hope this hearing and the hearings we will have will serve as a process of education as well for our young people.

Could you furnish what is the record of arrests for manufacture of LSD? Do you have the number of people who have been arrested?

Dr. SILVER. I don't, but I think we could furnish it.

(The following information was subsequently submitted:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE STATISTICS ON ILLEGAL DRUGS
AND LABORATORIES CONFISCATED IN 1967 AND 1968

Set out below are the statistics showing the number of clandestine laboratories seized by Bureau of Drug Abuse Control including those seized by local authorities where the cases were worked jointly.

Field office	Date of report	Hallucinogenic	Other	Total
Boston.....	Jan. 10, 1968	7	0	7
New York.....	do.....	10	0	10
Baltimore.....	do.....	1	0	1
Atlanta.....	do.....	2	1	3
Dallas.....	Jan. 11, 1968	6	1	7
Chicago.....	Jan. 10, 1968	3	1	4
Kansas City.....	Jan. 9, 1968	0	0	0
Denver.....	Jan. 10, 1968	1	0	1
Los Angeles.....	do.....	8	4	12
Total.....		38	7	45

¹ 8 of these cases involved not only hallucinogens, but other controlled drugs as well.

During calendar year 1967, B.D.A.C. conducted 434 criminal investigations which involved hallucinogens. B.D.A.C. has seized or purchased in its investigational activities hallucinogenic drugs totaling 1,011,051 dosage units. These seizures involved the following drugs:

Hallucinogens	Dosage units	Illicit market value
LSD.....	882,242	\$4,411,210
DMT (dimethyltryptamine).....	5,688	28,440
Mescaline.....	20,775	103,875
STP (4-methyl 2,5 dimethyl alpha methyl phenethylamine) ..	26,180	130,900
MDA (methylenedioxymphetamine).....	44,000	220,000
Other.....	32,166	105,473
Total.....	1,091,051	4,999,898

Mr. ROGERS. I think it would be helpful to the committee to furnish the actual record of those who have been arrested and the quantities involved. Are most of the arrests involved with people who have made this drug themselves or how do they come into possession of it?

Mr. VINSON. Perhaps I can address myself to that, Mr. Chairman. I don't think I can directly answer your question because my arrest figures are not broken down. But the Bureau of Drug Abuse Control reports that they have a total of 562 arrests for traffic in hallucinogens. That figure represents roughly 80 percent LSD violations.

So, you are dealing in terms of more than 400 arrests for trafficking, which is sale or manufacture. I do not have the figure broken down beyond that.

Mr. ROGERS. If we could get that for the record, we would like to have it.

Mr. VINSON. The enforcement problem here is similar to that of illicit whisky and your clandestine laboratories that produce hard

narcotics. The larger ones you can track down with much greater ease than the smaller ones. So often you can do that by tracing some of the necessary components that are required in large quantities. The difficulty arises in the very small operation.

Mr. ROGERS. It has been stated that a person could write to the Patent Office and obtain the formula for making LSD. Is this a true statement or would you know?

Mr. VINSON. I would defer to the Doctor on that. I do not know.

Dr. SILVER. I will be glad to get that information for you, Mr. Rogers.

Mr. ROGERS. Do you know of your own knowledge?

Dr. SILVER. No; I do not.

(The information requested follows:)

DEPARTMENT OF COMMERCE,
PATENT OFFICE,
Washington, D.C., February 27, 1968.

Dr. GEORGE A. SILVER,

Deputy Assistant Secretary for Health and Scientific Affairs, Department of Health, Education, and Welfare, Washington, D.C.

DEAR DR. SILVER: This is in reply to your letter of February 21, 1968 relative to the manufacture of LSD.

The only way in which information as to the manufacture of this drug could be obtained from the Patent Office is by purchase of copies of the patents relating to it. Copies of two such patents are enclosed herewith.

In accordance with the applicable statute 35 U.S.C. 41(9), the Patent Office is required to furnish uncertified printed copies of specifications of patents "as available and as in print," for 50¢ per copy. This office has no authority to refuse to supply such copies on the ground that the information which they contain might be used improperly. Moreover, copies of the specifications of all issued patents are available in a number of libraries throughout the country and could be readily used by anyone even if such copies were not supplied by the Patent Office.

Very truly yours,

EDWIN L. REYNOLDS,
First Assistant Commissioner.

Mr. VINSON. I might add while we are on this point, I understand that the Bureau of Drug Abuse Control has apprehended and charged a man who is reputed to be one of the largest manufacturers of LSD.

Mr. ROGERS. Are any of the major pharmaceutical manufacturers involved in making LSD?

Dr. SILVER. Not anymore. The information that I think was furnished you before at an earlier committee hearing, was that the manufacturers have pretty much given it up in this country. There is only one I believe, Sandoz, that has been manufacturing it here.

Mr. ROGERS. Sandoz?

Dr. SILVER. Yes.

Mr. ROGERS. Are they presently manufacturing?

Dr. SILVER. I am not certain at the present time. They were to have withdrawn from the field. I will have to find out for you.

(The following information was subsequently submitted:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE STATEMENT ON PRODUCTION OF LSD BY MAJOR PHARMACEUTICAL MANUFACTURER

In April 1966 Sandoz Pharmaceuticals turned its entire supply of LSD over to the National Institute of Mental Health (NIMH). Since that time, there has been no legal manufacture of LSD in this country. When an additional supply of LSD is required for FDA-NIMH approved research projects, NIMH contacts Sandoz Pharmaceuticals in Switzerland to obtain the drug for such authorized use.

Mr. CARTER. If the chairman will yield on that, some time ago they did manufacture a medicine containing lysergic acid and it was marketed under a trade name of Sansert. It was used for treatment of particular kinds of headaches. It may yet be obtainable on prescription.

Dr. SILVER. If it is, it is probably not through any recent distributions. I understood that Sandoz had given up distribution of it.

Mr. CARTER. For some time they did market this drug. I am not sure whether it has continued to sell the drug at the present time or not. Sandoz is a Swiss company, by the way.

Mr. ROGERS. Is there a recognized medical use, accepted by the medical profession, for LSD?

Dr. SILVER. To the best of my knowledge, there is no recognized use. There are experimental efforts at determining what such a use might be, Mr. Rogers. But I don't believe there is any recognized use.

Mr. ROGERS. Now most of this experimentation, I believe you stated, was carried on by the National Institutes of Health.

Dr. SILVER. They are supporting the research, yes, sir.

Mr. ROGERS. They would control the amount of LSD sent to investigators, such as doctors, who would be working in this area?

Dr. SILVER. I believe that the customary approach would be for a grant request to be reviewed and if it were approved then of course the investigator would have been approved. These investigators would be reviewed by panels of their peers, customary study-group methods. They would not allow it to get into the hands of people who are either untrained or unskilled.

Mr. ROGERS. Where would he get his supply of LSD?

Dr. SILVER. I am not certain. That is what I was looking for. I really don't know.

Mr. ROGERS. It is my understanding that the National Institutes of Health would allocate a certain amount of this. I would like to know what has happened, where this has been allocated, and the method of following up on the use of this LSD.

(The following information was subsequently submitted:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
PUBLIC HEALTH SERVICE,
NATIONAL INSTITUTE OF MENTAL HEALTH,
February 27, 1968.

To: George A. Silver, M.D., Deputy Assistant Secretary for Health and Scientific Affairs.

From: Director, National Institute of Mental Health.

Subject: Procedures for distributing LSD.

This is in reply to your memorandum of February 21, 1968 in which you requested detailed information on the procedure for allocation of National Institute of Mental Health psychotomimetic agents, including lysergic acid diethylamide (LSD).

These drugs which were formerly available from Sandoz are now distributed from the Center for Studies of Narcotic and Drug Abuse of the National Institute of Mental Health (NIMH). The NIMH established an expert committee, shortly after acquisition of the Sandoz drugs in April 1966. The committee met on an *ad hoc* basis to review requests for these substances and authorize their distribution. In September 1967, the *ad hoc* committee was replaced by a joint FDA-PHS Psychotomimetic Agents Advisory Committee to take over the review of requests for these agents and to advise the Surgeon General, through the Director of NIMH, of the disposition of such requests. This committee also reviews Investigational New Drug applications (NDAs) and advises the Commissioner of the Food and Drug Administration of its recommendations.

Once the drugs are in the hands of the investigator, the control mechanism of the Bureau of Drug Abuse Control (BDAC) functions. This bureau receives a copy of all shipping invoices.

In order for the previously mentioned reviews to be adequately accomplished, certain information is required of the investigator. Briefly these requirements are:

For animal, laboratory and *in vitro* studies

(1) Submission of a complete description of the purpose, design and extent of the intended studies, the qualifications and facilities of the investigator; the reason(s) for using the particular drug, the specific methods to be used in the study, and good documentation of drug requested with the protocol;

(2) Description of secure storage arrangements for the drug(s) and method for documenting usage;

(3) Submission of curriculum vitae and relevant publications of the principal investigator or investigators;

(4) Identification of the institutional setting in which the work will be done and submission of a document showing approval of head of the department or institution.

For clinical studies, the following *additional* information is required:

(5) Presentation of a copy of an Investigational New Drug application filed with the FDA;

(6) Information concerning review of research plan by an appropriate research or drug committee of the institution; and

(7) Procedures for obtaining informed consent from subject, patients or their relatives.

Greater details are presented on the enclosed reprint, Psychotomimetic Agents by John A. Scigliano from the Journal of the American Pharmaceutical Association, January, 1968.

I trust that these data will be helpful to you. If I may be of further assistance please let me know.

STANLEY F. YOLLES, M.D.

Mr. CARTER. Mr. Chairman, as I stated before, lysergic acid was a component of the drug Sansert, manufactured by Sandoz Co. It was on the market for quite a period of time. It was used experimentally for quite a while by some of the most famous clinics in the United States in the treatment of headaches of a particular kind.

To be exact, histamine encephalopathia. I understand it was withdrawn from this research.

Mr. ROGERS. Mr. Vinson, in looking over this Drug Abuse Act, going into the amendment of it with this provision, do you feel it needs tightening of any other provision?

Mr. VINSON. We addressed ourselves basically and principally to the penalty structures. Mr. Chairman, I am really not prepared at this moment to answer your question definitely. We have a team of people reviewing both this law and its relationship to enforcement problems in the narcotics and marihuana field.

Mr. ROGERS. It has been suggested that for shipments of amphetamines and barbiturates it might be well to require a bonding of shipments. If you would let us have your views it would be helpful.

Mr. VINSON. I would be glad to. The only area that has been called to my attention that may need tightening has to do with accountability, recordkeeping requirements of manufacturers of the amphetamines and barbiturates.

Mr. ROGERS. Are there any other questions? Thank you very much. We appreciate very much your presence and the testimony you have given us.

Mr. VINSON. Thank you, Mr. Chairman.

Mr. ROGERS. Our next witness will be Dr. Cecil B. Jacobson, who is Macy faculty fellow and instructor in the Department of Obstetrics and Gynecology, George Washington Medical School. He is accompanied by Mrs. Valerie Stubbs, who is a research assistant.

It is our understanding, Doctor, that you have done rather extensive work in this field of experimentation with people who have taken LSD. The committee appreciates your presence to give your opinion on the effect of LSD. We will be pleased to receive your testimony at this time.

**STATEMENT OF DR. CECIL B. JACOBSON, MACY FACULTY FELLOW
AND INSTRUCTOR, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY,
GEORGE WASHINGTON MEDICAL SCHOOL, WASHINGTON,
D.C.; ACCOMPANIED BY VALERIE STUBBS, RESEARCH ASSISTANT**

Dr. JACOBSON. Thank you, Mr. Chairman. Two difficulties present themselves in our discussion. The first difficulty is that our research is a preliminary prospective study which is initiated in individuals before pregnancy occurs or before the pregnancy is delivered and is followed in the newborn. Since this study is not being conducted on experimental animals or in *in vitro* systems, we have a rather limited amount of data at this time. For this reason, I must qualify some of my remarks as being rather preliminary in nature.

The second difficulty arises from the fact that we are dealing with patient material. As a physician, there is a certain amount of patient confidence which must be maintained and it will be impossible to answer specific queries in an open hearing.

Mr. ROGERS. Fine. Any questions that pertain to that area which you feel will not be proper for you to make comment on because of the patient-doctor relationship we will certainly recognize that and would ask you to give us that testimony in executive session.

Dr. JACOBSON. Thank you, Mr. Chairman. I will not present a written report at this time but would rather review some of the biologic concepts pertinent in the derivation and current performance of the genetic evaluation of LSD.

I wish first to emphasize that our experience and qualifications in genetic analysis precedes our interest in LSD. Our laboratory has long been interested in radiation and some of the other forms of mutagenic or genetically damaging substances in our environment. The initial evidence is substantial that chromosome breakage occurs in many persons, in experimental animals, and in tissue culture systems. This has been found by the Food and Drug Administration and many other investigators to be highly indicative of genetic damage. LSD presented itself rather recently when it became obvious that a considerable portion of persons who are exposed to LSD are in the reproductive group. For this reason we started this reproductive study in LSD users.

The study is yet without formal funding. Dr. Silver has described the Department of Health, Education, and Welfare's funding procedures which take approximately 18 months. Thus funding is rather difficult to obtain for current studies. This is complicated when one works with

pregnant patients who deliver within 9 months. Currently, the feasibility is sought for negotiating financial support from the Food and Drug Administration. I am, of course, quite concerned when we see the Department of Justice being allocated certain responsibilities that had previously been under Health, Education, and Welfare; since Justice at the present time is more an enforcement agency than a research-sponsoring agency. I would certainly pose this as an initial question and would like to discuss it further.

Mr. ROGERS. I might comment there. It is my understanding that Justice will be brought into this only as enforcement, that otherwise it will be administered by the Department of Health, Education, and Welfare. Also, I would think that if your study is significant that the National Institutes of Health would be most interested. I think the committee will perhaps inquire into that.

Dr. JACOBSON. Negotiations are in progress with the Bureau of Drug Abuse Control which currently falls within the Department of Health, Education, and Welfare.

In addition, I would refer to some collaborative research work being done by the Cell Biology Section, Food and Drug Administration, to which I am a consultant in genetic system analysis.

The availability of patients for study has been quite extraordinary, we feel. Until we went into this problem I felt that LSD use in the Washington area was a rather minor thing. We have been able to accumulate 50 patients for study in the last 2 or 3 months. This, of course, gives us considerable concern.

Mr. ROGERS. As a result of that, do you feel that in the Washington area LSD is being fairly widely used by an age group?

Dr. JACOBSON. My coinvestigator in this area, Mrs. Stubbs, is more qualified to answer that question.

Mr. ROGERS. Would you prefer to make your statement on that later?

Mrs. STUBBS. Yes; I would like to defer that question at this time.

Mr. ROGERS. You may proceed.

Dr. JACOBSON. There are three areas of interest in LSD use: the first is the area of research which is being approached in our study; second, the question of education of the potential user; and third, the role of legal enforcement in drug abuse. I certainly am qualified only to speak in the area of research, and will limit my remarks to this topic. I would like to show a few slides which should help to define some terms and make our study more interpretable.

We can classically define drug action in the four terms underlined in figure 1. *Mutagenic*, is a genetic change on the gene level which indicates that there has been a change in the DNA molecule. DNA, however, is not visualizable under the microscope. It has been shown in radiation and most other properly evaluated systems that chromosome breakage or aberrations of chromosomes are mutagenic and represent genetic change. In fact, by the time chromosomes break with radiation, the gene mutation rate has been exceeded approximately a hundredfold. Negative results of chromosome analysis is not necessarily a safety factor, however, positive results in most systems is thought to be rather serious.

Clinical Terminology of Mutagenic Assay

<u>Mutagenic</u>	Permanent genetic change; DNA (gene) or chromosomal aberrations
<u>Somatotoxic</u>	Cellular damage or death; no sequential generation effect
<u>Carcinogenic</u>	Either mutagenic and or somatotoxic; causes a <i>persistent</i> , viable clone
<u>Teratogenic</u>	Embryopathic effect, classically by time specific somatotoxicity
<u>Teratogenetic</u>	A mutagenic effect manifesting both embryopathy and familial transmission
<u>Reproductive detriment</u>	The clinical result in the familial transmission of mutagenic events

FIGURE 1

Somatotoxic is the condition in which one observes death of cells. This is not inheritable. If too many cells die as is found in cancer or an injury, the patient dies. *Carcinogenic* represents a change in cells; either a mutational change or perhaps a persistent irritant where the cells alter in their ability to survive; this is often the basis for cancer. *Teratogenic* refers to the causation of fetal abnormalities. As we study the genetics of reproduction two new words are introduced. *Teratogenetic* would be a mutagenic effect that may effect the embryo or the gonads (testes or ovary) of the embryo that would produce subsequent abnormalities in the second or third generation.

This would then connote a *reproductive detriment* or difficulty in the ability of their children to have normal children and this may in fact not show up for 20, 40, or perhaps even 60 years. To put this in perspective, the flow sheet in figure 2 starts with the genetic molecule DNA and shows that if a genetic change occurs, the clinical effect can vary.

If genetic change persists through cell division the ability of the cells to repair, or adapt to the mutation is reflected. This, of course, constitutes very little danger to the human race.

If persistent abnormalities are found in skin or blood cells we can expect either malignancy or premature aging, both of which have been strongly inferred in LSD-like compounds. If chromosome damage occurs during embryonic development, there will be anatomic documentation of abnormal development.

Our major area of concern is in the area which is yet unstudied, that is the danger to the developing sex cells, the sperm and the egg. Here we find that the potential genetic damage is great and one usually anticipates reduced fertility in the patient. In other words, the genetic damage is so great that persons exposed to certain mutagens are not able to have viable offspring. We hypothesize that many of these gametes may form developing fetuses that abort or result in abnormal babies. This effect again would show itself clinically in subsequent generations either by persistent sterility, repeated abortion, or abnormalities.

Again to bring this into a more realistic area, figure 3 shows the three areas of a patient's life that concern us. In the adult patient,

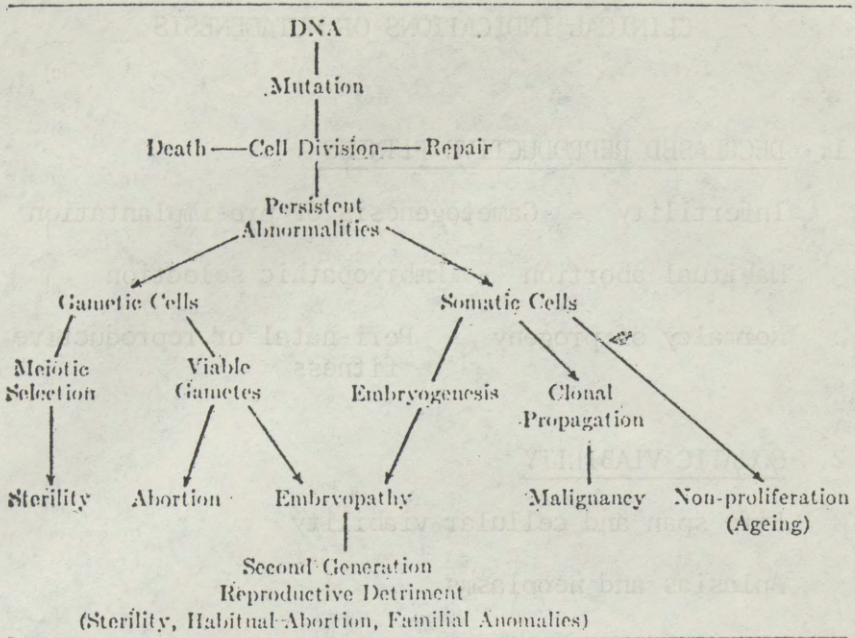


FIGURE 2

this would be the drug user whether pregnant or not, the time of exposure is critical to the developing fetus in estimating what the genetic risk would be. We compare equivalent radiation dosages and the probable significance comes in at the five roentgen level is one considers a lifetime dose. (In mutagens the exposure of 10 is more acute.)

There is a gradual progression of all types of degenerative effects in the three age limits as has been well shown in various agents such as ionizing radiation, caffeine, alkylating agents, and other chemicals. Most of the cancer-treating drugs and in fact almost all of the cancer-causing drugs can show exactly the same type of clinical progression.

At the present time LSD shows a definite embryopathic effect. In addition, there is strong, inferential evidence there will be a reproductive detriment. However, we need to wait 10 or 20 years before one expects to observe the premature aging and the problem of increased incidence of cancer.

Figure 4A shows the various types of chromosomal breakage. The term chromosomal aberration is used to define both breakage and structural abnormalities. Wherever there is an arrow you can see a break in the continuity of the black structure which would be the chromatid.

In figure 4B is a ring chromosome; parts of its structure are broken and are usually translocated to other chromosomes. Occasionally you get second generation exchanges. All of these are grossly abnormal and recognizable in a double blind sample.

Of course, all of our studies are analyzed in a blind system in which the slides are coded and we have no idea which patient they come

CLINICAL INDICATIONS OF MUTAGENESIS

1. DECREASED REPRODUCTIVE FITNESS

Infertility - Gametogenesis or pre-implantation

Habitual abortion - Embryopathic selection

Normalcy of progeny - Peri-natal or reproductive fitness

2. SOMATIC VIABILITY

Life span and cellular viability

Aplasias and neoplasms

3. HISTORICAL EXPOSURE

Acute, chronic, synergistic

FIGURE 3

from. We can usually tell from the culture slides what the extent of mutagenic exposure has been. In fact, one can usually estimate to what type of a genetically damaging agent the patient was exposed.

Figure 5 shows mutagenic factors that have been studied. Good documentation exists on ionizing radiation, certain types of viral infections, certainly German measles which also causes chromosomal breaks, some chemicals in our environment, certain insecticides, selected drugs, environmental contaminants, and parental age. We emphasize the study of reproductive potential.

As you know, the older an individual is, the greater the chance that they will have a defective offspring. In addition, death from cancer is correlated to advancing age. In addition to the naturally occurring mutagens (irradiation, virus, etc.) one observes multiple agents that fall within the direct study of this committee (drugs, high energy sources, contaminants, etc.).

Different test systems are available to observe chromosomes in the body. Peripheral blood culture is perhaps the easiest and best system to do serial studies. That is, by sampling peripheral blood one can study the induction of mitosis or cell division in the white blood cells. These white blood cells are similar to those found to be abnormal in leukemia.

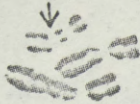
A drug (Colchicine) is used to stop the cells in culture and to prevent them from completing mitosis. The chromosomes are then swollen with a water solution and fixed. The cells are placed on a slide and

CHROMOSOME ABERRATIONS

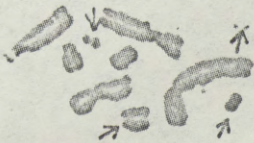
Identical structural variation at isologous loci on sister chromatids.

GAP (G)

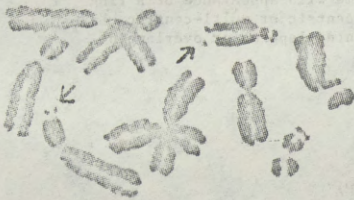
- Chromosomal interstitial deletion (less than 1 chromatid width)
- No linear displacement involved
- Thought to be an incomplete break

BREAK (B)

- Chromosomal interstitial deletion (greater than 1 chromatid width)
- Often accompanied by slight (less than 30°) displacement of material from chromosome axis

FRAGMENT (F)

- A free chromosome piece either displaced more than 30° or greater than three chromatid widths from its parent chromosome
- Often cannot be reliably identified with point of origin

TERMINAL BLEB (TB)

- Chromosomal telomere fragmentation
- Terminal position on sister chromatids

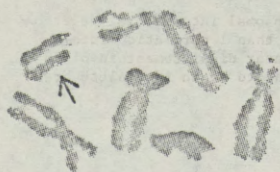
EXCHANGE (Ex)

- Chromosomal translocation figure
- Characterized by unique constellation of chromosomal arms
- Possibly caused by somatic pseudo-synapsis

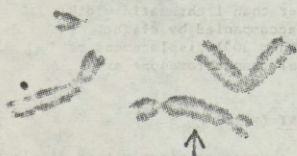
FIGURE 4A

MARKER CHROMOSOMES

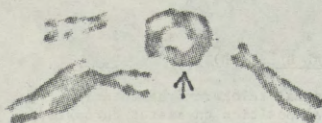
Unique structural alteration reflective of translocation, deletion or centromere rearrangements which allows consistent chromosomal identification.

ACENTRIC (A)

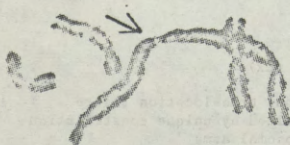
- Chromosomal fragment larger than Group G
- No identifiable centromere region

DICENTRIC (D)

- Chromosome with two centromeres
- May also include multi-centrics

RING (R)

- Chromosome with appearance of a ring
- Either acentric or multi-centric
- Either inter-lapping or overlapping

MARKER (M)

- Unique chromosomal structure which can be consistently identified
- Excludes centromere aberrations and exchanges
- Produced by non-reciprocal translocations, deletions or pericentric inversions

FIGURE 4B

MUTAGENIC FACTORS

Ionizing Radiation

Viral Infection

Chemicals - Drugs

Environmental Contaminants

Parental Age

FIGURE 5

a high power photomicrograph taken. It is relatively easy to study both the number and structure of the individual chromosomes. As stated, all work is done on a double-coded system, with only the serial code number of the patient available. One is then able to circulate these photos to other investigators to confirm their results. To date, it has been well established that LSD either in the intact organism and in tissue culture will cause persistent chromosomal breakage.

Figure 6 presents the patient history of a young lady who presented to our study in the seventh month of her pregnancy. She volunteered a history of LSD ingestion, all before pregnancy (an estimated total dose of 4,000 milligrams). Figures 7A and 7C shows the breakage in two or three of her chromosomes. Her child at time of birth appeared clinically normal; however, she showed the effect of breakage and in fact showed this very abnormal marker chromosome (Philadelphia chromosome) usually seen in leukemia (figs. 7B and 7D).

The graph in figure 8 shows a clinical history of this patient and her pregnancy. Ten LSD trips occurred shortly before conception, and the patient came to our study at seven months. You can see the breakage at that time was very high. However, in the child the breakage after the time of delivery tended to disappear. From this and other cases we have some rather conflicting data in our studies at the present time in regards to the risk to the parent and child.

It seems that the patient who takes LSD has persistent changes. However, the embryo or the offspring of the patient, if there are no severe congenital abnormalities, appears normal. We see that the genetic aberration of blood chromosomes tends to return within normal limits. We currently have no way to assay the reproductive damage to this child until we study the ovarian cells (gonads) or perhaps wait until 25 or 30 years when they start having children themselves.

This is the reason we have been pushing alternate test systems in either animals or tissue culture so that we can predict in advance genetic danger before recurrent abnormalities appear to such individuals.

In another case, blood specimens from a young lady who was exposed to three doses of LSD, showed numerous breakage in the chromosomes. The embryo in this case was taken by therapeutic abortion because of acute psychiatric complications.

CLINICAL SUMMARY

Patient: 11

19 year old white female

General health: excellent

Gravid:1 Expected date of confinement: 11/1/67

Exposure: Coffee: 1 cup/day

Tea: none

Cigarettes: 1 pack/day

Chemicals: hairspray inhalation at work

X-ray: upper spine -1 year ago

Drug Use: Initial January, 1967

LSD 9-10 times in January, 1967

Dosage: Estimated 300-400 "street"
micrograms/ unsure of dosage

No known drug use during pregnancy

Fetal ECG, prenatal development, maternal health
all normal during pregnancy

Spontaneous labor with uncomplicated delivery of
Baby Girl on November 2, 1967 (7 pounds, 1 ounce)

Physical examination of newborn: normal at birth

Pediatric development: Normal to 4/1/68

Cytogenetic results: See enclosed charts

FIGURE 6

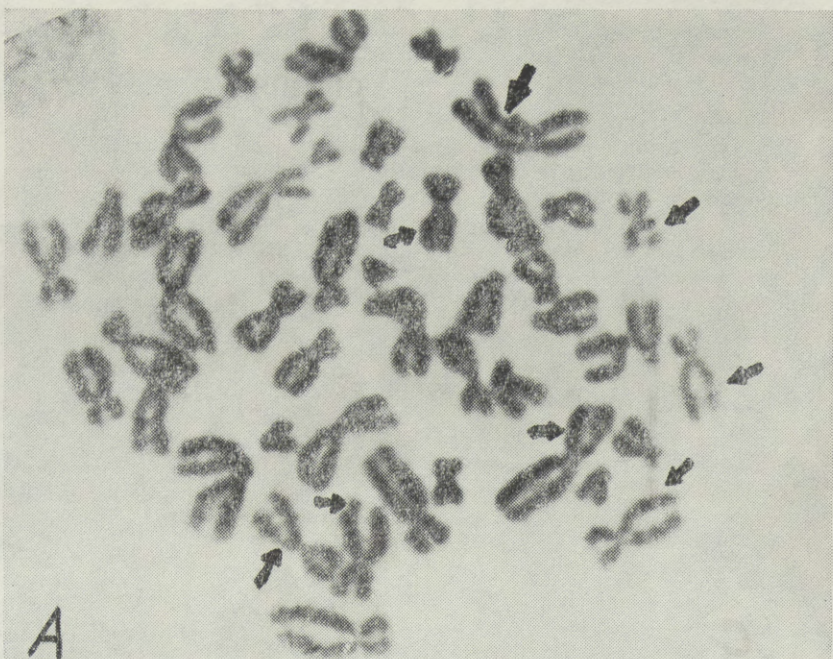


FIGURE 7A

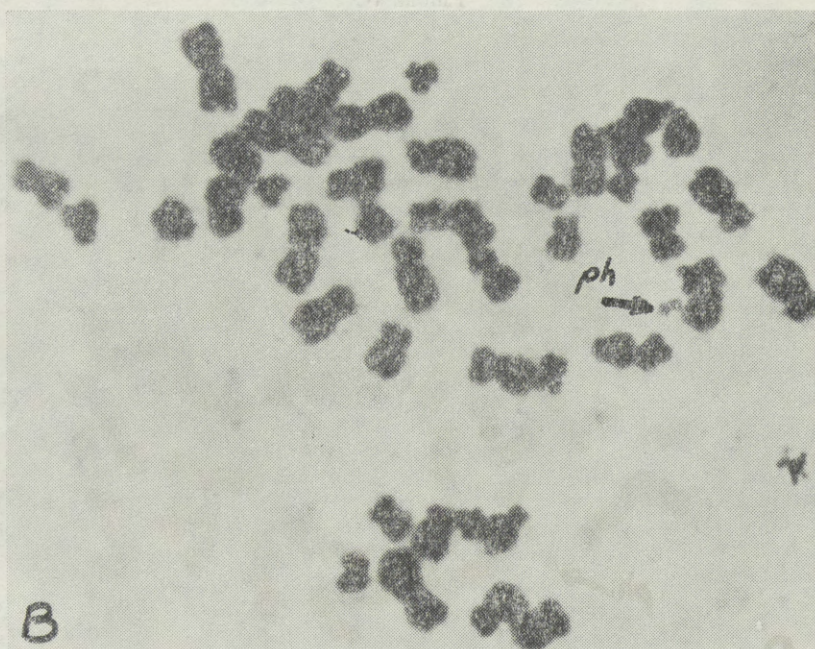


FIGURE 7B

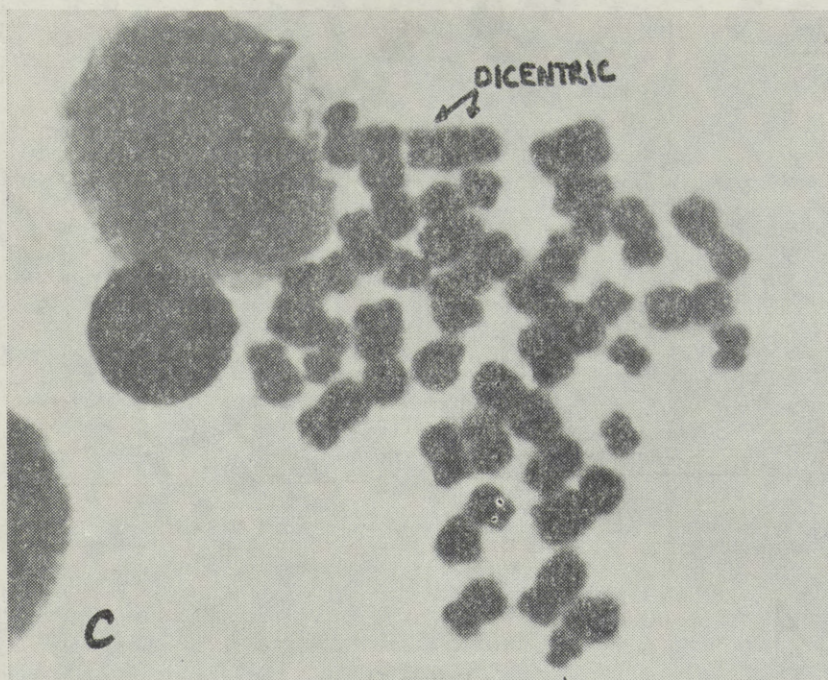


FIGURE 7C



FIGURE 7D

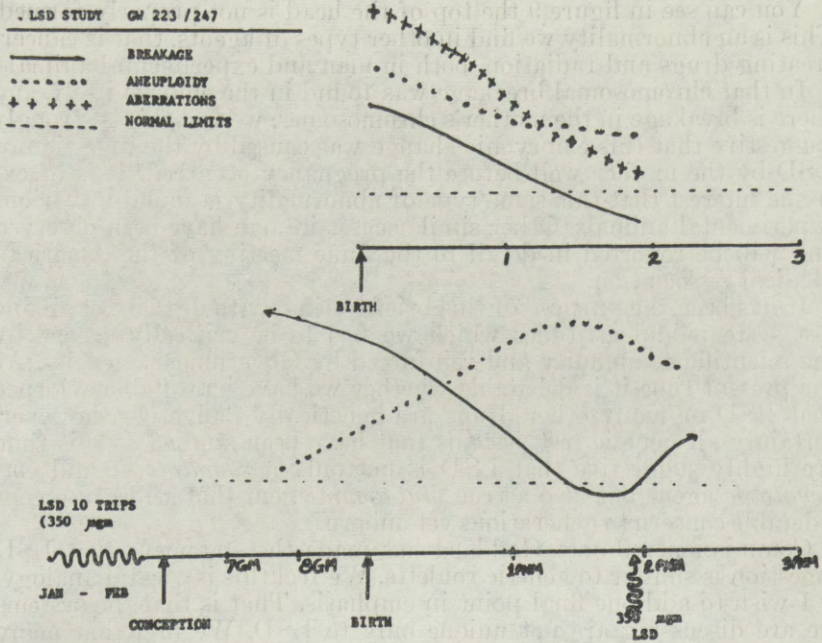


FIGURE 8

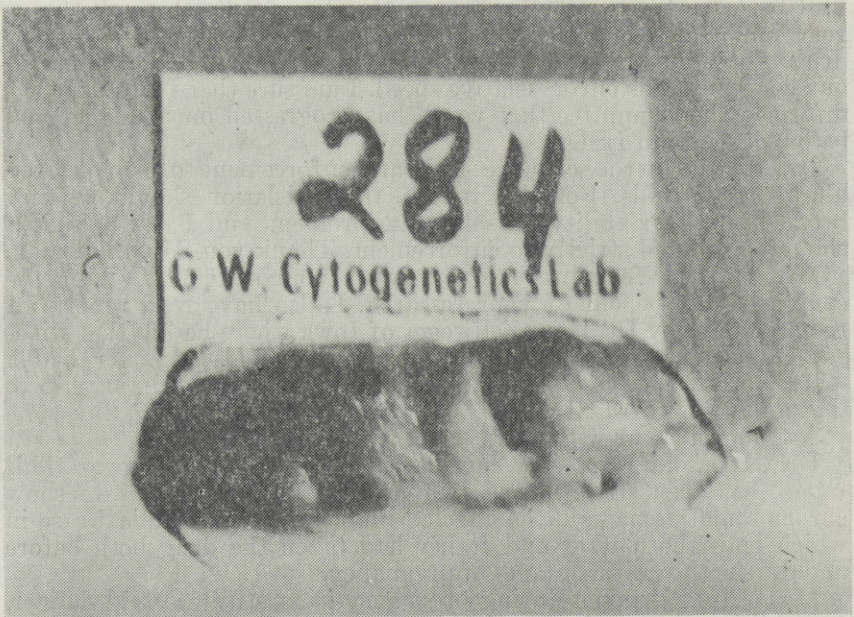


FIGURE 9

You can see in figure 9 the top of the head is not properly formed. This is an abnormality we find in other types of agents, that is cancer-treating drugs and radiation, both in man and experimental animals.

In that chromosomal breakage was found in the embryo itself, and there is breakage in the mother's chromosomes, we feel this is strongly suggestive that this embryonic change was caused by the ingestion of LSD by the mother well before the pregnancy occurred. It is of extreme interest that this same type of abnormality is found in various experimental animals. Other similar cases in man have been observed and will be reported in detail to the June meeting of the American Medical Association.

It has been the purpose of this brief testimony to describe available test systems and attitudes which we feel to be critically needed by the scientific community and reinforced by Government agencies. At the present time it is debatable whether we have irrefutable evidence that LSD or many other drugs are genetically dangerous, however, certainly all genetic test systems that have been studied at this time are highly suggestive that LSD is not only a *somatotoxic* and *embryotoxic* agent but also a true *mutagenic* agent that will cause considerable concern to generations yet unborn.

Commissioner James Goddard has made the statement that LSD ingestion is similar to genetic roulette. We feel this is a valid analogy.

I wish to add one final point in emphasis. That is that the systems we are discussing are not unique only to LSD. We find that many agents in our environment and in our technology are perhaps equally as dangerous as LSD as far as their genetic danger. We feel that any type of legislation or recommendations of this committee may well be extended to other proven mutagenic agents. I think this is very important since the ability of our technology to develop new drugs for abuse by our population, certainly in some segments of our youth, exceeds our legislative speed. I am sure that Dr. Carter has informed the committee that youth has progressed on to bigger and better drugs than LSD.

It is difficult in the scientific study and enforcement to keep one step ahead of the kids. For this reason, the legislation should be very broad in both its ability to isolate the problem, and I don't think it should be limited strictly to enforcement. Thank you, Mr. Chairman.

Mr. ROGERS. We appreciate very much your statement giving the committee the benefit of your research. I also have read reports of research done by Dr. Hans Zellweger of Iowa where he felt that without question a young baby girl born in Iowa last summer had a severely deformed right leg. He felt this was a direct relationship to the mother's taking LSD.

Are you familiar with that?

Dr. JACOBSON. I am very familiar with Professor Zellweger. This report has been strengthened in that they have been able to show chromosomal damage in the affected limb. This was a clinical case in which both the mother and father had taken the drug both before and during the critical stages of pregnancy.

If the drug is taken during pregnancy it constitutes valid danger. In addition, we tend to make the recommendation that this drug should not be used in either experimental studies or abused by non-research groups who are in the reproductive age range. This is a real

concern of ours since we find many of the people volunteering for our study are very concerned and had no idea of the long-range consequences of their brief trip. (These people in fact do seek us out.)

Mr. ROGERS. I think this is one of the problems that we need to get across to the American people that there is a definite danger which I think has been underplayed. Could you sum up in lay language what you feel are the basic things, genetically speaking of LSD?

Dr. JACOBSON. I think we can extend this beyond LSD. You realize that mutagenesis extends to other agents such as food additives, caffeine, and certain other drugs that are presently under study by the Food and Drug Administration. I think any agent that has been shown to break chromosomes if applied in a chronic manner over a long period of time will definitely *shorten cellular life*. This means that the shortened life span of your body's cells may induce premature aging.

A second point is that in body systems that are rapidly dividing such as the blood, it will significantly increase the chance of premature cancers. We would then highly suspect leukemia to be developing in people with chronic use of LSD such as we have seen in uranium miners and other persons where radiation exposure is a significant factor.

Thus, the mutagenic agents would have a current generation effect of shortening life span and an increased incidence of cancers. In addition, if this drug was taken during pregnancy, in a dose sufficient to reach the developing embryo, at an early stage, we would expect certain types of congenital abnormalities such as failure of the bones of the head to close, and so forth.

At the present time, we feel our evidence is highly suggestive that there may in fact be general change in the gonadal tissue that may not "announce" itself until 4 or 5 years after a person has stopped using the drug. Otherwise, there would be no 100 percent return to normal. This is an area that is very difficult to document since it is comparable to breeding elephants—it is almost impossible for man to see the second and third generation.

It is for this reason that we are trying to develop various test systems. I want to emphasize the extreme need of studying people using LSD. Of course, no one in their right and ethical mind would ever suggest such a study. Yet here are people taking a dangerous drug (LSD) which the American Medical Association, the community, law enforcement, and other agencies of the community have said they should not take.

They are wantonly and often naively taking this drug and reproducing its effects. The facts are, that the study of LSD is being done by our youth whether we condone it or not.

Mr. ROGERS. Mr. Kyros?

Mr. KYROS. No questions.

Mr. ROGERS. Dr. Carter?

Mr. CARTER. I want to compliment the distinguished gentleman for his presentation. I think it is very good. I am glad to see we have people looking into this problem and studying to see what may happen to future generations.

We think we have youngsters taking it. Certainly, I hope we can do something about it in the way of legislation and perhaps a broad educa-

tional effort to show them what they are actually doing to themselves and to their children.

Mr. ROGERS. Thank you, sir.

Mr. Springer, I am delighted to have you here this morning.

Mr. SPRINGER. Thank you, Mr. Chairman.

May I ask the witness whether you would be in favor of bringing LSD penalties up to marihuana, or marihuana down to LSD, or have a marihuana felony and LSD a misdemeanor?

Dr. JACOBSON. This is out of my area of knowledge. Being a reproductive geneticist and not a law enforcement person, it would be very difficult to make a statement. I will say we have not specifically studied marihuana.

However, in our study, marihuana use is very high in this LSD population. As you realize, drug abuse usually goes as a package. However, in our studies we find that the genetic damage appears correlated to LSD and not to extensive marihuana use.

At present we have no evidence that marihuana is a genetically damaging agent. We feel, however, it is extremely important that support be given for collaborative studies that will resolve the genetic danger of not just LSD but any other type of agents that come into the abuse program in a reproductive population in the United States.

Mr. SPRINGER. Are you a medical doctor?

Dr. JACOBSON. Yes, sir; I also have postgraduate training in genetics.

Mr. SPRINGER. If you are so qualified, would you give us your opinion as to which you think is the most dangerous, LSD or marihuana?

Dr. JACOBSON. As a physician?

Mr. SPRINGER. Yes.

Dr. JACOBSON. Medically I would definitely say LSD, and as a geneticist, I would also say LSD is a more dangerous drug.

Mr. SPRINGER. More dangerous than marihuana?

Dr. JACOBSON. Yes, sir; based on our current studies.

Mr. SPRINGER. I am trying to see if I can bring some reason into this whole thing. If I understood Dr. Goddard correctly, it was his feeling that LSD was less harmful than marihuana. I am not saying he underestimated. I am saying that he believes that LSD was less harmful than marihuana.

Mr. ROGERS. I don't believe that Dr. Goddard made that statement, from my understanding. I understood he did feel LSD was serious.

Mr. SPRINGER. It is my understanding he was recommending a penalty of misdemeanor on marihuana.

Mr. ROGERS. Simply for possession and use, not for sale. Simply for possession and use. This is what we would do with this drug.

Mr. CARTER. My understanding is that he equated marihuana with bourbon.

Mr. ROGERS. Are there any other questions?

Doctor, thank you very much. Now, Mrs. Stubbs, we will be delighted to have you make a statement. As I understand, you have helped as an investigator and research assistant to Dr. Jacobson.

STATEMENT OF VALERIE STUBBS

Mrs. STUBBS. Thank you, Mr. Rogers, and members of the committee. My interest in this study is in terms of the patient. People who come to us are extremely concerned about their use of LSD and other drugs. About 50 percent of them are currently pregnant.

As stated before, we would rather not disclose additional privileged patient information.

Mr. ROGERS. What is your impression of the use of LSD in this area, in Washington?

Mrs. STUBBS. It is very hard to generalize on that. We have some very high users and people who have tried it once or twice and stopped because of an adverse reaction.

Mr. ROGERS. Is the use of it growing? Have you seen an increased use of it?

Mrs. STUBBS. We have only been studying LSD use for a very short time. It would be impossible for me to make any such statement. My contact with these patients has been 6 months in duration.

Mr. ROGERS. Within this time you have already gotten 50 cases?

Mrs. STUBBS. Yes.

Mr. ROGERS. Which just came to you?

Mrs. STUBBS. Yes.

Mr. ROGERS. How did they know of your interest?

Mrs. STUBBS. We have considerable contact with attending physicians in the Washington area who refer patients to us. Many parents have taken their children to physicians for help. We also cooperate with a church agency which was covered this morning in the Washington Post. People congregate here and are very free in discussing drug use with us. Also authorities involved with the probation of young people who have been arrested for drug activities refer patients to us.

Mr. ROGERS. What, generally, would be the age group you are working with; would you say?

Mrs. STUBBS. The largest number out of the current 50 patients is in the 17-to-20 age group.

Mr. ROGERS. That is the largest?

Mrs. STUBBS. That is right. About 24 (50 percent) are in that age group. The rest of the patients are 20 years and over.

Mr. ROGERS. These are all women?

Mrs. STUBBS. No; we have both men and women.

Mr. ROGERS. Are there any questions?

This has been most helpful to the committee. We are grateful for your testimony. We will keep in touch with you, and any information you think may be helpful to the committee we will be grateful if you will see that we receive that.

Dr. JACOBSON. Thank you very much.

Mr. ROGERS. Are there any other questions?

If not, this will conclude this morning's hearings, and the additional hearings will be announced by the Chair.

(Whereupon, at 11:25 a.m., the subcommittee adjourned, to reconvene at the call of the Chair.)

INCREASED CONTROLS OVER HALLUCINOGENS AND OTHER DANGEROUS DRUGS

MONDAY, FEBRUARY 26, 1968

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PUBLIC HEALTH AND WELFARE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice, in room 2123, Rayburn House Office Building, Hon. Paul G. Rogers presiding (Hon. John Jarman, chairman).

Mr. ROGERS. The subcommittee will please come to order.

We are continuing hearings on H.R. 15355 and H.R. 14096, to amend the Federal Food, Drug, and Cosmetic Act to control LSD and other dangerous drugs.

It is the honor of the committee to have as our first witness this morning the distinguished Congressman, our colleague and majority whip, the Honorable Hale Boggs. We know of your own interest in this problem certainly because of your committee work, dealing with the committee on hard narcotics. We are particularly pleased to have you present today to give testimony for the benefit of this committee. Congressman Boggs.

STATEMENT OF HON. HALE BOGGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA

Mr. Boggs. Thank you, Mr. Chairman, members of the committee, and my colleagues, I appreciate the opportunity of appearing before the committee. I would like to congratulate the chairman and the other members of the committee for conducting these hearings. I think I was the first Member of Congress to introduce legislation which sought to control at the Federal level the sale of barbiturates and amphetamines some years ago.

Happily, under the chairmanship of former Chairman Harris of Arkansas, we passed the first bill in that field. I introduced that bill because I had headed up for a good many years a Subcommittee on Narcotics of the Ways and Means Committee.

As you know, because of the revenue features of the Harrison Narcotics Act, jurisdiction was in the Ways and Means Committee. As a matter of fact, it remains there so far as heavy narcotics control is concerned, although it may change due to the recent reorganization plan submitted by the President with respect to the Bureau of Narcotics, moving the Bureau from the Treasury Department to the Department of Justice.

I am here today in behalf of the legislation which you have introduced, Mr. Chairman, and which I have also introduced, because I think this legislation is vitally needed.

In the course of our inquiries with respect to so-called heavy narcotics we found that so many times, if not almost invariably, youngsters started on the so-called lighter narcotics or light drugs, although the names are a misnomer, and they gradually moved from one to another, from the stimulants to marihuana, from marihuana to heavy drugs, to heroin and so on.

Once that had happened the chance for reclaiming these people is very, very small indeed, very slight. It is a trip into slavery. It is a slow type of murder.

We visited on occasions on this committee the Federal facility at Lexington, Ky., which probably does the best job in the United States under the direction of the Public Health Service, in attempting to rehabilitate these people.

Yet the degree of rehabilitation, the number of people who really make a recovery, is fantastically small. The figures at that time were something like 10 percent, maybe 15 percent. Now with these new stimulants and new depressants and exotic types of chemicals which can apparently be manufactured in anybody's backroom, the problem is becoming increasingly difficult.

I was at home this weekend. I noticed a number of news stories involving teenagers and heavy narcotics. There is hardly a day that I do not get a telephone call from a constituent who has a son or daughter who has become addicted. I know the long trail ahead and how really hopeless it is in most cases.

Now some people have argued that deterrents don't work but certainly permissiveness does not work either.

I recall that when we passed the Boggs-Daniels Narcotics Code which prescribes very heavy penalties for the sale and possession of heavy narcotics, that there was one school of thought that we should adopt the so-called British system, making narcotics available to addicts. In this fashion we would reduce the impetus on the part of the people in the traffic, the mobsters and the Mafia, and the others who are involved in this trade, to engage in it.

We did not buy that argument because we had had an experience in this country at the turn of the century when narcotics were relatively freely available, where we actually had clinics. We had one in my State in Shreveport. Rather than deter the drug abuse there was no question about its encouragement.

More recently in England they have had exactly that same experience. The degree of narcotic addiction rather than contracting in England and in the United Kingdom, is increasing rather alarmingly.

I say this because today under existing laws we now have very, very strict penalties for people engaged in selling heavy narcotics, or for that matter, possessing heavy narcotics. The net effect has been to have them move into these other areas, the amphetamines and depressants, and now Speed, LSD, and all the rest of them.

The profits there are every bit as lucrative if not more so. But the penalties are insignificant. In most cases they go unpunished. My State has yet to enact a law dealing with the sale and possession of LSD and these other drugs that are now coming on the market, speed and some

of the others. Most States still have yet to act although every State has a strict law involving narcotics. The experts are here from the Department.

I think the record has been established about the effects of these drugs, particularly LSD, the degree of hallucination that comes as a result thereof is quite phenomenal. It has resulted in countless suicides in our country. There is no telling how many deaths as a result of traffic accidents. People actually throwing themselves out of windows and buildings with the hallucination that they can fly like a bird in the air and all the sort of business.

There is also well-documented evidence that this type of stimulant leads to others and ultimately down the road to heavy narcotics.

Mr. Chairman, I have a prepared statement which I would like to make a part of the record which goes into some detail with respect to what I have just said.

Mr. ROGERS. Without objection, the statement will be made a part of the record at this point.

(The statement referred to follows:)

STATEMENT OF HON. HALE BOGGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA

Mr. Chairman, one of the major health and social problems with which this country is confronted is the growing misuse of drugs. Use of amphetamines, barbiturates and LSD by our youth for the sole purpose of "thrill seeking" has spawned crime and violence in our streets and significantly contributes to the unfortunate and rapid rise in juvenile delinquency. The extent to which our population is resorting to false psychological states of euphoria is indeed alarming. We are faced today with the challenge of directing our youth to more meaningful endeavors and stemming the advocacy of drug indulgence.

Perhaps the most effective weapon against the indiscriminate use of stimulant, depressant and hallucinogenic drugs is education; and I will wholeheartedly support increases in the educational efforts of the various Federal and State enforcement agencies involved in drug surveillance. However, we must buttress education and information with a comprehensive regulatory scheme.

The lucrative profits available in the mushrooming market for stimulant, depressant, and hallucinogenic agents has seen the entry of the hardened criminals and syndicates in the illicit drug traffic. Illegal traffickers have managed to divert massive quantities of dangerous drugs. The Food and Drug Administration has on several occasions made single seizures of these products involving over half a million tablets. Operators in this racket have even begun to peddle their products along established routes covering many States. Our prime objective in the enforcement of drug laws should be directed to the suppliers of this type of "human bondage." The sale of LSD and other dangerous drugs must be halted.

Hallucinogenic compounds such as LSD and STP best exemplify the manifold tragic consequences incidental to clandestine drug use. We are now almost accustomed to hearing reports of violent and bizarre crime associated with LSD "trips". Malformations at birth are now being linked with LSD and chromosome changes have been observed. The problem thus affects not only this generation but possibly future generations. Every day a new compound captivates the warped minds of this Nation's subcultures. "Speed", methamphetamine, is the newest product to reach the streets.

Yet today the illegal manufacture and sale of LSD, amphetamines, and barbiturates is only punishable as a misdemeanor; hardly enough to deter persons from seeking the lucrative profits available. President Johnson stated in his State of the Union Message that "the time has come to stop the sale of slavery for the young." Accordingly, in his Crime Message the President recommended increased penalties and pointed out that the sale of marihuana is a felony, even though the detrimental effects of marihuana are no greater than those posed by the use of LSD. The discrepancy in penalties is not justified from the standpoint of their use or from the standpoint of the crimes, antisocial behavior or highway

accidents which they cause. I therefore am unequivocally supporting legislation to increase the penalties surrounding the manufacture, sale and use of LSD and other dangerous non-narcotic drugs.

I am confident that more severe penalties in the drug abuse area will act as a significant deterrent for those that otherwise might profit from the sale of these drugs. Potential users will also be more wary of indulging and hopefully will forego such a hazardous experience.

Mr. BOGGS. Also, I was much interested in two articles which appear in the current issue of Look magazine on this very subject. "The Cruel Chemical World of Speed" is the title of one. It categorizes the effects of this chemical and also the very lucrative trade that has developed in manufacturing it and selling it. "B.D.A.C. Secret Agent in a Losing Battle" relates the fantastic difficulties confronting the administration of our present laws in preventing the sale and possession of this more recent type of stimulant. It shows how the professional racketeers have moved in and so on.

I would also like, Mr. Chairman, to make these a part of the record. Mr. ROGERS. Without objection, it is so ordered.

(The documents referred to follow:)

[From Look Magazine, Mar. 5, 1968]

THE CRUEL CHEMICAL WORLD OF SPEED

By Jack Shepherd

The chemist sifted the white crystals through a nylon stocking, fluffing them out to make the pile seem larger. Then he carefully filled three plastic bags with the Methedrine, rolled them tight, packed them in a suitcase and flew from Montreal to Buffalo, N.Y. A girl brought the shipment to Boston in a rented car. The chemist is a partner of a top Boston dealer, code name The Cricket. Labs like theirs are heating up all over the country. More kids now eat, sniff or inject speed than take LSD. As many as 4,000 daily inject large doses in San Francisco. Federal agents have busted labs from Chicago to Santa Cruz, Calif., and grabbed 50 pounds on Long Island. Cricket's lab makes meth for about \$30 a pound, then he wholesales it for \$1,000-\$1,200. Next, the pound's broken down and sold for \$150-\$200 an ounce, five times the price of gold. Half a pound of this shipment went to a New York dealer, several ounces got sold in Boston, the rest shipped to Philadelphia.

Ondine squeezed in two tears of water, tapped, tapped the white powder into the spoon, wiggled it gently to dissolve the meth, and drew the solution up through a tiny piece of cotton into a cast-off plastic eye dropper. She took a red, 1/2-inch insulin needle and twisted it to the dropper. "You want to see me shoot it?" she asked, and shoved the needle into the muscle above her waist. Ondine shoots a spoon a day. To pay for it, she deals, buying an ounce, getting up to 35 spoons out of it and selling 25 for \$20-\$25 each. She makes enough money to pay her bills and buy speed. Ondine's been shooting for 11 years. "I stop every time I can't get it," she says, "but I don't want to stop. Some people really need something chemically. I mean, when I don't have it, I feel horrible."

Amphetamines, which are stimulants, can have a valid medical use. Some "speed freaks," or "meth monsters"—names hated by the users—inject meth into a muscle or vein to get a euphoric "flash," or "rush." They stay awake for days, constantly moving, injecting, eating little until they get exhausted, "strung out." Others swallow pills. Chronic meth users may become paranoid, suffer brain damage or loss of memory. A few get violent. Bad speed causes abscesses, swollen lips and eyes. A shooter runs the added risk of hepatitis from dirty needles. Meth is not addicting, but it hooks the user in a more subtle way. The worst part of a speed trip is coming down, "crashing." The heavy user stops, sleeps, gets up and shoots again, seeking the soothing high.

In a sixth-floor walk-up in New York's East Village, two men and two women sat on mattresses shooting a "taste" of the meth shipment shown here. They passed a loaded "works," each tying off an arm with a necktie, jabbing the dull disposable needle against the bulging vein. Blood trickled down their arms. Through the twisted necktie clenched in his teeth, one told me: "I need drugs to make my life bearable."

Cricket walked softly across the three new Persian rugs in his Boston apartment, screwed a Picayune ("Pride of New Orleans") cigarette into a brown-

stained yellow holder, and talked about dealing. "When I first started, I looked at it as a 24-hour-a-day thing. It was fun, I decided to go at it in what I thought was a big operation. It's foolish. I think it taught me too many lessons at too young an age. I really feel old. I'd love to be clean."

Cricket is 23 and large-scale meth supplier. He is one of a top handful of underground drug dealers I talked with over the past five months. These bright, clever young men handle much of the meth and marijuana traffic in the United States. "It's a seller's market," one says. "Unless you're incredibly stupid, you can always sell drugs." Stupid dealers bust easily. The smart ones make more than \$1,000 a day in tax-free cash profit, and demand often cleans out supply. They live the right way in the wrong world. If they stepped to a drugless beat, they would lock in as rising business executives. "It's the same as selling toothpaste," another dealer told me, "except it doesn't need advertising."

The top dealers are loosely organized. Many have been to college. They know each other by name and reputation. Arrest a Philadelphia dealer, and nerves quiver in Laguna Beach, Calif. The guy on the top likes the fear, the money and the sense of being needed. That's why he's in it. The spoon or nickel-bag dealer on the bottom, like Ondine, sells to get free drugs. Today, from top to bottom, these dealers are shifting from marijuana, the most widely used illegal drug in the U.S., to speed, amphetamines. The reason is simple survival: Marijuana is bulky to ship, has too many small-time dealers in it to control and carries the penalty of a felony. Amphetamines ship easier, and selling them is only a misdemeanor.

Most dealers move up from being "small times," couriers. Cricket started by dealing nickel-and-dime bags of marijuana at Pace College in New York. He went to kilograms, quit school, spent three months in Mexico turning up illegal growers, hustled a stash, territory and connections, and made \$30,000 before he got busted with a shipment of grass in the house. He's been arrested three times and may become Meth Dealer Emeritus this spring, for a five-year stretch.

Two years ago, he and a friend, John, formed a partnership and set up a lab in Boston. Their experience is typical of what happens to underground lab operators across the country. In the first two months, they cooked up four pounds of meth and sold it locally. Friends who worked in New York City hospitals slipped them phenyl-2-propanone, the basic ingredient. Then John got 200 liters of p-2-p from England, and they started making meth in quantity. John's lab turned out five pounds a month. "I had to get markets in New York," Cricket says. "I did it through friends. It's all a pretty tight network. Like I met Pickett, then Dmitri. I'd met other people who'd done business with them, and they had a good reputation, like being honest. We talked a while, and we did business."

They also experimented. "We had a theoretical chemist, a 'book' chemist, trying out new types of drugs. It was really pretty. It was fun. We'd have these conferences; it was a corporation."

When the heat came on, John took the lab to Canada. He used girls as runners, carrying meth in their pocketbooks, working in pairs. They'd fly to Boston, Buffalo or Philadelphia. The partnership developed codes for telephone calls. Cricket sent John a special bank check with his 50 percent cut or had one of the chicks take it back.

Methedrine became "the rage," Cricket says, last fall. Boston speed freaks now shoot up more than three pounds a week, a lot of speed. New York, the biggest Eastern market, takes 30 pounds a week, and much of that goes into suburban areas like Nassau and Suffolk Counties. Shipments come in by car and commercial plane. "The meth market is very large," Cricket says. "I don't think I scratched the surface." He knows meth's used most widely in California. Philadelphia is also a good market. "The guy I did business with there said he could do a pound a week—just him, and he isn't a big dealer. He's doing half ounces for \$100 and spoons for \$35.

"I had two dealers in Boston, and they were considered big dealers. I supplied them, and they'd get rid of everything I had. To all these dealers, mine was an enviable position. I was wholesaling the drug. There was nobody else around."

From September to the end of October, Cricket handled a chunk of the East's marijuana and meth action. In those six weeks, he put \$11,000 in the bank. Later, during a single week, he deposited \$5,010 in his account at a Boston bank.

Grass is even greener. Most marijuana enters from Mexico through Tijuana/San Diego or Ciudad Juárez/El Paso. It crosses the border in the upholstery of cars, is dropped by private plane or stuffed into cement trucks, camping trailers, ambulances. Some is carried on commercial flights from Mexico City. With good connections, you can order it in Tijuana and take delivery at your motel room

in San Diego. One small-time runner got a job with a southern California company that did business in Mexico, crossed the border every day and returned with a waistband of heroin and kilograms (called kilos, or keys) of marijuana.

The top marijuana dealers Look talked to estimated from their orders that between three and a half and five tons of grass are smuggled into the U.S. from Mexico each week. Little gets stopped. In three years, U.S. customs officials have seized just 25,000 pounds of pot. Narcotic officials estimate that Americans spend \$100 million a year on marijuana.

One large national dealer figured weekend deliveries at shipment centers: San Francisco, 1,000 kilos (2.2 lbs. a kilo); Los Angeles, 1,000 kilos; Chicago, 300; New York, 400; Boston, 200; Miami, 300. When marijuana reaches these cities, it is sold in wholesale quantities and delivered throughout the area by plane, bus or Railway Express.

In Mexico, a farmer gets \$1-\$2 a kilo; a town dealer, \$8-\$10; a regional broker, \$20-\$25. A top U.S. dealer with good people can get grass into the country for \$30 a kilo. Price increases with distance. Marijuana in Laguna Beach, a swinging town, goes for \$55-\$60 a kilo; Los Angeles, \$60-\$70; San Francisco, \$90-\$100. Denver's price, on the rise with an upswing of hippies, is \$110 a kilo; Chicago, \$160; New York (with contacts), \$110-\$200. In the South, Miami dealers get \$250 a kilo; New Orleans and Atlanta heads dole out \$300. Midwest kilos are highest, \$400.

No one gets stuck with extra kilos. Demand is great. A leading West Coast marijuana dealer says, with a finger snap: "If I had 100 keys tonight, I could get rid of them like that."

The more connections a dealer has, the cheaper grass is. "You can play around with them," says Boston's leading marijuana dealer, whose code name—a joke—is The Quincy Wonder. "You tell them, 'Listen, I got a good shipment for \$160' and turn around and say, 'Give me some for \$130.' It's a technique you learn. Some dealers are good at it, and some are bad." The bad don't last long.

A top dealer doesn't see much of his drug. When a shipment comes in, he does, as another supplier describes it, "my El Exigente thing—you know, taste it, see it for five minutes." If another dealer comes in with a shipment at the same time, he may lower his price, hold the drug off the market, or go out and hustle: "The cats who get caught are greedy and foolish. The good dealer knows when to start and when to stop. He's cautious." Quincy, 22 and ulcerous, makes \$4,000 a week, "\$9,000 only with incredible tensions, wheeling and dealing."

One of his marijuana street dealers may take in \$3,000 a year working college campuses. The kilo supplier feeding him can get \$6,000. Couriers hauling grass from Mexico into U.S. cities may reach \$15,000. But a top dealer has no limit. Right now, a leading wheeler-dealer is lining up independent investors to buy stock in his marijuana operation and put up \$20,000 in cash for kilos in Mexico. The dealer guarantees a return of \$250,000 on the investment in two months. "I don't know anybody who's every lost money dealing," he says.

Rarely do dealers compete head on. Only the Syndicate, the Mafia, tries to crack in. Last fall, Mafia dealers appeared in California and New York with marijuana. Quincy says the Mafia also came to Boston in September with a lot of grass and began selling it cheap, working up a market structure, luring away lower level contacts. The Syndicate was in business. Syndicate Methedrine also reportedly appeared this winter from a Brooklyn, N.Y., lab.

Astrology plays an important role in most dealings. Dealers know each other's Zodiac signs, and a Sagittarius may not want to do business with Pisces. Quincy, a Leo, says, "I never make a move without consulting my chart. For a long time, I didn't deal unless it was OK, and nothing happened. Then, I stopped, and a few weeks later, I got busted."

Quincy has four telephone numbers in Boston and four in California. These are his dealers and his suppliers. He puts them together, Boston money and California grass. He gets the orders and places them by coded telephone message or telegram. The keys are ordered from Mexico and flown to Boston in the care of a small time. "It's taken me two years to figure out all the loopholes," he says, "They'll never get me. It's taken me two years to get four phone numbers that can get me grass anytime I need it: cats in Monterey, San Francisco, L.A. and Laguna. I trust them, they're all fire signs. I send a wire, and they bring it in. I house them, if they bring a chick, two chicks—they're family too. We have a close relationship. I use them as my intuition tells me to, after two years."

Intuition is one ingredient. A good dealer also needs money, connections and a hard swallow. Fear is prevalent. "Behind every dealer's mind is the fear of arrest," Quincy admits. "It has become our lives—makes us nervous—the dealer

can't relax, he stays paranoid. You might just as well keep on dealing. I think you become more intelligent as time goes on."

The careless dealer gets busted quickly. "Lots of people get in for a couple of months and come into large amounts. That's when you can run into difficulty. These guys get sloppy, keep the stuff lying around someone's home; their dealers are sloppy in spreading it out. It takes years to learn. You should always feel you're one step ahead of the police, and think that way."

Cricket got busted when one of his dealers set him up for a sale to a bearded Federal undercover agent. "Everybody's so scared by the Government. They put an awful lot of effort into cleaning up drugs," says Cricket, feeling a new rug with his foot. "They've succeeded by brute force into scaring people out of it. But there's new people all the time. I'm out of it now. But an entirely new set will get into it."

Everybody that's willing to deal—and a lot of people want to make money—will sell as much as he can. So, potentially, all these little dealers want to grow big and strike it rich."

The more people who handle a drug, the greater the chance of arrest. The street dealer is always in danger of getting busted. The man at the top, who rarely sees his drug, takes less direct risk. Even so, one dealer claims, "Very, very few people actually go to jail for selling, if they can afford a lawyer."

The reason is simple. Payoffs. Police in some cities take a cut of the action; other join in and deal. A small timer who gets busted goes free for setting up the next man up the ladder.

Special lawyers handle the more subtle payoffs. One dealer, busted in his high-priced apartment, was told by the police which lawyer would handle his case and that the fee would be \$20,000. He paid it and went free.

"These people get so sophisticated in their conspiracy," says a leading meth and grass dealer, whose code name is The Judge, "that it's hard to catch them. You pay an extortionist's fee to lawyers, but you never come in contact with the person you're paying off. You pay the lawyer, he pays the cops, or the judge or the probationary office. They arrested me to get all my money. Well, I don't worry about it. It's part of the game."

Another course hazard is looking rich. Judge makes this mistake, so does Cricket, indulging himself after his arrest. "You can't spend money when you're dealing," he says. "You've got to go away to spend it. I had a nice place, kept it up, but the narcotic squad came in and busted the place up, took \$400 in cash, didn't find anything—it was clean—and left me with \$1,029 worth of damage. They broke the windows, the doors, furniture, everything, with sledge hammers. Then they brought me in and threatened to make me spend 72 hours in jail, but I talked my way out of it."

"That's why, in order to deal successfully, you've got to have the appearance of being poor. It's a very big pain in the — to deal unless you make a lot of money. [Quincy] spends too much money in the open. That enrages the police, it really enrages them."

Quincy padded around Judge's Berkeley apartment one night, with its sunken living room, bay view and mod decor, including two wheelchairs for seats.

Quincy socked it to me: "I like turning people on. It's like someone preaching religion. I really believe in weed."

"Let me tell you the truth, man. I never want to quit. Dealing is my life. I kind of like the idea of seeing 60 people a day. I like seeing lots of people."

Judge, rolling his wheelchair-seat over to the stereo: "It's a very social scene."

Quincy: "You walk into 30-40 apartments a day, see people get turned on, thousands of dollars passed. You drive around in luxurious cars. That's why I say the paranoia's worth it. I don't deal for money. I deal for the enjoyment of seeing people get high. People I don't like, I make my money on."

Some dealers don't like Negroes. There is prejudice in the drug world too. Negroes get the worst quality drugs, cut and overpriced. Marijuana is thinned with oregano; meth gets cut with anything white: baking soda, strychnine, cleanser.

Judge continued: "I was working for an insurance company. I was locked in. If I take it all nonseriously, it's because it really is a joke. The whole goddamn attitude of society is a joke. If I take it as a joke, then the whole thing becomes so easy."

"I've always had a sense of failure. I was the black sheep to my family. They drummed into me that I was a failure. But I'm not. Pretty soon I'm going to make it."

Drug dealers are seduced by their own lives, filled with money and mystery, and that exciting ultimate reality: prison. Cricket, facing five long years, tells it like it is: "I used to love it. I was enthusiastic. I had every device and scheme going. Now, I think the whole thing's really disgusting. But there's all that intrigue. It's fun when you're 20 years old, but once you learn the ropes, it's no challenge. You simply make a lot of money. I don't want to do anything illegal any more. I wouldn't want anybody to feel the way I feel about jail."

[From Look Magazine, Mar. 5, 1968]

B.D.A.C. SECRET AGENT IN A LOSING BATTLE

By T. George Harris

They ghosted after him for 11 nights, 12 days, and clocked his smear-white panel truck through lower Manhattan's tight streets. Their binoculars looked, unseen, straight into the fourth-floor window of his pad (and lab, they knew) in that dark warehouse. Professionally nondescript, their faces as anonymous as their Bureau of Drug Abuse Control, the Be-dak men waited for him to start production again. Then, walkie-talkies crackling softly, four young agents with a warrant eased in, grabbed their quarry as he stepped out the door. No need for the crowbar.

Agent Larsen felt ether fumes cut his nostrils. He spread-eagled the prisoner against an inside wall, patted him for weapons, stared at the pinched features and steel-rim specs. From the opposite wall, a floor-to-ceiling mural of a psychedelic monster stared in oozy reds and greens. It had three claws for a foot.

"No smoking, anybody." Coats off, sleeves rolled, more Be-daks moved systematically into a five-hour search of the biggest underground lab ever busted: 22 gallons of ether, vacuum pumps, 26 gallon cans of lithium aluminum hydride (wildly flammable), 7 bottles of illegal methobarbital, plastic cartons of other drugs, beakers and glassware of better than college-lab quality, giant cooling coils, a ladies' hair dryer (to hurry evaporation), microscope, pharmacists' scales, looseleaf notebooks of formulas (handwritten from chem class or photocopied from U.S. patent files) and a book of scribbled poems.

The \$35,000 worth of equipment and raw materials could be used to make LSD, speed, you name it. But Larsen was stumped. Around the lab were batches of brown stuff looking like cane sugar in the refinement stage. The Be-daks confiscated 27.5 lbs. of it, sent samples to their analysis center in Washington. Verdict: a potent synthetic mescaline called MDA, or alpha methyl 3,4-methylenedioxyphe-nethylamine. The stuff was so new that it wasn't even illegal yet. "We're more professional than the FBI," says Jan Larsen. "An FBI agent doesn't know what his case is all about. He's just told to go do so-and-so. You have to brief him before he can do you any good."

First new force of Feds in 30 years, the Bureau of Drug Abuse Control is spunky, proud. Its job is to suppress illegal drugs and keep all legal drugs in legitimate channels. With a cadre of T-men and other old hands, it bridged the gap to kids like Larsen—then an unarmed investigator for B.D.A.C.'s mother, the Food and Drug Administration. "We're the old gun toters," says Larsen's chief, Ed Kelly, ex-FBI. "The pink-cheeks are different."

They don't look or talk like cops. One moonlights as music critic for a literary magazine. The driver of a paddy wagon, a veteran bluecoat, watches Be-daks sort a load of scientific gear from a busted lab. "I just haul the trash," he says, and picks up another load of unfortunates from the drunk tank.

"Every LSD user is a potential suicide," argues Jan F. Larsen. "People get these delusions of grandeur. They even think they can fly. A kid in Los Angeles was going to throw his girl off the roof when the cops caught him. After one trip, you may freak out again years later."

He's not trying to put you on. Coming out of a hippie pad or acid lab, Larsen makes straight for the nearest washroom. He scrubs his hands. The procedure is standard for agents in the Bureau of Drug Abuse Control, who guard against getting a trace of LSD in the mouth, on a cigarette or toothpick. "If one of our men went on a trip," says Larsen, "we couldn't trust him any more—and he carries a gun."

If it's possible, Larsen has an even lower opinion of drug users than they have of his breed. "The hippies do all this talking about love, but a trip is

total withdrawal into themselves," he says. "The love thing is a fraud. They're ready enough, I've found, to turn in their friends."

"Early LSD users wrote papers saying it could solve all of man's problems. Architects could build dream houses. Individuals could settle their sex problems. Everybody was on the mind-expansion kick. But LSD is not mind expansion. It's mind confusion."

In our cultural split between hippies and straights, Larsen is a natural straight, all 6' 3" of him. Two years' undercover duty has only reinforced what was there. Born in Norway in 1939, he escaped the Nazis in his mother's arms. The family came here. His father was a ship's officer, now captains the Grace Line's best, the *Santa Clara*. Jan set up a landscaping business, with two on the payroll, before he finished Westwood, N.J., high school. At Delaware Valley College in Bucks County, Pa., he switched to food chemistry and got married.

He and blonde wife Linda have three children (8, 5 and 1). The home they bought at Fayson Lakes, a North Jersey exurb, has birches in the yard and repainted furniture in the dining room. Making \$12,700 as a GS-12 civil servant, he has turned down a promotion to Washington headquarters. He does not want to leave that woodsy home.

An hour's drive each day takes Larsen from the straight world to the other one, from birches to blue devils, seggy pills, acid and bennies. In an old plaid jacket, he drifts to Manhattan's Tenth Avenue hippieland or calls a contact in hopes of setting up a buy. "Going out and arresting users isn't going to solve the problem," he says. "You got to get the makers."

But the education eruption has created millions of potential makers, students with enough chemistry to work out a formula. And the general drug boom has pumped so many pills into the public that the flow is almost impossible to control and keep in legitimate medical channels. Most Be-dak agents have to put 40 percent of their time into "accountability" surveys at commercial drug houses, especially the fly-by-nights. They demand tight inventory checks to see that pills go only to licensed sellers.

The controllers are still losing ground. Says one: "It's like sweeping back the ocean with a broom." In the last year, they have watched the drug underground seep out of the cities deep into the suburbs. Larsen, fighting now on home ground, holds detection seminars for New Jersey's local police. They know what bugs him. This winter, a Morris County prosecutor needled him with the news of a bust near Fayson Lakes. He admits anger at the sight of a long-haired boy out in the straight-people country. "It's different from downtown."

Psychedelic art forms, he insists, spread the drug gospel. "Everything that you see in movies, TV and magazines is drug-induced," he tells police. "The psychedelic advocates are urging people to turn on and drop out of productive society. I hate to think that when my boys go to college, one of them may have an art teacher who teaches that stuff."

While the drug types and the law enforcers have at each other, the rest of us in the middle have a different job. We are well into the chemical age, and the mind-benders are just one wave. A while back, the book *Silent Spring* split people into those for and those against powerful insecticides. More battles will follow. Among scientists, there's a general belief that a surge of discovery—like that in physics 40 years ago—has suddenly hit biochemistry. Pill-downing man, we're told, will even control heredity through DNA lotions. Society, already neck-deep in problem-solving, now has to learn how to swim in dangerous solutions. Perhaps the trick is to take them as they come, and try to get from each January to December with a modicum of grace.

Mr. ROGERS. Thank you very much for a very fine statement which certainly describes our entire problem of the drug situation.

I, too, have seen the Look articles you have mentioned, and they are excellent. It pinpoints the problem.

Mr. KYROS?

Mr. KYROS. I wish to take this occasion to welcome my colleague here and thank Mr. Boggs for a clear presentation of the history of the drug problem.

I understand that you feel mere possession of LSD should be held as something to which we apply the sanctions of law.

Mr. BOGGS. Yes, sir; I certainly do.

Mr. KYROS. Thank you very much.

Mr. ROGERS. Mr. Nelsen.

Mr. NELSEN. There is no question in the hearings last week we learned from expert witnesses that a child unborn might have deformities and abnormalities as a result of LSD. It was even assumed that the offspring from the next generation might be affected because of it.

This, of course, presents a very, very terrible situation.

Mr. BOGGS. That is right. If I may interrupt you, in many ways this makes this chemical much more damaging than heroin or morphine which will catch one generation but certainly not a succeeding generation.

I have seen those figures on the mutations that occur and the effect on the chromosomes and the reproduction of life.

Mr. NELSEN. The observation has been made that LSD actually, as you point out, is a more dangerous, devastating drug than many that are considered to be heavy narcotics.

So, I want to join my colleagues in thanking you for appearing today.

Mr. BOGGS. Thank you.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. Certainly I want to thank the gentleman for his fine presentation. It certainly shows a large field of knowledge concerning these different drugs.

Did I understand the distinguished gentleman to say that he thought possession should be penalized also?

Mr. BOGGS. Certainly not to the degree that trafficking should be penalized but I do think willful possession should be penalized.

Mr. CARTER. We would get into great problems among our students in our different colleges, for instance, if that were so. Fifteen midshipmen would be subject to these penalties.

Mr. BOGGS. If I may interrupt you, as I read the newsstory they were dismissed for possessing marihuana and possessing marihuana is a criminal offense right now. So they are subject to criminal offense. Whether or not they will be prosecuted is something else.

In the case of possession, in the case of a first offender the law allows great discretion to the judge but from there on out it does not.

We went into this in some great detail when we were considering these laws. You see, the pusher can always plead he is a mere possessor, and possession is oftentimes the only evidence that an enforcement officer can come by.

Mr. CARTER. I am glad to hear the gentleman's viewpoint but there is a great deal of difference of opinion as to just what measures should be taken.

Mr. BOGGS. I am not wedded to any one notion. I am just saying to you, Doctor, that the possession problem is not an easy one to dispose of because we found in the case of heroin and the other heavy narcotics that the professional people who sold it, who didn't take it, would plead possession rather than selling time and time again.

We found also that there were jurisdictions in our country where some of these people had been before the Federal court, six, seven, eight, nine and 10 times with just a kind of slap on the wrist because the plea was mere possession.

The net effect of it was that they got away with it time and time again. That is why we tightened up the law. Now I am not advocating a drastic penalty for some youngster who is mistakingly brought into this situation any more than anyone else is.

The purpose of what I am advocating here is to try to stop that from happening to young people.

Mr. CARTER. Certainly we all want that condition to be brought about but we think the intent of the law should be toward the pusher.

Mr. BOGGS. I agree.

Mr. CARTER. However, we must admit that in case of LSD, it is an easily manufactured substance and that many, many students in our colleges have this capability.

I regret to say this. It is a problem of education as well as punishing those who perhaps, hardly innocently but who do possess LSD.

Mr. BOGGS. In my second paragraph of my statement I say:

Perhaps the most effective weapon against the indiscriminate use of stimulant, depressant and hallucinogenic drugs is education; and I will wholeheartedly support increases in the educational efforts of the various Federal and State enforcement agencies involved in drug surveillance. However, we must buttress education and information with a comprehensive regulatory scheme.

Mr. CARTER. Do you not think that for those students and young people who are first offenders or who have offended many times, perhaps we should establish institutions for their treatment, for their education and correction?

Mr. BOGGS. By all means, we need institutions like the one at Lexington. We need what is called a halfway house. When a person gets out of an institution for drug addiction he can be reestablished in society.

We probably need something comparable to Alcoholics Anonymous for drug addicts so that they can have a community of interest with people who are suffering from the same problems.

I freely admit that this has all kinds of medical implications, psychological and psychiatric implications, all of which must be employed in combatting this problem.

I would be the last person on earth who would say that all of this would be resolved by passing one law. Of course it would not. But the facts are that in the area of these chemical compounds we need additional laws so that the penalties can be applied, as you say, to the people who are making all kinds of blood money off these young people.

Mr. CARTER. Certainly I am in agreement with that.

Thank you, Mr. Chairman.

Mr. ROGERS. As you have stated, we are not trying to make criminals of these young people who get into this area. The legislation calls for a misdemeanor penalty for a first offense, so there is discretion within limits of what penalty will be awarded.

For the second penalty it becomes a different matter—and the limit would be a felony.

Also the point you have made that the severe penalties on the hard narcotics have moved the pushers and users into this other field of drugs, amphetamines, barbiturates, and LSD.

Mr. BOGGS. No doubt about that.

Mr. ROGERS. We need to close this gap. I think this legislation, as you have stated, will accomplish this purpose. Your testimony is most helpful to the committee and we are grateful to you.

Mr. BOGGS. Thank you, Mr. Chairman.

Mr. ROGERS. Our next witness is a colleague who is a member of the Committee on Interstate and Foreign Commerce who has had a background in law enforcement. He is a former U.S. district attorney and has seen the problem of law enforcement and the benefits and disadvantages as they may be in this particular situation.

We are particularly pleased to have our own colleague, Congressman Brotzman, here to give us the benefit of his views and testimony.

**STATEMENT OF HON. DONALD G. BROTZMAN, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF COLORADO**

Mr. BROTZMAN. Thank you very much, Mr. Chairman. To my distinguished colleagues, I might say it looks better from up there than it does down here.

I particularly want to express my gratitude for the opportunity to testify here on what I think is a tremendously important piece of legislation.

I also would like to congratulate you, Mr. Chairman and my colleagues, for moving rapidly on this particular subject matter which I think is of tantamount importance. I think the worse thing we could do would be to permit this vital area to drift, to not speak out affirmatively and positively as a Congress to correct a very serious situation.

As you stated, this matter has been of some concern to me for a period of time, not only as a citizen and as a parent but also as a former U.S. attorney. I had on all too many occasions the opportunity to witness the dreadful effects of drug and narcotics use.

It was my responsibility to prosecute many callous pushers of narcotics and from that experience I can tell you and the members of the subcommittee that it would have been impossible to control drug traffic without the penalties provided in these measures, not only for the sale of the drugs but also for the possession of the drugs.

I trust that the evidence supplied or to be supplied by the Justice Department, the Bureau of Narcotics, and the Food and Drug Administration will support me, that if we provide a misdemeanor penalty for the possession of hallucinogenic, depressant, and stimulant drugs and a felony penalty for the sale of these drugs, our Nation will be much more successful in controlling the traffic in this dangerous new category of drugs.

Relative to the possession issue just for a moment, I think, as the distinguished majority leader said, first of all, a penalty for possession will have some deterrent effect. I do not believe that making possession a misdemeanor is going to deter all young people or other individuals from using LSD, for example. But I think to have such a penalty, coupled with education, is the correct approach.

The other reason for the possession penalty has been stated also, and that is that many times it is difficult to obtain all of the evidence necessary to prosecute an individual for a sale of a narcotic.

It is a clandestine activity and, obviously, you might not have all the necessary evidence to present in a court of law to gain a conviction for the sale. But you still must be able to bring some sort of a charge against that particular individual.

So, if the evidence of a sale is not present, you still have illegal possession that will give grounds for a successful prosecution.

Now, history shows that there has always been a small element in our midst that will fight for the individual's "right" of self-corruption by drug use. As you study the history of legislation in this area you find that opium had its champions and so did heroin and so did marihuana. Fortunately, I think, for this country this "lobby of permissiveness," which seems to be made up of both the vicious and the misguided, has made little headway in the Congress.

Congress has moved ahead and has passed legislation. Unfortunately, the development of new and potent mind-warping drugs has made our current laws obsolete. LSD has become a part of the national lexicon and apparently its usage is increasing.

Scientists and academicians are engaged in extended investigations into just how harmful LSD and other hallucinogenic drugs may be to the human mind and the genetic structure.

Last week you heard testimony by Dr. Cecil B. Jacobson concerning research at George Washington University School of Medicine. I thought his conclusions were startling. The chromosome breakdown resulting in premature aging, an increase in the chance of an LSD user contracting cancer, particularly leukemia, and the genetic problems resulting in deformed births. I am sure that the members of this committee also are aware of the work of Dr. Hans Zellweger at the University of Iowa. This doctor has stated positively that LSD caused the defect in a birth of a child to a mother who had taken the drug during pregnancy.

Admittedly we do not know all that we ought to know about the effect of these frightening new drugs and I believe it is important to continue research into this area. In an editorial of February 8, 1968, the Denver Post said:

The indications that LSD causes brain and chromosome damage are too serious to be ignored. The drug, at the very least, has contributed to damaged lives and we need not wait for any more evidence to know that it is dangerous.

With this, I certainly agree. This editorial goes on to endorse the enactment of stronger, new penalties for the possession and sale of LSD.

Mr. Chairman, I ask that the entire editorial be included as a part of my testimony.

Mr. ROGERS. Without objection, it is so ordered.

(The document referred to follows:)

[From the Denver Post, Feb. 8, 1968]

EDITORIAL—TIGHTER LSD LAWS ARE NEEDED

President Johnson's proposal to tighten the laws against the sale of LSD—and to punish possession also—is a wise and welcome one.

We do not know all that we ought to know about the effects of this drug, but we know enough to justify the government in keeping it an outlaw until more can be found out.

The indications that LSD causes brain and chromosome damage are too serious to be ignored. The drug, at the very least, has contributed to damaged lives, and we need not wait for any more evidence to know that it is dangerous.

The sale of LSD is now a misdemeanor, and the President has proposed that it be made a felony with a more severe penalty. The possession of LSD is not now unlawful at all, and the President has proposed that possession be made a misdemeanor.

We do not expect that the new penalties, in themselves, will bring any large victories in the war against LSD. Many who are willing to risk insanity by taking the drug will probably also be willing to risk long imprisonment.

But some people will be deterred; and when the danger of arrest is added to the growing stock of information about LSD's harmful effects, the use of the drug may steadily subside.

If President Johnson's call for more narcotics agents is heeded by Congress, the government will have better means of making new LSD laws effective.

That the threat of punishment cannot succeed completely in stamping out undesirable human behavior is not a reason to dispense with punishment altogether. Punishment for murder and robbery have never completely stopped murder and robbery, but they have cut down the incidence.

That is what new laws on the sale and possession of LSD would try to do. Even a small reduction in the use of this dangerous drug would be a very important gain for the country.

Mr. BROTZMAN. At the present time, there is no penalty for the possession of LSD or other hallucinogenic drugs. The sale of LSD is now a misdemeanor. The time has come to at least move ahead with realistic penalties so that our law-enforcement agencies can begin a positive control program.

It may well be that we will want to amend these laws, once all of the scientific and medical evidence is in, but to hold the matter in abeyance until that time would be a disaster and disservice to the Nation.

On November 22, 1967, I introduced H.R. 14145, which accomplishes basically the same purpose as does H.R. 15355, the administration's proposal. My bill and the administration's proposal make the possession of depressant, stimulant, or hallucinogenic drugs without a valid prescription a misdemeanor and the sale, manufacture, or distribution of, or possession with intent to sell these classes of drugs, a felony.

As I said before, I believe it is absolutely essential to provide strong penalties for their violation. I particularly believe that strong penalties must be provided for those who would illegally sell the drugs with penalties of increasing severity for subsequent offenses and for sale to minors.

There is some evidence to indicate that the organized crime is now entering into their illicit traffic. If this is the case then I think it only strengthens the need for new legislation.

Mr. ROGERS. Thank you very much, Mr. Brotzman, for your statement.

Mr. KYROS?

Mr. KYROS. Mr. Chairman, I commend my colleague, a member of our committee, for appearing today. I think his experience as a law enforcement officer and U.S. district attorney provides evidence for the need of the legislation before us. I want to thank him very much for a very clear statement.

Mr. BROTZMAN. Thank you, Mr. Congressman.

Mr. ROGERS. Mr. Nelsen?

Mr. NELSEN. I wish to join my colleagues in thanking our associate for his statement this morning. I attended a breakfast meeting which Mr. Brotzman attended. He related some of his experiences dealing with narcotics and with addicts in this field.

It was a very compelling endorsement of tighter controls. So, today this testimony certainly adds significantly to the information we have which indicates that we should move in this direction.

I want to thank you. I also want to say that you look very good down in front in spite of the fact you normally are up here.

Mr. BROTZMAN. Thank you.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. Certainly I want to congratulate our distinguished colleague on his statement.

I particularly like the idea of punishing the offenders for possession as a misdemeanor. I feel that certainly is reasonable because so many of our young people, college students in particular, are subject to taking this with groups and perhaps for "kicks."

I should hate to see extreme penalties given to these younger people for a first offense of possession. I am in agreement that possession for sale or manufacture certainly should be classed as a felony with extreme penalties to be given for this.

We are going to have a problem, of course, and that is that LSD is easily manufactured not only by those who are organized for the manufacture and sale of drugs but by students at colleges.

It is a larger problem perhaps than we realize. It is not one that we will reach by passing a law. There must be an educational effort made and in view of the widespread use of LSD and other hallucinogenic drugs, other programs must be formulated and perhaps we must have institutions for correction of some of these people who are addicted, young folks who have gone astray in college, so many of them. Perhaps we should not be too hasty in passing legislation, we should study it thoroughly with a view of correcting the paths which some of the younger generation have adopted.

I thank the distinguished gentleman for his presentation. Thank you, Mr. Chairman.

Mr. BROTZMAN. Thank you.

Mr. ROGERS. I also want to thank the gentleman for his statement. I do want to point out that present law does provide for a felony penalty if a sale is made to a person under 21. Of course this legislation would simply expand that treatment of any sale, which I think is proper; and then make possession, as the gentleman has stated, a misdemeanor for the first offense.

Mr. BROTZMAN. One technical question, Mr. Chairman. You are quite correct, and perhaps counsel could check this and it would be something for us to consider in the committee.

In my bill I have put in a clause which makes possession with intent to sell, a felony. Now, this is delineated from simple possession. This is a very complex statute, as the chairman knows, that we are dealing with here as to draftsmanship because of the interrelationship of many different sections of the law.

In H.R. 15355, I understand the distinction is between possession—simple possession that is, which is a misdemeanor—contrasted to the sale, delivery, and manufacture, which falls into the felony region.

Now in my bill, 14145, I also insert "possession with intent to sell," which falls into the felony classification. I think this is something that the committee might want to consider more fully.

Mr. ROGERS. We certainly will. We appreciate your bringing this to our attention. I understand Mr. Kyros has a question.

Mr. KYROS. I wish to comment on the testimony of our colleague, Dr. Carter. I think he made an excellent point; namely, that we should

not over-react in treating the innocent youngsters that may have had the drug in their possession, causing them to be charged with a felony or misdemeanor.

Isn't it a fact, in your experience as a law enforcement officer, however, that there is an ample area of discretion for a judge who has before him some young man charged with mere possession who could incur the penalty of 1 year in jail; a judge could have the discretion to recommend anything from zero to a year probation, or whatever in his estimation is correct?

Mr. BROTZMAN. You are correct, Mr. Kyros, in that as you know, in the Federal judicial system there is a procedure known as a pre-sentencing investigation, which is rather thorough and also rather detailed. These facts are all made available to the court before he imposes sentences. But I think the real thing that we have done here in the suggested law is to clearly recognize this delineation, that is a misdemeanor versus the more severe penalty of a felony, which I think is correct because you are going to have misguided youth in possession which would not warrant a felony prosecution.

I am spending my time and my effort to try to save these youths, not to try to ruin their reputations or anything else, but to try to help them.

I know that the law in itself is not going to do that. It is going to take a lot of other leverage from society to do it. But a misdemeanor, of course, does not affect any of their civil rights, and it does give us flexibility as to the enforcement of this law against that callous individual profiting on the misery and degradation of these young people.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. Again, I want to compliment the gentleman for this and his response to the distinguished gentleman from Maine's statement. I believe you have made it quite clear that simple possession for the first time was a misdemeanor. Is that not true?

Mr. BROTZMAN. That is true.

Mr. CARTER. Thank you, sir.

Mr. ROGERS. Thank you very much, Congressman, we appreciate your being here.

Mr. BROTZMAN. Thank you.

Mr. ROGERS. We shall hear next from a colleague from Florida, the Honorable Don Fuqua.

STATEMENT OF HON. DON FUQUA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. FUQUA. Mr. Chairman, it would be a tragedy if the Congress did not act with all due speed to enact legislation that will help to stem the flow of drugs into the mainstream of American life. President Johnson expressed the concern of the Nation in his recent message to the Congress on crime in the United States as he proposed measures to halt this flow.

Many Members of Congress have introduced bills including the one which I have presented, H.R. 15242, which would amend the Federal Food, Drug, and Cosmetic Act to prescribe penalties for the unauthorized possession of LSD and other hallucinogens, and increases the

penalties for manufacture, possession with intent to sell, and sale of these drugs.

Unless some strong action is taken, I fear that the situation will become increasingly more difficult to deal with; and thousands upon thousands of lives will be severely damaged and destroyed.

At the present time it is not a crime to possess these drugs for personal use, while most other abuses carry penalties of up to 1 year and/or \$1,000 in fines for first offenses. Sales to minors carry a slightly higher penalty.

There is growing evidence of experimentation by young people with these drugs. I read of one report where users of LSD developed homicidal and suicidal tendencies, and many required extended hospitalization.

I would like to see my bill or a similar measure enacted. Some method must be found to stop this traffic in human misery. A good way to start is by enacting one of these bills.

My bill would make possession of the drug, other than by prescription from competent authority, illegal. Penalties for possession for personal use would carry a penalty of up to 1 year and/or \$1,000 fine for the first offense, and 3 years and/or \$10,000 for subsequent offenses.

Possession with the intent to sell, manufacture, and sale of the drug would carry penalties of imprisonment of 3 years or a fine of \$10,000, or both. The second or any subsequent conviction would subject the offender to imprisonment of 6 years or a fine of \$15,000, or both.

Law enforcement officials with whom I have spoken have told me that we desperately need to give them a weapon to begin battling this growing menace. The penalties I advocate are stern, but even this punishment does not match the horrible crime which is being inflicted on our Nation—particularly among its young people.

Mr. ROGERS. Thank you for your concise statement, Mr. Fuqua.

Mr. FUQUA. Thank you for the opportunity, Mr. Chairman.

Mr. ROGERS. Our next Member to be heard from this morning is the Honorable William Minshall, of Ohio. Please proceed, Mr. Minshall.

STATEMENT OF HON. WILLIAM E. MINSHALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. MINSHALL. Mr. Chairman, all evidence points toward drug abuse as a contributor to crime, mental deterioration, and a negativism which is destroying the lives and initiative of an alarming number of Americans of all ages and in all walks of life.

Certainly sufficient publicity has been given to the dangers of hallucinogenic drugs to impress upon even the most immature mind the risk and possible tragedy involved in such use.

Overpermissiveness is proving to be the bane of today's generation. Too many of our youth equate freedom with complete license to behave as they please whenever they please without regard for the rights of others. The fact that crime, illegitimacy, and drug addiction are on the rise in our affluent suburbs gives the lie to a once common belief that lawbreaking, immorality, and use of illicit drugs are exclusive products of the slums.

I firmly support educational programs in our school systems to alert young people to the hazards of drugs, information made available at

all levels of government to combat drug abuse, and the good services of all news media to deglamorize drug abuse. Firm parental and pastoral counseling and example are probably the most important deterrents.

But I think the time is past due when we put real teeth into Federal law to penalize those who manufacture, distribute, or use such drugs.

Accordingly I urge adoption of the legislation originally introduced by my good friend and colleague, Congressman Dole, which I have incorporated in my identical bill, H.R. 14890.

I believe its enactment is imperative and I trust that it will be swift.

Mr. ROGERS. Our next witness is Dr. James L. Goddard, Commissioner, Food and Drug Administration.

We are pleased to have you with us again. This is a subject that the Congress and the American people are vitally interested in.

STATEMENT OF DR. JAMES L. GODDARD, COMMISSIONER, FOOD AND DRUG ADMINISTRATION; ACCOMPANIED BY JOHN FINLATOR, DIRECTOR, BUREAU OF DRUG ABUSE CONTROL; FRED GARFIELD, DEPUTY DIRECTOR; AND WILLIAM W. GOODRICH, ASSISTANT GENERAL COUNSEL

Dr. GODDARD. Thank you, Mr. Chairman, and members of the subcommittee. I have with me on my left, William Goodrich, General Counsel for FDA; on my right, John Finlator, Director of the Bureau of Drug Abuse Control, and Mr. Fred Garfield, Deputy Director.

Mr. ROGERS. We are delighted to have you gentlemen with us. Of course, our friend Bill Goodrich has been most helpful to the committee over the years. Certainly Mr. Garfield has been vitally concerned with the enforcement of the drug abuse law which this committee has.

We are delighted to have all of you here before the committee. We are anxious to hear your testimony.

Dr. GODDARD. Thank you, Mr. Chairman.

I appreciate this opportunity to testify on the Dangerous Drug Penalty Amendments of 1968, H.R. 15355, introduced by Chairman Staggers, and on similar bills which have been introduced to curtail drug abuse.

We support H.R. 15355 which would carry out the President's recommendations to make the illegal manufacture, sale or distribution of LSD and other hallucinogens, depressant and stimulant drugs a felony, and the illegal possession of these drugs a misdemeanor.

The Drug Abuse Control program began in February 1966, less than a month after I became Commissioner of Food and Drugs. During these past 2 years, I believe the Bureau of Drug Abuse Control and the supporting units within the Food and Drug Administration have done an outstanding job in carrying out the intent of the Congress.

They have done this with a relatively small staff within one of the Department's smaller agencies, which makes their accomplishments even more noteworthy. The emphasis has been both on enforcement and on education and research in the sociology and pharmacology of drug abuse.

I might point out, Mr. Chairman, that while less than 30 percent of the budget of the Food and Drug Administration can be identified with

enforcement or regulatory activity, about a third of this amount is directed at the single problem of drug abuse.

However, in addition to this expenditure on enforcement by the Bureau of Drug Abuse Control, we expand additional funds within the Bureau of Science, the Bureau of Medicine, the Office of Program Planning and Evaluation, and the Office of Education and Information.

In my appearance before this committee, Mr. Chairman, as before other committees of the House and of the Senate, Mr. Finlator, Mr. Goodrich of the Department's General Counsel's office, and others have reported on our progress in controlling drug abuse.

I would also acknowledge the support of other experts who joined us from the Office of the Secretary and the Public Health Service in these reports to the Congress.

From time to time, we have been asked if the Drug Abuse Control Amendments gave us a strong enough base from which to carry out this important program.

I have said that I thought they did, but I have also indicated that, after some experience with the program, if there should be changes we thought desirable, we would not hesitate in coming before the Congress to seek those changes.

It is a privilege, therefore, to come before this committee once again, Mr. Chairman, to speak in support of changes which we feel are necessary to strengthen the Government's program in the area of dangerous drugs.

In the brief time we have had with the drug abuse control amendments, we have carried out over 2,000 criminal investigations, more than 1,300 arrests have been made, and we have completed about 300 criminal cases.

We have also made approximately 1,100 accountability investigations resulting in 108 civil seizures of depressant and stimulant drugs. Nearly 600 million dosage units of these drugs have been removed from the marketplace because no accurate records as required by law were kept by manufacturers, distributors, and other possessors of these drugs.

In order not to be misleading, let me clarify this figure to tell the committee that approximately 500 million of these 600 million dosage units were able to be reintroduced into the proper channels of commerce after the offender, the company, the distributor, or the wholesaler, had made good the recordkeeping procedures as required by the law.

In fact, we have seized about 15 million dosage units which were in the illicit market.

Our emphasis has been on getting at the traffickers—the illicit manufacturer, dealer, distributor, or seller of these dangerous drugs. We have, for example, uncovered and broken up 43 clandestine laboratories involved in the illegal manufacture of dangerous drugs, including the highly dangerous LSD.

We concluded, upon reviewing our activities and their effect in the field, that it would be appropriate to recommend an increase in the penalties for those who carry on illicit manufacture, distribution, possession for sale, and sale of these dangerous drugs.

In many of these cases, Mr. Chairman, we are dealing with individuals who are engaged in criminal activity for personal gain. There

is no question of faulty business practices, unskilled managements, or simple incompetence.

In most of these cases, we are concerned with the vicious practice of exploitation of a ready market for drugs liable to abuse.

Therefore, we recommended, and the President has requested, that the penalties for this kind of activity be raised to a felony. As I indicated earlier, this conclusion is based upon only 2 years of experience in this area of enforcement—and enforcement of this kind is relatively new to the Food and Drug Administration as well.

You will recall that the Drug Abuse Control Amendments of 1965 did not call for criminal penalties for possession for personal use. The Senate committee added a provision to place the burden of proof upon us to demonstrate that persons found in possession of depressant, stimulant or hallucinogenic drugs had them for sale and not indeed for personal use.

We were given the power of executive seizure, however, and we have exercised that power, we believe, to good effect.

The bill before you would make the possession of depressant, stimulant, or hallucinogenic drugs obtained without a prescription a misdemeanor offense.

During my appearance before a congressional committee on May 23, 1966, with 4 months of the program behind me, I indicated at that time that, "I am not an expert on the effect of laws as deterrents." I went on to say that, "I have some hesitancy about attaching a criminal penalty to possession for personal use."

At that hearing and at subsequent hearings, our position in this respect was examined in detail. In each instance, I said that if we found that this drug distribution could not be adequately controlled without a penalty for personal possession of the drugs, we would be back to recommend a change in the law.

Several months ago, Mr. Finlator, the Director of the Bureau of Drug Abuse Control, recommended on the basis of his experience that we seek increased penalties applicable to illicit traffic.

I discussed this matter with Secretary Gardner, Under Secretary Cohen, and others in the Department, and we recommended this change.

In the course of examination of the problem within the executive branch, the question of penalties for illegal possession was reviewed, as it had been reviewed earlier by the congressional committees.

I had full opportunity to state my position that enforcement should concentrate on illegal traffic, that it would be unwise to provide penalties which might mark a large number of young people just entering adulthood as criminals because they were found in possession of a small amount of drugs for personal use, and that such a penalty was not necessary at this time.

People with training, experience, and background in enforcement pointed out that the absence of such a penalty created a serious loophole under which peddlers might escape by claiming their possession was for personal use and not for sale, shifting a heavy burden of proof to the Government, and that the absence of a penalty was mistakenly by some users as official approval of their use of these dangerous drugs in abuse situations.

All agreed, however, that the highest priority should remain on drying up the sources of supply. The views of all were fully aired. This is as it should be in developing legislative proposals.

The conclusion was reached that a penalty for personal possession would be an effective instrument for law enforcement. The law enforcement agencies of our Government believe that the personal possession penalty will aid them in their work, and the President supports them in their view. Their judgment on the need for this provision is one which I respect and, therefore, I support the administration proposal.

Mr. Chairman, I would like to call your attention to the continued emphasis the President has placed upon elements of our program which we know to be of great value. The President has directed the Attorney General to accomplish a number of things, including the conduct of "an extensive campaign of research and a nationwide public education program on drug abuse and its tragic effects."

While much public attention has been centered upon the instruments of enforcement that the President has recommended, I would like to bring to your attention an additional important aspect of the task ahead: research and public education. In all these areas, I believe the Food and Drug Administration and the Public Health Service have made an excellent start.

Thank you, Mr. Chairman, for the opportunity to appear today. My colleagues and I will be happy to answer any questions you may have on our efforts to control drug abuse.

Mr. ROGERS. Thank you very much, Dr. Goddard. You have placed in proper context the position of the administration on this legislation.

I think it is a very clear statement which I appreciate your giving to the committee.

Mr. KYROS?

Mr. KYROS. Thank you, Mr. Chairman. I would like to welcome Dr. Goddard before us again. Dr. Goddard, from your testimony before this committee today, and from prior testimony before us, is it correct you agree that LSD is a deadly, dangerous drug?

Dr. GODDARD. I believe it would be one of the most dangerous drugs with which I am acquainted and with which I have professional knowledge.

Mr. KYROS. That is why on page 5 of your statement I find a little reticence in your remarks regarding the deterrence factor in making the mere possession of a public drug a misdemeanor.

As I understand it, sir, your views seem to be medically oriented and directed toward a social view of the problem; that ultimately since mere possession might be helpful in picking up those who are pushers or selling the drug, then you prefer making mere possession a misdemeanor. Other than that, you seem to suggest there is little deterrent in having mere possession as a misdemeanor.

Is that correct?

Dr. GODDARD. That is correct, sir.

Mr. KYROS. If it is not a matter of deterrence, what is this education you are going to provide to the youth of the Nation that will help even more than some kind of penalty?

Dr. GODDARD. Let me say that in the matter of LSD, I believe there is some evidence accumulating that there is a decline in usage, not

related to penalties but more related to the understanding the young people are now beginning to develop with respect to the implicit dangers of the usage of the drug, itself, and that they are moving away from this particular drug.

Now my feeling with respect to deterrence, the effect of the law, is most simply stated by pointing to the present situation with respect to marihuana.

If the estimates of usage are anywhere near correct then one has difficulty understanding how the very severe penalties attached to the Marihuana Tax Act have deterred people from the use of the drug.

I am simply looking at it from the point of view of a physician and the problem is one of educating people not to abuse drugs of all kinds.

It is a very difficult thing. We have social problems that may lead to the experimentation of drugs and those are harder to get at.

In the long run I believe that is where our greater success will be. In the meantime, I feel strongly that we should act vigorously and have severe penalties for the manufacture, sale, and distribution of all of these compounds without question, dry up the sources, make them less available.

I think that is what we have also done in LSD. In December, as I recall, we seized 600,000 dosage units of LSD, the largest single month we have had so far. This kind of activity, putting the manufacturers of this illegal drug out of business and putting them in jail for a good long time, I think is a very appropriate and proper effort.

Mr. KYROS. Let us examine again what you have said. Let us assume someone like Dr. Timothy O'Leary, whose views are spread throughout the communications media of the United States, is holding that drug not for sale or traffic but for his own personal use. If we had a criminal penalty I doubt it would act as a deterrence because persons like him are not deterred by your education program.

I am worried about Dr. O'Leary and other sponsors of the use of these drugs who provide a large field of information that might influence young people more than some official Government source.

Dr. GODDARD. I can understand your concern. Let me say it is not just the official agency, the Food and Drug Administration, nor the National Institute of Mental Health that are involved in this struggle. It goes on in the scientific community at all levels.

We have an agreement with the National Association of Retail Druggists on a nationwide education program, drawing on the pharmacists in this country to assist in the dissemination of good information throughout their communities.

Quite often I find in meeting with groups of parents and concerned citizens that they really lack information. Now we have a very small budget for this kind of activity, so it is very helpful to have the interest of other professional groups.

The physicians are becoming increasingly active in speaking up before high school audiences, before college groups and in general the scientific community has and is continuing to make a strong effort to place proper information in the hands of all concerned.

Now I think in many ways we are dealing with the formation of attitudes while a child is young and that the programs really have to have their beginnings there. In some way we have gotten away from the situation that existed when we were growing up.

Experimentation with drugs when we were growing up was practically unheard of. In some way we need to get back to inculcating the attitude of respect for all drugs rather than this present situation where there is great experimentation at great personal risk.

Mr. KYROS. When I was practicing law in Maine a few years ago I was involved in cases where people from other States would come into our wonderful resort area bringing marihuana with them.

In several cases they were apprehended, charged, convicted, and put in jail. This was well publicized. So I still feel that as worried as we are about over reaction to young people, and no one here wants to put young people in jail or charge them with a felony or misdemeanor, the protection we owe to society and explaining about the dangerous drugs outweighs any considerations we should otherwise have.

I believe that in the philosophy of deterrence is where you and I disagree slightly. I hope you will develop some case histories of what happens in the coming years.

Thank you for a clear statement.

Mr. ROGERS. Congressman Nelsen.

Mr. NELSEN. No questions.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. Certainly I want to congratulate the distinguished gentleman on his excellent statement. I notice he has shifted his position a little bit and he supports penalties for simple possession. Is that true?

Dr. GODDARD. I support the administration bill. I say it is quite proper since it is going to be administered by the Department of Justice and they feel this is an aid in carrying out the intent of Congress to decrease the abuse of dangerous drugs in this country. To that extent, yes, I support that bill.

I feel very strongly that the heavier penalties are needed for the other matters.

Mr. CARTER. What do you think about penalties for simple possession? How severe should they be?

Dr. GODDARD. I have stated my position before several committees of Congress. For possession, I personally do not feel there should be any penalties attached to possession. This is my personal opinion. I am not an expert on law enforcement. I am a physician and simply looking at it—

Mr. CARTER. I am in somewhat agreement with that idea. I think perhaps it should be made a misdemeanor but I am afraid we would have our jails full of people if it were made more severe and perhaps it would not be effective.

Dr. GODDARD. The point I was going to make is this, Dr. Carter: Thirty-seven States now have laws on their books with respect to the drugs that are considered dangerous drugs. In those 37 States all of those laws do have penalties for possession. Is that correct?

Mr. FINLATOR. No.

Dr. GODDARD. You can see my briefing this morning on this point. About two-thirds of them do.

Mr. FINLATOR. Yes.

Dr. GODDARD. I have no disagreement with that because it is quite appropriate for the States to have such provisions.

Now the emphasis in the Federal program in my opinion should be, and it has been for these past 2 years, on devoting all of the resources to getting at those who manufacture, distribute, and sell.

Now I recognize that it is often difficult, as your colleagues have pointed out in testifying before you this morning, to distinguish between possession for personal use and possession with intent to sell.

It is a narrow range here. You say, sure, somebody with a thousand doses of LSD, what do you call this in lawyer's language, *prima facie* evidence of intent to sell, and I am sure most courts would go along with that.

How about the young man with 10 doses? So I recognize this is a problem. The enforcement officials are simply saying that in their experience it makes sense to have this as a misdemeanor. Then the judge has the opportunity to take into account the circumstances.

Now I have difficulty in disagreeing with that, Dr. Carter. So I do support the administration's bill.

Mr. CARTER. Do you have figures to show about what percentage of our students, college students, have taken LSD?

Dr. GODDARD. Sir, we have some data here that represent surveys that have been carried out in the past year. There are five surveys which concern themselves with the extent of usage of LSD among college students, high school students, and citizens of two west coast communities.

The percent involved ranges—now this is for “have ever tried,” which is the way it was phrased, from 1 percent to 8.4 percent.

Now that was in high school students, the highest figure, students at all levels.

Mr. CARTER. What was that, 8.4?

Dr. GODDARD. 8.4 was in the high school students. The 1 percent was a nationwide survey of college students, a small sample. The American Institute of Public Opinion carried this research out with the Reader's Digest.

Mr. CARTER. How many high school students do we have in the United States?

Dr. GODDARD. Counting from 9th through 12th grade, I would say approximately 16 million, a little less than that, fourteen and a half million.

Mr. CARTER. If we follow out with this law we would be prosecuting 1.6 million students throughout the United States for possession.

Dr. GODDARD. I don't believe we would.

Mr. CARTER. Those are your figures.

Dr. GODDARD. Yes, sir; I understand. First of all, let me say I doubt if many high schools—this was a survey from one high school, 448 students, in an area where usage of LSD is probably about the highest in the United States. So I would hesitate to extrapolate from that.

The second point is that it is my feeling that in the administration of this law that the agency involved would not have the manpower nor the wish to handle that many students by taking them to court.

Mr. CARTER. It would not be carrying out the law though; would it? Why pass a law if we are not going to enforce it?

Dr. GODDARD. The hope is that the law itself will serve as a deterrent. I have said I can't appraise the value of that.

Mr. CARTER. It seems very difficult to punish this large percentage of our high school students or our college students. We must get some other approach. Don't you think so?

Dr. GODDARD. It is mainly to close this loophole that now exists, Dr. Carter. I can understand the desire to do that.

Mr. CARTER. Certainly we want to do that. That is our purpose.

Dr. GODDARD. I doubt that we can enforce it that effectively.

Mr. CARTER. Don't you think we will have to have a program of education of youngsters?

Dr. GODDARD. Yes, indeed; I strongly urge increased support of that activity when this program goes to the Justice Department.

Mr. CARTER. How easy is it to manufacture LSD?

Dr. GODDARD. A skilled college student with the proper equipment could in about 4 hours manufacture this in a laboratory if he were uninterrupted or unobserved or set up a similar type of experiment in a private place and did it. It would not be too difficult.

Mr. CARTER. About how many of our students in the U.S. according to research have engaged in the manufacture of LSD?

Dr. GODDARD. I have no idea, sir.

Mr. CARTER. Do you think it is quite a number?

Dr. GODDARD. No, I think it would be a relatively small number. First of all, there are not that many gifted chemistry majors in college. Unfortunately, we are short of them.

Mr. CARTER. We do know that this does happen?

Dr. GODDARD. Yes, sir.

Mr. CARTER. Some of them are quite active in that. Now you gave me the figures on the college and high school students. What percent of our college students by your research have been shown to have used LSD?

Dr. GODDARD. Oddly enough, the percentages for college students in the other four surveys which were carried out by a variety of organizations range between 1 percent and 5.5 percent of the student bodies.

Mr. CARTER. One percent and 5.5.

Dr. GODDARD. 5.5 was the highest reported.

Mr. CARTER. What is the total number of our college students?

Dr. GODDARD. Six million students.

Mr. CARTER. According to that, that would be at least 600,000 college students that have used LSD.

Dr. GODDARD. 300,000 at the most.

Mr. CARTER. Five percent, did you say?

Dr. GODDARD. Ten percent of 6 million would be 600,000. Five percent would be 300,000. This is those who have used the drug one time. This does not mean use is consistent or frequent but this represents those who had "ever used" the drug.

Mr. CARTER. Then we should think that a smaller percentage, according to your figures, of college students have used LSD than high school students?

Dr. GODDARD. Yes. I pointed out, too, that this was an unusual situation. The study was carried out in the high school in the area of highest usage of LSD probably in the United States. So there is some carry-over in that kind of community where young people attempt to emulate the older students. It is also more available.

Mr. CARTER. It seems to me that the college students are more likely to be emulating them because there are so many more of them using it.

Let us take the total using LSD at one time. That would be 1,900,000, is that right?

Dr. GODDARD. Sir, I would not make such an estimate.

Mr. CARTER. Well, that is on your figures.

Dr. GODDARD. I am saying these are figures from surveys of single institutions in many instances, or two or more. I think it is very dangerous, as you know, Dr. Carter, from your past experience, to extrapolate this on a national basis.

Mr. CARTER. We are basing it on your figures.

Dr. GODDARD. I am just objecting to your extrapolating with my figures, Dr. Carter.

Mr. CARTER. Even with them the lowest figures I can get from your percentages is 1,900,000 youngsters, high school and college people, who have used LSD.

Dr. GODDARD. Dr. Carter, I would have to agree with you that too many have used it, no matter what the figure is. We don't really know the true number.

Mr. CARTER. So if we proceed against them that would be quite a number that we would have to proceed against for simple possession. It would sort of overwork your people to do that, would it not?

Dr. GODDARD. It would not be possible for them anymore than it is possible for the Bureau of Narcotics people to move against those who possess marihuana. The figures are roughly the same or even higher for marihuana possession and usage than for this drug.

Mr. CARTER. Again the point, the emphasis of what we should do is go towards the manufacturer and the pusher, is that not true?

Dr. GODDARD. That is where our emphasis should be.

Mr. CARTER. It is utterly impossible, actually, to enforce this law as you have agreed, for simple possession. Then you say you can proceed against 1,900,000 of our students.

Dr. GODDARD. No, sir. But we have to recognize that the enforcement official in the actual course of his business, as your colleague on this committee pointed out, is occasionally confronted with the situation where all he has is the simple fact of possession.

Now the people who are specialists in this field feel therefor that under those circumstances it is important to have a penalty. I cannot argue with that.

Mr. CARTER. Penalty. That is a little pitfall we fall into, a penalty or law that is not enforced. That is one of the terrible things that is wrong with our Government today. If we have a law it should be enforced. That is one of our difficulties.

Certainly we should not pass a law, do you think, without means of enforcing it? Just a law which says that by that law someone is deterred when there is no intention to prosecute, to enforce the law?

Anyway, certainly you have made a good statement, by and large.

I want to compliment you. I am in agreement with you on a large part.

Dr. GODDARD. I would not propose that section if it were to be under our jurisdiction.

Mr. CARTER. For our students we have to develop a program of education to help them, it seems to me. We must have some way to reach them, perhaps through mass participation in athletics or recreation of some sort, so that they won't have the time or inclination to take up these habits which help them to live in a world of fantasy and not face the realities of life.

Dr. GODDARD. There is one program that I think the committee will be interested in that we have underway. That is an educational program of preparing curriculum content material for public school teachers to use in the third, seventh, ninth, and 11th grades. It is basically to teach young people some of the facts about drugs, all kinds of drugs, and to place in proper perspective how drugs should be used; that they are dangerous, that they are beneficial when properly used.

This material has been prepared in cooperation with the National Education Association. It is being distributed by the Office of Education and is viewed as a significant step forward by the educators in providing them with good information to help in the educational activities.

Hopefully it will lead to a respect for these chemical agents that are so widespread in our society.

Mr. CARTER. Would it not be wise to teach them that drugs should be prescribed by a physician?

Dr. GODDARD. That is the point.

Mr. CARTER. Thank you, Mr. Chairman.

Mr. ROGERS. We are delighted to have our colleague, Mr. Murphy, join us here today. Mr. Murphy is a member of the Committee on Interstate and Foreign Commerce and we would be pleased to have any comments or yield for any questions. Mr. Murphy.

STATEMENT OF HON. JOHN M. MURPHY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. MURPHY. Thank you, Mr. Chairman. I have a statement which was submitted for the record last week. I would like to congratulate Dr. Goddard on his statement.

As far as the educational aspects of the problem of drugs, I certainly think that the education should not be limited to the high school students or the college students but to the family, the parent particularly.

I think there is some precedent for this legislation in that in our armed services, in the Air Force, as soon as someone smokes marijuana and the criminal investigation officials find out about it, the individual receives either an administrative discharge or undesirable discharge which is a cloud that will hang over his life just as long as that record remains.

That means he will never have a civil service job in Federal, State or municipal government. It probably will mean that many major corporations won't hire him.

I think the educational aspects are important. Also I think we do need the punitive aspects of the legislation as written.

As you know, I am one of the cosponsors.

Mr. CARTER. Will the distinguished gentleman yield?

Mr. ROGERS. Yes; go ahead, Dr. Carter.

Mr. CARTER. Do you think we should have penalties against all these students in the enforcement?

Mr. MURPHY. Yes; I sponsored the legislation, Doctor. I do think punitive measures are necessary. We can go so far with permissiveness. We can probably carry it to the point where our entire society

is in jeopardy. It is not the 1 percent or the 8.4 percent of the particular institutions, Doctor, you speak to, that I am concerned about.

I am concerned about the 99 percent or 92 percent that are also exposed to this. The whole fabric of our society can be eroded by that 8 percent or 1 to 5 percent in college.

I think this legislation is necessary to drive home to the entire country the very critical problem we face with drugs.

Mr. CARTER. Mr. Chairman, it is utterly impossible to enforce such a law against these 1,900,000 students who have taken this. This is what the gentleman is advocating. Certainly I think the intent should be against the pushers, the manufacturers, and those who sell the drug.

Thank you, Mr. Chairman.

Mr. ROGERS. I have a few questions now that are raised in my mind that I would like to go into.

I understand your position, Dr. Goddard. I think you stated that because of the enforcement procedures, you think it will be helpful in stamping out the spreading use of LSD and similar drugs?

It is my understanding you feel very strongly that we should have severe penalties against those who manufacture this drug or sell it or distribute it.

Do you feel that the penalty is a deterrent to those who manufacture to sell or to distribute?

STATEMENT OF DR. GODDARD—Resumed

Dr. GODDARD. I cannot really say it is a deterrent in my opinion, but you sure can put them out of business for a long time.

Mr. ROGERS. You can stop the movement of it with this penalty.

Dr. GODDARD. That is right.

Mr. ROGERS. Now if we can dry up the sources of pushers with a penalty, this also might go to that end, would it not?

Dr. GODDARD. If your assumption is correct, yes.

Mr. ROGERS. Well, assuming any assumption that we take.

Dr. GODDARD. If there is no market, it won't be sold.

Mr. ROGERS. I assume if it is going to be some deterrent to those who sell it, it might be a deterrent to the 98 percent who have not yet tried it, if they know there is a penalty.

This legislation is not designed to go out and make criminals of anyone. It is designed to prevent it and to try to get across the idea that—for that percentage in the high school or college or whatever age that are going to purchase the drug—they become a partner in crime.

It is not only the seller, who under this law, would be the criminal. The law also says the other partner would be subjected to penalty. This is what we are trying to get at. Certainly if people believe that the seller ought to be halted to get at the problem use, I fail to distinguish between the two points.

Certainly the purchaser is in an illegal activity just as much as the man who is going to manufacture or sell it. What would be your comment basically on that?

Dr. GODDARD. I think I have made my statements on this matter before. I am old enough, as you are, Mr. Chairman, to remember the Volstead Act.

Mr. ROGERS. I think you can take this to the point that maybe it would be better, under your argument, that maybe we should not have any penalty for selling or manufacturing and just establish an education program to prevent it.

Dr. GODDARD. No, sir.

Mr. ROGERS. You would not do that?

Dr. GODDARD. No, sir.

Mr. CARTER. Will you yield?

Mr. ROGERS. Yes.

Mr. CARTER. Don't you feel if we dry up the source of manufacture we will deter this?

Mr. ROGERS. What you are saying is that by a penalty aimed only at the manufacturer you will. It is an aid to it. What we are trying to do is also stop the market for it. If we can help stop the market that is the best way to dry them up.

Mr. CARTER. If we dry up the source there will be no market.

Mr. ROGERS. If we can do that, that will be perfect. I am afraid we have to attack it by more than one way.

Now the gentleman has made the point that we need education. I agree. And it goes to what? Drying up the market for purchase. Now if you are going to start a program of education, fine. But for those who won't listen to education, then there will be a penalty.

What we are concerned with is drying up this whole movement of LSD and similar drugs. This is what this legislation is designed to do. To get into great philosophical arguments about how much is it going to be a deterrent would be an endless effort.

What we are trying to do is to get something concrete, to get at the problem and stop it. This is what I believe the committee will do.

Now let me ask you this: What has been the history of convictions on those who manufacture LSD?

Dr. GODDARD. I will ask Mr. Finlator and Mr. Goodrich to reply.

Mr. FINLATOR. We have had close to 600 convictions but I can't break it down as to manufacturer or just plain pusher. I can get those figures for you, though, but I don't have them.

Mr. ROGERS. Please recognize if you cannot give them now, I would like them supplied for the record.

Dr. GODDARD. With this class of drugs the classification is often a very arbitrary one, particularly LSD when it can be manufactured by an individual. So the figures are not that hard. But we will provide you for the record the number of "manufacturers" as we have classified them.

(The information requested follows:)

FOOD AND DRUG ADMINISTRATION STATEMENT REGARDING CONVICTIONS RESULTING
FROM SEIZURE OF CLANDESTINE LABORATORIES

As of February 21, 1968, a total of 47 hallucinogenic drug laboratory seizures had been made. Of this total 47, 8 specific drugs were involved, as follows:

Drug:	Number of laboratories seized
LSD	14
DMT	16
DET	1
Peyote	1
Amphetamine	5
Mescaline	8
MDA	1
Counterfeit Syndrox	1

In the 14 raids conducted on LSD laboratories, a total of 31 persons were arrested. Almost every one of these cases is currently pending in the courts. Thus, we are unable to give valid data relating to conviction records for those illegally manufacturing LSD.

Mr. ROGERS. Are there many reputable drug firms that have been convicted of illegal manufacture or have had charges brought against them?

Dr. GODDARD. No, sir.

Mr. ROGERS. They are mostly fly-by-night situations?

Dr. GODDARD. Yes, sir.

Mr. ROGERS. What have been the penalties meted out? Do you have a record of what the penalties have been?

Mr. FINLATOR. Yes.

Mr. ROGERS. What do they range from?

Mr. FINLATOR. They range anywhere from a year to letting them off.

Mr. ROGERS. Are there many suspensions of sentence or has there been a pattern of paroles?

Mr. FINLATOR. There has been a pattern of that among the students particularly.

Mr. ROGERS. In manufacture?

Mr. FINLATOR. No; in arrest of students for selling.

Mr. ROGERS. For selling?

Mr. FINLATOR. Yes.

Mr. ROGERS. Could you give us a breakdown on the penalties? If you do not have it with you, you may furnish it for the record.

(The information requested follows:)

FOOD AND DRUG ADMINISTRATION STATEMENT REGARDING PENALTIES APPLIED BY
COURTS UNDER THE DRUG ABUSE CONTROL AMENDMENTS

A sample of 187 individuals sentenced for violation of the Drug Abuse Control Amendments from February 1, 1966, to December 21, 1967, shows that the average monetary fine set by the courts was one-twentieth of the size of the maximum fine. Jail sentences in this sample represented an average of about 40 percent of the maximum permitted by the law.

The Act provides a maximum fine of \$1,000 per count, or maximum imprisonment of one year per count.

Review of the chart below shows that, on the average, each defendant was charged with 2.46 counts. Therefore, the maximum fine per defendant, on an average, could have been \$2,460 or an average maximum imprisonment of 2.46

years (or 29.52 months). Actually, the average fine per defendant set by the courts was \$122.56. The average jail sentence imposed was 13.61 months.

Available penalties per defendant	Average penalties per defendant
\$2,460.00	\$122.56
29.52 months	13.61 months

Mr. ROGERS. Let me ask you this: Do you feel the courts are administering this law as it properly should be as far as assessing penalties?

Mr. FINLATOR. Yes, with the penalties they have. All they have had to deal with is a misdemeanor.

Mr. ROGERS. That is not true. Under 21 we gave you the right to arrest for a felony. Two years and five and three years and ten. Has that been used?

Mr. FINLATOR. We have had a few of those but not many.

Mr. ROGERS. This is part of our problem. If the courts are not properly administering the law as to penalties provided by the Congress of the United States, the law cannot be effective.

Mr. FINLATOR. I think in the majority of cases they have, sir.

Mr. ROGERS. I would like to see facts. It does not indicate it. According to what you say there have been a few cases.

Mr. FINLATOR. No; I said a few cases where they have been selling to a minor. We have not had too many of those cases.

Mr. ROGERS. You have not had many cases where they have been selling to people under 21?

Mr. FINLATOR. That is correct.

Mr. ROGERS. I thought this is where we were finding most of the trafficking?

Mr. FINLATOR. That is correct, but it is a different business when the agent himself is buying from a seller, himself, and when you are watching him sell to a minor, which is a more difficult thing.

Mr. ROGERS. Most of your convictions are where your own agent has purchased?

Mr. FINLATOR. That is correct.

Mr. ROGERS. Have you been able to get the cooperation of any of the young people in bringing about convictions of those who are pushing or selling?

Mr. FINLATOR. Yes; we have. I think, sir, if I may say so, we are speaking about the student quite a bit, but we are a little bit worried about and support the penalty for possession for other reasons.

The permissive attitude of government if it does not have a possession penalty means to most people it is okay. The problem we have is shown by the people who manufacture illegally. We have had to watch them for a long time because we could not get them for possession. Or people like the football coach we arrested not very long ago for possession of LSD. We had been watching him for 3 months and we could not arrest him until he finally made a sale, even though we knew he had LSD in his possession.

Mr. ROGERS. This was a football coach?

Mr. FINLATOR. Yes, sir.

Mr. ROGERS. Whom did he make the sale to, one of your agents?

Mr. FINLATOR. Yes, sir. These are vicious people. We noticed that more and more in the Haight-Asbury section and East Village that there are sellers. These are not college students. They are young people, of course, but they are young people dealing in drugs.

In both of these areas, as well as Dupont Circle and Georgetown, there are people who sell it. If we cannot buy off the guy and we know he has got it and he is a criminal selling this stuff, we feel that in this case the penalty for possession is appropriate and very helpful and needed.

Mr. ROGERS. I would agree with you wholeheartedly.

Let me ask you this: When you give us those facts, we would like to have the number of arrests, the ones that were brought about because of the activity of a sale to your people as agents and whatever sales occurred between young people directly, where you may have had information on to make arrests.

We would like to have that for our committee records.

(The information requested follows:)

FOOD AND DRUG ADMINISTRATION STATEMENT REGARDING ARREST STATISTICS FOR
ILLEGAL SALE OF HALLUCINOGENS

As of February 1, 1968, the Bureau of Drug Abuse Control had arrested 272 persons for the illegal sale of hallucinogens. The Bureau had also cooperated with State officials in the arrest of 84 persons.

Because there are over 2,000 controlled drugs, the Bureau divides their cases for statistical purposes into the major categories of hallucinogens, stimulant and depressant drugs. Thus, we are unable to break out of the above data on hallucinogens that number of cases in which LSD was the specific drug being illegally sold.

All arrests for illegal sale of hallucinogens came as a result of either sale directly to a BDAC agent, or because of a sale arranged through or by BDAC agents. Since actual traffic in hallucinogens must now be demonstrated in court, we have found this method the most effective for our enforcement activities.

Mr. ROGERS. Where is the problem most prevalent, do you feel?

Mr. FINLATOR. In large metropolitan cities, both on the east coast and the west.

Mr. ROGERS. Is it confined to any particular area in the Nation?

Mr. FINLATOR. No.

Mr. ROGERS. Is it all over the Nation in the large urban areas?

Mr. FINLATOR. We are speaking about LSD. No, you don't find as much LSD in the Southeast as you do amphetamines, barbiturates and other drugs, but you do find it in the Northeast and places like New York, Philadelphia, Boston, Chicago, Detroit, Cleveland, Cincinnati, Los Angeles, San Francisco. They are the big ones. Also Denver.

Mr. ROGERS. I think you might be interested in a witness that we will have later. He is a news reporter from the Southeast who has done a 6 months' study in depth on this. I will ask that his testimony be brought to your attention. I think he has information that will be fairly interesting.

Now you mentioned amphetamines and barbiturates under law. Have you yet compiled the companies whose amphetamines and barbiturates are found in illegal channels?

Mr. FINLATOR. Yes, sir.

Mr. ROGERS. Can you identify those for the committee?

Mr. FINLATOR. Yes; we have it. We will do it in our letter to you. I don't have it with me.

Mr. ROGERS. I would like to have the names of the drug companies whose products are the ones found in illegal channels.

Mr. FINLATOR. This does not mean necessarily that they have bad security of their own, of course, because some companies have excellent security and we find their drugs in the market because of diversion somewhere in the whole transportation area, from this manufacturer to a repacker or rejobber or large wholesaler to a small wholesaler, and on and on. That is how it gets to the market.

Mr. ROGERS. I understand that. I recall when we passed a law we put in a provision so that we could trace that very closely.

I want to find out how we are tracing it and where the break is in those lines because this, I think, should be followed up very closely.

If you would furnish that to the committee, it would be helpful.

(The information requested follows:)

FOOD AND DRUG ADMINISTRATION COMPILATION OF DRUG MANUFACTURERS WHOSE PRODUCTS HAVE BEEN FOUND IN ILLEGAL CHANNELS

Abbott Laboratories, North Chicago, Ill.	Parke, Davis & Co., Detroit, Mich.
Bates Laboratories, Inc., Chicago, Ill.	Philadelphia Laboratories, Inc., Philadelphia, Pa.
Bolar Pharmaceutical Co., Inc., Co-piague, N.Y.	Phillips Roxane Laboratories, Columbus, Ohio.
Burroughs Wellcome & Co., Tuckahoe, N.Y.	Plymouth Laboratories, Inc., Plymouth, Mich.
Carroll Chemical Co., Baltimore, Md.	Premo Pharmaceutical Laboratories, Inc., Hackensack, N.J.
Chase Chemical Co., Newark, N.J.	Richlyn Laboratories, Inc., Philadelphia, Pa.
Ciba Pharmaceutical Co., Summit, N.J.	Riverton Laboratories, Inc., Newark, N.J.
Cord Laboratories, Inc., Detroit, Mich.	A. H. Robins Co., Inc., Richmond, Va.
Davis-Edward Pharmacal Corp., New York, N.Y.	Shaw Pharmacal Co., St. Louis, Mo.
J. W. S. Delavan Co., Inc., Philadelphia, Pa.	Sherry Pharmaceutical Co., Inc., Long Island City, N.Y.
Geigy Chemical Corp., Yonkers, N.Y.	Smith, Kline & French Laboratories, Philadelphia, Pa.
Hoffman-LaRoche, Inc., Nutley, N.J.	E. R. Squibb & Sons, Inc., New Brunswick, N.J.
K-V Pharmacal Co., St. Louis, Mo.	Strassenburgh Laboratories, Rochester, N.Y.
Lemmon Pharmacal Co., Sellersville, Pa.	Table Rock Laboratories, Inc., Greenville, S.C.
Eli Lilly & Co., Indianapolis, Ind.	Torigan Laboratories, Inc., Queens Village, N.Y.
Lustgarten Laboratories, Philadelphia, Pa.	Vitarine Co., Inc., Springfield Gardens, N.Y.
S. E. Massengill Co., Bristol, Tenn.	
Manola Co., St. Louis, Mo.	
McNeil Laboratories, Inc., Fort Washington, Pa.	
Morton Pharmaceuticals, Inc., Memphis, Tenn.	
Nysco Laboratories, Inc., Long Island City, N.Y.	

NOTE.—All firms are registered as manufacturers of controlled drugs. We have no evidence that the firms were involved in diversion of these drugs into illicit channels except in very few cases.

Mr. ROGERS. Now let me ask about LSD. Who has possession of any legal amounts of LSD and for what medical purposes?

Dr. GODDARD. The National Institute of Mental Health are the sole possessors of legal LSD. This LSD is to supply those engaged in research.

Mr. ROGERS. Is this simply in the research stage? Is there an accepted and proved medical use of this drug?

Dr. GODDARD. It is solely in the research stage, the IND stage. It has been in that stage since the drug was first brought to this country,

I believe in 1954. There are no approved uses of the drug and contrary to the statements of many, the research on this has not been stopped by the law that Congress passed to control the abuse of drugs.

I sign approximately 10 approvals a month for research projects. There is a joint review procedure between the National Institute of Mental Health and FDA. The committee reviews the proposed research project. If it finds it worthy on its scientific merits we sign off on it and approve the IND use of this drug. Dr. Yolles upon certification by his staff provides the amount needed for research. Of course records are kept as to how the drug is used.

Mr. ROGERS. Before you permit its use on humans has the drug been tested on animals?

Dr. GODDARD. The drug has been used on animals. Of course, is it a rather difficult one aside from assessing the "LD-50," the dosage at which 50 percent of the test animals will be killed.

It is difficult to judge what kinds of things are going on in animals.

Mr. ROGERS. In the area of chromosome and mutation changes?

Dr. GODDARD. Most of these are being carried out on humans who have used the drug rather than animals because this is a critical question.

Mr. ROGERS. I am asking what research is permitted in this area without first having some similar research done on animals?

Dr. GODDARD. Sir, a significant amount of research has been carried out on animals but as I say, it is quite unsatisfactory in terms of translating that into human results even more so than most drugs.

There are 90 studies currently underway. Sixty of those involve animals, and I will include insects for these purposes, and 30 involve humans. So there are animal studies being carried out, to answer your question.

Mr. ROGERS. I would like a list of those.

Dr. GODDARD. We will be happy to provide them.

Mr. ROGERS. And also who is carrying them out and possible results that they have so far been able to obtain.

Dr. GODDARD. We will be happy to provide that.

(The information requested follows:)

FOOD AND DRUG ADMINISTRATION COMPILATION OF HALLUCINOGENIC DRUG INVESTIGATIONS CURRENTLY APPROVED BY FDA¹

Information is available on 69 of 90 projects as previously mentioned. These 69 projects involve a total of 74 investigations now underway. The number of investigations is greater than the number of projects since several projects involve more than one area of investigation.

The 74 investigations are divided into 14 areas of research.

I. EFFECT OF LSD ON ALCOHOLISM

Effect of Two Dosage Levels of LSD on Alcoholics and Controls—Human.

LSD and Methylphenidate in Alcoholism: Effect in 105 Alcoholics—Human.

Use of a Double Blind Technique to Compare Two Doses of LSD in Alcoholics—Human.

Use of LSD and Amphetamine in Alcoholic Patients—Human.

Effect of LSD on Specific Personality sub-types of Alcoholic Patients—Human.

Hypnodelic Treatment and Controls in Alcoholics—Human.

Research Study of Use of LSD as an Adjunct in Rehabilitation of Chronic Alcoholism—Human.

¹ The accompanying list of investigators carrying out the research has been placed in committee files.

Treatment of Alcoholism by a Single Large Dose of LSD—Human.
 Use of Psychotherapy and LSD in Chronic Alcoholism—Human.
 Effect of LSD on Alcoholics—Human.

II. EFFECT OF HALLUCINOGENIC DRUGS ON MENTAL ILLNESS

Effect of LSD on Communication in the Psychoanalytic Treatment Situation—Human.
 Effectiveness of LSD and Psilocybin on Psycholytic and Psychedelic Therapy—Human.
 Effect of Psilocybin in Post-traumatic Neurotic Patients—Human.
 Comparison of LSD and Taraxein—Human.
 LSD Therapy with Neurotics—Human.
 LSD Therapy in Autistic Children with Positive Conditioning—Human.
 LSD Use in Sexual Deviates—Human.
 Treatment of Character Disorders with LSD—Human.
 LSD as a Treatment Adjunct in Difficult Psychiatric Cases—Human.
 Evaluation of LSD Therapeutic Benefit in Refractory cases—Human.
 Use of LSD in the Treatment of Schizophrenic Children—Human.

III. MECHANISM OF ACTION

Effects of LSD on Anxiety and Creativity—Human.
 Effect of Psilocybin on Taste Threshold—Human.
 Mechanism of Sympathetic Action of LSD—Human.
 LSD and Determinants of Changes in the Color Sense—Human.
 Effects of LSD on Cyclic Change—Human; Animals.
 Effects of LSD in Human and Animal Neurophysiological Functions: EEG Recordings—Human; Animal.
 Effects of LSD and Amphetamine on Cognitive Perceptual and Sensory Functions—Human.

IV. HALLUCINOGENS AND TERMINAL ILLNESS

LSD Therapy and Terminal Cancer—Human.
 Effects of LSD in Alteration of Meaning of Pain and Death—Human.

V. HUMAN: EFFECT ON CHROMOSOMES

Effects of LSD on Cultured Leukocytes—In Vitro.
 LSD and nucleic acid metabolism—Human.

VI. ANIMAL: EFFECT ON CHROMOSOMES

Effects of LSD on Gestational Stages in Hamsters—Animal.
 LSD and the Mammalian Embryo: rats and mice—Animal.
 Effects of LSD on Meiotic and Mitotic Cell Changes—Animals; Human.
 Teratogenic Effects of LSD in rats and mice—Animal.
 Teratogenicity and Chromosome Breakage in the Monkey—Animal.

VII. INSECT: EFFECT ON CHROMOSOMES

Mutagenic Properties of LSD in *Drosophila*—Fruit Flies.
 LSD: Effect on Chromosomes in *Drosophila*—Fruit Flies.
 Chromosome Breakage Patterns in *Drosophila*—Fruit Flies.
 Chromosomal Aberrations in *Drosophila*—Fruit Flies.

VIII. ANIMAL PSYCHOPHARMACOLOGY

Effects of LSD and other drugs on Abnormal Behavior of Chimpanzees—Animal.
 Impaired Performance in Monkey after LSD—Animal.
 Effect of LSD on Learning Ability in Mice—Animal.
 LSD, Mescaline and TMA: Comparative Behavioral Effects—Animals.
 Effect of Hallucinogenic Drugs on Post-reinforcement Synchronization in Cats—Animal.
 Effect of Hallucinogens on Learned Discrimination Patterns in the Monkey—Animal.
 Effects of LSD on the Ability of the Honeybee to Communicate—Insect.

IX. NEUROPHYSIOLOGY: ANIMAL

Effect of LSD on Cortical Potential in Cats and Rabbits—Animal.

Studies on DMT in Animals.

Effect of LSD on Avian Neurophysiology—Animal.

Effect of Hallucinogenics on Physiological Systems—Animal.

Neuropharmacologic Actions of Hallucinogens in Cats.

X. CHEMICAL STUDIES IN ANIMALS

Effect of LSD on Binding of Biogenic Amines.

Effect of Psilocybin on the Brain Turnover Rate of Serotonin.

Effects of Mescaline and DMT on the Levels of Biogenic Amines in the Rat Brain.

Inhibitory Action of LSD on Mouse Uterus.

Toxicity of Mescaline in Animals.

Effects of LSD in Rabbits: Hyperthermia.

Effects of Hallucinogens on Release of Serotonin in Brain Slices.

XI. IN VITRO AND ENZYME STUDIES

Use of LSD and Derivatives as Standards in Thin Layer Chromatography.

Interaction of Psilocybin with Sub-cellular Components of the Rat Brain.

Effect of Psilocyn on Enzyme Purification in Mollusks.

Effect of LSD on the Moore Protein in the Rat.

XII. PLANTS

Effect of LSD on Hybridization.

XIII. FISH AND INVERTEBRATES

Effects of LSD on Luminescence in Fish and Invertebrates.

Use of the Electric Knife Fish in Screening Psychotropic Substances.

XIV. MISCELLANEOUS

Effects of LSD on the Cell Components of Animal Brains.

Effects of Drugs on Optic Potentials in Rabbits.

Effects of Drugs on the Cytoplasmic Streaming of Elodea Cells and the Movement of Oscillatoria Filaments.

Use of LSD in the Study of the Pineal Gland.

Mr. ROGERS. The distribution then for legal quantities for research only is done through the National Institutes of Mental Health?

Dr. GODDARD. Yes, sir, with our concurrence.

Mr. ROGERS. It must be with your concurrence as well?

Dr. GODDARD. Yes.

Mr. ROGERS. How is the formula for LSD made known?

Dr. GODDARD. You mean the actual chemical formula?

Mr. ROGERS. Yes.

Dr. GODDARD. There are people who publish cookbooks, if you will, of how to manufacture these various drugs that are being abused, including LSD. We have prosecuted one such individual.

Mr. ROGERS. I wondered if you had any authority to move against this type of activity.

Dr. GODDARD. No.

Mr. GARFIELD. Only if it involves the sale of drug or distribution.

Dr. GODDARD. The scientific literature, itself, of course, includes information on the formula of all these drugs. It is not that difficult to obtain.

Mr. ROGERS. It would be very easy for them to obtain it from any medical book.

Mr. GARFIELD. The patent is being distributed around by some people who are supporting this kind of activity.

Mr. ROGERS. Who has the patent?

Dr. GODDARD. Sandoz on LSD, I believe.

Mr. ROGERS. Can one obtain that information from the Patent Office?

Mr. GARFIELD. I assume so. The patent is being distributed around. We can show you a kit of what is being distributed.

Mr. FINLATOR. All one has to do is read the underground press of about 75 papers and magazines today. These publish how to make the various types of drugs.

Mr. ROGERS. Are there any other similar drugs to LSD that are now beginning to cause problems?

Dr. GODDARD. Methamphetamine. When you say similar, I will just roughly lump this in. This is a very dangerous drug, too. It is called "Speed."

Mr. ROGERS. What is the extent of its use and what is the result of the use of this type drug?

Mr. GODDARD. We can only say that it is our feeling that the usage of this drug is increasing.

Mr. ROGERS. It is increasing?

Dr. GODDARD. Yes, sir, increasing. The drug itself has been around for a number of years. It has an appropriate medical use. But it has been picked up by those who abuse drugs and it is being misused very seriously.

Many of the so-called hippie communities themselves have a slogan, "Speed Kills."

Now methedrine amphetamine is being injected in dosages sometimes as high as a thousand milligrams—Dr. Carter will appreciate this is a tremendous dose—because tolerance to the amphetamines builds up very quickly. When they have reached dosage levels of this magnitude the individual becomes quite paranoid, his behavior is irrational. He cannot complete simple tasks, does not eat, does not sleep. He sometimes goes 3 weeks on a jag with this particular drug and then stops and sleeps for 36 to 72 hours and then goes back on the drug again.

The variability in the supply is not unlike that problem with heroin. Overdoses have occurred because of the product variability in the open market, so deaths are not uncommon and thus the hippies say "Speed Kills."

There are a number of other drugs, mescaline, DMT, that are being abused.

Mr. ROGERS. Would you provide us for the record a description of those drugs, the extent of their use, the effects of those drugs and the general problem of control of them?

Dr. GODDARD. We will be happy to.

(The information requested follows:)

FOOD AND DRUG ADMINISTRATION—DESCRIPTION OF VARIOUS HALLUCINOGENIC DRUGS AND EFFECTS

Drug	Human dose amount needed	Dosage form	Time onset	Length of effect
LSD.....	50 micrograms and up.....	Oral.....	1½ hour.....	6 to 24 hours.
Psilocybin.....	4 to 8 milligrams.....	do.....	1 hour.....	10 hours.
DOM.....	3 milligrams and up.....	do.....	1½ hour.....	6 to 8 hours.
Mescaline.....	300 milligrams.....	do.....	1 hour.....	10 hours.
DMT.....	35 to 50 milligrams.....	Intramuscular or inhalation.....	3 to 4 minutes.....	60 minutes. ¹
DET.....	60 milligrams.....	do.....	15 minutes.....	3 hours.

¹ Followed by "hangover."

The specific effects of LSD, Psilocybin, DOM, and mescaline include: illusions or hallucinations; decrement in perception, discrimination, orientation, self-image, and cognition; depersonalization and loss of body image. With mescaline, nausea may be added to these specific effects.

DMT and DET users also exhibit certain specific effects, including unusual effects with eyes closed and more confusion than illusion.

Users exhibit other general effects from these hallucinogenic drugs. They sit or recline quietly in a dream- or trance-like state. Users may become fearful and experience a degree of terror which makes them attempt to escape from the group. The drugs primarily affect the central nervous system, producing changes in mood and behavior of the user. Perceptual changes in users involve senses of sight, hearing, touch, body-image and time.

Dr. GODDARD. Let me add Mr. Chairman, one point which has not been mentioned which supports the need for tougher penalties. The U.S. attorney, I think, often has a very large caseload and they have to set priorities.

When a case involving people selling or manufacturing the drugs under the Drug Abuse Control Act is only a misdemeanor this does not receive the prompt attention that we would like to see it receive. I think, therefore, we will get a better record of prosecutions after the law you are considering is passed.

Mr. ROGERS. I would like to have, if you have those facts, how long it takes to prosecute and bring to trial cases that you have recommended for prosecution.

Dr. GODDARD. We will be happy to.

(The information requested follows:)

STATEMENT OF THE FOOD AND DRUG ADMINISTRATION REGARDING PROSECUTION TIME

Based on a random sample of approximately 60 cases, the average time from the filing of an information or indictment to sentencing is 4.1 months.

Mr. ROGERS. Would you set forth for us the effects of LSD on a person?

Dr. GODDARD. I will try to, sir.

The drug when ingested in dosages of approximately 200 or 250 micrograms alters a person's state of consciousness in a variety of ways. Their perception of time is altered. The shape of common objects becomes distorted. Objects may assume motion where none actually exists. Colors fuse and move together. Colors may be heard and sounds may be seen.

There are these marked distortions of sensibilities therefor. The person at times becomes very apprehensive under the influence of this drug, very frightened. I am told by patients who received this in certain treatments for chronic alcoholism that they would not go through it again, they were so frightened.

So not only does it have that immediate effect but for those persons in our society who are, let us say, susceptible to becoming psychotic it may precipitate a psychotic episode which requires months, and in some cases longer, for complete recovery.

It also may, months after taking the initial dosage, cause a recurrence of some of the symptomology. A person may several months later have a visual hallucination and, for example, see a rat run across the floor where none exists.

So this suggests very strongly that the drug has some influence on the central nervous system that is rather more than transient in nature. It may affect the messenger RNA or it may affect the cells of the brain directly. It is not known yet.

Studies are being made to try to elucidate this. So we have a picture of a drug which distorts one's consciousness, makes him unable to function during the period of the so-called trip, makes him withdraw, and unfortunately, may cause him to commit an act which could result in his death.

Mr. ROGERS. There have been reported cases of suicide as a result of taking LSD?

Dr. GODDARD. That is correct.

Mr. ROGERS. The testimony before this committee indicated that these suicides were probably underreported. Would you think this is true?

Dr. GODDARD. I would think there is a strong possibility that this is the case, Mr. Chairman.

Mr. ROGERS. Now what about paranoid reactions?

Dr. GODDARD. I don't believe this is commonly seen with LSD, certainly not to the extent that it is seen with "Speed" trips.

Mr. ROGERS. Dr. Sidney Cohen, I believe, made a study and reached the conclusion that paranoid reactions were possible.

Dr. GODDARD. Psychotic depressions which could include paranoid depressions or hysteria.

Mr. ROGERS. Convulsions, acting out of suicidal tendencies, and a delayed reaction as well?

Dr. GODDARD. Yes.

Mr. ROGERS. What program do you have to educate young people on the dangers of drugs?

Dr. GODDARD. We have a variety of activities.

Mr. ROGERS. Is there any specific program taken into the schools?

Dr. GODDARD. Yes. We have a program with the college administrators which Mr. Finlator and his staff have developed to attempt to work through the existing channel of communications on the campuses, providing the colleges with educational material.

We have developed a film specifically to help educate young people on the effects of LSD and the dangers associated with its usage. We have a program, as I mentioned earlier, with the National Association of Retail Druggists which is just getting underway, the American Pharmaceutical Association. We have a cooperative venture with them.

Some of these are aimed at the community and others at the educational institution; the Office of Education program that I also mentioned earlier is part of this.

Mr. ROGERS. I hope to offer an amendment to this bill which will require a program of specific education directed to young people which I think is of similar importance to making this a crime.

In my own area—I think you are perhaps familiar with it—we have a program now which has been instituted mainly by the medical association where doctors are giving their time to conduct a course in the high schools of the area on the dangerous drugs as well as similar subjects. They have already covered probably 35,000 students, or will have covered 35,000 to 40,000 students.

They also taught classes of parents. They are finding, I think, a very fine response. I am hopeful that we can perhaps encourage such a nationwide program.

The cost has been practically nothing because the medical association, the doctors in the various communities have devoted their time. What is your reaction to such a program?

Dr. GODDARD. You are referring to the twin alert program that Dr. Lehman has spearheaded. I think this is an outstanding example of what can be done with the resources that exist within most communities of the United States.

Mr. ROGERS. This could be done quickly without gearing up a large bureaucracy?

Dr. GODDARD. Yes.

Mr. ROGERS. To encourage the American Medical Association to get its affiliates all over this country to do this. I think perhaps it would be helpful to have you get with them. It seems to me we might have sufficient authority to do that and then formulate a curricular for simply giving facts on the dangers to young people so they can make an intelligent decision.

What is your feeling on that?

Dr. GODDARD. Of course, I feel this is an extremely important part of the program that one might say is like a stool with three legs or a tripod—education, research, and enforcement. The educational aspects need to be approached in a variety of ways.

We do work with some of the State medical societies. We have met with the American Medical Association. I am reminded also that the National Institute of Mental Health have in their budget \$800,000 for education and studies to improve the educational approaches and the providing information on dangerous drugs. This is all to the good.

I must say it is only a beginning. The effort needs to be intensified. We need to do more of it. I am particularly pleased that the program involves the parents as well because parents often do not have a good understanding of these dangers and probably they should be included.

Mr. ROGERS. I thought that in the Office of Education it would be not a very difficult thing to get the American Medical Association to come in and get their affiliates throughout the country to immediately establish programs if you could help them in compiling the curricular, which I understand they have already done in our area.

Perhaps this could be built very quickly. A nationwide program like this would not cost a lot of money. We would not have to wait for a great deal of funds. There already are sufficient funds.

I wonder if you would pursue that with the American Medical Association to see what can be done.

Mr. FINLATOR. May I say yes, we will. We have already approached them on several occasions. We are also dealing with several States to get involved in the same type of program that Dr. Lehman has. Massachusetts, New Hampshire, and California are starting these programs. We are moving in trying to get the States involved through the educational system, because we can only be a catalyst; as far as total education is concerned, it has to be done by educators.

We are developing also, which is along the same line, a group of resource people, a large group of people who will speak on this subject whom we will call on from time to time and let the public call on from time to time, who are qualified and who can speak on the subject of drug abuse.

Mr. ROGERS. I think we need this very definitely. Any other questions?

Mr. KYROS. I have a question, Mr. Chairman.

Dr. Goddard, one of the points touched upon today in the colloquy you had with our colleague, Dr. Carter, concerned the possibility that we would be faced with a great number of offenders if we acted against them for mere possession, therefore, that would not only dilute but make the prosecution unlikely.

Sometimes LSD is a group activity. A person who possesses it wants others to use it and uses it for some reason, as a group activity.

In that event it is not a question of deterrence directed against a single person but deterrence against groups. Please discuss that.

Dr. GODDARD. It is true that the use of these drugs is quite often a group activity. The individuals who are using drugs seem to seek out others and try to convert them to their ways. Maybe it is misery loves company, I don't know. At any rate, there is no question that this kind of group activity exists.

If I understand you correctly, you are asking me will this group activity in effect be diminished by the passage of this law? I can't have any way of knowing.

Mr. CARTER. If the distinguished gentleman will yield, certainly I think this group leader, something should be done about him. Actually so far as the penalties are concerned, I have no objections to that if it could be effective, but against so many users it is extremely doubtful.

I still say the main impact and emphasis on what we are trying to do is to stop the manufacturer and the possession for sale of these drugs.

Thank you.

Mr. KYROS. The other question I have is this: We have on the books as we stated, laws with regard to marihuana. The mere possession of marihuana is made a misdemeanor in all of the States that I know of.

Do I understand from your testimony that marihuana usage is wider than LSD?

Dr. GODDARD. Yes.

Mr. KYROS. Nevertheless, when this user comes before the authorities, for example, if he is in possession, no one can state that enforcement has been lax. Enforcement has proceeded against people who have possessed marihuana?

Dr. GODDARD. Yes.

Mr. KYROS. It does not follow necessarily, does it, that with the dangers that are involved for society in these drugs the fact that we might have to face a large number of offenders should not deter us from going forward providing penalties for the act of simple possession, does it?

Dr. GODDARD. Those who enforce the Marihuana Tax Act feel strongly that this is an important aid to their enforcement of the act. I must respect their opinion on this.

Mr. ROGERS. If the gentleman will permit me, if we did not have a penalty, no one knows what the use of marihuana might be.

Just think, if we didn't have the penalty, no telling what would happen.

I would agree with you that this is a very necessary thing, certainly since LSD has more serious physical effects, as I understand it, than marihuana. It certainly points up the necessity of doing something in this area.

Mr. KYROS. It serves as a deterrence element if the laws would provide penalties for mere possession. Your concern is even in the case of marihuana with the penalties it has not deterred. That leads me back to the group theory where our young people want to rebel against society.

In the 1930's, you and I did not have the money to have a car, we didn't have money to go out to movies. We didn't have the kind of parents that have the means to provide them with all the things they want to give them. Then it is important to protect these youngsters.

Mr. FINLATOR. I think the law against possession of marihuana has been a very strong deterrent.

Mr. ROGERS. I would agree. Thank you very much for your testimony. We appreciate it.

Our next witness will be Congressman Bob Dole of Kansas.

If you would like to make your statement part of the record at this point and any comment you might like to present, we will be pleased to hear from you.

STATEMENT OF HON. ROBERT DOLE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KANSAS

Mr. DOLE. Thank you, Mr. Chairman. Since my statement has been made a part of the record and the hour is now 5 after 12, just let me, in addition to the statement, compliment the committee for holding these hearings.

I became convinced some time ago that perhaps our laws were inadequate as you did, Mr. Chairman, and other members of this subcommittee.

I continue to be concerned because the penalty for the illegal manufacture, sale, and distribution of these drugs is merely a misdemeanor while possession of LSD and other drugs is no offense at all.

This is what my bill is aimed at. I simply suggest that we seriously consider not only the administration bill but perhaps my bill, H.R. 14902, and others introduced.

With that, Mr. Chairman, let me again commend the subcommittee and for the sake of time make my statement a part of the record.

(The statement referred to follows:)

STATEMENT OF HON. ROBERT DOLE, A REPRESENTATIVE IN CONGRESS FROM THE
STATE OF KANSAS

Mr. Chairman, I am most pleased to appear today before this Subcommittee of the Interstate and Foreign Commerce Committee in support of increased penalties for the illegal manufacture, distribution, sale and possession of dangerous drugs.

DANGERS OF LSD

This Subcommittee has already heard testimony suggesting chromosome damage attributable to the use of LSD. A representative of the Department of Health, Education, and Welfare has testified on some other tragic consequences of hallucinogenic drug use, such as—

- prolonged schizophrenic states which may continue for weeks or months,
- severe panic-states occurring during the acute effects of the drug,
- recurrent flashbacks occurring weeks or months after the "trip", and
- a gradual deterioration of effective work, study, and social relationships.

Mr. Chairman, I am concerned over the seemingly widespread use of LSD, and also concerned over the widespread illegal traffic in other dangerous drugs. For the purpose of this statement, when referring to "dangerous drugs", I shall be referring to barbiturates and amphetamines, as well as LSD, STP, and other mind-bending hallucinogenic drugs.

DANGERS OF OTHER DRUGS

The Medical Society of the County of New York reported in 1966 that there are 3,000 deaths annually due to accidental or intentional overdoses of barbiturates. Even more distressing, addiction to barbiturates has been characterized as more disruptive than addiction to opiates such as heroin, for barbiturates involve a more prolonged and difficult withdrawal.

The Society reported that addiction to amphetamines may cause intellectual impairment, aggressive behavior, and hallucinations. Amphetamines are being linked to ever-increasing numbers of auto accidents.

I was shocked to hear, as estimated by the Society, that perhaps half of the 13 billion pills and capsules of barbiturates, amphetamines and tranquilizers produced annually in the United States is diverted to illicit sale and use.

Today, criminals often sell LSD to college students. I read of one student—in wild insanity induced by the acid—who "flew" out of a dormitory window to his death on the sidewalk below.

Knowing more is needed to control narcotics abuses than penalties, yet realizing that misdemeanor penalties are unrealistically weak in dealing with those abuses, I have studied existing narcotics laws.

Now, I am obviously not an expert on drugs, the usage of drugs, or the dangers of drugs. Few persons are experts in these areas of sketchy knowledge and impassioned impressions.

I do know, however, that the LSD salesman is guilty only, under today's statutes, of a misdemeanor.

REFORM NEEDED TO CONTROL DRUGS

Mr. Chairman, last year I became more convinced than ever that our laws are inadequate to meet the challenge of illegal traffic in these dangerous drugs.

Today, I continue to be concerned because the penalty for the illegal *manufacture, sale and distribution* of these dangerous drugs is merely a misdemeanor, while *possession* of LSD and other hallucinogenic drugs is no offense at all.

DOLE BILL INTRODUCED

Upon completion of my review of existing related law, I introduced a bill designed to meet the challenge of the criminal element involved in trafficking dangerous drugs. I introduced a Dangerous Drug Bill, H.R. 14092, on November 20, 1967. This legislation would make illicit manufacture a felony, with increased penalties for repeat offenders. My bill would make the illegal sale or distribution of the dangerous drugs a felony for offenders over 18 years of age, and a misdemeanor for first offenders under 18. Illegal possession of any one of these dangerous drugs would be a misdemeanor for the first offense, and a felony for subsequent offenses.

I was gratified when the Administration indicated strong support for legislation very similar to my own. H.R. 15355, under consideration here today, was introduced nearly three months following introduction of H.R. 14092.

URGE CONSIDERATION OF H.R. 14092

Mr. Chairman, today I wish to respectfully suggest two areas where my proposal is superior to H.R. 15355.

First, it provides increased penalties for offenders who *persist* in manufacturing these dangerous drugs. Unfortunately, H.R. 15355 provides the same penalty regardless of how many times the criminal has been apprehended and convicted.

Second, my proposal protects children under 18 years of age from felon status resulting from their first conviction for the sale, delivery or possession with the intent to sell dangerous drugs. It serves no useful purpose to make a child under 18 a felon for a first offense, because he probably does not fully realize the extent and serious nature of the crime. Let me add, however, that *any* repeat offender, under my proposal, would be charged with a felony.

Mr. Chairman, we are all agreed there is a serious problem in this nation resulting from our permissive attitude toward illegal drug traffic and use. *Permissiveness is to a society what unlimited power is to a ruler.* Our code must reflect our assessment of the damage to society caused by these drugs.

We know the drugs are destructive. But present statutes "send a boy to do a man's job".

I read in this month's issue of the *FDA Papers*, the official magazine of the Food and Drug Administration, about the seizure in Nassau County, New York, of 300,000 dosage units of amphetamines and barbiturates, and 130 pounds of barbiturate powder worth a quarter million dollars on the illicit market. Can misdemeanor status be appropriate for possession with the intent to sell this amount of addictive destructive drugs?

The January 8, 1968, issue of *Newsweek* magazine relates a chilling tale. On page 26, under the headline "The Creator", a story of an LSD arrest is told. One Augustus Owsley Stanley III was arrested for illegal activities involving LSD in San Francisco. When he was arrested, \$4.3 million worth of LSD was confiscated. He was a millionaire, the magazine relates. How many thousands of persons were subjected to the chemicals from this man's laboratories, we will probably never know. The LSD confiscated was enough for 868,000 tablets; also found were 261 grams of STP, another extremely dangerous hallucinogenic drug.

Unless other charges can be brought against this man, under present law his crimes involving LSD are only misdemeanors.

In conclusion, I urge you to consider my bill, and specifically to consider those aspects which I have called to your attention.

The nation calls for action. The nation deserves the protection this legislation would offer.

Thank you.

Mr. ROGERS. Thank you very much. We appreciate your appearance before the committee and your testimony. The committee will certainly give it appropriate consideration.

Mr. DOLE. I would like to add one further note. I would like to add a comparison of the so-called committee bill and the bill I introduced.

(The document referred to follows:)

COMPARISON OF H.R. 14092 AND H.R. 15355, SUBMITTED BY MR. DOLE

H.R. 14092 (DOLE)

Any person who illegally manufactures, compounds, or processes a barbiturate, amphetamine, or hallucinogenic drug shall be subject to imprisonment for not more than 3 years, or a fine of not more than \$10,000, or both for a first offense; and imprisonment for not more than 6 years, or fine of not more than \$15,000 or both, for second and subsequent offenses.

Any person who, having attained the age of 18, illegally sells, delivers, possesses with intent to sell, or otherwise disposes to another a barbiturate, amphetamine, or hallucinogenic drug shall be subject to not more than 3 years imprisonment, or not more than \$10,000 fine, or both for first offense; and not more than 6 years imprisonment, or not more than \$15,000 fine, or both for second and subsequent offenses.

H.R. 14092 (DOLE)

Any person who, under the age of 18, illegally sells, delivers, possesses with intent to sell or otherwise disposes to another a barbiturate, amphetamine, or hallucinogenic drug shall be subject to not more than 1 year imprisonment, or not more than \$1,000 fine, or both for a first offense; and not more than 3 years imprisonment, or not more than \$10,000 fine, or both for second and subsequent offenses.

Any person who possesses a barbiturate, amphetamine, or hallucinogenic drug without having obtained such drug pursuant to prescription issued by a practitioner, licenses to prescribe such drug, for a legitimate medical use by such person, a member of his household, or for administration to a household pet of such person shall be subject to not more than 1 year imprisonment, or not more than \$1,000 fine, or both for the first offense; and not more than 3 years imprisonment, or not more than \$10,000 fine, or both in case where there is intent to defraud or mislead or in case of second and subsequent offenses.

Mr. ROGERS. Thank you very much. That will conclude the hearings until tomorrow. The committee stands adjourned.

(Whereupon, at 12:05 p.m., the subcommittee adjourned, to reconvene at 10 a.m., Tuesday, February 27, 1968.)

H.R. 15355 (STAGGERS)

Same, except that penalty is not more than 5 years imprisonment, or not more than \$10,000 fine, or both for first and subsequent offenses.

Any person who illegally sells; delivers; possesses for sale, delivery, or other disposal to another a barbiturate, amphetamine, or hallucinogenic drug shall be subject to not more than 5 years imprisonment, or not more than \$10,000 fine, or both for first and subsequent offenses.

H.R. 15355 (STAGGERS)

Any person, who having attained the age of 18, illegally sells, delivers, or otherwise disposes of a barbiturate, amphetamine, or hallucinogenic drug to a person who has not attained his 21st birthday shall be subject to not more than 10 years imprisonment, or not more than \$15,000 fine, or both for first offense; and not more than 15 years imprisonment, or not more than \$20,000 fine, or both for second and subsequent offenses.

Any person who possesses a barbiturate, amphetamine, or hallucinogenic drug without having obtained such drug directly, or pursuant to a valid prescription, from a practitioner licensed by law to prescribe or administer such drug, while acting in the course of his professional practice, shall be subject to not more than 1 year imprisonment, or not more than \$1,000 fine, or both for the first offense; and not more than 3 years imprisonment, or not more than \$10,000 or both in case where there is intent to defraud or mislead or in case of second and subsequent offenses.

(The document referred to follows.)

COMPARISON OF H.R. 14082 AND H.R. 13355, SUBMITTED BY MR. DORE

H.R. 13355 (STAGGERS)

H.R. 14082 (DORE)

Any person who illegally manufactures, compounds, or processes a narcotic, anesthetic, or hallucinogenic drug shall be subject to imprisonment for not more than 5 years or both for first and subsequent offenses.

Any person who illegally manufactures, compounds, or processes a narcotic, anesthetic, or hallucinogenic drug shall be subject to imprisonment for not more than 5 years or both for first offense; and imprisonment for not more than 10 years or both for second and subsequent offenses.

Any person who, having attained the age of 18, illegally sells, delivers, transfers, possesses for sale, delivers, or otherwise disposes to another a narcotic, anesthetic, or hallucinogenic drug, shall be subject to not more than 5 years imprisonment, or not more than \$10,000 fine, or both for first and subsequent offenses.

Any person who, having attained the age of 18, illegally sells, delivers, transfers, possesses for sale, delivers, or otherwise disposes to another a narcotic, anesthetic, or hallucinogenic drug shall be subject to not more than 5 years imprisonment, or not more than \$10,000 fine, or both for first offense; and not more than 10 years imprisonment, or not more than \$20,000 fine, or both for second and subsequent offenses.

H.R. 13355 (STAGGERS)

H.R. 14082 (DORE)

Any person who, having attained the age of 18, illegally sells, delivers, transfers, possesses for sale, delivers, or otherwise disposes to another a narcotic, anesthetic, or hallucinogenic drug, shall be subject to not more than 5 years imprisonment, or not more than \$10,000 fine, or both for first offense; and not more than 10 years imprisonment, or not more than \$20,000 fine, or both for second and subsequent offenses.

Any person who, having attained the age of 18, illegally sells, delivers, transfers, possesses for sale, delivers, or otherwise disposes to another a narcotic, anesthetic, or hallucinogenic drug shall be subject to not more than 5 years imprisonment, or not more than \$10,000 fine, or both for first offense; and not more than 10 years imprisonment, or not more than \$20,000 fine, or both for second and subsequent offenses.

Any person who possesses a narcotic, anesthetic, or hallucinogenic drug without having obtained such drug pursuant to prescription issued by a practitioner, or without having received such drug for a legitimate medical use by such person or a member of his household, or for administration to a non-human animal, shall be subject to not more than 1 year imprisonment, or not more than \$1,000 fine, or both for the first offense; and not more than 2 years imprisonment, or not more than \$2,000 fine, or both in cases where there is intent to deliver or to cause the delivery of second and subsequent offenses.

Any person who possesses a narcotic, anesthetic, or hallucinogenic drug without having obtained such drug pursuant to prescription issued by a practitioner, or without having received such drug for a legitimate medical use by such person or a member of his household, or for administration to a non-human animal, shall be subject to not more than 1 year imprisonment, or not more than \$1,000 fine, or both for the first offense; and not more than 2 years imprisonment, or not more than \$2,000 fine, or both in cases where there is intent to deliver or to cause the delivery of second and subsequent offenses.

Mr. Dore: Thank you very much. I am with you on the language. The committee stands adjourned. (Whereupon, at 12:05 p.m., the Subcommittee adjourned to reconvene at 10 a.m. Tuesday, February 27, 1961.)

INCREASED CONTROLS OVER HALLUCINOGENS AND OTHER DANGEROUS DRUGS

TUESDAY, FEBRUARY 27, 1968

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PUBLIC HEALTH AND WELFARE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice, in room 2322, Rayburn House Office Building, Hon. Paul G. Rogers presiding (Hon. John Jarman, chairman).

Mr. ROGERS. The committee will come to order, please.

The committee is continuing its hearings on H.R. 15355 and H.R. 14096 and related bills to amend the Federal Food, Drug, and Cosmetic Act to control LSD and other dangerous drugs.

We are pleased to have some of the Members of Congress, our colleagues, to testify this morning, and particularly pleased to welcome one of our colleagues who is a member of the Interstate and Foreign Commerce Committee and who has taken a great interest in this problem and has done a great deal of research in the extent of this problem in our Nation, our colleague, Congressman Clarence Brown, of Ohio. Congressman Brown.

STATEMENT OF HON. CLARENCE J. BROWN, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. BROWN. Mr. Chairman, I appreciate your letting me go first this morning because I do have a subcommittee meeting at this hour on another matter, pipeline safety.

Mr. Chairman, I am pleased to be able to appear before you, and I am pleased, as a cosponsor of H.R. 14096, to associate myself with the remarks of my colleagues.

Much has occurred politically, if you will, since our introduction of this bill. If you will recall last session, this issue of harmful narcotics and hallucinogens broke before the Congress and this committee as a result of some public concern and confusion growing out of statements made by Dr. James Goddard, of the Food and Drug Administration, when he appeared before a University of Minnesota audience. Several of us on the committee felt that legislative action had to be taken because there appeared to be no clear position within the executive branch of our Federal Government.

Confronted with the mounting evidence of the extreme dangers of LSD, we had to frame legislation which, while attacking the problem of LSD, also stood some likelihood of gaining sufficient bipartisan sup-

port to insure its passage, in view of the administration's ambivalent attitude.

This executive branch inability to offer any suitable legislation was apparently due to the irreconcilable conflict between Dr. James Goddard, Commissioner of the Food and Drug Administration, and the enforcement people represented by Henry L. Giordano, Commissioner of the Bureau of Narcotics.

Dr. Goddard's approach, reasoned somewhat inversely, I feel. It appeared to be his view that, since LSD was more dangerous than marihuana, the penalties for marihuana should be reduced to those for LSD. In complete disagreement was the Giordano approach, which reasoned that since LSD was more dangerous than marihuana, the rather limited penalties regarding LSD should be increased.

I am pleased that the President in his message, "The Challenge of Crime to Our Society," transmitted to the Congress on February 7, 1968, has finally elected to pursue the approach of his enforcement authorities and has recommended legislation to deal with LSD. I am happy that the President has spoken out in favor of more stringent penalties for possessors and pushers of LSD, and I am happy to support these tardy recommendations.

While the political climate which existed when we introduced our bills has changed, no new evidence to console the Nation about the dangers of LSD has been discovered. Still lacking the results of more extensive research on the effects of this hallucinogen, we can only be totally shocked by what evidence we have now.

So far, the evidence indicates that LSD does not lead to dependency. But the possible effects from just one encounter are, in my opinion, sufficient to warrant immediate of this legislation.

Taking LSD can lead to prolonged psychoses, schizophrenia and and paranoid reactions, including even the possibility of suicide, hospitalization, and psychotic depressions. Furthermore, these reactions may occur without any further stimulation, long after the original dose has been taken.

But even more frightening is the evidence that LSD can cause mutations in the chromosomes and resulting damage to forthcoming generations of unborn children. These dangers are much more horrifying in view of the growing numbers of LSD users and the ease with which amateurs can produce the drug.

I do not claim to be a medical, legal, or enforcement expert, but I am a parent and as such I feel something must be done now to counteract this growing use. More than a long-range program of education is required, although this must be a part of the attack, also—and not an educational program that amounts to a recruitment campaign either. We need hard-hitting program which will put the fear of God into the potential user, the fear of permanent insanity or the destruction of one's own offspring.

If self-destruction which can destroy others is a crime, then possession of LSD—whether for sale or self-use—should also be a crime.

To the best of my knowledge, we have no evidence which indicates that criminal penalties do not serve as a deterrent to the commission of crime. If the possession, and only the "mere" possession of LSD was a crime, I cannot help but believe that some number of reasonable,

responsible people—particularly college students anxious over their future admissions to a profession or graduate schools and jobs if they have a criminal record—will be deterred from possessing LSD.

I believe that the desire to experiment, to take a chance for a thrill, will be reduced if experimentation also risks criminal punishment.

Dr. Goddard's opinion, which presumably feels that criminal penalties encourage a rebellious younger generation to take LSD, rests on sociological and psychological notions still lacking adequate scientific research and support.

So, possession of LSD should be a crime because it can act as a deterrent to those using LSD. If it will stop one promising but foolish young person from destroying himself and his progeny, such a law would be worthwhile.

And, "mere" possession of LSD should be a crime if it will enable the enforcement arm of the Government to deal more effectively with any who traffic in LSD. The problem of proof is an ancient one to the prosecutor.

Proof of possession and sale is more difficult than proof of "mere" possession, so we should make "mere" possession a crime so that the enforcement authorities will be able to prosecute those pushers of LSD clever enough to evade effective prosecution for possession and sale. If making "mere" possession a crime will insure that any who traffic will not evade punishment, it would be worthwhile.

Finally, I am convinced that LSD spreads from user to user. Users breed more users. If possession is a crime, society will be better able to reduce the availability, and hence, the use of LSD.

Looking briefly to the other side of this question, I would ask, "Why not make possession a crime?" Such action certainly deters some. Such action certainly prevents some from openly advocating LSD. Such action certainly strengthens the hand of our enforcement agents. Why not pass legislation in this area? Who will be hurt if we take this action?

Dr. Goddard seems to feel that education about the harm and risk of LSD is sufficient. While I feel that the evidence does not support this contention, I would ask, "Why not a two-pronged attack?": Why not education for those so reckless as to flaunt the laws of society and enact legislation to make possession a crime so that those who obey the laws of society will be deterred from using LSD.

I would applaud further Government efforts to publicize to our youths the enormous risk of trying LSD but strongly feel that we cannot afford to rely on that approach alone.

I think it is a shame that so much of our discussion of this problem at the national level has revealed the ambivalence of the administration and made nationally known its inner conflict over the issue of marihuana.

Dr. Goddard's careless statement at the University of Minnesota and his well-publicized displeasure with the current laws regarding marihuana, views with which narcotics enforcement authorities disagree, have unfortunately deflected congressional attention from the very serious problems of LSD.

Who knows how many, needlessly, experimented with LSD while the Administration confusion caused unnecessary debate about marihuana.

We need enactment of more stringent penalties for users of LSD, and we need them now. But we should not quit there. We also need much more research into not only the effects of LSD but the motivations of today's young people to experiment with it. And we need education on its dangers. But let us pass this legislation first—and waste no more time.

Mr. ROGERS. Thank you very much for a very strong statement. It will be most helpful to the committee. Dr. Carter.

Mr. CARTER. I am extremely interested in your statement. Perhaps you would be interest to know that Dr. Goddard shifted his base yesterday and his is for penalty for users. He brought that out in his testimony in support of the administration's bill.

Mr. BROWN. So the newspaper reported, at least.

Mr. CARTER. In your statement you concentrated on the users of LSD. Do you think they should be penalized quite severely?

Mr. BROWN. I think the users of LSD ought to be discouraged in any way we can from the use of this drug, not only because they do damage to themselves but because they do potential damage to their children and they can do a great deal of damage to others when they are in the narcotics state as a result of the use of the drug.

Mr. CARTER. Certainly I am in agreement that users can cause trouble but don't you think that the thrust of our legislation should be toward the manufacturers and the pushers, those who sell this drug?

Don't you think that the major thrust should be toward that? If we dry up the source then there won't be any users; is that right?

Mr. BROWN. I think that is correct, if you can dry up the source. I think there is one problem with LSD and that is that it can be produced, as I understand, rather easily by rather unsophisticated people, with a concentration of time.

So it may be somewhat different than a drug like heroin or marijuana that takes a little time to grow and transport.

Mr. CARTER. I should agree with you on that except that it is not as easy to make perhaps as a lot of people think. It takes at least 4 hours, as I understand it, by a chemistry major, a college chemistry major, someone of that ability can produce it. And that is a great problem.

But again, this is the very person who must be controlled, as I see it, the maker. How many high school students in this country use LSD?

Mr. BROWN. As I understand the figure given by Dr. Goddard yesterday, it was quite a high one. I don't know how that is documented. I was somewhat surprised by his rather—

Mr. CARTER. I believe if you will check that record you will find that 1,600,000 high school students have used LSD.

Then according to your recommendations, you would prosecute these high school students?

Mr. BROWN. I would make them subject to prosecution.

Mr. CARTER. Well, what does your law, your legislation provide? What penalty does it provide?

Mr. BROWN. The legislation which is before the committee from the administration provides for criminal penalties to make a felony the simple possession of LSD.

Mr. CARTER. Felony for a simple possession.

Mr. ROGERS. I think misdemeanor for simple possession.

Mr. CARTER. That is correct, Mr. Chairman.

A misdemeanor, though, carries with it a penalty of 1 year's jail sentence. Now I certainly appreciate your interest here but would you want to imprison 1,600,000 of our high school children for possession of LSD?

Mr. BROWN. I doubt seriously, Dr. Carter, if we have the high school children of the country aware of the fact that LSD usage also carries severe penalties that we will have that many users.

Mr. CARTER. The record indicates that, yesterday's record indicates that there are 1,600,000 high school students who have used it.

Mr. BROWN. This is an estimate of Dr. Goddard. I did not read the record precisely on what Dr. Goddard said.

Mr. CARTER. According to what you said, you would bring these children to the bar of justice and they could suffer a penalty of 1 year's imprisonment. Now I certainly cannot agree with that. Your young children must be educated and certainly justice must be tempered with mercy in their case and we must educate them.

It is utterly impossible to proceed in that manner.

Mr. BROWN. May I respond to your comment, Dr. Carter?

Mr. CARTER. Yes, sir.

Mr. BROWN. I agree that justice should be tempered with mercy. I also can observe that in Ohio we have had rather severe penalties for narcotics use since about 1956 or perhaps a little earlier than this.

The situation in Ohio was pretty well cleaned up for a good period of time until we got into some of these new drugs for which penalties have not yet been established. The courts will have the opportunity of tempering justice with mercy if we have a law on the subject.

If there is no law on the subject then there will not be any opportunity to temper justice with mercy and perhaps there may not be as severe a penalty for experimentation with this rather dangerous drug.

Mr. CARTER. I take it then, my distinguished friend, that you should say we should pass this law and not enforce it. Is that true?

Mr. BROWN. That is not correct.

Mr. CARTER. That is what you said.

Mr. BROWN. Indeed not.

Mr. CARTER. Yes, it is. You read the record. I think our distinguished gentleman has missed the point on this thing. Again, the thrust of it should be made toward the producer and the pusher, the man who gives this to our young people.

Mr. BROWN. The high school chemistry major or the college chemistry major?

Mr. CARTER. Anyone who makes it and sells it. Again, I notice you mentioned users 13 times and the producers, the ones that push and sell this, only five. I count it in your statement. I think you have made a real good statement but I believe it is sort of deflected in the wrong direction.

Thank you, Mr. Chairman.

Mr. BROWN. I don't think there is much question, Dr. Carter, that we are after the pushers in any of these narcotics. I am suggesting that we also give some attention to the users because the users can provide a lot of serious dangers to other people.

Now the reports of accidents on the freeway in Los Angeles from people who are using narcotics are rather frightening. I am sure you have seen the film that was produced by the Department of Defense, the Navy Department, on LSD and the suggestion was made in that film that some 9 months after a user had taken LSD he suddenly had a reaction while he was driving down the freeway which created some difficulty. This is the kind of thing which I think must be given some attention.

We are dealing with something a little different, it seems to me, in this field than we are when we talk about drugs that can be controlled perhaps by control of their importation.

Here we have a drug that can be produced rather casually.

Mr. CARTER. I would agree that it is the most dangerous drug perhaps in the United States today, that we do get schizophrenic effects and we do get paranoid reactions and so on, but I think our main thrust should be toward educating these people because obviously it is impossible to punish children who sometimes innocently use this.

So many of them in our high schools, to think of bringing high school children up and sending them to the penitentiary for 1 year for such an offense as this. It beggars the imagination to think that. And then to add to that 300,000 college people who do this. We have to differentiate between them.

Again, the thrust must be made toward the manufacturer and the pusher, as I should have said.

Mr. ROGERS. I think your statement was well put. Now I would like to point out that the legislation that the committee is considering not only includes a penalty for users and those who possess it, which is not now the case, but also provides additional penalties and a harsher penalty for those who manufacture it, who sell it, and who distribute it.

Mr. BROWN. I don't think there is any question about the latter. I think one of the areas of concern was over the former.

Mr. ROGERS. Yes. So the penalty for those who manufacture and sell is a felony in the first instance, to try to get at that problem because certainly, as the doctor says, this is a primary consideration.

But also the legislation which this committee is considering and which you have recommended, would make it a crime to possess it and to use it.

Mr. BROWN. That is correct.

Mr. ROGERS. Because too often it is difficult to prove that a person who possesses it may also be pushing it or selling it; they may not catch them in the act, but they may in effect be encouraging others to use it, saying, "Come to my house, I have some LSD and we will have a party," and they do have these parties.

It is very difficult to say who is pushing it and who is distributing it. So we are trying to get at the whole problem of drying up the use of LSD.

Now to say that this legislation is designed to put high school students in jail I think is a perversion of the intent of the legislation.

Mr. BROWN. I would agree with the chairman. I think what we are trying to do here is to stop it and also to make the penalty not merely a mysterious possibility of what can happen to you if you take LSD, which makes it a little bit of a challenge, but also to make it very clear that the penalty of law will crack down on you if you take it.

Mr. ROGERS. Let me say this, that actually what we are trying to do is to say, through an educational program, which we are going to try to push, but also through the law that society says to young people: this is dangerous, and we do not want to have the use of this drug expanded by young people, we want it stopped.

Now it is presently, is it not, a crime to steal something and the highest crime rate in America is between the 18- and 19-year-old people—the highest crime rate. Now no one suggests that we should not have a penalty for theft, I presume, although the administration of justice must be tempered by use by the court.

Now as I see this, as soon as a young person might use LSD and have it in his possession, he can be arrested.

Mr. BROWN. That is correct.

Mr. ROGERS. Now he may be taken to the court. The court may want to give a penalty, may want to give him a fine, may want to put him on probation, may be able to guide this young person saying, "You have to report every week or every afternoon to a probation officer," and have some control over these people who are weak enough to use this drug and take them through a year's period where they will buoy them up and protect them from others who may be trying to get them to use LSD.

There are so many advantages that it is inconceivable to me that anyone would take the position that they do not want to have this crime enforceable by law. I will yield to the gentleman.

Mr. CARTER. In answer to that, I certainly want to say first, that I have never said that I was opposed to investigating the youngsters and that they should be brought before juvenile court, something of that nature.

I certainly think they should. Certainly I do oppose a year's penalty for high school students for innocent use, encouraged perhaps by someone who is using it. I think that it is unreasonable that we consider imprisoning 1,600,000 of our high school students merely because someone has suggested this.

After all, I still say for our youngsters we must educate them, we must team them, and we must build a better future for them, something which we have not done. We should look at the cause of why they use LSD, why so many of our college students do that.

Why do they? What sort of future have we built for them, what have they to look for, a future burdened with debt and war. That is why they take this thing.

Mr. BROWN. I would agree with Dr. Carter that we must look at the reasons that our young people are tempted to move into this area and I would agree thoroughly that we ought to educate our young people to the dangers, medically and otherwise, of what happens to someone who takes LSD. But I would also suggest that we ought to make the penalties rather more severe than he is apparently willing to do and then also educate the young people as to what can happen to them as a result of those penalties.

Now I have a sister who happens to live in Hollywood Hills in Los Angeles. There is an area there called "Happy Valley" where some of the hippies go to take their trips because it is an undeveloped area and one where they can post sentinels and not be taken by surprise by the police.

We are already hamstrung apparently on many enforcement problems by some of the approaches that we take in the law and this is one of them. She had the experience not long ago of being concerned about the fact that these people were in the area. She was concerned for her children's safety wondering what one of these people might do after the "trip" is on its way.

And the other was her concern for her own safety, because this is a fire area where some careless smoking could wipe out a whole area.

A call to the police department was answered with the question, "Can you prove that they are up there doing this job? We can't go in there and make arrests without having some real knowledge of this."

Mr. ROGERS. Would the gentleman yield at this point? I think it might be interesting to note I have just had correspondence with a mother, and I have it in my office where her son who was 19 years old took a number of doses of LSD. He is now in the mental institution and is getting worse instead of better.

She is frantically asking isn't there somewhere, someone who knows what to do to try to bring this boy out of this?

Now I would say it would have been better for us to have gotten that boy right at first and even if we had to see that he was imprisoned for a month or maybe even a year, it would have saved this young man from going in a mental institution or some young girl whose children will be affected by LSD.

It would be better to have them in jail for a few months to get them off this business and to make examples of a few cases. Maybe that is what we have to do. We can't talk in generalities and high-flying terms of how we are going to improve everything.

This may take generations to make everybody happy in the United States where they are not ever going to take any LSD or anything else.

What we have to do, is get to the problem that now exists and stop it. That is what this legislation is designed to do. I think the gentleman has been most helpful to the committee and we appreciate very much your appearance here this morning. And I thank the gentleman.

Mr. BROWN. Thank you, Mr. Chairman.

Mr. ROGERS. We will continue our dialog later.

Mr. CARTER. Yes, sir; I assure you of that.

Mr. ROGERS. We now have as our next witness a distinguished Member of Congress who has served as a Member for many years, one of our senior Members and one for whom all of us have the greatest respect, Mrs. Kelly, of New York. Mrs. Kelly, we are delighted to have you here.

I know that your testimony will be most helpful to the committee.

STATEMENT OF HON. EDNA F. KELLY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mrs. KELLY. Thank you so much, Mr. Chairman. I trust some of my testimony will be helpful. I am going to apologize if I may at this point for being a bit brusque, Mr. Chairman. I am going to ask

you if you will accept my statement and then if I could briefly discuss it, I would appreciate it.

Mr. ROGERS. That will be fine. Your statement will be made a part of the record at this point, without objection.

(The statement referred to follows:)

STATEMENT OF HON. EDNA F. KELLY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Chairman, I wish to thank you and the distinguished Members of this Subcommittee for granting me the opportunity to testify today in support of legislation to prescribe additional penalties for the possession of LSD and other hallucinogenic drugs by unauthorized persons.

During the 1st session of the 90th Congress, I joined the other Members of the House and of the Committee on Interstate and Foreign Commerce in introducing legislation to "amend the Federal Food, Drug, and Cosmetic Act to prescribe penalties for the possession of LSD and other hallucinogenic drugs by unauthorized persons."

We are shocked by the widespread use of LSD and other hallucinogenic drugs by people, especially our youth. The need for additional legislation in this field has become paramount because the use has become a national concern.

President Johnson in his Message to the Congress of February 7, 1968, "To Insure the Public Safety," in which he presented a program which would make conditions of life safer and therefore better for all of our citizens, placed special emphasis on the increasing problem of the availability and the use of narcotics and drugs, when he stated—

"In no area of law enforcement is there a greater need for a concentrated drive than in dealing with the growing problem of narcotics and dangerous drugs. These powders and pills threaten our Nation's health, vitality, and self-respect."

Therefore, Mr. Chairman, President Johnson has focused attention on what I consider to be one of the major health and social problems with which this country is confronted, that is—the growing misuse of drugs. The President made a number of recommendations in this field, some of which are contained in H.R. 15355, which was introduced on February 15, 1968, by your able Chairman, Mr. Staggers. This bill, cited as the "Dangerous Drug Penalty Amendments of 1968," if enacted, "would amend the Federal Food, Drug, and Cosmetic Act by increasing the penalties for illegal manufacture and traffic in hallucinogenic drugs (including LSD) and other depressant and stimulant drugs, including possession of such drugs for one's own use except when prescribed or furnished by a licensed practitioner, and for other purposes."

On Thursday, February 15, 1968, I attended a meeting in my District at the Andrew Jackson Democratic Club at which a lecture and slide presentation was given by Sgt. Duffy of the New York City Police Department, Narcotics Division in conjunction with Inspector Walsh, a representative of the Kings County District Attorney's Office. Each slide represented the stages of use of these drugs, the effect of them on the body and the mind, and ultimately on the entire family. The self-destruction of a human being by the use of drugs is not comprehensible. I have forgotten the terms used and the stages explained. I frankly was forced to close my eyes at some of the horrors presented! I can only summarize what Sgt. Duffy said: "I have 5 boys. I would prefer to see them all dead than one to get into this classification."

It might be worthwhile for Sgt. Duffy to repeat his story to all of you. He even followed the growth of the origin of marijuana and its penny cost in foreign countries to the cost and distribution in the United States.

Mr. Chairman, I understand there is no penalty for possession of LSD for personal use, and the illegal sale of LSD is only a misdemeanor punishable by a maximum prison term of one year for the first offense.

Scarcely any parent in the United States can avoid the thought that his teenage child or another loved one might toy with drugs that could distort the mind as well as the body. As a mother of two grown children and grandmother of eight, I view with horror the thought of any of these drugs ever coming into their hands or the hands of any unauthorized persons. Of course, we all know the most effective weapon against the indiscriminate use of hallucinogenic and other drugs is proper home environment and education, and I wish to announce that I wholeheartedly support the educational efforts of the various Federal and State en-

forcement agencies involved in drug surveillance. However, we must buttress education and information with a comprehensive regulatory scheme.

The whole story of unauthorized drug use is so horrifying that I beg this Committee to spare no time in reporting my bill, H.R. 14299, or similar legislation.

Mrs. KELLY. Mr. Chairman, I wish to thank you and the distinguished members of this subcommittee for granting me the opportunity to testify today in support of legislation to prescribe additional penalties for the possession of LSD and other hallucinogenic drugs by unauthorized persons.

I joined with your distinguished chairman and other members of your subcommittee in introducing a bill for this purpose. Because we are shocked by the widespread use of LSD and other hallucinogenic drugs by people, especially our youth, the need for additional legislation in this field has become a matter of national concern.

I am very happy that President Johnson in his message to Congress of February 7, 1968, recommended legislation which you will consider to insure the public safety.

I am in full agreement with President Johnson's presentation to you of needed legislation because increasing the penalties for illegal manufacture and traffic in these drugs is most important.

What I want to stress, Mr. Chairman, is this: On Thursday, February 15, 1968, I attended a meeting in my district at the Andrew Jackson Democratic Club at which a slide presentation was made by Sergeant Duffy of the New York City Police Department, Narcotics Division, in conjunction with Inspector Walsh, a representative of the Kings County district attorney's office. Each slide represented a stage of the use of these drugs, the effect of them on the body and the mind and ultimately on the entire family.

The self-destruction of a human being by the use of a drug is not comprehensible. I have forgotten the terms used and the stages explained. I frankly was forced to close my eyes at some of the horrors presented.

I can only summarize to you what Sergeant Duffy said. He said, and I quote, "I have five boys. I would prefer to see them all dead than one to get into this classification."

It might be worthwhile for Sergeant Duffy or someone to bring his story to all of you and present these slides.

He then went on to explain the growth, origin, purchase of marihuana, its penny cost in a foreign country, its importation into this country, the cutting down of the drug, and the use of it. I must say that I am so instilled with this entire program and what has been said that I feel that I will go along and trust the entire membership of this committee in its consideration of all the bills introduced, because I think that you will have material presented to you which we will not have available and I am sure you are going to come up with the appropriate laws.

Now I was fortunate to hear one of your committee members here previous to my statement and I must say that I was duly alarmed over the 1.6 million students, but I frankly feel, Mr. Chairman, that among this group there are those who must have manufactured it.

I also feel as you do, Dr. Carter, that it would be difficult to put all of these into a prison for a year or half a year. But something has got to be done.

The person or the student who is smart enough to manufacture this is guilty; but I also feel that once the student knows of its effect on the body he is equally as guilty by using it.

I hope I am right; I don't know. But, Mr. Chairman, I will submit this record to you and I will follow closely your determinations. I feel that this committee ought to be complimented for considering this at this time.

I assure you that anything you want me to do to help you in this direction, I will gladly do.

Mr. ROGERS. Thank you, Mrs. Kelly. Your testimony is most helpful. We appreciate your being here and taking time out from other hearings at which I know you are called upon to be present.

Mrs. KELLY. I am sure my chairman, Dr. Morgan, will be upset for my not being there.

Mr. ROGERS. Mr. Carter.

Mr. CARTER. I want to compliment you on your statement. Again, I want to compliment you further in that your main thrust in this case was toward the manufacturer and the pusher. That is all, Mr. Chairman.

Mr. ROGERS. Thank you.

Mrs. KELLY. Thank you so much, Mr. Chairman.

Mr. ROGERS. This would seem to be ladies day for our committee, a privilege for which we are most grateful. At this time we will hear from the Congresswoman from New Jersey, the Honorable Florence Dwyer.

STATEMENT OF HON. FLORENCE P. DWYER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mrs. DWYER. Mr. Chairman, I greatly appreciate this opportunity to appear before the Subcommittee on Public Health and Welfare in support of legislation which is designed to improve the effectiveness of the Drug Abuse Control Act of 1965.

As an early and active sponsor of that legislation—which first placed strict controls over the manufacture and distribution of the dangerous drugs, which includes such well-known drugs as LSD, “speed,” “goof balls,” and “pep pills”—I have followed carefully our experience with this new law during the approximately 2 years it has been in effect.

That experience, I suggest, demonstrates the need for several major changes in the act—changes which will place the regulation of dangerous drugs on a more rational basis, which will bring penalties and enforcement provisions more closely in line with those now governing the narcotic drugs, and which will encourage more consistent and effective application of the law against those who insist on endangering society through the manufacture, distribution, sale, or use of these drugs without proper authority.

These changes would be effected, Mr. Chairman, both by the bill which I introduced last November, H.R. 14107, and by the administration bill introduced by the distinguished chairman of the full Committee on Interstate and Foreign Commerce, H.R. 15355. I believe the subcommittee will find that in every major respect the two bills are virtually identical. I am, therefore, especially grateful that the sub-

committee is devoting early and serious attention to this tremendously important field. The legislation before you, in my judgment, is neither new in concept nor radical in design. It is a natural and necessary development of the existing pattern of drug and narcotic regulation. In the face of the rapidly growing illegal traffic in drugs and narcotics of all kinds, we have no alternative but to seek to improve our law enforcement.

The need for this legislation, Mr. Chairman—and for the related proposal to consolidate the functions of the Bureau of Narcotics and the Bureau of Drug Abuse Control—emerged very clearly last fall as a result of hearings conducted by the Subcommittee on Intergovernmental Relations of the Committee on Government Operations. We arranged these hearings shortly after the Commissioner of the Food and Drug Administration, Dr. Goddard, made his rather unfortunate remarks about marijuana. Dr. Goddard's remarks seemed to reveal rather sharp differences within the Government about the proper approach to drug and narcotic regulation, and we felt we should take a broad look at the whole field of drug abuse, including the adequacy of existing law, the question of enforcement, and the problems created by two independent agencies working in essentially the same field.

Among other things, we found that the Bureau of Narcotics and the Bureau of Drug Abuse Control do, indeed, have conflicting philosophies of regulation. We found that there are serious gaps as well as some duplication of effort in the present activities of the two agencies. And we found that the pattern of regulation and enforcement, as between the two bureaus, is highly inconsistent.

While I would urge the subcommittee to consult the record of our hearings, two examples will serve to illustrate the inconsistencies:

First, even though LSD, which is regulated under the Drug Abuse Control Act, is a far more dangerous drug than marihuana, the latter, which is regulated under the Narcotics Act, is covered by far more severe penalties and effective enforcement procedures.

Second, although it is well established that the dangerous drugs are frequently found alongside the narcotics when illegal activities are uncovered, the existing law divides regulatory jurisdiction and enforcement procedures in a most limiting way. Narcotics agents have no authority over LSD, for instance, while drug abuse agents have no jurisdiction over marihuana—though both are likely to be found together.

Given the rapidly spreading menace of drug abuse, Mr. Chairman, we can no longer tolerate inefficient, ineffective, uncoordinated law enforcement. We are all too familiar with the tragic story of drug and narcotic addiction—on the college campus, in the effluent suburb, among the deprived and disadvantaged, and even within our high schools across the country. It is a national problem of the first importance, involving the physical subversion of millions of young people and the enrichment of organized criminals preying on a kick-hungry, naive public.

The literature on the problem is understandably voluminous. Two recent studies, however, are especially revealing and I should like to bring them to the subcommittee's attention. I refer to a series of three articles appearing in the *Elizabeth, N.J., Daily Journal* on February 15, 16, and 17, 1968, which I submit for the record at the conclusion of

my statement. I refer also to two articles in the March 5, 1968, issue of *Look* magazine, which were submitted yesterday by Mr. Boggs, and which I heartily recommend. The *Daily Journal* series is particularly valuable for the insights it provides into the problem of drug abuse in typical suburban communities: the attitudes of young people, the easy availability of drugs and narcotics, the harmful consequences of youthful experimentation, and the difficulties of effective law enforcement. The *Look* articles focus on Methedrine, commonly known as "speed," and on the "losing battle" of Bureau of Drug Abuse Control agents. Both provide useful documentation to support the need for the kind of legislation you are presently considering.

As I indicated above, Mr. Chairman, my endorsement of the administration's bill introduced by Chairman Staggers is evident by the fact that it so closely parallels my own bill which I introduced on November 20, 1967.

The tremendous and frightening increase in the illicit use of LSD, amphetamines, and barbiturates in the past few years—especially among young people—means that we must strengthen the penalties of the Drug Abuse Control Act in order to more fully discourage or prevent the illegal manufacture, distribution, and sale of the dangerous drugs.

As you know, existing law only provides for a misdemeanor penalty for such illegal activities. The result has been that criminal elements have felt that the potential monetary rewards for such illegal activities are well worth the minor penalties they might suffer. In addition, it is a known fact that U.S. attorneys, in many cases, have preferred to prosecute narcotic cases, which carry felony penalties, instead of drug abuse cases which only call for misdemeanor penalties. As a consequence, even when violators of the Drug Abuse Control Act have been apprehended, they have not been immediately brought to justice in many cases. This has, of course, further undermined the deterrent effect that the existing Drug Abuse Control Act may have.

While my bill and the administration's bill both increase the penalty for illegal manufacture to a felony, I urge your committee to consider the penalties which my bill proposes. Whereas the administration bill provides for a flat penalty of up to 5 years imprisonment and/or \$10,000 fine, my bill provides for up to 3 years imprisonment and/or \$10,000 fine for the first offense, and up to 6 years and/or \$15,000 fine for second and subsequent offenses. Although I am most agreeable to having the years of imprisonment increased to five for first offenses, to conform with the administration's bill, I do believe that there is a need for adopting graduated penalties for second and subsequent offenses as an added deterrent to potential violators. This theory of penalty exists in the narcotics laws and appears to have a beneficial effect.

My bill and that of the administration are also similar in many respects in the area of illegal sale, delivery, and possession with intent to sell or deliver dangerous drugs. In general, we both call for increasing existing penalties to felonies from misdemeanors. Here again, however, I urge your committee to consider graduating the penalties for second and subsequent offenses as my bill does.

Where our two bills differ in this area, I believe an important philosophical issue exists which should be weighed carefully by your committee. My bill provides that where a person, under the age of 18,

illegally sells, delivers, or possesses with intent to sell or deliver a dangerous drug, such person shall only be guilty of a misdemeanor for a first offense, but shall thereafter be guilty of a felony for subsequent offenses. The administration bill, however, would subject such youths to felony convictions even for first offenses. Since so many youths seem to be involved in experimenting with and handling these drugs and since much of their contact appears to be associated with youthful experimentation and daring, I believe it important that such youths be subject only to a misdemeanor for first offense. This lighter treatment would, in a sense, constitute a warning to such youths while, at the same time, recognizing that some young people do not always act with the greatest foresight. In addition, this application of misdemeanor penalties for youthful first offenses conforms to the theory and application of the Narcotics Addict Rehabilitation Act which Congress only recently enacted.

In another area, however, I believe that the administration's bill contains a provision, not contained in my bill, which merits adoption. This relates to that provision which imposes more severe felony penalties for those over 18 who sell or deliver dangerous drugs to those under 21. This provision carries forward a theory of law existent in the present Drug Abuse Control Act and serves a most beneficial purpose in seeking to more severely punish or deter those who would seek to corrupt young people by getting them started on the dead end road of drug use. We know that luring youths to start taking drugs is a common practice of drug pushers. Everything we can do to prevent or deter such a heinous practice should be encouraged.

Finally, both my bill and that of the administration call for the imposition of misdemeanor penalties for first offenders who are caught illegally possessing dangerous drugs. Second, and subsequent offenders, under both bills, would be subject to felony penalties.

Existing law does not provide for such penalties. I believe most of us agree, however, that such penalties are needed. Not only should they have the effect of deterring persons from experimenting with such drugs illegally but also in strengthening the Government's enforcement efforts. As all prosecutors will tell you, it is not always possible to prove judicially that a person intended to sell or deliver a drug. But if such a drug is caught in a person's possession, he can be prosecuted for that offense even if sale or delivery cannot be proved. The existence of such offense may also be helpful to enforcement officers in enabling them to induce an illegal possessor to tell where he obtained the drug.

I do recognize that there are those who are urging the imposition of felony penalties for first offender possessors of dangerous drugs. While I recognize their desire to do all we can to eliminate this drug menace and while I understand their deep concern in this matter, I do believe that first offender possessors should be subject to only misdemeanor penalties. This is so in order to avoid undue penalty for foolish youths or misguided adults who are first experimenting with dangerous drugs. It is also designed to encourage rehabilitation, as well as to provide for punishment, of those who are capable of redemption.

As I am sure you recognize, Mr. Chairman, there is no easy solution to the drug abuse tragedy. Much of the problem exists outside the scope

of legislation—in the values of our society, the attitudes of our youth, the lack of adequate parental concern and supervision. But insofar as the problem is subject to legislative control, then we in the Congress have a heavy responsibility to improve law enforcement and to assure that penalties for violations of the law will serve as effectively as possible as deterrents to further abuse. I believe our legislation will go far toward reaching this objective.

Thank you, again, Mr. Chairman, for the opportunity to address the subcommittee.

(The articles referred to follow :)

[From Elizabeth (N.J.) Daily Journal, Feb. 15, 1968]

BUS TO THE VILLAGE, HOME WITH 'THE POT'

(By Audrey Stehlin, Journal Special Writer)

It was raining lightly but the two young high-school age couples who boarded the New York bus from the center of a suburban town were in high spirits. Other passengers either paid them no attention, for they weren't terribly loud, or just half smiled at the girls in their mini-skirts and long shiny hair.

The two boys in their tight levis and jackets were clean cut and, even though they wore their hair a bit too long for the older generation, they looked well cared for. Just four teen-agers from an upper middle class community going into the big city on a Saturday for a good time.

When they arrived at the bus terminal they headed downtown like homing pigeons. They took the 6th Avenue subway to West 4th St. in the village and after a block or so of brisk walking, the four slowed down and took it easy, looking into shop windows and pushing their way through the crowds of other youngsters from other suburbs.

For a few hours they browsed. One of the girls bought a kooky, wildly-colored blouse with what looked like a design of amoebas on a psychedelic trip and at a small mod shop, two of them bought love beads which they had promised to bring home to a friend.

They also bought marihuana.

PSYCHEDELIC SHOPPING

The boys fingered some buckskin jackets (too expensive) and then decided upon some psychedelic posters from a book store. After getting coffee and something to eat, they split the scene (left the area) took a subway back uptown and caught the next bus home.

The four went to a dance that night. "It was a crummy band . . . but a lot of kids were waiting for us there so we had to go."

They arrived early, met some friends, sold about ten or twelve reefers (marijuana) to the other youngsters and eventually went inside where they complained about the rock group while they were dancing and laughing and talking.

They left before the affair was over . . . hopped in the car (one of the boys had borrowed his dad's auto), drove to the house of the girl with the longest, shiniest hair (her parents were out and wouldn't be back until late), went down into the "rec" room where they put on some records and turned on with their "pot" (marijuana).

In another "nice" Union County community there is a handmade sign on the wall of a popular teen gathering place: "Teen-agers may not smoke in this store." The owner of the shop pointed to the sign and explained "I can't take the time to weed out kids who are smoking dope and those who aren't."

As he worked behind the counter, he shook his head and said, "I also caught a girl sniffing glue in the bathroom and that's why the 'Out of Order' sign is there." His wife came up and added wryly, "What some parents don't know . . ."

A confectionery store owner in another town said: "It used to take months to sell just one package of cigarette papers, but then the kids started buying them like wild fire . . . I didn't know what they were using them for until a salesman told me to keep them under the counter and not to sell to teen-agers."

Another store owner in a smaller town: "I thought it was nice that the boys were starting to smoke pipes . . . you know, it looks better than the cigarette butts hanging from their mouths. You could have floored me when I heard they were mixing pot with pipe tobacco!"

PIPE DREAMS

The aroma of the pipe tobacco covers up the heavy sweet smell of marijuana. A police official said rather wearily . . . "It's frightening what these stupid kids are doing to themselves. They've got some real nasty games going too . . . We've picked them up at parties where they put capsules and tablets of all descriptions in a bowl and then choose a couple. They wash it down with beer and we've had our hands full with the reactions. They can really mess themselves up!"

Every law enforcement officer interviewed agreed with a deeply concerned police captain, who said there is a serious drug problem among young people in Union County.

This is not to say that Union County stands alone. In the metropolitan area, and all over the country, drug abuse of all forms is taking a sharp upward climb.

The police captain said: "We make weekly arrests of persons involved with drugs—illegal drugs—and I'd say 50 percent of them and from out of town. This is a nice town with a good class of people who are supposed to be intelligent. We're not dealing with the underprivileged kid . . . that kind goes out and breaks a window to show something is wrong . . . but these kinds are from "good" homes . . . they've got money to spend but very few of them work for it . . . even around their homes. Maybe that's the problem . . . too much time and too much money."

PROBLEM INCREASES

He said it's his guess that the problem of teen-agers and illegal drugs has increased 100 percent in the past two years and fellow police agree with this figure.

What about the young people? What have they got to say about the use and availability of narcotics and drugs? The answers were not surprising. In talks with hundreds of students, from junior high to high school to college, and with many dropouts who use hard drugs with regularity, the consensus was an overwhelming "all you have to do is ask for it . . . and pay. Anywhere, anytime, spring, summer, winter and fall."

Prof. Farris S. Swackhamer of Cranford, a Union College chemistry teacher who is setting up a narcotics testing lab for police to use, says: "It's time people took their heads out of the sand."

Swackhamer found himself in the midst of an uproar in Cranford last fall when he stated (in part) ". . . it could be concluded that 30, 40, or 50 percent of the students in high school have tried or are using some form of dope."

Dr. John A. Olson of Cranford agrees with Swackhamer that parents are often unaware of what their children are doing: "Drug usage is a community problem . . . there isn't a town in the area that's clean and unless group action is forthcoming parents shouldn't be shocked or surprised that their children are drug experimenters or users."

For some youngsters dope is almost a business. One boy, 16 years old, said the "price is cheaper in New York for pot but when you bring it home you up the price a little because you have the cost of bus fare and stuff."

Another said emphatically: "Who needs to go to New York? You can get 'grass' any place."

The price of a marijuana joint is anywhere from 50 cents to one dollar. It depends on where you get it and what "grade" it is. "Good" marijuana comes from Mexico and if it's grown in this country it's usually poor "hay."

PILLS AND BEER

An 18-year-old said he'd become "saturated with pot and now I use pep pills . . . you know, stimulants." He uses the pep pills every day, even during school, and on weekends, when he goes to a party, he "mixes"—sometimes pills and beer or scotch, (if someone's father left the liquor cabinet unlocked) and very often marijuana and alcoholic drinks which "brings on a wild marijuana high."

Police officials and others report difficulties in "reaching" parents as a preventive measure. Even the Union County Narcotics Clinic, which sponsors an excellent program of lectures and a sobering movie of a young student on the road to

addiction, finds that too many groups or organizations are stand-offish about the subject.

Police comments are terse: "Parents come to me when it's too late . . ." "They don't believe it can happen here and their own kids might be getting hopped up on something . . ." "I wonder how many parents check those weekend parties . . ." "They've been looking at their kids all their lives and they don't even see them."

The teen-age marijuana problem is getting increasing attention from the Federal Bureau of Narcotics, which reported last year:

" . . . We have been experiencing a difficult and growing problem in the usage of marijuana. Since 1964, we have noted a rapid increase in the illicit marijuana traffic. The growth of the problem seemed to begin with the advent of the "free expression" group which espoused the theory that young people should express themselves in whatever manner they saw fit without regard to social or moral customs. This idea, which apparently originated among the 'Beatnik set' mushroomed as it spread on the campuses."

The bureau warned that statistics from local and state agencies show that marijuana arrests have more than doubled since 1964. The problem is escalating rapidly as it spreads down to the high school, and even junior high school level.

Marijuana is considered a narcotic . . . a "dangerous drug with potential" that causes the habitual user (and it's surprising how many are 'habitual' users) to become exceptionally psychologically dependent.

According to the Federal Bureau of Narcotics, the Union County Narcotics Commission, specially trained police in every municipality and pharmaceutical studies, "marijuana is the main stepping stone to heroin addiction." It's also become a bridge to LSD, say reports from the west coast.

[From Elizabeth (N.J.) Daily Journal, Feb. 16, 1968]

A NIGHTMARE FOR PARENTS

(By Audry Stehlin, Journal Special Writer)

The young habitual marijuana user is often an emotionally unstable type, faced with a myriad of problems arising from difficulties with his family, his school, his peers . . . sort of out of step.

He, like the heroin addict is caught in a vicious circle. After awhile, if he has this "potential," he looks for bigger and better trips . . . something "to make me feel the way I should feel . . . you know, like everything and everybody is just great!"

And if the user sticks with it, a good percentage of his crowd will too. They're playing with fire on the fringes of the big time rackets. It has been reported that marijuana is not included in the syndicate rackets . . . that there isn't enough money in it to warrant serious attention from the mobsters. But Federal agencies feel differently. One source says the drug is moving so rapidly, with sales to students increasing, that it is worth the big-time racketeers' attention.

At one point, within the past couple of years, the Federal Bureau of Narcotics had to divert manpower to the marijuana traffic. Since then, utilization of manpower has been made more effective and the training of state and local law enforcement officers has been stepped up.

Marijuana is the only drug that is outlawed in every civilized country in the world.

UNPREDICTABLE

It also is unpredictable. One police officer said he would rather lead a raid on heroin users who had their fix than a "bunch of pot smokers, who can become damned violent." With its effect on the central nervous system, depth perception and sense of distance becomes distorted and one's sense of judgment becomes impaired, often to the point of dangerous aggressiveness.

"Marijuana can trigger a hidden desire to commit acts of violence . . . and the important question for society is not in what manner marijuana causes crime but how many crimes would not be committed if marijuana wasn't used," declared one federal official.

A police lieutenant, one of many from Union County departments trained by the Federal Bureau of Narcotics, gave a description of a person who has smoked marijuana.

"First of all, even though they may be quite cocky and have trouble with depth perception, you know they're not drunk . . . no odor of alcohol. They can get very quarrelsome and aggressive and there is a definite strong heavy sweet odor on their breath . . . some say the smell is like a burning punk . . . even after one reefer the eyes are reddened, the whites are pinkish . . . they may have an increased appetite."

Pot has been called a "junior LSD" and according to doctors at the University of Southern California, who have made extensive studies on both hallucinogens, many people have had exceptionally bad "trips" on pot. "It releases inhibitions, has caused paranoid delusions and depersonalization . . . 'I'm not really there or here' type of thing."

Studies there have shown that those who claim more creativity of self insight during or after the use of the two drugs are no more "aware" than before. "It's a feeling only and not born out of behavior," Dr. Sidney Cohen said.

Misuse of drugs is not a new problem for police. To complicate matters, new drugs are being used illegally all the time by adults and by young people who, in many cases, don't know what they're doing.

In recent years the amphetamines and barbiturates have appeared on the teen-age scene with alarming regularity. Amphetamines—the pep-pills, the "ups", bennies, co-pilots or dexies—cause excitement, restlessness and talkativeness. A go-go kind of wild energy.

Barbiturates—barbs, candy, blue devils, goof balls—are the "downs" and practically any police officer can tell you about the kids he's picked up after taking goof balls and alcohol. A cheap drunk that can wind up in serious medical trouble.

THEY'RE AVAILABLE

"Pep pills, goofballs and tranquilizers can be as close to a youngster as the medicine chest in his house."

But they can also be had for a price anywhere . . . illegally. They can be bought at a drug store dealing in illegal under-the-counter sales . . . from "friends" who have found an outlet in other towns, through unethical firms engaged in the manufacture of the pills, repackagers, and wholesalers. "I even bought some in the bus terminal in New York," said one bright-eyed 16-year-old girl.

Newark was a source of supply to many young people, but since last summer's riots "they are afraid to go there."

"It's a funny thing," mused a police officer, "but sometimes there doesn't seem to be rhyme or reason to using drugs. I mean I've seen all kinds of kids, from all kinds of families and there are times when I'm surprised at the 'normal' teenager, who seems to have a good relationship every place. They don't need the 'status,' they don't have to 'escape' . . . why?"

Boredom . . . a place between nowhere exciting and nowhere special. "Everything is a drag," said a healthy looking 17-year-old high school senior. When he was asked, why, if he were bored, didn't he go out and do something for someone, he just laughed and said "What's to do?" He added that he used "stuff" once in awhile for kicks . . . just to get "out of it."

HE HAS CONFIDENCE

"But I can stop anytime I want to . . . I can turn off just like that! I have great confidence in myself and I won't let myself get hooked on anything."

Later another young man, 19 years old, said "It can't happen to me . . . that's what I told myself before I had my first bag . . . I couldn't stop though . . . it was like it wouldn't let go of me."

This addict said at one time he remembers trying to claw his body with his fingernails "to get that stuff out of me."

The heroin addict is often a lonely figure in his drug-concocted dream world. His search for instant happiness is focused on the point of a dirty needle. It's the high point of his existence and if he doesn't get it when he needs it he turns into a crawling animal subjecting himself to the lowest degradations to get the wherewithal for a shot.

It's hideous for the young person and a nightmare for parents.

Mrs. B. is the mother of an addict. She lives in Union County and she's probably not much different than thousands of other parents who have somehow not cracked up under the strain.

There is at least one difference though. Her 21-year-old son is serving with the Marines in Vietnam now, largely through the efforts of the Union County Narcotics Clinic.

"He really wanted to go . . . to do something worthwhile with his life," she said. A small motherly woman who speaks in a low calm voice she added, "I'm so proud of him now . . . it was so bad for a long time . . . it was terrible seeing him that way."

"To start at the beginning, I always thought he'd been drinking when he would come home at night. He'd act high. It never dawned on me that he was using drugs." She smiled and said "He was always a very likable boy and he was really a beautiful baby. As he grew up everyone liked him . . . he was never any trouble.

"One night I saw some capsules on the floor when I went into his room to see if he was covered up . . . the next day he got very angry . . . nasty . . . with me when I asked what they were. He'd never acted like that to me before. I talked to my other son about it and he said it might be drugs . . . to go some place and find out about it."

Mrs. B. said she watched her son "like a hawk . . . I became a real detective. I noticed he'd smoke cigarettes down so far as to burn his fingers, and then he started losing weight and he became very, very jumpy and irritable." She also saw marks on his arm.

She heard about the clinic in Elizabeth and her son eventually was admitted to the hospital at Princeton. When he came out he cooperated and started receiving treatment (therapy) at the clinic and also became a member of Narcotics Anonymous, which meets at the clinic on Monday evenings.

"Tommy" (not his real name), a nice-looking boy in his late teens, was interviewed after a Narcotics Anonymous session in which the 25 young men discussed morals and self-restraint in life.

When he was asked when he had his last fix he became very earnest, his brown eyes widened and he said it must have been two . . . no, maybe three months ago. He assured us that he was clean. Someone laughed and he shrugged and sheepishly smiled back.

JUST ASSOCIATES

When he was asked why he was arrested again, he said it was because the police saw him "hanging around with some guys who had stuff . . . man, it's guilt by association . . . they're out for me."

The police in several areas know him well. His smile disappeared when he admitted he'd been busted (arrested) "I guess six or seven times."

A visitor to the clinic (they encourage people to come and observe) said of Tommy, "he's such a nice-looking boy. Most all of them are. I can't believe he'd do any harm to anyone."

"If he needed a jolt bad enough and anyone was in the way he'd knock 'em down the stairs and trample on 'em," muttered another addict.

Tommy said he hung around with a "bad bunch of guys." He said when he was only 12 or 13 he thought smoking "straight cigarettes" was the living end and when someone gave him his first reefer he didn't want to be chicken . . . he showed them what a big guy he was.

Heroin was the next step because the "other guys did it and I wanted to see what it was like." He said his father would occasionally yell at him for running around with that particular group but after a while "my dad gave up on me . . . I guess he had problems too."

[From Elizabeth (N.J.) Daily Journal, Feb. 17, 1968]

FACILITIES BADLY NEEDED

(By Audrey Stehlin, Journal Special Writer)

"There's not a town in Union County that's clean of heroin."

These are the words of Michael F. Bowen Jr., director of the Union County Narcotics Clinic.

Bowen, Joseph F. Grall, assistant director, their two social workers and the part-time psychiatrists at the small clinic at 43 Rahway Ave., deal day in and

day out with addicts from the wealthiest homes, the middle-class and a lower economic level, all from Union County.

The young people have been completely dependent on heroin, physically and mentally.

They have spent anywhere from \$15 a day to \$150 a day on the drug. You don't have to use much imagination to realize how they got the money.

The clinic not only operates Narcotics Anonymous on Monday nights but has weekly group sessions with parents, families, wives or girl friends who explore the past and try to determine what they can do, or not do, to bring the entire family back to a more normal, happy life.

The clinic also provides therapy at the jail. Many employers aren't eager to hire addicts or ex-addicts but the clinic staff has a pretty good batting average in helping.

"We've had success in the past year or so," said Bowen. He is optimistic about the future of the addict but he and the other workers feel strongly that the victim should not go through a "detain and release" routine . . . that he should be physically, mentally and totally reoriented. This could take up to 3 years, they say, and one of their biggest problems is "getting the addict early enough."

"Better still is preventing the potential addict!" They try constantly to reach more people, individually and in organizations to make them aware of the dangers of drugs.

MANY NOT KNOWN

Officials say that for every registered addict there are at least four who have not come to police attention.

"Even if you have one addict, you have a major problem. He infects others . . . he has to, to support himself," said Grall.

Union County has over 500 registered addicts.

Mayor John Gregorio of Linden has taken a personal interest in the problem and has recently formed the Mayor's Educational Committee on Narcotics. He is a member of the International Narcotic Squad Officers Association and has led several raids himself.

"I'm concentrating on prevention and apprehension here," he said, and added that unless there is a total reorientation, including a complete change of environment when the addict returns to normal life "I feel it's at times almost hopeless."

As in many other local police departments, two of Gregorio's men, specially trained, go out on speaking engagements.

"I feel we have to get to the schools, teachers, family, churches and others in order to acquaint people with the seriousness of the problem of drug abuse of all kinds."

"I'm going to scare them now . . . pull out the stops and give them the shock treatment . . . it's the only way I guess."

The addicts (the "experts") and other drug users agree that most parents "don't know what's flying" and according to their viewpoints there are a few reasons.

"My parents have too many problems of their own to worry about what I'm doing," said one.

Another said that her parents watch her "pretty closely" but "they don't really know me."

Many are from broken or near-the-breaking-point homes and as the teen-ager wends his way through adolescence he finds someone else to hang onto, whether it's a "big city" gang or a small group of other suburban teens. Too often that particular group code of behavior is followed whether legal or illegal. One girl said, "Some of us think we're individuals, but we're really playing follow the leader."

Authorities say juvenile drug abuse frequently stems from this "gang psychology." No one wants to be chicken. And if a boy or girl is handed a reefer, or strange-looking capsules, or even glue for sniffing, often he'll go along for the ride. Too often, he becomes a confirmed drug abuser looking for new thrills, bigger and better trips and new heights to reach.

To most officials, larger and more extensive facilities for mental and physical treatment and reorientation are obviously needed in Union County. A police chief who has "given a lot of kids a break if I felt they were sincere" said he's been faced with some tough situations as far as trying to get a youngster hospitalized.

SOUGHT RESPITE

He told of a boy who sat "sobbing in my office" promising the moon if the chief would find him a place to get treatment. "Too often they try to get hospitalized to dry out for a week and increase their tolerance," but he felt this boy was worth helping.

He called Skillman, the New Jersey Neuro-Psychiatric Institute which is the only state hospital that treats addicts, but it had a long waiting list. The boy had no money and couldn't be admitted to a private hospital. "None of the hospitals around here would touch him . . . you see, the kids with money are sent to some fancy private place but the poor kid who's looking for help from us can't get it."

"It's a tough one . . . what would you do when a kid comes to you for help? He's asking you but there's no place for him to go and he needs a hospital fast . . . I've driven kids out of the state to get them help . . . merchants around here have donated money to help some poor kid . . . they have to go out on the street again and get a fix and then the whole thing starts all over . . . we've got to do something about it here in Union County."

This same police chief said he has to arrest them if they've got the stuff on them or are under the influence of narcotics.

"And if they're under 18 they go through the Juvenile Court . . . what do they do for them? A slap on the wrist . . . detain and release and let's have another go-round . . . I feel strongly, very strongly, that addicts need at least two years of treatment . . . they can shape up physically in seven days but they need rehabilitation from the inside to the outside."

HARD TO GET AID

"I've talked and talked to the freeholders and others. How about Runnells? They've got the room, they could use a wing. Some agree, but nothing is ever done about it. It's rough!"

Dr. John Olson, Cranford physician, who feels that this is a community problem, says that radio and television stations air drug-oriented records "and have done so for a long time. "Starting with 'Puff, the Magic Dragon, (about pot or marijuana) to the Beatles' songs like 'Lucy and the Sky of Diamonds' (LSD), the listener is assaulted by the so-called wonders of drugs."

"Even the fashion world is invaded by wild psychedelic prints and the lighting effects used by many pro and amateur bands reconstruct the hallucinatory experiences of LSD."

He suggested parents "listen with both ears" to what the young people are saying, doing and hearing. He added that organizations, such as P-TA groups, churches and women's clubs, could be effective in wielding an economic boycott against sponsors having anything to do with the broadcasting or selling of such records.

A police officer, who says "I've had it!", patted his forehead with his handkerchief, and expressed doubt that parents "are going to believe all this."

Then he looked up wearily and asked: "Whatever happened to goldfish swallowing?"

Mr. ROGERS. Our next witness is the Commissioner of the Bureau of Narcotics, Henry L. Giordano, the Department of the Treasury. The Commissioner has done an outstanding job and has great knowledge of this business of the use of narcotics in this country and what we should do about it.

Mr. Commissioner, we are delighted to have you here. If you would like to introduce your colleague for the record I would appreciate it.

STATEMENT OF HON. HENRY L. GIORDANO, COMMISSIONER OF NARCOTICS, BUREAU OF NARCOTICS, DEPARTMENT OF THE TREASURY; ACCOMPANIED BY DONALD MILLER, CHIEF COUNSEL

Mr. GIORDANO. Thank you, Mr. Chairman. To my right is Mr. Donald Miller, the Chief Counsel of the Federal Bureau of Narcotics.

Mr. ROGERS. We are glad to have you with us, Mr. Miller.

Mr. GIORDANO. If there are any legal problems he has the answers to them.

Mr. ROGERS. Fine.

Mr. GIORDANO. Thank you, Mr. Chairman. I have a prepared statement if you would like me to proceed with that.

Mr. ROGERS. That will be fine if you do desire.

Mr. GIORDANO. Mr. Chairman, and distinguished members of the subcommittee, I want first to thank you for giving me the opportunity of appearing before you today to present my views with regard to the Nation's growing problem of drug abuse. Also, I should like to discuss the administration's proposals for dealing with it more effectively.

Within the last few years we have witnessed a dramatic increase in drug abuse throughout the United States, primarily among young people. We have sought to keep abreast of these developments by gathering data with regard to the drugs under our jurisdiction, and by collecting up-to-date materials on drug abuse in our library. The most dramatic increases seem to have occurred in the abuse of so-called hallucinogenic drugs, primarily LSD and marihuana, with smaller but significant increases in the abuse of amphetamines, barbiturates, tranquilizers and narcotics.

Of these, marihuana and the narcotic drugs are within my jurisdiction. The other drugs, called dangerous drugs are within the jurisdiction of the Bureau of Drug Abuse Control, of the Department of Health, Education, and Welfare.

INCREASES IN MARIHUANA ABUSE

Marihuana is probably the most widely used of all drugs currently abused. A recent Gallup poll conducted on 426 college campuses found that 6 percent of the students had used marihuana on one or more occasions, and that 1 percent had used LSD. The marihuana usually found in the United States is considerably weaker than LSD, but its active principal, called tetrahydrocannabinol or THC, has been found to be a very powerful hallucinogenic drug. Recent research shows that a large enough dose of any kind of marihuana can cause a psychosis in anybody. For some predisposed persons a much smaller amount will have the same effect. For this reason scientists now say that a large enough dose of any kind of marihuana can cause a powerful substance in diluted form.

We also know from studies, including a very recent one of 2,000 addicts at the Addiction Research Center at Lexington, Ky., that marihuana was the first step in the progression to heroin for about 80 percent of the addicts.

A check with our districts has shown that the traffic in marihuana has sharply increased within the last 3 or 4 years. Many areas which were formerly almost free of drug abuse now report a small but persistent traffic, centering on the "hippie" elements and college campuses. Our reports show that more than 40 percent of the new marihuana users reported to the Bureau in 1967 were under the age of 21 years. Also, seizures and arrests have sharply increased at the Federal level.

In 1963, 6,432 pounds of marihuana were seized at borders and in the United States, and in 1966, 23,260 pounds were seized. We do not yet have total figures for 1967, but we do know that from the Bureau of Customs figures alone, the quantities seized have doubled. Marihuana violators reported by this Bureau for the same period were 276 in 1963, compared with 706 in 1967.

State arrests reported to this Bureau also show a substantial increase. There were approximately 6,800 arrests in 1963, which have risen steadily each year to 23,952 in 1966.

A somewhat new and significant feature of the traffic is the appearance of large amounts of hashish. This is a very potent form of marihuana, and in the past, was seldom available in this country. Today, however, we are making many hashish cases in some parts of the country. The extent of the hashish trade is not yet determined, but it is unquestionably growing. As more people use marihuana, the demand for the stronger substances will increase.

INCREASES IN YOUTHFUL NARCOTIC ADDICTION

The other drugs within my jurisdiction are the narcotics, such as opium, morphine, heroin, certain synthetics called opiates, and cocaine. With regard to these drugs, the big abuse problem is with heroin. We have maintained extensive records concerning narcotic addiction for many years. Our records show that at the end of 1967, there were 62,045 active addicts reported to us.

Although our figures show that the number of addicts is increasing, the ratio of addicts to the population is remaining constant or even slightly decreasing. Nevertheless, there are other reasons for concern in these statistics. In 1963, only 13.9 percent of the new addicts reported were under the age of 21 years. In 1967, 21.2 percent of the new addicts reported were under the age of 21 years. Moreover, reported Federal and State arrests of persons under 21 years old for narcotic offenses in 1963 were 2,257, whereas in 1966 the figure more than doubled to 5,075.

Also, preliminary reports show that the largest increases in youthful addiction are in areas other than the traditional addiction centers. Thus, as I have predicted, we are beginning to register the ultimate result of the increase in youthful experimentation with marihuana.

THE CAUSES OF DRUG ABUSE

In searching for the causes of this problem, I think it is clear that the persons who have been encouraging others to use LSD, marihuana, and other drugs, have been a major contributing factor. These persons have sought to associate drug abuse with all manner of personal and

social virtues. Moreover, their efforts have been aimed primarily at youth, and particularly at college students, who are by and large drawn from the middle-class suburbs.

Therefore, the proponents of the drug culture are partly responsible, not only for increasing the problem, but also for its spreading to socioeconomic groups where it did not formerly exist.

There is another factor which I feel is a cause of this increase, and this brings me to the subject before the subcommittee today. In my opinion, the penal sanctions enacted to control the so-called dangerous drugs, particularly LSD, are grossly inadequate. This contrasts sharply with the sanctions with respect to the drugs under the jurisdiction of the Bureau of Narcotics. At present, unlawful sale of the dangerous drugs, LSD, barbiturates, and amphetamines, is almost invariably a misdemeanor, and as a practical matter, possession carries no penalty at all.

Consequently, the sentences which can be given to traffickers of these dangerous drugs are of no deterrent value whatever. The sentences take none of the incentives away from being a manufacturer or a peddler, and they do not even take the violators out of the business for long.

The lenient penalties which have been prescribed for traffickers, and the absence of any sanctions against possession of these drugs has made it appear to young persons that society condones their abuse. This has even hurt the Bureau's operations, particularly with regard to marihuana. Since it is widely known that LSD is more potent, and imminently more dangerous, than the type of marihuana which is usually available, the more stringent laws which control marihuana have been made to appear hypocritical. Many young people have a way of disregarding laws which they think are hypocritical, and so the lack of sanctions governing such drugs as LSD has actually helped intensify problems with marihuana.

It is my opinion, that the legislation which the administration is now offering in H.R. 15355 will help solve the problems. Under this bill, the illegal sale, distribution, manufacture, or possession of dangerous drugs for the purpose of sale or distribution, will be made a felony punishable by up to 5 years imprisonment.

Special provision is made for a sentence of up to 10 years for sale or distribution to a minor. These provisions will put some teeth in the law, and will help in the fight against the illicit traffic. Another feature of the bill is that the possession of any of these drugs not pursuant to a bona fide prescription will be a misdemeanor.

I believe that a penalty against unauthorized possession is necessary, since it deters use of drugs by countless persons who might otherwise be tempted to experiment, often with disastrous consequences. When there are no penalties against possessing these dangerous drugs, many people will regard it as tacit approval of their use.

Although passage of H.R. 15355 will not put the so-called dangerous drugs on a par with the controls over narcotics and marihuana, it will partially eliminate the inconsistencies in the penalty provisions.

Currently, the Federal law which governs narcotics and marihuana prescribes penalties of not less than 5 nor more than 20 years' imprisonment for unlawful sale, and not less than 2 nor more than 10 years for unauthorized possession.

The thrust of our efforts has always been aimed at the trafficking element, and about 70 percent of our cases have been for sales violations. The remaining cases were for possession; but this does not mean that the individuals involved were not traffickers. We frequently apprehend violators in possession of large quantities of marihuana, clearly destined for the illicit market. If there were no possession penalties these persons would escape justice.

THE PRESIDENT'S REORGANIZATION PLAN

Finally, I would like to comment briefly on one other change in the administration of our drug laws which has been proposed.

As you know, the functions of drug law enforcement are presently split between the Bureau of Narcotics in the Treasury Department, and the Bureau of Drug Abuse Control in the Department of Health, Education, and Welfare. Under a new plan of reorganization prepared by the President, both agencies will be combined as a single agency in the Justice Department, to be known as the Bureau of Narcotics and Dangerous Drugs. The plan will have a great impact on the enforcement of the Nation's drug laws. It will combine the talents and efforts of both agencies in a unified attack on the traffic.

There are many important benefits in this plan. First, we should recognize the practical need for it. Patterns of drug abuse frequently involve the use of several drugs. The link between marihuana and heroin has been firmly established, and many authorities also agree that there is a definite association between marihuana and LSD abuse. Also, in the progression of drug dependence many heroin addicts have a history of extensive use of other drugs such as barbiturates, tranquilizers, and amphetamines.

It is also clear that patterns in the drug traffic often do not respect the division which we have made in our drug laws and enforcement agencies. While some violators are exclusive dealers, such as the high-level heroin traffickers, there is growing evidence that many peddlers deal in a variety of drugs. The new Bureau will be able to handle these traffickers without regard to jurisdictional barriers.

Another important benefit will be a unification of the educational programs of the two Bureaus. It is necessary to present the whole spectrum of drug abuse to young people in the way that they find it in the streets. In short, our educational programs should reflect the broad perspectives which only a unified approach can develop. We will now be able to undertake broader and more effective programs.

In conclusion, I think that the measures which are now being proposed to the Congress and the other steps which the administration is taking will go a long way toward reducing our serious problem of drug abuse and addiction.

Thank you, Mr. Chairman.

Mr. ROGERS. Thank you, Mr. Commissioner. I think it is an excellent statement and well reasoned.

Let me ask you this: What do you think would happen to the trafficking and the use of marihuana if you did not have a penalty, not only on trafficking but a penalty on possession and uses of marihuana?

Mr. GIORDANO. I think when we consider the current problem that we have today with the penalties that we have, if we didn't have those penalties, our problem would be at least tenfold.

Mr. ROGERS. About tenfold?

Mr. GIORDANO. Yes.

Mr. ROGERS. So the fact that there is a penalty you feel has been a deterrent to possession and use by people?

Mr. GIORDANO. I think it has certainly been a deterrent. It deters some people from use. But I think one of the main things is that it is a deterrent to the trafficker, to the pusher.

I think this is really the aim of the Federal legislation in narcotics as well as in this area of dangerous drugs.

Mr. CARTER. Would the distinguished chairman yield?

Mr. ROGERS. Yes; I will be glad to.

Mr. CARTER. How do you account then for the increase in the use of marihuana? You have the laws concerning it but it is still increasing.

How do you account for that? Is it that your law is ineffective?

Mr. GIORDANO. I will be happy to answer that. I think if you go back you will find that several years ago I forecast this increase because of the propaganda that was being put out as to the use of marihuana and LSD. You have the Dr. Learys and you have the Ginsbergs and you have the Dr. Fiedlers, and we had certain educators who were encouraging people to use marihuana, to use LSD, to the point that the young generation felt that it was proper to use them.

If we did not have the penalties, as I say, the problem would even be worse. So you have to get the message across to the young people that this is bad and not have people encouraging them to use them; and particularly a person whom they would look up to and recognize as supposedly an individual, professional person, an educator, who should know what is right and what is wrong.

We forecast this increase until such time as we are somewhat able to change this attitude on the part of the young people.

Mr. CARTER. What legislation do you have to control the Timothy Learys and the Ginsbergs and so on?

Mr. GIORDANO. We don't have such legislation, Dr. Carter.

Mr. CARTER. That is where the thrust of this should be.

Mr. GIORDANO. We hope that our educational program which I mentioned that we have in the Bureau of Narcotics and which we hope to have under this new reorganization will be broadened even further. We have already instituted, in the Bureau of Narcotics, a special program as a result of the misinformation on marihuana.

Mr. Miller here had something to do with organizing it. We have a group of some of our better and more articulate agents appearing at schools, appearing at clubs, trying to get the message across that marihuana is a dangerous drug.

Mr. ROGERS. As a matter of fact, talking about Leary, wouldn't this legislation be helpful in getting at that problem, because if you make possession a crime and enforce a penalty against LSD they certainly could take action against someone like Leary where they have not been able to because of perhaps not showing he was actually selling it.

Mr. GIORDANO. Well, Dr. Timothy Leary is at the present time out on bond as a result of a conviction on a marihuana violation for possession. Had it been LSD there would have been no penalty but it was marihuana so they were able to assess a penalty.

However, he is out on appeal and continuing to talk, although the last article I read he said he felt like retiring from the public scene, and I hope he does.

Mr. ROGERS. I would agree.

Mr. CARTER. Mr. Chairman, certainly I think that some legislation should be pointed toward such men and Dr. Leary and Mr. Ginsberg, and so on.

How many college students have we now in the United States?

Mr. GIORDANO. How many college students are there?

Mr. CARTER. Yes, sir.

Mr. GIORDANO. My understanding is that there are 6 million.

Mr. CARTER. I believe in your paper here you say 6 percent of these students had used marihuana on one or more occasions. Is that correct?

Mr. GIORDANO. That is according to the Gallup poll where they studied, as I understand, some 426 colleges.

Mr. CARTER. One percent of this group has used LSD. Is that true?

Mr. GIORDANO. That is according to the poll.

Mr. CARTER. Now how many high school students, approximately, are there in the United States who have used marihuana?

Mr. GIORDANO. I don't think there has been any study made other than the report in New York that said that it was a limited number in the high schools in New York. But, we find that it is primarily in the colleges.

Mr. CARTER. It is my impression that Dr. Goddard testified differently, I believe, that approximately 1,600,000, as I remember, high school students, and 300,000 college students.

Mr. ROGERS. I believe that was the use of LSD.

Mr. GIORDANO. Dr. Carter, I hope that certainly is not the figure that is going to be used, because it does not seem to make sense to me that there would be 1½ million high school students and only 300,000 college students using the drug when we find the problem is in the colleges and not in the high schools.

Mr. CARTER. I am in agreement with the gentleman. I think there is something wrong with that figure. I believe there was an error made on that because I thought our college students used it more and I have not heard of too much use among our high school students.

Now we get down to the penalty. You are making it a misdemeanor for use. Do you mean to use this penalty actually to bring these youngsters, high school children and college students, as a lever to get them to tell their source of supply or do you think it should be punitive actually and that these youngsters should be, and so many as is indicated, should be tried and placed in institutions for use of marihuana or LSD?

Mr. GIORDANO. Dr. Carter, the violation is not for use. The charge is for possession. There is no violation for use under this any more than there is a violation for use under the Federal narcotics law. The violation is possession.

Mr. CARTER. I don't believe you have answered that. By possession, are you going to prosecute these youngsters, high school students and college students, even if they have been arrested only one time, for the use one time? Do you mean to do that?

Mr. GIORDANO. Let me answer that again, that is, the thrust of the Federal effort which I had hoped to get across in my statement. The thrust of the Federal level is aimed at the trafficker.

Mr. CARTER. And I think it well should be.

Mr. GIORDANO. And the possession penalty is still aimed at the trafficker, the peddler, who may be smart enough not to be caught for selling. As I did indicate, 70 to 75 percent of our cases involve sale, and the other 25 or 30 percent were possession cases.

In those cases, the possession ran at times from 300 to 500 kilos. Now, you have the same thing here with LSD. You have no possession penalty at the present time. So you can get somebody with a couple of kilos of LSD and there is no violation.

These new penalties are aimed at that. Furthermore, I don't know of any high school student we have involved, but if a college student was involved with one marihuana cigarette and was prosecuted under the Federal law, even if it were possible or probable, which I would say is highly improbable, you would have the Juvenile Delinquency Act, where for persons up to age 18 there is no criminal record maintained. So they don't have a record, but they would be under some control.

If, as I say, accidentally in the Federal effort someone like that came into the picture, from age 18 to 22, there is the Federal Youth Corrections Act, and it even goes on up to 26, which permits modification of the sentence.

As far as I am concerned, these penalties certainly are a message to these young people by saying, "Look, this is bad so don't get involved," but they are not aimed at putting young people in jail. They are aimed at putting the trafficker, the possessor who is distributing, in jail.

Mr. CARTER. That is very good. I enjoy hearing you say that so much. That I think should be the thrust of this legislation, not toward the occasional user, the one who has been led into it by his friends to use it one time.

But to proceed against these youngsters for the purpose of incarcerating them, high school students and college students, as I pointed out so many times this morning, would not be good, I think.

Thank you, Mr. Chairman.

I congratulate you on your statement and the way you have explained it.

Mr. GIORDANO. Thank you, sir.

Mr. ROGERS. I think your statement has been excellent. Of course, the whole thrust is to try to stop the traffic but in doing it, as you have pointed out, we need a possession penalty, because it takes two to make a contract for a sale, does it not?

Mr. GIORDANO. Yes, it does.

Mr. ROGERS. In other words, if he does not have a purchaser he can't make the sale and this is trying to stop that market and to say that we are just not going to recognize as a crime possession of this simply encourages people to go ahead and buy it.

It encourages young people to get into this without recognizing the damage. This is what we have to get at. This is what we are trying to do, and I think this legislation will do it.

Mr. CARTER. Will the gentleman yield on this?

Mr. ROGERS. Yes, I will be glad to.

Mr. CARTER. Will this give the same encouragement as the Volstead law did to the use of whisky?

Mr. ROGERS. Would it do what?

Mr. CARTER. Would it have the same effect that the Volstead law had?

Mr. ROGERS. You could say that is true with selling and manufacturing. I don't believe the gentleman would disagree that there should be a penalty for sale and manufacture. So I think the argument to say that there is a penalty and it is a deterrent for manufacturing and selling LSD, "Oh, it is going to be a deterrent there," but to say, "Well, if you have a penalty for possession that is not a deterrent," that doesn't make sense.

Of course, it is a deterrent in both cases.

Mr. CARTER. Mr. Chairman, if you will yield—

Mr. ROGERS. I will be glad to yield.

Mr. CARTER. I certainly hope and pray that this law is more effective than the Volstead law was. Thank you.

Mr. ROGERS. I would agree with the gentleman. I would hope that he will support this legislation in order to try to make it more effective and stamp out the use of this very serious drug.

Mr. CARTER. If I might respond to that, certainly I support the ideas of the gentleman who is now testifying.

Mr. ROGERS. I think we all do.

Mr. CARTER. Again, certainly I do not agree with the premise that we should—

Mr. ROGERS. Make possession—

Mr. CARTER. No, sir; I don't say that. But that we should prosecute all these youngsters who have used the drug one time.

Mr. ROGERS. Let me ask the gentleman one question and then we will proceed.

Would the gentleman be against the penalty for possession of LSD?

Mr. CARTER. Are you asking me?

Mr. ROGERS. Yes.

Mr. CARTER. No, sir; I would not.

Mr. ROGERS. That is encouraging.

Mr. CARTER. I would make the penalty just a way for obtaining information as to the seller, the trafficker.

Mr. ROGERS. I understand. I am glad to know he is for a penalty for possession.

Mr. CARTER. Only for a certain purpose, only for a certain purpose.

Mr. ROGERS. The purpose I want is to stop LSD.

Mr. CARTER. Of course, we all want to do that. We realize that this gentleman knows exactly what will, that the thrust should be toward the trafficker and the man who manufactures it.

Mr. ROGERS. We want to stop the sale and purchase of it.

Perhaps the distinguished chairman of the full Committee on Interstate and Foreign Commerce, whom we are honored to have with us this morning, Chairman Staggers, might have a question or comment.

Mr. STAGGERS. Thank you, Mr. Chairman.

Commissioner, I am sorry but I did not get to hear all of your testimony. I have been listening to the colloquy here. I gather that you are appearing in support of the bill?

Mr. GIORDANO. Yes, Mr. Chairman.

Mr. STAGGERS. And you think the bill would be effective perhaps in stopping traffic in the drugs?

Mr. GIORDANO. Yes, Mr. Chairman.

Mr. STAGGERS. I think that is the big thing, if we can stop it some way. That is what we are trying to do by the bill. We think the traffic in these drugs is growing to such proportions today that it could be dangerous.

I also agree with Dr. Carter's objectives. I certainly want to see that all safeguards are put in, that the authority in the bill is used correctly. I gather from your interpretation of the intent of the bill that the way it would be administered certainly answers most of the questions I have.

Thank you so much.

Mr. GIORDANO. Thank you, Mr. Chairman.

Mr. ROGERS. Thank you very much, Mr. Commissioner. We appreciate your presence here. It has been most helpful.

Mr. GIORDANO. Thank you.

Mr. ROGERS. Our next witness will be Mr. Jed Drews, who is a reporter for the Sun Sentinel newspaper, Pompano Beach, Fla. Mr. Drews has done a 6 months' study on the use of drugs, narcotics, and has just concluded the writing of some articles.

We feel that this testimony can be most helpful to the committee in its study. Mr. Drews, we appreciate your being willing to appear before the committee and giving us the benefit of the study that you have made of this entire problem.

The committee will be pleased to hear your testimony now.

STATEMENT OF JED DREWS, REPORTER, SUN SENTINEL, POMPAÑO BEACH, FLA.

Mr. DREWS. Thank you. I do not have a prepared statement, but I get the drift of what you gentlemen are after.

Mr. ROGERS. That is all right. If you will speak up now so that the people can hear you.

Mr. DREWS. What the extent of use is of LSD I can speak from experience. I have not had personal experience with LSD, but from talking with people who have used it, some of them quite extensively, others less extensively, the percentages that I have calculated from my own experience, I disagree a little bit with the percentages that have been presented on a nationwide basis.

Out of approximately 160,000 high school and college students in the urban south Florida area, which includes three counties, Dade, Broward, and Palm Beach, I would say that there are probably 6,000 youngsters who have tried LSD. There may be as many as 30,000 who have tried marihuana.

Now I want to make one distinction. "Dropping acid" once and "blowing grass" once is a little different from being an "acid head" and "pot head."

Mr. ROGERS. "Dropping acid," you might explain those terms.

Mr. DREWS. To "drop acid" is to take LSD, lysergic acid diethylamide. To "blow grass" is smoking marihuana. These people are experimenters, and they make up the bulk of these figures that I give you.

The people who use the stuff regularly are a much, much smaller minority.

In my opinion, the bill that is before you now, making possession of acid on first offense a misdemeanor, is quite reasonable. Some of the "heads" I have talked to in south Florida about this particular law, oddly enough, agree with me. They want the penalties for marihuana brought down to the same level, as a matter of fact. They don't care for those harsh penalties, but they feel it would be a deterrent to a degree to many of them, not all of them by any means, because there are some who are pretty well convinced that this is the way to "fly."

I do think that it would be to a degree and in conjunction with a broad educational program and I hope a realistic educational program.

You are not going to go in there and tell these kids that they are going to turn green and die if they use LSD or marihuana, or they are going to go on to heroin, because they have had some experience with this themselves.

If they have had a few "joints" and the next day they didn't go out and get heroin, they know this is not going to happen to them, although it does happen in some cases.

I am inclined to agree with Mr. Carter, of Kentucky, to a degree that the thrust should be toward the people who manufacture and sell the acid, but these same people are often everybody because it is relatively easy to make acid and a few hours in a high school laboratory by a high school chemistry student—he does not have to be too particularly sophisticated—he can manufacture LSD. Of course, he may fail.

Mr. ROGERS. Let me ask you from the experience you have had in investigating this, suppose a young person gets some LSD, do they ever have LSD parties as such? Do they get with other people to take LSD?

Mr. DREWS. Yes, it is a social thing, largely. Not to the extent that marihuana smoking is a social thing. But it is a social thing and it is part of a subculture that has built up in this country. Particularly I have noticed it in south Florida, and I know it is the same across the rest of the country, a subculture of "heads," people who turn on regularly and they know each other and they are very mobile, they go from town to town, area to area, and they belong.

Mr. ROGERS. Here is what I am wondering. Of course, the thrust of all this legislation is to stop the manufacture and sale of it. We feel that possession, making it a penalty, will go to that and help dry up the source of the market.

Mr. DREWS. Yes; I think so.

Mr. ROGERS. Now, let me ask you this: Isn't it true that there may be a young person who may not in effect be a pusher or a seller, but the fact that he has possession and brings in a friend or two to come in and join in a party—

Mr. DREWS. They like to turn each other on; yes.

Mr. ROGERS. So there may not be a sale of it?

Mr. DREWS. This often happens; yes.

Mr. ROGERS. But it is simply a party and they push it and that is another reason and the main reason for trying to get at possession; is it not?

Mr. DREWS. As often as not, it will be a free type of thing. As a matter of fact, they might loan out an acid cap for a while and get it back next week. They do the same thing with marihuana.

Mr. ROGERS. So we need some penalty to get at possession there because of the normal way this type thing is spread among young people.

Mr. CARTER. Will the distinguished chairman yield?

Mr. ROGERS. Yes; I will yield.

Mr. CARTER. I would like to ask what penalty should there be for possession in regard to the high school student?

Mr. ROGERS. This is not just for high school students, I might point out.

Mr. CARTER. I am asking in particular. What should it be for high school students?

Mr. DREWS. I think the idea of misdemeanor for first offense is quite reasonable even on the high school level. A felony would be a bit strict.

Mr. CARTER. A misdemeanor carries with it a penalty of 1 year?

Mr. DREWS. Yes, which puts some teeth in the law.

Mr. ROGERS. It may go up to 1 year?

Mr. DREWS. Right.

Mr. CARTER. You think that is reasonable, reasonable for a man. For a youngster who has it in his possession one time, only one time to your knowledge, you think that is entirely reasonable?

Mr. DREWS. As a practical matter, the law would rarely be enforced in this direction. As a matter of fact, Federal law in South Florida now governing marihuana is rarely enforced in this direction.

For example, recently there was a "bust" in the south end of our country and—

Mr. ROGERS. What is a "bust" now?

Mr. DREWS. An arrest.

Mr. ROGERS. An arrest?

Mr. DREWS. Yes. There was one kid, I think he was 20, he had some hashish, which is the most potent form of marihuana naturally available. There were some other youngsters with this one who were in possession of a couple of "joints" apiece. The kid with the hash went to Federal court. The other kids with marihuana went to county court where the penalties, of course, were different.

This is what happens as a practical matter.

Mr. CARTER. As to the law, the penalty is up to 1 year in the penitentiary under this legislation.

Mr. DREWS. I feel it has to have some kind of teeth in it. If you made it just a misdemeanor with no jail sentence it would have no effect.

Mr. CARTER. Then you should think that the Federal authorities should not enforce the law to its fullest extent?

Mr. DREWS. No.

Mr. CARTER. Have a law and not enforce it?

Mr. DREWS. No; not in every case. You see, the judge, I feel, would have some discretion in this instance.

Mr. ROGERS. Will the gentleman yield?

Mr. CARTER. Yes, sir.

Mr. ROGERS. Of course all the judges have discretion in how much penalty they would allot; whether they would put them on parole or whatever they may do, give a bond or no penalty at all. This is determined by the judge, of course, but it could go up as high as a year for repeated users, perhaps.

Mr. CARTER. I am glad to see the gentleman coming around to my opinion that this penalty should be used as a lever and not as a punishment particularly, a lever to obtain knowledge as to the source.

Mr. DREWS. The source is a pretty complicated thing. I was going to say that the supply of acid is not at all like the supply of heroin. There is no heroin produced in this country or at least very, very small amounts of it, someone may have a poppy field somewhere. Most of it comes in from places like Turkey and a lot of it is being grown in Mexico now.

LSD, of course, can be produced in a kitchen somewhere. You are faced with an entirely different problem.

Mr. ROGERS. Let me ask you this: How did you find that people get into this business of taking drugs, young people? Could you describe this quickly for us?

Mr. DREWS. There are a variety of reasons. As a matter of fact, although there is no evidence that marihuana physically leads to the use of other drugs, most of the people I encountered had started out by "blowing grass" and had graduated, you might say, to things like LSD and some of them had gone on to methen amphetamines.

Mr. ROGERS. Many of them started with marihuana, moved on to LSD and—

Mr. DREWS. And then on to "speed."

Mr. CARTER. Or hard narcotics such as heroin?

Mr. DREWS. On very rare occasions. I talked to one or two heads who had tried heroin, who had "joy cupped" a couple of times.

Mr. ROGERS. How many people would you say you had talked to in the south Florida area, for instance?

Mr. DREWS. About 200.

Mr. ROGERS. What form do most of them take this LSD in?

Mr. DREWS. They drop it. It comes in pills generally. As a matter of fact, there is an organization on the west coast that is manufacturing some pills of pretty high quality. They have found their way in Florida. They are supposed to be attempting to set up an LSD lab in Miami now which will produce large quantities of the stuff.

As a matter of fact, one head wanted to make a deal with me to go into business. He wanted to turn the world on, I think. He had access to materials that would make about a hundred pounds of acid which would be a pretty fantastic amount, because a normal dosage would range between 250 and 300 micrograms. A 500 "mike" cap is not very much acid.

Mr. ROGERS. Do they take it with anything, or what?

Mr. DREWS. Not necessarily.

Mr. ROGERS. They just take a pill?

Mr. CARTER. In a sugar cube?

Mr. DREWS. The sugar cube is out now that it is available in the capsule form which is easy to take, and tasteless.

Mr. ROGERS. Is there any movement away from LSD that you have noticed, or is it growing?

Mr. DREWS. It is a little hard to tell, I think. The official opinion seems to be that there is a move away from it. I think the Bureau of Narcotics disagrees to a degree. But in South Florida I think that it may be leveling off a bit. And "Speed" is on the increase there. Methen amphetamine hydrochloride.

Mr. ROGERS. Do you think it is because they are beginning to find out about the serious damage that can be done?

Mr. DREWS. To a degree, yes. They are beginning to realize there is a danger to this particular drug much more so than there is to the marihuana that is generally available on the streets.

Mr. ROGERS. What do you think of the educational program—I know you are familiar with it—that is being carried on in Broward County by having the doctors go to the schools to talk about the dangers of the drug?

Mr. DREWS. I feel it is basically a good idea. Unfortunately, the doctors often don't have the information that they need to present to these youngsters. They have not had the personal experience with people who have used the drugs to be able to understand what is going on in the kids' minds.

I think it is very important that this be brought out, that you understand the nature of the drug-user, the nature of the drug subculture.

Mr. ROGERS. What are the youngest people that you know of that are involved in this type of thing?

Mr. DREWS. I have personally met some youngsters who were 14 who were "blowing grass." I know, not quite secondhand but almost, of a youngster in a friend's apartment house who goes up—she is 12 and she goes up on the balcony of the seventh floor and smokes marihuana rather regularly.

Mr. ROGERS. What about LSD?

Mr. DREWS. The youngest LSD user I encountered was about 16. It is difficult for the younger children to get acid, much more difficult than marihuana, which is pretty freely available.

Mr. ROGERS. Did any of them ever describe any results from taking LSD, in other words, any bad reactions?

Mr. DREWS. Yes. I have one girl who was also a "speed freak" who had this bit about losing her identity. She "dropped acid", she "dropped" it many times. One time she had lost her dog, her dog had died, she was rather upset about it. She wanted to go on an "acid trip" right away before things go too bad because she knew it would be a pretty rough trip if she did not go ahead and do it.

It is like getting up and walking after you had fallen, I guess. She had about lost her identity. She said, "I knew it was a mental thing but physically I was trying to stop it. I was pushing my hands to my head to keep my brains there, to keep myself all together."

Mr. ROGERS. This is the way she felt on this trip?

Mr. DREWS. "Because I did not want to lose myself, also." She had lost her dog.

Mr. CARTER. Will the distinguished chairman yield on that?

Mr. ROGERS. Yes, sir.

Mr. CARTER. I believe you mentioned the 14-year-old and 16-year-old. How old was this acid user or acid head, as you call it?

Mr. DREWS. When she started taking acid she was 17. At the time I interviewed her she was 18, almost 19. She had never been busted.

Mr. ROGERS. Never been arrested?

Mr. DREWS. No.

Mr. CARTER. In case of possession, what penalty do you recommend for these 14-, 16-, 17-year-old people? I might ask you that question and our distinguished chairman, also.

Mr. DREWS. This would be at the discretion of the court, I think.

Mr. CARTER. You do not feel they should be put in jail for a year?

Mr. DREWS. It would depend on the case.

Mr. CARTER. Rather, don't you think they should be institutionalized, put in a corrective institution where they could be treated for this? You would go ahead and put them in a jail with other hardened criminals; is that right?

Mr. DREWS. I think the treatment of the use of acid is a little bit difficult unless a person is suffering from a psychosis. To institutionalize a person who is "dropping acid" for some pretty complex reasons would be almost useless. Maybe you should send them to the "shrink" for a few years.

Mr. CARTER. What is a "shrink"?

Mr. DREWS. A psychiatrist.

Mr. CARTER. I don't know that would do any good, but certainly I should rather think that they should be treated in an institution instead of going to jail.

Mr. DREWS. Are there such institutions available other than Bethesda?

Mr. ROGERS. As a matter of fact, I pointed out a case that was brought to my attention where a young man had taken LSD. He did not have to be arrested to get to the institution; the LSD has driven him out of his mind where he has to be placed in a mental institution and that is where he is now.

Mr. DREWS. This is a case that can be treated. How can you treat an 18-year-old who is otherwise normal, just "drops acid"?

Mr. CARTER. Just put him in jail, is that the correct answer?

Mr. DREWS. In some cases, it might be. It depends on the situation.

Mr. CARTER. I can't agree with that. Certainly not.

Mr. ROGERS. Of course, the thrust is to try to have a deterrent where they will never take it in the first place. That is the point of having a penalty.

Mr. DREWS. The law would also have an effect in that the first offense is a misdemeanor. A child could conceivably be put on probation, knowing full well that his or her name is on the list and that if they are caught again it is a felony. And the fact of being caught once, if you are busted once you are pretty cautious.

Most of the ones I have talked to have been pretty cautious the second time. They don't like to get caught.

Mr. ROGERS. Did you find that it is fairly easy to obtain LSD in the south Florida area, for instance?

Mr. DREWS. It depends on the heads you have talked to. If they have "scored" recently it is easy to obtain it. If they have not, then it is tough.

Mr. CARTER. What do you mean by "scored" recently?

Mr. DREWS. If you make a "score," that means you have been able to buy your drug.

Mr. ROGERS. Do you feel the authorities in the area realize the extent of the problem?

Mr. DREWS. I don't think so. I really don't believe they do. In Broward County the realization is coming. In Dade County, also. But in Palm Beach County they are a little bit behind. The official stand is that no, we don't have anything like this around.

Mr. ROGERS. Did you find this subculture in Palm Beach County as well as the other counties?

Mr. DREWS. Most of my interviews were in Palm Beach County.

Mr. ROGERS. This is generally in what areas?

Mr. DREWS. All over the county.

Mr. ROGERS. Were they around the school areas or where? Eating places?

Mr. DREWS. The "head shops." There is a "head shop" in Lake Worth. A "head shop" is a psychedelic shop where they sell posters, buttons, jazz like this, and some things like automatic joint rollers, "roach holders."

Mr. ROGERS. What is a "roach holder"?

Mr. DREWS. When you are in a marihuana joint it burns down to the butt. The butt is called the "roach." In order to get the rest of the "grass" that is in there you have to hold it. You can't hold it with your hand so you have to have a "roach holder." It burns.

Mr. CARTER. I notice you said in these four counties, I believe, there were 6,000 LSD users?

Mr. DREWS. Three counties.

Mr. CARTER. Three counties, 6,000 LSD users?

Mr. DREWS. That is my estimate.

Mr. CARTER. What percentage of these were college students, approximately?

Mr. DREWS. I would say about half of them.

Mr. CARTER. About half of them were college students. Were the other half high school students?

Mr. DREWS. Mostly high school students; yes.

Mr. CARTER. 3,000. What percentage would that be of the total number of college students and high school students, respectively?

Mr. DREWS. I would say roughly 5 percent of the college students in that area have tried LSD. I make the distinction between trying and using, using being a regular thing. And 2 or 3 percent of the high school students have tried LSD.

Mr. CARTER. That is quite a number; 30,000 in this three-county area have used marihuana, is that right?

Mr. DREWS. Tried marihuana.

Mr. CARTER. Well, you can't try it without using it.

Mr. DREWS. You try it once. You use it regularly. There is a distinction between the two words.

Mr. CARTER. Now, 30,000, what part of the 30,000 are college students?

Mr. DREWS. There is a large percent of college students who have tried marihuana for this reason: They may have tried it in high school but never went back to it. Twenty-five percent of the college students have tried marihuana.

Mr. CARTER. One out of every four?

Mr. DREWS. I would say so; yes. I have estimates from some of the heads that as much as 75 percent have tried it.

Mr. CARTER. Of the college students?

Mr. DREWS. Right. I think that is a little exaggerated.

Mr. CARTER. If we caught these people with a "joint", you say each one of them had a "joint", that would be possession, of course—

Mr. DREWS. Of a deadly narcotic.

Mr. CARTER. What would you do with them? Would you inflict this penalty of 1 year in the penitentiary?

Mr. DREWS. You are talking about marihuana.

Mr. CARTER. Marihuana would be 5 years.

Mr. ROGERS. Two years.

Mr. CARTER. Would you want to put one out of every four college students in those three counties in Florida in jail for that long?

Mr. DREWS. I would say it would be next to impossible.

Mr. CARTER. I agree with you, it would be impossible. Neither do I think it would be sensible.

Mr. ROGERS. Would the gentleman yield?

Mr. CARTER. Yes, sir.

Mr. ROGERS. That is the present law.

Mr. CARTER. Yes, sir. I think that that present law is not sensible, is not practical.

Mr. DREWS. I am inclined to agree with you. I think it should be reexamined to a degree.

Mr. CARTER. Yes, sir.

Now at the present time, the Navy has an excellent educational film on LSD, a very good one, which shows the dangers of the use, what may happen because of mutations of the chromosomes, what may happen to their genes.

Don't you think that would be quite effective to shown our high school students or college students?

Mr. DREWS. I would like to see the film.

Mr. CARTER. I have viewed it. To me it is a wonderful film.

Mr. DREWS. I think an educational program is very necessary. It has to be a good one.

Mr. CARTER. Why do these youngsters use LSD and marihuana, Speed, and so on? Why is it that they use these things?

Mr. DREWS. There are a variety of reasons. A lot of LSD users use it because of sex.

Mr. CARTER. It accentuates their potency, does it?

Mr. DREWS. They say it does. It accentuates their experience.

Mr. CARTER. Are there any other reasons?

Mr. DREWS. Personal reasons, trying to solve personal problems.

Mr. CARTER. What personal problems?

Mr. DREWS. Expand their minds.

Mr. CARTER. Do you think they seek a release from the future?

Mr. DREWS. Escape?

Mr. CARTER. Escape; yes.

Mr. DREWS. A lot of them; yes.

Mr. CARTER. Our youngsters have great problems confronting them at the present time, do they not?

Mr. DREWS. They think they do; yes.

Mr. CARTER. Don't you think they do?

Mr. DREWS. Well, I am fairly close to being a youngster, myself. I am 26. I don't think the way they do too much really, not the heads, anyway.

Mr. CARTER. It is a good thing that you don't.

Do you think that a well-developed and supervised massive recreation program for these youngsters might be helpful, to occupy their spare time and so on, to get their minds off drugs?

Mr. DREWS. I think the problem is deeper than that.

Mr. CARTER. I think it might be helpful, anyway.

Mr. DREWS. It might be helpful but it is deeper than that.

Mr. CARTER. I think we need to brighten their future to give them something more to look forward to. After all, they look forward to a future burdened with debt.

Mr. DREWS. This is a complex society.

Mr. CARTER. And the shadow of the war in Vietnam hangs over most of them too, does it not? I think you have given a very interesting discussion this morning.

Mr. DREWS. Thank you.

Mr. CARTER. I agree with all of it except I can't agree with putting in jail the 30,000 users of marihuana or the 6,000 users of LSD in your area.

Mr. DREWS. I think it would be impossible to do that, I don't care what kind of law you pass.

Mr. CARTER. I think the thrust should be toward the manufacturers and the pushers, those chiefly.

Mr. DREWS. I am inclined to agree with that. I think as a practical matter this is the way the legislation will work.

Mr. CARTER. Thank you, sir.

Mr. ROGERS. Thank you very much. This has been most helpful. I think your testimony has been excellent. I think you have analyzed the problem very well, that we have to have additional penalties in order to help dry up this whole situation.

Thank you very much.

Mr. DREWS. I think it is a step in the right direction. Thank you.

(A series of articles by Mr. Drews, appearing in the Sun-Sentinel (Pompano Beach, Fla.), follows:)

[From the Sun-Sentinel (Pompano Beach, Fla.), Feb. 19, 1968]

DRUG USE A FACT IN BROWARD, PALM BEACH

(Editor's Note—For the next six days we're taking you on a "voyage to nowhere," a trip into the world of the psychedelics, a visit with the speed freaks, the acid heads, the pill-poppers, the grass blowers. They can be your children, the kids next door or down the street . . . from low-income families to the very wealthy. The mind-bending drugs show no favoritism. Sun-Sentinel writer Jed Drews spent six months researching today's youth and their use of drugs. His in-depth report on his findings is shocking, raw and realistic. It is must reading for every parent who is concerned about the future of his children.)

(By Jed Drews, Sun-Sentinel Writer)

They call it the new reality.

They say the Barnum and Bailey papier-mache world is dead.

They say God and Christ are dead. The generation of vipers, mom and apple pie and goose bumps when the flag flies, Karl Marx and Ayn Rand, Jean Paul Sartre, the ugly Frenchman who said life is purposeless and tried to assign a purpose: They are all dead.

No illusion. No dogma. No dirty minds. No dirty words. Only the vast, shapeless Establishment is dirty, and it is dying.

There is a revolution surging through them, those young, healthy, promising, educated, wealthy people who are not yet 25, who will soon make up more than half of this country's population.

Some of them burn their draft cards.

Some of them march in protest.

For most of them sex is no longer seen in a Victorian light.

And for many of them—millions of them—the go thing, the in thing, the thing . . . is psychedelic.

The psychedelic drugs. The mind benders. That is what it means. Marijuana, mescaline, LSD, crystal, STP, DMT. A thousand things that will distort the mind and the senses—these are the psychedelics.

The young drug users. They call themselves "heads" or "freaks." They have a world of their own—a broad underground culture that has grown up around, under and through the American way of life. It is a culture, a society, a tribe, a primeval family.

And drugs belong. They say they blow grass, or drop acid, or pop pills, or shoot speed. Which means that they smoke marijuana, or take LSD, or swallow pep pills, or use the deadly, addicting methamphetamine crystals which can keep them going for days without sleep or food.

And their numbers are growing in South Florida, in Broward and Palm Beach counties, at a frightening pace barely recognized by the "Establishment" in Broward, but which has been ignored in Palm Beach County.

Hard to believe?

A young South Floridian, his hitch in Vietnam ended, is sailing home with a pound of marijuana seeds in his duffle bag. He will grow the weed here.

Another young man is busy in a home laboratory in South Florida trying to manufacture synthetic marijuana. He hopes to find a cheap, easy method that will produce something akin to the potent and dangerous hashhish widely used in the Middle East.

Hundreds of students, college and high school age, are growing marijuana plants around their homes and dormitories now.

Hundreds more are in possession of a "lid" (ounce) or two of the cut and dried plant.

There are clandestine laboratories operating—sometimes in high school and college chemistry classrooms—to produce the potent LSD in Broward and Palm Beach counties.

And a "West Coast Organization" with headquarters in California is apparently setting up a large LSD lab in Miami—to supply a growing demand. The "Organization"—not connected with the "Mafia"—may also be planning production of the deadly methamphetamine. Law enforcement officials are aware of this, and already quantities of this group's LSD tablets have been seized in Florida.

And a small group of college students in Palm Beach County have gone down a road of no return. They are using heroin. And there is fear that this group will grow, although the Mafia—which controls most of the heroin traffic in the eastern United States—is making no push in South Florida now, according to the best law enforcement information.

Drugs are being used in South Florida colleges at a steady, rapid rate. Some users at Palm Beach Junior College, for example, said that at least 75 per cent of the students at the school had at least tried marijuana.

This is an overestimate.

But the college administration sees no problem at all. This is unrealistic.

The best estimates of the number of drug users on South Florida college campuses range from 25 to 30 per cent. This is the number of students who have experimented with marijuana at least once.

Perhaps five per cent of the college students could be called regular users of marijuana, or "potheads." And of this five per cent there are some who are using LSD and amphetamines.

And drug use has spread to the high school level, a fact reported to the Broward County school board recently, amid warnings that 25 per cent of the high school students are smoking marijuana.

A guess—and it can be little more than a guess—of 10 per cent probably would be closer to reality.

The Broward school board admits marijuana is being used in every high school in the county. They are right.

In Palm Beach County, however, no one is admitting that drug abuse has become a problem on the school level.

Bruno Dario, dean of boys at Boca Raton High School, admitted there were rumors of drug use. But, he said, "I think these rumors are being generated because of this thing in Broward County. They think it's coming up here now."

It isn't coming. It's already a fact in nearly every high school in Palm Beach County.

There is the Boca Mafia, for example. This is a group of tough Boca High seniors who deal in marijuana.

There is the Pot for Lunch Bunch, a group of "heads" who attend schools throughout the southern end of Palm Beach County. They have some LSD and methamphetamine users. Some of them have already been arrested and face jail terms.

It exists. How serious is it? How widespread? How can it be handled? Why does it happen? That is the burning question. Why?

It is not unique to South Florida. The sub-culture of drug users exists throughout the nation, from the famous Haight-Asbury section of San Francisco to rows of dirty tenements in New York City to the crowded beaches of Florida's Gold Coast.

And drug abuse is not new.

Drugs such as opium have been used for centuries in such ancient states as China.

In India and the Middle East, hashhish, the most potent form of marijuana, has been abused for years.

In South America the natives have chewed betel nuts for the pleasant effect, and in the Andes Mountains Indians have for centuries chewed the leaf of the coca plant—from which comes the drug cocaine.

In the United States there was a major drug catastrophe after 1890 when heroin was first mixed out of morphine—which had come from opium—and two to four million Americans became addicted to the narcotic.

It was this catastrophe that prompted the 1914 laws governing heroin, and this same catastrophe that led to the 1937 laws governing marijuana.

And marijuana, the least harmful of the psychedelic drugs, was grouped with the dangerous hard narcotic heroin in the eyes of the law.

Until this decade it has hardly mattered.

Because abuse of marijuana back in the '30's was restricted to Negroes, big city slum dwellers and a few way out musicians, police, educators and doctors were able to treat the problem in that light. Harsh enforcement tactics were tolerable. Low key education programs were—perhaps—workable.

But in this decade there was a change.

What prompted it may forever be imponderable.

But LSD appeared—out of the hands of scientists who had been working with the drug since 1938 and into the hands of a Southern California religious group.

The psychedelic boom was on.

And soon enough such things as DMT (dimethyltryptamine), STP (the initials stand for serenity, tranquility and peace; the chemical name is 43 letters long), peyote and its derivative mescaline (which had been around for years) and terms such as hash; ganja, bhang—all the various forms of marijuana—became almost household words.

But most important, the use of drugs in this decade is no longer restricted to the ghetto dweller—the minority group.

The psychedelics were absorbed by the middle class American youth, and those few who realize it now are scratching their heads furiously, trying to understand why.

So there is today a great deal of concern—when drug use is recognized because of an almost nameless public unrest. Good boys, good girls, from good families were suddenly involved . . . their names suddenly were on police blotters and people shook their heads and said, tsk, tsk.

One youngster, a speed-freak (methamphetamine user), explained it this way: "In my neighborhood everybody is somebody. Everybody's got big lawns and big jobs. Everybody's parents all make good money. There's a supervisor for a grocery chain there, and a telephone company executive, and an engineer. They're all solid middle class, baby. And all their kids are going out and they're turning on."

Turning on. They are using drugs.

Dr. Louis Richards, of the Bureau of Drug Abuse Control in Washington, D.C., has been doing some "informal research" with the families of youngsters who have dropped out of the "straight" world and into the twilight zone of drugs.

"They are certainly not a group that you could characterize as bad families in any respect," she said. "In fact, they are the kinds of families that you think you would like to be part of."

And the young drug users don't come from the slums. They are cool, sophisticated, educated and affluent.

Unfortunately educators, police, doctors and parents have largely failed to fathom this. And attempts continue to cope with the situation of 1968—with the answers to a problem that existed in 1914.

So, young drug abusers go to jail. And they consider themselves, at best, martyrs of a bad law.

And when teachers try to spread the word about drug abuse, they founder on a sand bar of ignorance, and their efforts fall on deaf ears.

And the medical profession has rarely gained the practical experience needed for treatment of young, addicted methamphetamine users.

The parent is even more in the dark.

Dr. James Goddard, the sometimes controversial head of the Bureau of Drug Abuse Control, said in Washington: "We have a generation, my age—I'm 44—that has grown up without knowing much about drug abuse. And all of a sudden they are confronted with the problem, they don't even have the factual data. So they are naturally quite uneasy."

And so they are.

It's a psychedelic world.

An enigma if you aren't in.

It can be a journey to nowhere if you are.

[From the Sun-Sentinel (Pompano Beach, Fla.), Feb. 20, 1968]

WHAT'S BAD ABOUT POT?

(Editor's Note—Marijuana, the mild psychedelic, is used on nearly all campuses in the country—from junior high to the four-year colleges. It is as accessible to those that want it as ice cream is to a child. In the second part of "Voyage To Nowhere," Sun-Sentinel writer Jed Drews tells of the beginning of this voyage and the effects it has on those that take marijuana or as the users term it—"blowing grass.")

(By Jed Drews, Sun-Sentinel Writer)

"The first effect I felt from it was sort of like—I was sitting on the floor—and I felt like my rib cage was floating up through my body, you know. Through the top of my body.

"And it's a pleasant experience. You could shut your eyes and feel like your body was moving although you knew you were sitting still, and it didn't last long. I'd say it lasted a couple of hours."

The young engineer was describing his first experience with marijuana. He sat comfortably on a sloppy couch in a small, book-cluttered apartment in urban Broward County.

He is about 28 now, has been married for about two years. His wife has smoked marijuana on occasion, too, but not with regularity. They do it for relaxation, he explained.

He recently bought a new car, and was thinking of moving into a new home at the time. His hair is cut short and he wears neat, comfortable clothes. He likes to play chess. He is articulate.

And he has never been arrested in his life.

But even though he is obviously not a hippie he belongs to the drug world. He has been smoking marijuana (blowing grass) for five years, and once he had an experience with LSD.

The young man has a way of looking at you with twinkling brown eyes and a friendly grin that makes you like him instantly.

He has long hair—not too long, just enough to be in tune with the style. He wears a blue and yellow striped knit shirt, and brown bell-bottom pants and moccasin loafers.

He is 18. Right now he is trying to finish his high school education. He was arrested for possession of two ounces of marijuana recently and kicked out of a Palm Beach County public school. He has been attending night school since.

He started smoking a year and a half ago.

"It was the beginning of June, summer before last," he said. "Some cat came up to me and said, 'Hey, man, you wanny buy some?' and I said sure.

"So it was five dollars, and he gave me a little nickel (nickel bag—five dollars

worth of marijuana) and I rolled it out and got about 17 joints (marijuana cigarettes) out of it, which isn't bad.

"And it turned out to be real super-duper stuff, you know. It was groovy.

"So I just did it by myself for the first time. I sat in a room, rolled a couple and had a couple, and put on some music very loud. I just sat there and you get this tingling sensation all over.

"I just felt groovy. I guess it starts off like you're really stoned, I mean drunk, you know. You get that high, heady feeling, but it gets a little more than that. The thing is, it's essentially the same as getting drunk, except it's no hangover, you don't have that sick feeling, you know. You just get a little buzzy feeling, there's this tone going through your ears. And the music really is personified."

He comes from a nice Jewish family. They have a nice home, cars, give their children everything. He is a likable kid. Talks about going into dramatic acting.

But he is a full-fledged head (a drug user); and right now he is in serious trouble.

His case probably won't come to court until this spring, but when it does he is going to be facing a felony charge and possibly years in prison. That's the penalty.

The girl is young, rosy-cheeked, pretty. She has dark hair and wears glasses which conceal bright, smiling eyes. She was 17 when she left home, ran away from a good family that demanded too much of her, she said.

"Well," she said, "starting from last summer, I went out to the coast (California) after a year of college. And then I went back home, and I was still only 17, and things got just a little too much at home. Combination of 17 years of it.

"I picked up and ran away and went back out to the coast. I had six dollars when I got there (she hitchhiked), but I had three months' worth of friends from the summer, which is worth a lot more.

"So the first person I called was the one who had turned me on to grass (marijuana) for the first time.

"And he used to come over and we'd smoke, and then he'd leave me enough until he came over the next time.

"And I found out it's not like drinking, you know, with the stigma attached to drinking alone.

"Well, there's nothing wrong with turning on, smoking grass, alone."

And of course there is marijuana and sex. She explained inhibitions are lowered by smoking, but she said she didn't feel marijuana led to indiscriminate sex.

"This one boy I was turning on with, nothing like that ever happened. I just never felt like it and we never did. It was strictly a platonic relationship.

"Of course, he was queer or maybe he went both ways," she said, "but to me he was just a little boy. A mixed-up little boy."

And she's a bit of a mixed-up little girl.

She lives in Palm Beach County now. She has never run afoul of the law, although she has been involved in the drug scene up to her neck for the past two years. She plans to finish school.

She wants to become a teacher.

That is the marijuana scene.

A dozen other youngsters in Broward and Palm Beach counties have told similar stories.

There have been reports in books, magazines, newspapers, and particularly in the underground press, the small occasional publications that come from the California coast as the voice of the drug-using generation. They tell the same story.

And it is simple.

Their hair isn't falling out. Their teeth are still sound. They haven't turned into sex maniacs. And they aren't violent criminals. The only laws they have broken are the narcotic laws. (And a few traffic laws, some admit.)

But more importantly, they say they haven't gone on to heroin, and never intend to. Most of them do not know anyone on heroin, or anyone who has ever used the drug. They scoff at the Establishment's contention that marijuana smoking leads to heroin.

This is what the young middle-class American students have learned about marijuana. And they have learned it firsthand, or from close friends who have turned on themselves.

The American marijuana experience, limited as it is, has been enough to strike dead—at least to the satisfaction of the marijuana smokers—just about every argument ever advanced to prove that pot is bad.

And it is precisely this experience that educators and lawmen and parents are faced with when they try to say that marijuana can be dangerous.

"You straights (straight people are those who don't use drugs)," one young man said, "are willing to accept the papier-mache world. We don't.

"Reality is our kick. And when people come along and say pot's no damn good and it will lead on to heroin, I'm gonna look up and say, 'bull, old man.'

"You've lied to me before, and I'm gonna try some of this grass. And I'll let you know whether I like it, or whether you're right."

They are intent on making up their own minds. And there is little that educators and police can do about it because nobody seems to know what the answers are, or what the truth about pot is.

One Broward County school official shortly after the school board decided to clamp down on marijuana smoking, said he was at a loss.

"Don't you quote me on this," he said, "but I don't know whether marijuana is bad or not. All I know is it's against the law, and we've got to enforce the law."

The simple fact that blowing a little grass is illegal, and carries a heavy jail sentence and a worse felony conviction, is not enough for those youngsters who are trying the stuff.

The syllogism that marijuana is bad because it is against the law, and against the law because it is bad, is unacceptable to those students who are learning more and more to try thinking for themselves.

And the fact is that no one has come forward with evidence acceptable to the generation of drug users that marijuana—at least the marijuana generally available in this country—is any more dangerous than alcohol or cigarettes.

Alcohol, the marijuana users point out, can cause a fearsome psychosis called delirium tremens.

Cigarettes, they say, apparently cause cancer.

What harm is marijuana?

Unfortunately there has not been enough interest in the situation until recently to support much in-depth research into marijuana.

And the fact that the potency of marijuana varies so greatly from batch to batch and even from cigarette to cigarette, has made studies done before this decade nearly invalid.

But science has recently succeeded in synthesizing the active ingredient in the marijuana plant.

With the availability of this pure ingredient—called tetrahydrocannabinol—in measured quantities, the true effects of marijuana on human beings are finally observable.

And the National Institute for Mental Health (NIMH) in Washington is funding a host of marijuana research projects.

The returns aren't all in yet, but preliminary indications are available.

Dr. Harris Isbell, of the U.S. Public Health Service Hospital in Lexington, Ky.—the hospital where heroin addicts are treated—has reached an interesting conclusion about marijuana after an investigation with the synthetic drug.

He said that marijuana could cause acute, short-term psychotic reactions in some individuals in small doses. And in testimony in a Boston marijuana trial the doctor said that two "good quality" marijuana cigarettes could cause a psychotic reaction in anyone.

Just exactly what kind of psychotic reaction is not determined.

Whether it could turn into a permanent psychosis in some individuals has not been determined.

Whether the psychosis actually is harmful to the mind of the individual who suffers from it, also has not been determined.

The technical name is cannabis psychosis. The word cannabis comes from the scientific name of the hemp plant—*Cannabis sativa*.

When the famous LaGuardia report on marijuana was done at the behest of the New York mayor back in 1946—long before synthetic marijuana was created in the laboratory—cannabis psychosis, the psychotic reaction from marijuana, was observed in two individuals.

But apparently because of the generally diluted quality of the marijuana which shows up on the college campuses and high school grounds and city streets there have been no other reports of the phenomenon in this country.

American marijuana users have had little or no experience with the more potent forms of marijuana—known in the Middle East as bhang, charas, dagga, ganja, and finally hashish which is the pure cannabinol resin and strongest form of the drug.

But use of hashish is common in such countries as India, Egypt, Turkey, Tunisia and Greece. There have been studies there recently indicating that the drug does cause permanent mental disorders—a permanent state of cannabis psychosis.

For some law enforcement officials, particularly in the U.S. Bureau of Narcotics, this is alone enough evidence to warrant ever tighter restrictions on marijuana.

But critics of these findings have pointed out that there is a question whether the hashish alone causes the psychosis, or whether the combination of hashish and poor living conditions that prevail in those countries have combined to cause it.

This is a question that will hopefully be answered—along with a host of other questions—by the research being done with NIMH funds now.

If the invention of synthetic marijuana gave science a good research tool, it also created a monster.

In South Florida now a young man who never went beyond high school chemistry is attempting to make synthetic "pot" at home.

He is importing his ingredients—admittedly not easy to obtain—from as far away as Japan.

And his wife plans to bake the stuff in fudge if the experiment succeeds. (The drug users who are in on this project are gleeful at this prospect. "Who would ever suspect anybody walking down a street dropping (eating) fudge grass (marijuana)?" one asked.)

The hopeful chemist has tried marijuana twice, and suffered no ill-effects. He has never had hashish, although the pure marijuana he is seeking may be as potent as hashish.

Yet he wants to create the synthetic marijuana in his kitchen not just because he wants to turn on, or because it might be a quick and cheap source of supply.

"I'd just frankly like to get away with something like this just to show the Establishment at large that there are ways around things."

According to Dr. James Goddard, U.S. Commissioner of Food and Drugs, he may have found a way around "things."

Synthetic marijuana is not covered by the same law that governs the naturally grown product.

Dr. Goddard said the effort was the first he had heard of, although his bureau has been watching for word of attempts by amateurs or the underworld to manufacture the drug.

Goddard said there is a stop-gap legal measure that his bureau could adopt to control the synthetic. It would give the federal government the power of executive seizure of any of the drug they found.

"This could be done until the Bureau of Narcotics could amend its law through Congress," Goddard said. Congress could bring the potentially very dangerous new drug under the same rigid controls that now cover natural marijuana.

Certainly the marijuana that is in the hands of students in South Florida is not comparable to hashish, and not comparable to the pure synthetic marijuana.

But even in its mild form marijuana has some effects that appear to pose a measure of danger to organized society.

Like alcohol, marijuana affects the coordination of the central nervous system. Someone who is "stoned" on grass will stagger like a drunkard, although there are individuals who are able to handle this situation.

"You may feel great," one user reported, "but physically you can be all out of sorts and you can go for the door and run into the wall."

This effect, combined with a second, closely related effect not apparent in the use of alcohol, can make driving, for example, a dangerous thing for someone under the influence of marijuana.

The depth perception is distorted, markedly in some individuals.

"One time I did have a problem with depth perception," another user said. "I was on the Interstate, going north, and I came to one of the exits. But just for a few seconds my depth perception was altered, so I almost went off the road. I slowed down."

Marijuana users also say that their sense of time is affected as well. Minutes may seem like hours, and seconds like minutes.

The implication is clear.

Traffic accidents certainly can be caused by marijuana. This is a fact recognized by many users, who have adopted the slogan: "If you smoke, don't drive."

These mild manifestations of marijuana do not appear to be much worse than the effects of an evening of boozing it up.

And many proponents of legalized marijuana have pointed to the wide social use of alcohol as a justification for legalizing pot.

But the argument is specious at best.

Gene Haislip of the U.S. Bureau of Narcotics in Washington has an interesting observation. "To say that marijuana is no worse than alcohol doesn't say much," he said.

"With four million or more alcoholics in this country alcohol is a serious problem."

The question here is whether a drug with a potential for serious abuse like marijuana should be made freely available in a society where another drug with abuse potential—alcohol—is already a sticky subject.

But the arguments for and against marijuana are apt to go on for a while. No one has had the final word yet.

About the best that can be said for the weed is that it appears to be a risky thing.

But marijuana is a mild psychedelic.

There are much stronger mind-bending substances already being abused on most American college campuses (and South Florida is no exception).

There is lysergic acid diethylamide, for example.

Better known as LSD.

[From the Sun-Sentinel (Pompano Beach, Fla.), Feb. 21, 1968]

A GIRL ON LSD: "I WAS JUST CEASING TO BE"

(EDITOR'S NOTE.—Lysergic acid diethylamide, commonly known as LSD, a mind-expanding drug that takes the user on a trip to fantasia, was invented by scientists for research but in doing so they created a monster. Sun-Sentinel writer Jed Drews takes you on some of these infamous LSD trips in this third part of "Voyage To Nowhere." It is shocking, raw and realistic.)

(By Jed Drews, Sun-Sentinel Writer)

"The first time it was on a pill, just dropped on a pill, and and we popped that, you know. And about 45 minutes later we started to get the grass (marijuana) sensation, then it really came in. It's hard to say. You're sitting in a room, and the whole room is glowing.

"Then you get the dots and everything, like marijuana, but more intricate. It's geometric patterns and everything, and designs and everything.

"Then later on you'll get into things like I saw.

"It was like there was a stone bust, and I had my nose right up against it. It was staring me right in the face. I just sat there for . . . it seemed like an hour.

"I just stared at it. You know, it's sitting right in front of me. I'm looking at it. And it's grinning. It's grinning at me. And I could feel the texture and I could see the color.

"And it was just like it was real.

"It was like one of those faces on Mount Rushmore."

That was an LSD experience.

It was described by a young man. Not in San Francisco, not in Chicago, not in New York where such things might be termed common. The story was told in the tiny back room of a Palm Beach County teen hangout.

And it wasn't told by a way-out hippie, or a criminal or a raging fiend. The young man was an ordinary looking high school student who spoke quietly about his experience with drugs.

If you saw him at a ball game, walking through a park, on a movie date, in a classroom—you'd never know he was an acid head, an LSD user.

He is almost 18 now, and he started taking LSD, or dropped acid as the heads say, shortly after he turned 17. He had his first experience with drugs at 16, when he started using marijuana.

He has dropped acid about eight times now, since that first evening in a friend's apartment, and he has never had a bad trip.

But he has an explanation for that.

"One thing," he said. "I've never had a bad thought. Never a bad thought entered my head about acid. I was never afraid of it."

And what he means is that all the bad trips portrayed in magazine and newspaper articles, and in the publications of the Bureau of Drug Abuse Control in Washington, are the result of fear on the part of LSD users.

And he goes on to say, to rationalize really, that those widespread stories of LSD users going permanently psychotic—jumping out of windows, committing crimes—probably aren't true in the first place ("I never knew anybody that way"), and if they are true, the people were probably crazy to begin with and LSD just triggered something already buried inside them.

And then the reports recently that LSD causes damage to the chromosomes—damage that can be transmitted from generation to generation. "Well, anybody who has tried it has read all this about it," he said. "And most of them believe it, that it is true, that acid does something to you. I think it can. But I think the first time you take acid, it's done. And that's it. I don't think if you take more, it does any more to you."

And, anyway, he says, acid is a groove, and once you take it your mind will never be the same again. You look at life differently, you become part of a different life actually. Everybody you know and care to associate with is on some kind of drug: Marijuana, LSD or amphetamines.

And they have a different day, a new way they say, of looking at things.

One young girl, a South Florida resident, has an explanation for this that might make sense.

She is young and pretty, and she said she has used LSD many times. ("I stopped counting after 20 trips.") But she said also that you don't have to be on LSD to get the LSD feeling.

"One night," she said, "we had two peacock feathers and we were waving them up and down, and watching the feathers and the breeze that it created.

"And . . . oh . . . it was a visual thing that we were really enjoying. Ordinarily you see a peacock feather, and maybe its pretty colors. But there's part you don't see. The way you could bring it up and gently let it settle on the air, and the way the feathers would vibrate, and it was a beautiful thing to watch.

"And something that most adults just can't find any pleasure in. Just refuse to see. Who would spend their time looking at a peacock feather? And that's why it's almost like a return to childhood, when everything is fresh and new and exciting, and you can get back the beauty of all these things we refuse to see when we grow up.

"And about carrying this feeling with you. Peacock feathers don't pop up every day for you to groove on.

"That's why kids carry around flowers and things like that. To constantly remind them."

To constantly remind them that they are the flower children, and that their minds have been expanded by the psychedelic drug LSD.

And this is the strange, siren-like attraction of the potent hallucinogen.

"It's like being a child all over again," the young girl said.

And the LSD experience is broad enough in this country, it has reached far enough, to create a drug sub-culture where everybody has his own "bag"—that is, his own way of seeing things; and there isn't any "hassle"—that is, it's a matter of live and let live.

"It's a society," our young man said. "Anybody that turns on (uses drugs) you have this certain closeness.

"It's just like the Outlaws (motorcycle gangs) stick together, and the surfers stick together . . . well, the heads stick together.

"You know, you'll have 20 kids living in one house, maybe, and you'll have like 10 guys and one girl in one house, and the girl won't have to worry about who she is going to sleep with that night. They don't have anything like that, you know. She won't be hopping from bed to bed.

"Like, I know four people that are living together, a guy and a girl in each room, and then this other girl moved in.

"No hassle nowhere. Just like one big family. Brother and sister.

"It's a community. It is like going back to the old Indian tribes. And they're opening up little communities of their own. Like in Ojus (in Dade County) now, and they're getting out of San Francisco now and going out into the desert.

"And a lot of it is going back to the Old Indian customs. It starts with what they wear, Indian clothes, and now it's going back to the type of living.

"I know some people . . . they're living in teepees."

So they are a groping, blindly perhaps, unthinking. They are seeking satisfaction in a pastoral life; looking for a family that will not make demands of impossible achievement.

That is part of the strange attraction of LSD and the other mind-expanding drugs.

But there is the lure of sex, as well. And this is a powerful attraction, because sex with LSD is portrayed as an easy thing, quickly attained with no sacrifice, no hang-ups, no restraining inhibitions.

"After you've been through the music and the lights and all that," one LSD user, said, "and if you're with a chick, it's going to lead to bed.

"It's got to. There's no two ways about it."

Not only does sex come easy with LSD, but the experience is greatly enhanced by the drug, the users say. It is natural, unrestrained, and with the physical senses often heightened by the drug—a much better experience, they say.

A young girl, barely 18 at the time, told about it.

"If you have two different sexes together," she said, "and you don't want anything to happen, then you just try to be out of the house. Because it's inevitable. And there'll be a lot of recriminations the next day if that isn't what you really wanted.

"It's this feeling," she explained, "of being on the same plane with someone and being able to share so many of your thoughts and feelings that you can't ordinarily because of all the barriers.

"That feeling is so intensified that if you have a sexual relationship with someone, it's just beautiful.

"It's not like anything on earth."

The flower children, the drugged generation.

Caught up in a headlong escape to where even they aren't sure. But they will tell you that LSD is good. It has shown them the way. It has shown them that they must escape the striving and hypocrisy and material worship and the ceaseless war of the straight society.

But that is only part of the LSD story. It is a very significant part, to be sure, and one that must be thoroughly understood by those lawmen and educators and physicians who do not like what a significant sector of the younger generation is doing to itself.

But there is also the pragmatic, laboratory-proved truth about LSD, a story that is only now beginning to emerge from the labors of the grantees of the National Institute of Mental Health and a host of other investigators who are studying the drug phenomenon.

LSD, lysergic acid diethylamide, was created in a laboratory in 1938 by a man named Albert Hofman. Hofman was searching for a drug that could be used in the treatment of psychotic patients in mental institutes when he first synthesized LSD. But it wasn't until years later that he accidentally inhaled vapors of the drug and took the first known LSD trip.

It was many years later, in 1959, when LSD left the control of laboratory scientists and was found by police in the hands of a Seattle, Wash., religious cult.

And when the drug decade of the 1960s began, LSD became a household word. Many articulate users of the drug, notably Dr. Timothy Leary, who dropped out as a Harvard University professor, proclaimed the drug's mind-altering qualities, and use became widespread.

In South Florida the use of LSD is not limited to college campuses. Like marijuana only on a lesser scale, LSD has filtered down through the ranks and can now be found on the high school level.

Unlike marijuana, however, there have been few shaky myths built up by the Establishment concerning LSD.

But the drug effectively caught science with its pants down, and the results of a multitude of scientific studies (as in the marijuana case) are only now beginning to trickle in.

And LSD is beginning to look like a demon masked as a smiling flower child.

The bad trips on LSD are common enough.

And apparently a simple fear of LSD is not the only thing that can kick one off. In fact some LSD dealers in South Florida now sell an LSD antidote (usually a tranquilizer) with their tablets, so the users can come down in a hurry if things go wrong.

One user in Lake Worth said he had taken 40 trips in his life. He had one bad one, so bad that he tried to jam himself down the garbage disposal in his kitchen sink.

Another user reported another aspect of the bad trip, and told of a time when she almost lost herself.

"I started to go into one of those ego things, where I could feel my mind oozing out of my body. And I didn't want that to happen. I was losing my identity. I was just ceasing to be.

"I felt myself going, you know. I couldn't let it go to the point where I didn't exist any more. I've heard of it. A lot of people have tried to describe it.

"At first you're aware of both things. It's like stepping outside of yourself and viewing yourself as you really are.

"Well, I wouldn't let it happen. I knew that it was a mental thing, but physically I was trying to stop it.

"I was pushing my hands to my head to keep my brain there, to keep myself all together, because I didn't want that. I didn't want to leave. I had such a sense of loss after I lost my dog. I didn't want to lose myself, also. I just wanted to retain whatever I had left.

"And then I fought it for a long time. And then it went away."

And then it went away, and this young girl not yet out of college could consider herself very lucky.

Sometimes it doesn't go away.

Dr. Morton Miller, director of mental health programs for the National Institute of Mental Health in Washington, D.C. talked about this.

"Relatively few of the marijuana users," he said "fall into the category of becoming acutely psychotic. Now with LSD this has been much more of a problem.

"A few medical centers, Bellevue in New York, Langley Porter in San Francisco, have reported briefly on some of their experience in treating this LSD psychosis.

"Treatment of these kids has to be divided between acute treatment and long-term treatment. Acute treatment is like treatment for any psychosis.

"But the one thing that is a little puzzling is that some of these kids don't come around. They remain psychotic. From LSD.

"What we don't know for sure, Dr. Miller said, "is whether the long-term thing is due to LSD, or if LSD has kicked off a reaction that has been sitting there."

Either way LSD is involved.

And Dr. Miller made a point from information that has been developing in recent scientific studies.

There are indications already that LSD may be solely responsible for the permanent psychosis.

A permanent LSD trip appears to be very similar to the psychotic disorder known as schizophrenia, but no one seems to know for sure whether it is actually schizophrenia.

But there may be a difference that would indicate that LSD is causing something new.

"There are some clinicians who have a feeling," Dr. Miller said, "and psychiatrists are great for clinical feelings, that the kids who don't come off the trips—while they have many similarities to the class-schizophrenic or psychotic episode, that—there is a difference."

The LSD users myth that psychosis is already buried in the individual and only triggered by LSD may be due for a tumble.

But the story of genetic damage from LSD is apparently going to remain controversial for a while, because different investigators into the phenomenon have come up with different results.

"At this point," Dr. Miller explained, "there are as many negative reports as positive reports. So we don't know for sure. Some people have shown that there are chromosomal abnormalities with LSD. Other people have used the same techniques with animals and have been unable to find them.

"And now some people are wondering . . . whether what you're seeing in the hippies . . . most of the patients have been hippies . . . is the chromosomal damage in these kids due to LSD, or is it due to the fact that these kids live in dirty surroundings and have viral diseases. Hepatitis causes chromosomal changes, you see."

LSD has no known saving grace. It is still a highly experimental drug, and although there is some promise, it may never be found to have any beneficial medical effect.

Right now in the United States manufacture and sale of LSD is illegal.

But remarkably enough it is not illegal in the U.S. or in Florida in particular to possess this drug.

Congressman Paul Rogers of West Palm Beach has recognized the danger inherent in uncontrolled usage of LSD, and has introduced a bill in Congress to make possession illegal, and punishable by a prison term and fine.

But marijuana and LSD are only part of the drug scene. There is a third partner in this business.

It is not generally classified as an hallucinogen like marijuana and LSD, but it does not effect the central nervous system, and it can produce hallucinations.

It is the infinitely more dangerous and addicting drug methamphetamine.

[From the Sun-Sentinel (Pompano Beach, Fla.), Feb. 22, 1968]

"YOU CAN'T EAT WHEN YOU'RE ON SPEED"

(Editor's Note—They call them speed-freaks, amphetamine users who like to get where they're going in the fastest time possible and stay on a high level as long as possible. The speed-freak lives in the danger zone, knowing speed can kill—and not in traffic. In this fourth part of "Voyage To Nowhere," Sun-Sentinel Writer Jed Drews delves into this highly dangerous drug, a drug becoming extremely popular with the young drug user.)

(By Jed Drews, Sun-Sentinel Writer)

"Gotta get more.

"Gotta find The Man.

"Gotta get more.

"'Cause I can't come down."

That is the speed-freak's refrain. That is the story of the young drug abuser who has developed a craving for something to keep him going. A need for a stimulant.

In the drug sub-culture that has spread across this country, the speed-freak is a bit of an outcast.

He still belongs. The hippie crash pad—home to any wandering drug abuser—is still open to him. But it is a belonging more of tolerance than anything else.

The users who take marijuana and LSD the other mind-bending drugs know the speed-freak is standing on the edge of a deep precipice.

And speed can push him in.

It might be methadrine crystal—the very potent drug known in pharmaceutical handbooks as methamphetamine. It is manufactured in this country both legally and by the drug underground.

It could be dextroamphetamine—known by the trade name of Dexadrine, a powerful stimulant in quantities.

It might be simple amphetamine, which goes by the trade name of Benzedrine—the drug used by housewives and businessmen and truck drivers and students for a pick-up when the housework isn't done, the papers pile up, the road gets long, or the mid-term exams are on.

Collectively or separately they are known as "speed." But the term is most often applied to the methamphetamine, which is also called crystal or methadrine.

Speed kills, and crystal can be the deadliest.

In the Haight-Ashbury section of San Francisco—an area widely known for its hippies and drug abusers—there are signs posted saying "Speed Kills." And the signs aren't aimed at automobile drivers.

The girl is 19. She is enrolled in a South Florida junior college and is hoping to get a degree so that she can teach. She is a pretty girl, although a little stout.

She has to keep her weight up, she says. It's the only way she can get her speed. She gets it by prescription from a doctor.

So in between her frequent bouts with methamphetamine, the most potent speed (and she can't eat while she's up), she stuffs herself "like a pig."

She was talking rapidly that night. They call that "rapping," which is incessant, quick-fire conversation, a characteristic of the speed-freak.

She had taken two split diet pills about two hours earlier, and she was feeling high.

"Well, they call people who take any kind of speed, speed-freaks, and we have certain characteristics," she said. "One of them usually being really thin, you know. Big eyes, starvy-looking, because you can't eat when you're on the stuff.

"But since the drug scene is so hard down here, there's not much speed to be had, really. I mean real speed, meth crystals and that kind of thing.

"The best thing you can get is diet pills and split them in half. Really, they're methamphetamine hydrochloride on one side and they're phenobarb on the other.

"You split them in half and you get the straight meth side.

"And the only way to keep getting your diet pills is not to lose weight."

So she doesn't lose weight, and she continues to get her diet pills. She uses marijuana and LSD, too (she stopped counting after 20 LSD trips). In fact, it seems to be characteristic of speed-freaks (at least in South Florida) that they have used some other drugs such as marijuana or LSD, before trying speed. And many of those on crystal have what is called multi-habituations.

They are taking strange combinations of drugs, such as speed combined with a barbiturate, which is a "downer," in order to maintain a certain pleasant mental state.

But whether marijuana or LSD lead on to the use of stimulants, as marijuana, was claimed to lead to the use of heroin in the 1930's, hasn't been determined.

There have been no scientific studies on this question yet, although some are planned.

Still, it appears that the abuse of the stimulants is growing in South Florida, and the growth appears to be related to the popularity of the other psychedelic drugs among college and high school students.

But speed is different. And possibly inherently more dangerous than either marijuana or LSD.

The young man is about 20. He is thin—emaciated—has those "big eyes" and "starvy look" of the speed freak. He used to work for a big name rock band.

Tattooed on his left leg is a dripping hypodermic syringe. That tattoo is the symbol of the speed freak. He had to pull off a long boot to show it.

"When I'm up," he said, in that quick-talk fashion of the freak, "I feel like I can do anything. I feel like I can accomplish something worthwhile. I got the energy to do something.

"I can concentrate on one thing for a long time, like writing a poem if I want to.

"When I'm down, man, I just drag. I'm depressed. I don't feel like I can achieve."

It's best to stay up. It's not easy when you're down. And besides that coming down isn't the easiest process in the world.

"Some people think speed-freaks are the worst people in the world when they are coming down," the girl said.

"Because after this hopped-up state more or less, you know, for an extended length of time usually it's followed by a tremendous depression.

"Most people go through the stage of coming down, and it's a terrible stage to go through. And that . . . that's the problem with speed.

"You don't get physically addicted to it," she said. "But psychologically there is this terrible fear hanging over you of that coming down stage.

"These people really have the junkie look, you know."

Currently there is something of a scientific debate about whether methadrine in addicting, in the same sense that heroin is addicting.

It may be that some people develop the same kind of dependency on speed that has been observed in marijuana and LSD.

That is one of those unanswered questions that is being probed by researchers for the National Institute of Mental Health (NIMH) now.

Dr. Morton Miller, director of mental health program for the institute, had some experience with methadrine while practicing medicine.

"Methadrine," he said, "is a funny drug, and it's been used clinically for everything ranging from . . . well, amphetamines have been used for weight reduction, and methadrine has been used in psychiatric practice as a device to get people

to talk about things which they couldn't talk about when they were conscious. It's called a methadrine interview."

This is the beneficial side of speed. The thing called rapping by the freaks is a useful tool in the hands of a psychiatrist.

But speed has another, more frightening side. Dr. Miller tell about it.

"Generally in high doses amphetamines can cause psychosis. A paranoid psychosis.

"For instance, a patient I saw clinically who had an amphetamine psychosis. When all the amphetamine was out of his system he was still crazy.

"But again it's the same story as LSD. We don't know if the methadrine kicks off the psychosis or if it was there all along.

Here is yet another danger in speed. It is the danger that has led to the slogan "Speed Kills."

The speed-freak over a period of time builds up a tolerance to the drug, and like the heroin user, must take more and more to get the desired effect.

Some speed-freaks have built up a tolerance which enables them to take methadrine in doses that would be fatal to the ordinary individual.

But the freak who scores, or buys, his speed from an underworld source is never sure of the potency of the drug he is purchasing.

There have been a number of deaths reported from methadrine overdoses.

There are some new patterns of amphetamine abuse developing in this country that has officials of the Bureau of Drug Abuse Control concerned.

The pattern has appeared in South Florida.

Fred Garfield, assistant director of the Bureau, explains it.

"For a long time," Garfield said, "we had little evidence that any of these drugs were being shot into the veins. But lately this has become the habit with methamphetamine.

"Methadrine is subject to control. And it's not easy to get right now. You've got to have a prescription to get it. The druggists are afraid to sell it without prescriptions. The doctors don't generally prescribe it.

"So it has a very limited use and limited distribution.

"But its synthesis is not difficult—neither is the synthesis of amphetamine—so they, the underworld, are synthesizing the powder and shooting it just as they would with the narcotics.

"Not only that," he said, "but they are lacing it with a little bit of strychnine.

"Strychnine is a deadly poison, but a very small amount of it gives an added kick to the methamphetamine when they shoot this stuff, and they get one hell of a bang out of it, and they get it fast."

One hell of a bang. That's called a rush.

"I've found that with four diet pills, you can rush," the girl said.

"It comes up from the back of your head, and it's like waves . . . well, it can start . . . first it starts in your stomach. It's the warmth, and then the waves just go over you, just flow all over. And the rush is a feeling . . . it's a slow rush, you know, kind of a flow. Just starts at the back of your head and works its way forward."

The young man with the tatoo had an explanation, too.

"The rush," he said, "It's like an instant, total, sexual experience, man. The greatest thing in the world. I got me a dream, see.

"There's this big barrel, and it's full of meth crystal, and it's got a tube running out of the bottom that leads right into my vein, right into the mainline.

"And the speed is just pouring in, man, and I'm on the rush forever."

But the speed-freaks are bad news in the drug world. They walk an extremely narrow line. To a large degree the speed-freak is viewed by the college-age drug user in much the same way that the heroin addict is viewed.

The heads say they don't want to become freaks.

But many, unfortunately, do. And speed has joined with grass and acid to become the worst member of the psychedelic triumvirate.

And now they are shooting it—that is, injecting it. And those that shoot it, laced with strychnine or not, stand on the vast edge of nowhere.

Because there are times when it is fatal. An overdose can come terribly easy; too easy with the needle.

And that is the significance, the dark symbolism in that weird tatoo of a dripping syringe engraved on a young man's leg.

[From the Sun-Sentinel (Pompano Beach, Fla.), Feb. 23, 1968]

HEROIN NOT PART OF "THE SCENE"

(Editor's Note—The world of the heroin user is not that of the turned on generation. He has to buy his quantity from a pusher. And it can cost him \$50 a day. The young drug user doesn't manufacture heroin or give it to his friends. But some do try the drug, wind up "on the nod" and become heroin addicts—the final leg in a "Voyage to Nowhere." Sun-Sentinel writer Jed Drews examines heroin today in the fifth part of his series.)

(By Jed Drews, Sun-Sentinel Writer)

There is a myth.

It is a story of a skinny, pasty-faced little stranger who hangs around schools. When the bell rings, he quietly hands out free joints (marijuana cigarettes) to the students.

And the next day he is back, and this time he is pushing heroin to the youngsters. At first it's free, but then it starts to cost, and when the students are finally hooked on heroin, the price skyrockets.

This little character in the myth is the tool of the "Mafia," or the "Syndicate," or the "Organization," or whatever it is that is popular to call that vast, subterranean, loosely associated group of crooks who make up the underworld.

And, according to the myth, not only does the "Mafia" make a tremendous profit on the sale of heroin to these children, but the addicting drug gives the criminals a hold on the youngsters that can compel them to commit terrible crimes.

That is the myth.

But the drug scene today is something new, and this old story that developed in the 1930's no longer holds true.

Certainly the Mafia exists. They are the New York hoodlums, and they do deal in heroin. In fact, much of the heroin brought into the country is financed by the Mafia. And, it is believed by some lawmen, much of the drug comes in through Florida's port cities, such as Ft. Lauderdale, Miami and Tampa.

And almost all of that heroin is destined for final distribution in New York City, where 60 per cent of the country's heroin addicts live.

There is another big percentage of heroin addicts living in Chicago, and there the criminal leadership is called the Syndicate.

In Philadelphia the criminals call themselves the Organization and there is yet another chain of heroin supply.

On the country's West Coast there are other criminal groups that go by other names.

There is no omnipotent family of hoodlums in this country. There are instead many scattered organizations, which may have loose connections with each other.

In fact, the Federal Bureau of Investigation, in its annual conferences held behind closed doors at Oyster Bay, N.Y., has decided that the best single term for the whole of the underworld is "Confederation."

And the Confederation does deal in hard narcotics.

So that much of the myth is true enough.

But the Confederation is not sending out its agents to the country's high schools and colleges to get the students started on drugs.

For one thing the underworld already does about \$8.5 million in business each week with the nation's 60,000 known heroin addicts.

And for another the turned-on generation of this decade is trying out marijuana, LSD, and in some cases even heroin, without outside help.

One narcotics agent in Broward County (he did not want to be quoted by name) has learned that this is the case. And a few enlightened officers agree with him.

And the young drug users themselves tell the same story. They won't accept drugs from a stranger readily. It's got to be someone they know. And they won't give drugs to a stranger. It's got to be a friend—someone they grew up with.

They aren't worried about that stranger being a representative of the Confederation. They're more concerned that the stranger might be a narc, or narcotics agent. And a bust, a narcotics arrest, means a felony record and possibly years in jail.

So, "the kids are turning themselves on," the undercover agent said.

"This is the big problem," he said.

"Used to be years ago," he said, "you would see a little sign or a poster with a little old skinny guy standing on the corner, and he had a kit in his hand, and he was going to run kids in the back room and give them a fix. And there was eternal hell from then on if this happened . . . and there really was if it really happened.

But we have had big problems.

"My partner and I arrested a number of people out of the south end of this county (Broward), and that's what started this thing with the school board.

"They were young students.

"And they were peddling in the schools. We saw them take it right out of their notebooks and peddle it to the other guys.

"They do like you and I did when we were in high school," he said. "If you wanted to borrow a dollar from me, you'd say, 'I'll pay you back on Friday.'

"These kids will come up to a guy and say, 'I'll borrow a joint (marijuana cigarette) from you, and pay you back Friday.'

"So there is a borrowing and lending business here in which sometimes you can't even buy. And if you aren't a teenager, you certainly can't buy.

"And so it's not that you'll have to go down to the corner after class and buy it from the little guy from the underworld. You can get it from Jim, who's in biology class right now. And he might even sell it to you for the price he got it. He's not interested in profits. He just wants to turn his friends on."

The Confederation, while it does deal in the highly profitable hard narcotics, only rarely deals in bulk marijuana (hashish is often the exception), where the margin of profit is considerably smaller.

So where does Jim in biology class get his marijuana?

Police have discovered that there are almost as many sources as there are drug users.

Many of them grow their own.

Others bring it down from the northern states of Florida—particularly during the annual Easter invasion of college students on the Gold Coast. Those northern students have, in turn, purchased it from friends who got it from friends who were able to smuggle a pound or a kilo (2.2 pounds) out of Mexico.

And other marijuana found in South Florida comes directly from Mexico, or from Panama, or from someplace in South America.

There are even people who are getting marijuana seed, and sometimes bulk marijuana, from soldier friends who are in Vietnam.

And drug users have friends all over the country who will mail an ounce or a pound or a kilo when it is available.

But the point is that the students, the young drug users, bring the stuff in themselves.

So when the agent said, "We have big problems," he meant that the drug scene has taken on a new look with the advent of the psychedelic generation.

If the tale of the little skinny guy pushing marijuana for the underworld is largely a myth, what of the claim that usually goes along with this myth: That marijuana leads to the use of heroin?

There is no scientific evidence that a person who smokes a marijuana cigarette will be forced by some physical reaction caused in his body to go on to the use of heroin.

It is true, however, that a high percentage of the heroin addicts in the U.S. Public Health Service Hospital in Lexington, Ky., began their drug abuse career with marijuana.

But it is equally true that there are thousands and thousands of marijuana users who have never touched heroin, and probably never will. Most of them probably do not even have the contacts necessary to obtain the drug (although if you live in the drug sub-culture such contacts are not impossible to make).

Even so, heroin is a truly addicting drug, and it has an effect on the body and mind that is not accepted in the American society of heads like marijuana, LSD, speed or even cocaine.

"Have you ever been in that delightful place between sleeping and awake, when you felt wonderfully good and didn't want to wake up?"

The old man looked thoughtful for a moment and drew hard on the cigar clinched between his teeth.

He looked older than his years. His face was deeply seamed, his hair sparse, his shoulders stooped.

But his hands were steady now. Once they had not been.

His eyes were clear. Once they had been vacant.

He was once an addict, a true addict on the drug demarol—a synthetic drug closely related to heroin.

"Well," he continued, "this is the nod. It's that little twilight world in the morning when you're partly conscious and partly not conscious.

"That's the nod. It's about the closest thing to it that I know without being actually on the nod from heroin."

That is what heroin does to you. It puts you on the nod, keeps you in that comfortable twilight zone where there is no discomfort, no needs, no emotion.

That is about as close as you can come to the strange lure that can cause a man to enter the twisted, compelling twilight world of hard narcotics—of heroin.

They call it the nod.

It is when the heroin starts to leave the body, and the addict comes "up" from the nod (just the opposite experience of the addicted stimulant abuser who comes "down" from his drug), there is a compulsive, physical desire to get more—to remain in that state of painless bliss, to stay on the nod.

It is tough coming up.

Dr. John R. Nichols, of the Department of Psychology at Southeastern Louisiana College, explains why coming up—or withdrawal from the drug—is so difficult.

"Opiates (heroin is one of the opiates—derived from opium which comes from the poppy flower)," he said, "reduce drives.

"Drives are tensions which goad a person into activity.

"But an opiate makes the subject inactive.

"The drives produced by pain, hunger, anxiety and sex are all simultaneously reduced by opiates.

"When the effects of an opiate wear off, the initially suppressed drives return, actually rebound with increased vigor" because during the period of suppression the body has attempted to adapt itself to the new conditions.

Like a compressed steel spring suddenly released, then, the body bounces back when the heroin is gone.

The return of the "drives," Dr. Nichols explains, "is experienced as tensions which soon increase to the point of distress.

"Human addicts," the doctor said, "faced with approaching withdrawal, energetically seek drugs."

It is this search for drugs, not heroin itself, that is deadly to the addict.

"I've either got to quit what I'm doing," the old man said, "or I've got to get up say \$50 a day. All right. Not only that, not only have I got to get up that \$50 a day, I've got to stay clear of the man (narcotics agent).

"I've got to stay clear of him.

"Not only that but to do this I'm going to be so wrapped up in this that I'm not going to have any time to associate with anybody.

"I mean I might deal with them, but I'm not going to associate with them.

"My entire operation is going to center around one thing, and this is to take care of this habit."

And to take care of that habit he will lie, cheat, steal, and even murder.

And he has to go through it alone, because the heroin addict must be a loner. His world is a private world of alternating bliss and hell. There is no society among the hard narcotics addicts.

But to say that it is not the heroin, but the life cycle of the heroin addict that is the killer is really an oversimplification.

With the hypodermic needle, the factor of tolerance to the narcotic, and the ever-present uncertainty about what is really in that little \$5 bag of heroin, death does occur.

Death can come from an overdose.

Or from a deadly poison accidentally or purposely mixed in the bag.

It is the same risk that is faced by the speed-freak who shoots his methamphetamine into the mainline—the main vein.

But the similarity between heroin on the one hand, and the speed-freak, the marihuana smoker and the LSD users on the other hand, ends at about this point.

Blowing grass (smoking marihuana) is a social experience to the young college and high school age students. They will smoke marijuana alone, it is true. But the pot party with friends who are experiencing the same thing is the rule.

Nobody has heroin parties.

And LSD, with its vivid and sometimes frightening hallucinations, is another experience that youngsters share with one another.

There is no sharing of the heroin experience.

And when a youngster is on speed, he's got to find a friend to rap, or talk with. Nobody raps on heroin.

The psychedelic drugs, the mind benders (and speed can be included), are social drugs.

And for this reason as much as any other the claims of the psychedelic users that the heroin addict does not fit into their way of life are probably true, at least to a degree.

And this is another reason that attempts to solve the problem of psychedelic abuse with the solutions to the heroin problem are doomed to fail.

One lawman, who has come to this realization, shakes his head in despair.

"It's ignorance," he said. "The drug scene is a new thing today. But nobody knows it. And the cops . . . of all people, the cops . . . they're the worst ones about it."

[From the Sun-Sentinel (Pompano Beach, Fla.), Feb. 24, 1968]

VALLEY OF KICKS TOLD LIKE IT IS

We are approaching the end of our "Voyage to Nowhere," a voyage that has taken us through marijuana valley, to fantasia via LSD, to the amphetamine-land of speed, to cocaine village and finally to hell through heroin. The voyage is completed. What can be done to end these voyages? In this final article, Sun-Sentinel writer Jed Drews puts the finger on the police, the parents, the doctors, the teachers, the public for the need of a massive educational program to learn more about the problem of drugs and of those that use them on the "Voyage to Nowhere."

(By Jed Drews, Sun-Sentinel Writer)

"Oompah, oompah, everybody blows pot.

"Oompah, oompah, everybody blows pot."

That is The Beatles, telling the world in the chorus of their recent hit song "I Am The Walrus" that everybody smokes marijuana.

You have to listen closely to hear it, and perhaps listen more than once.

It's like most things in the world of the psychedelic generation. Unless you're inside, you miss the point.

And the colorful posters so popular with the youngsters are just crazy, senseless, perhaps? You don't know that they are pictures of LSD trips.

(There is one psychedelic poster around which an interesting story has developed. It is a picture of a white rabbit on a field of blue and pink. The white rabbit, from Lewis Carroll's masterpiece *Alice in Wonderland*, represents the LSD trip. This is because Carroll's story is much like acid fantasia. But in California now the white rabbit has come to stand for the "enforcer"—not the law, but those members of the drug community who are assigned the job of shutting someone's mouth. If there is a fink in the drug crowd, somebody talking to the police, he may be given the "purple," which is a deadly overdose of LSD. The white rabbit poster is one of the most popular.)

And the stroboscopic lights, flashing frenetically on multi-colored walls in tiny "teenage" dives where nobody dances to the loud and incomprehensible music. You can't see it?

The young ones are grooving on it.

"You'll see all these kids," one user said. "Just sitting there in a daze, staring. And they're looking at the lights and they're hearing the music and everything.

"And you know who's who. They're sitting there on grass (marijuana) or tripping (on LSD), you know. Just grooving."

THE BEATLES ARE RIGHT

Everybody's grooving. And The Beatles are right. Everybody's blowing pot.

"Before I smoked marijuana," one young user said, "I didn't know anybody who did. Now that I have smoked it I can't think of any friends who haven't.

"It seems to be a cumulative process," he said. "People who smoke marijuana like to proselytize—whatever the word is—spread it and turn their friends on.

"The people vary from, say, people like myself to newspaper reporters, to a friend who is in charge of some computers, another friend is a minister who

smokes, and a financial analyst. And the people who are students. All the students smoke marijuana."

And, he added, there are even teachers, lawmen, doctors, professional people, who blow pot.

And they like to spread the word. They do spread the word, and the word has become an avalanche that threatens to engulf the younger generation.

The ignorance is appalling.

Recently in Palm Beach County two police officers were called to a rowdy teenage party.

They demanded quiet of about 15 high school age youngsters who had gathered in a tiny, smoke-filled apartment, and then the officers made a search for beer cans and liquor bottles.

They found none and left with a warning to the partygoers to keep quiet.

The party broke up. The boys and girls were laughing up their sleeves, and thanking their lucky stars that there were at least two police officers who didn't know marijuana when it hit them in the face.

It had been a pot party.

INCIDENT IN BROWARD CLASSROOM

In Broward County just recently a young man crashed on his desk—he fell asleep suddenly in the middle of his class.

The teacher let him sleep, but was unable to wake him at the end of class. Thinking the boy was ill the teacher had two friends take him home, and reported him sick to the main office of the school.

But the young man was not ill.

He had finally come down from a spree on speed—methamphetamine—that had kept him awake and without food for 96 hours.

It was a sign of drug abuse that the teacher did not recognize.

Three weeks later the same youth was picked up by police on a charge of possessing marijuana. He now faces a felony rap. Could that teacher have helped, if he had known?

Just recently a Broward County father suffered an agonizing experience.

He committed his daughter, who had become addicted to cocaine, to Raiford State Prison.

IT WAS TOO LATE, THEN

Two years ago, he said, he might have been able to stop it. But he did not know what she was doing. He did not know until it was too late that she was addicted to a dangerous drug.

Two young men were tripping on LSD in a Palm Beach County apartment. There was a chaperone—one person who was not on the drug—keeping an eye open in case there was a bad trip.

And there was. So bad that the chaperone decided a doctor was needed, and the youth was rushed to an MD. What he was suffering on his trip only he knows. He would not talk about it later. But no one bothered to tell the doctor that he was on an LSD trip, and the doctor did not guess at the truth. He gave the young man a shot of a useless anti-biotic.

Police officers hold seminars, and they talk about the problem.

And they look at films on things such as heroin, and they say the film is geared for such and such a grade level in school.

Only, they say, it could be harder hitting. This thing, they say, is getting out of hand, and it's time to crack down.

And then they talk about drug suppliers, and junkies and pushers and criminals and fiends.

And about how the problem can be solved, if only the courts weren't so lenient, or if they had more manpower, or if all this newspaper publicity about people such as Timothy Leary would stop. Why don't they just ignore crackpots like him, they say.

Then one day there is a realization. The suppliers, junkies, pushers, criminals, fiends. They aren't the ones we're concerned with.

IT MAY BE THE NICE KID NEXT DOOR

It's the nice kid next door who's blowing pot while he drives around, and kills himself on a deadend road because he didn't realize his depth perception was shot.

And it's daughter's boyfriend who once a week, or whenever he can get it, drops a little acid and blows his mind.

And maybe it's a son, daughter, nephew, niece, who is shooting speed—deadly methamphetamine, for kicks.

The teachers, policemen, doctors, parents—unless they are swingers—never heard the Beatles sing about pot.

And thought that was a nice, maybe odd picture of a white rabbit when daughter tacked it to her wall.

Or maybe thought the word psychedelic stood for a new pattern in clothing.

And even if these things were heard and seen, they weren't recognized for what they are: Symbols of a turned on generation with its own way of seeing things, its own language, its own society, its own set of morals.

And most of all symbols of a well-educated, mobile, affluent and sophisticated generation which is thinking for itself.

THE OLD VALUES ARE QUESTIONED

The old values, taboos, morals are being questioned.

They are being questioned harshly, often discarded and replaced with something else. All too often that something else is nothing.

Students are being told to question in the schools.

They are being forced to learn to think for themselves. And then they do, and often both the good and bad thinking of an older and more experienced generation crumble together.

And so you have such things as draft card burners protesting a war in South-east Asia.

And flower children who really believe the way to life is through drugs.

Why do they take drugs?

This so significant question must be answered before any solution can be found, and it appears now that there are so many reasons for drug use and abuse that any solution is going to have to be multi-faceted.

Youngsters take drugs for kicks.

Or because everyone else is doing it.

Or to expand their minds, find a new experience.

For sex.

Because they are lonely in a crowded world—and marijuana is a social drug.

Because it is against the law, and there is a certain adventure in that.

Because it is fun, it feels good.

Because there is no fear of what may happen with drugs.

WILL IT SOLVE PERSONAL PROBLEMS?

Because of a hope that some personal problems can be solved or that a personality can be instantly broadened.

Because it's easier than having to stand by yourself.

Because there is no tomorrow.

Because nobody really gives a damn, anyway.

So what can you do about that? A lot or nothing. There is no middle ground. But when society realizes that it is afflicted with a moral disease—and that one of the symptoms is drug abuse among its young generation—it is like an alcoholic who finally realizes that he is drowning in a bottle.

The first step in solving a problem is to recognize it.

The law officer must know when he walks into a pot party that he has walked into a pot party.

The teacher must know when a student falls asleep at the desk that there may be more there than simple illness.

The parent must learn to know when his child needs help.

And the doctor must know what he is doing when he encounters a young drug abuser who wants help after an overdose—but fears to say he has taken an overdose.

But they can only learn if information—good information—is made available.

SMALL EFFORT BY SCHOOL BOARD

In Broward County the school board has made a small effort. After a flood of reports from the county's high schools that marijuana use was widespread, the board "cracked down" on discipline. The flood of reports was reduced to a trickle, and board members declared their program had been a success.

But there is room for a question.

Have they stopped the use of marijuana, or have the students simply become more careful.

And in Broward County the Broward Medical Assn. is conducting a "Teen-age Alert" program, which is supposed to acquaint the county's students with the facts about drugs.

But the program is too limited in scope, and questions that many students have go unanswered—often because no one really knows the answers.

And an obvious solution to part of the problem has been ignored in Broward County. No one has yet mentioned the possibility of a broad program to educate the teachers—who are after all the people who come into daily contact with the students who are taking drugs—to the problems of drug abuse. No one is trying to tell the teachers what situations they may encounter—may already have encountered without realizing it—in the classrooms and on the school grounds.

IT WOULD BE EXPENSIVE PROGRAM

(Initially such a program would be expensive. Someone would have to compile the good information on drugs that is available and then work it into a form that could be presented to teachers. On the national level such research is already being conducted, and there are some results—such as a recent Bureau of Drug Abuse Control publication "Drugs on the College Campus—A Guide For Administrators." But the local problems of drug abuse must also be included in any local effort. The scene is not precisely the same anywhere.)

But Broward County's progress is remarkable compared to the situation in Palm Beach County, where officials still cling to the idea that there is no problem.

No problem, thus no effort at solving it.

But it is interesting to note that most of the drug users who were interviewed by the Sun-Sentinel for this series live, work and go to school in Palm Beach County.

Education can be the long range solution.

But the law plays a role, too, and it is lacking in many instances.

Even when the law is good, well-intentioned and firm, it is often not implemented in the long run because it is too costly.

(For example the little-known Florida law that allows a Circuit Court judge to commit a drug abuser for treatment—without lodging a criminal charge against that person—is an excellent law.

(But there is no treatment. There is only an indeterminate stay for the user or addict in an inadequate hospital at Raiford State Prison.

(Possibly a statewide system of mental health clinics would help in this direction. Certainly such a system is already needed for those helpless patients in the state who languish in country jails. A two-fold purpose could be served.)

LAWS AT ONE STATE LEVEL

And there might be a law enacted on the state level to control such things as synthetic marijuana—before and not after it gets out of the hands of scientists and into the grasp of amateurs.

And also on the state level a confusing law governing the dangerous drug LSD could be modified to make possession clearly illegal.

Congressman Paul Rogers has already introduced a bill in his House Committee to make LSD possession against federal law. California and New York have already enacted such laws.

But ultimately education must bear the burden.

And educators must see that the sophisticated drug using generation is not going to listen to anything that is not pragmatic truth—often enough they are not even going to listen to that.

But certainly they won't hear propaganda, generalization, in accuracies, half-truths.

Just the truth.

It could be that a little marijuana won't hurt you. Although little is known of the long-term effects of small quantities of the drug, and next to nothing is known about why psychotic reactions occur in some smokers.

It could also be true that you won't jump from marijuana to heroin, or LSD or any other drugs. But it has happened.

It is true that your chances of avoiding a permanent psychosis are good, if you do take LSD. But it can happen.

It is true that you might not become addicted to speed if you decide on the kick of injecting methamphetamine. You might be lucky and be one of those people who just take enough of the drug to keep a good high going.

But speed kills, too.

It is true, too, that if you joy-pop a little heroin for the first time you might not become addicted. But you've got one chance out of a billion :

When you blow the grass.

Drop the acid.

Shoot the speed.

Pop the H.

It can be a long voyage. A voyage to nowhere.

Mr. ROGERS. Our next witness is Dr. Mark Novitch who is assistant to the Deputy Assistant Secretary for Health and Scientific Affairs of the Department of Health, Education, and Welfare.

We are delighted also to have Mr. Jerome Murphy from the Department. We are delighted to have you gentlemen here. It is my understanding, Dr. Novitch, that you have observed an educational program and could give some of your views to the committee on what might be done in what I think is one of the most important areas of an approach to stamping out LSD and that is an educational program along with enforcement, in other words, a two-pronged attack.

STATEMENT OF DR. MARK NOVITCH, ASSISTANT TO THE DEPUTY ASSISTANT SECRETARY FOR HEALTH AND SCIENTIFIC AFFAIRS, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY JEROME MURPHY, SPECIAL ASSISTANT TO THE ASSISTANT SECRETARY FOR LEGISLATION

Dr. NOVITCH. That is true, Mr. Chairman.

I am happy to appear before the committee to report on programs, both Federal and non-Federal, designed to alert teenagers to the hazards of drug abuse.

At your request, Mr. Chairman, I have just made a visit to Broward County, Fla., to look into a special ninth grade health education program on drugs, human reproduction, and related topics.

I would like to say that I was very favorably impressed by this project. I believe it may be an example worth following by other school systems throughout the country.

With the committee's permission, I would like to describe what they are doing in Broward County.

A year ago, the local medical association organized "Teenage Alert," an intensive communitywide public information program on the dangers of drugs and sexual license.

Last August, the county's board of public instruction responded by expanding the regular health education course, to cover the more sensitive areas of drugs and sex.

The Broward Medical Association, the local bar association, and the school system all worked together to draft the curriculum. It consists of six 1-hour lectures providing factual, accurate, and comprehensive information.

All of this is offered in the most straightforward manner, without preaching and without moralizing.

I can say, Mr. Chairman, from personal observation, that the students are completely attentive, and that they respond with intelligent interest to the detailed material being presented.

The lecture on drugs, for example, covers the whole field of dangerous substances to which teenagers may have access in that county—marihuana, morphine, opium, cocaine, heroin, the stimulants, the depressants, LSD, and other hallucinogens.

The lecturer describes the appropriate medical and/or scientific indications for these drugs—if they exist—and just as dispassionately he describes the effects of abuse. Some of these effects were well documented for this committee by the previous witness, by Dr. Goddard yesterday, and by Dr. George Silver in earlier testimony.

Mr. Chairman, with your permission, I would like to submit for the record the outline used in this lecture series.

Mr. ROGERS. That will be very helpful. Without objection, it will be made a part of the record at this point.

(The document referred to follows:)

HEALTH EDUCATION: THE AREAS OF SEX AND DRUGS

JUNIOR HIGH SCHOOL PROGRAM (BROWARD COUNTY, FLA.)

The Ninth Grade Six Day Pilot Program has been developed with the following overall goals in mind:

- (1) To Provide Factual Information.
- (2) To Increase Understanding of Self as Well as of the Opposite Sex.
- (3) To Develop an Appreciation of Sex as an Integral Part of Life.
- (4) To Encourage the Proper Communication.

LESSON I (BOYS AND GIRLS SEPARATED)

Concept: Young people are growing up in a changing society and are subjected to various pressures.

Objective: To recognize and analyze sexual, emotional, physical and social problems that the adolescent of today must face.

Method: Introduction—Course: Purpose and Outline “Vocabulary on Transparencies”; “Buzz Session”—dialogue discussion of problems and pressures.

LESSON II (BOYS AND GIRLS SEPARATED)

Concept: Correct biological facts, functions and terminology are basic to understanding behavioral and psychological problems of young people.

Objective: To identify basic reproduction organs and their function. To relate to correct vocabulary.

Method: Medical doctor—anatomical diagrams (transparencies). Question and Answer Period.

LESSON III (BOYS AND GIRLS TOGETHER)

Concept: Understanding and communication are necessary to facilitate learnings.

Objective: To interpret information and facts.

Method: Film on Venereal Disease—*One-Quarter Million Teenagers*; Class Discussion—Define and Review terms and/or questions; Film on Ruman Reproduction.

LESSON IV (BOYS AND GIRLS TOGETHER)

Concept: Sex education encompasses the mental, physical and social health of each individual

Objective: To recognize and understand the interpersonal behavior, its freedoms and responsibilities. To develop positive attitudes about the place of sex in life

Method: Lecture: Transparencies; Question and Answer Period

LESSON V (BOYS AND GIRLS TOGETHER)

Concept: The abuse of drugs are detrimental to health

Objective: To explain the types and dangers of drugs and their effects

Method: Lecture; Transparencies; Film on LSD

LESSON VI (BOYS AND GIRLS TOGETHER)

Concept: Individuals have responsibilities toward the family, community and society

Objective: To interpret the legal responsibilities in relation to existing laws

Method: Lecture: Lawyer; Film on Narcotics—*The Pit of Despair*, Question and Answer Period plus final remarks

At the conclusion of the program, eight previously designated students will meet with the instructors in a round table method for constructive criticism.

Dr. NOVITCH. It is too early to evaluate the results among the Broward County youngsters. However, the adults there have what I believe is justified optimism. One of them remarked to me:

We are attempting to provide the students with the educational background on which they can base their personal decisions. To ask them to make these decisions without necessary information is stupid.

I believe the project demonstrates a fundamental and progressive change in teaching methods as they relate to the sensitive areas of sex, alcohol, and drugs. Traditionally, many teachers and parents have shied away from straight talk in these areas, and many children accordingly have been misinformed and misguided.

Today's young people, as I think the Florida course shows, will accept honest and accurate information while they will reject half-truths and evasions.

The project also shows that these matters can be dealt with logically and effectively in coordinated programs of health education.

Mr. Chairman, that concludes my report on Broward County but I would not like to leave the impression with you that Florida is the only State active in this area. Strong programs in drug abuse education have been developed in California, Washington, Colorado, Connecticut, New Jersey, and New York, to name a few examples.

Mr. ROGERS. Fine. Any information you have from those States, I think for the record it might be well to have. We will leave the record open for submission of those.

Dr. NOVITCH. We shall be pleased to submit that. I will say many of these programs are just under development, but some of them—California, for example—are of long standing. We shall provide what we can.

Mr. ROGERS. Fine.

(The material supplied is in the committee's files.)

Dr. NOVITCH. Now I would like to turn briefly to what is being done in programs supported by the Department of Health, Education, and Welfare and in the private sector.

The National Institute of Mental Health, working with the Food and Drug Administration, is developing and expanding its informational programs on narcotics and dangerous drugs. This work is supported by a current appropriation of some \$800,000.

The Bureau of Drug Abuse Control in FDA has produced a 30-minute color film called "The Mind Benders," about LSD, which will soon be shown at schools and colleges throughout the country. Bureau

agents, in addition, have made some 1,000 speeches on drug abuse to similar audiences during the past year.

The Office of Education is also concerned with teaching programs on the abuse of drugs. It is not the role of this Office, however, to impose educational policy on the States and local school districts. This initiative must come from the States themselves. Nevertheless, the Office recognizes its responsibility to encourage the preparation of appropriate teaching materials.

Toward this end the Office has requested some \$500,000 in the 1969 budget to support the development of instructional materials on drugs, sex education, and alcohol.

If this request is approved, educational experts in this area of social behavior could make additional films, pamphlets, and other teaching aids available to local school systems, at their request.

There is also activity in the private sector. The pharmaceutical firm of Smith, Kline & French, for example, has produced a guide, and I might say a very excellent guide, for educators, called *Drug Abuse: Escape to Nowhere*.

The Committee on Alcoholism and Drug Dependence of the American Medical Association has produced several authoritative pamphlets for physicians and other medical personnel and for students. As the previous witness said, physicians can stand more education in this area, and I think the AMA is working vigorously toward this end.

I should not neglect to mention that other private organizations are doing similar work.

Mr. Chairman, I have not discussed the legal and regulatory aspects of dangerous drug control. I am a clinician and others who are better qualified have spoken effectively on these points.

My purpose is to underscore the need for prevention through education in programs such as those which I have described. I believe that the local school systems should be encouraged to develop their own programs in this area, but they should also be made aware of the Federal resources which are becoming increasingly available for their assistance.

Providing teenagers with factual information certainly does not guarantee that they will stay away from drugs. But it does at least insure that they will know the physical dangers and the legal consequences.

Unless they are adequately and honestly informed, we cannot expect them to make wise, personal decisions.

Thank you, Mr. Chairman.

Mr. ROGERS. Thank you for a very excellent statement. I appreciate your being here. I was particularly pleased to get your report on the Broward County situation where the medical association there really basically initiated the program.

Dr. NOVITCH. That is the important point, they really did initiate it. This is the first area, to my knowledge, in which the local medical society has taken the lead. I think it should serve as a guide for other local—

Mr. ROGERS. As I understand it, those doctors have gotten together and made up a curriculum and the doctors give of their time to go the schools and lecture on drug abuse and related subjects?

Dr. NOVITCH. Yes; they do.

Mr. ROGERS. How many hours is the course?

Dr. NOVITCH. Six hours, sir.

Mr. ROGERS. Six hours?

Dr. NOVITCH. Yes, sir. Six consecutive schooldays. One hour a day for the ninth graders. They also attempted to provide a program for the senior high school students which was not quite as effective. Some of these older students are already experienced in the use of drugs. I think their minds are a bit closed. They believe they are more—I hate to use the word—sophisticated. They feel they know enough about the drugs already and their opinions are formed.

I think this is why the speakers feel they are more successful with the ninth graders. Next year they will be moving down to the eighth graders.

Mr. ROGERS. It is my understanding they gave some courses to the parent groups as well?

Dr. NOVITCH. Yes, they did. This is how the program was started. "Teenage Alert" was designed to get public support for this program in the schools. As the school program has developed, the need for a public relations effort has diminished.

The public is now very well aware, and the school system has picked up the ball and carried it forward.

Mr. ROGERS. Now this has cost practically nothing?

Dr. NOVITCH. I calculated from their figures that it cost something around 10 or 15 cents per lecture per student to give this course. That is why I stress that Federal assistance should be in the form of instructional materials and that the local school system should then reorient themselves within their own budgets to use this information.

It is a reorientation effort that is needed, not so much Federal funds.

Mr. ROGERS. Right. And such a program could be initiated quickly, I would think, if the school boards cooperate and the medical societies cooperate throughout the country.

Dr. NOVITCH. The first essential step is public information, an awareness on the part of the local medical and other professional groups and the arousal of some public interest to encourage the school boards to include this.

I don't know if they will all do this on their own but if an informed public demands it, I think they will respond.

Mr. ROGERS. I talked to the president of the American Medical Association, Dr. Rouse, just within the last week. The staff here in Washington are now pursuing this matter to see what can be done for the American Medical Association and to come out in strong support of this type of approach and also the U.S. Chamber of Commerce through their membership are considering some endorsement of this type of program.

I would think with some coordination through Food and Drug and the National Institute of Mental Health, with these two large organizations we could quickly attack the problem of drug education in the Nation for very little cost.

Would you agree?

Dr. NOVITCH. Absolutely.

Mr. ROGERS. Thank you very much.

Mr. Murphy, did you have anything to add?

Mr. MURPHY. Not at this point, Mr. Chairman.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. I think you have given a very good and enlightening statement. Certainly I think education is basic to doing anything about the existing drug problem. It is basic, absolutely.

Thank you, sir.

Mr. ROGERS. Thank you very much, it has been most helpful.

This concludes the hearings, subject to call.

(Whereupon, at 12 noon, the subcommittee adjourned, subject to call of the Chair.)

INCREASED CONTROLS OVER HALLUCINOGENS AND OTHER DANGEROUS DRUGS

TUESDAY, MARCH 19, 1968

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PUBLIC HEALTH AND WELFARE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice in room 2318, Rayburn House Office Building, Hon. Paul G. Rogers presiding (Hon. John Jarman, chairman).

Mr. ROGERS. The subcommittee will come to order, please.

We are continuing hearings on H.R. 15355 and H.R. 14096 and related to bills to amend the Federal Food, Drug, and Cosmetic Act to control LSD and other dangerous drugs.

Without objection I would like to place in the record a policy statement of the Medical Society of the County of New York.

(The report referred to follows:)

A POLICY STATEMENT WITH RECOMMENDATIONS BY THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK ON THE ABUSE OF LSD AND OTHER NON-NARCOTIC DRUGS¹

THE DANGEROUS DRUG PROBLEM—II

I. INTRODUCTION

In January 1965 the Subcommittee on Narcotic Addiction of the Public Health Committee of The Medical Society of the County of New York issued a position paper outlining current problems in the treatment of narcotics addicts and offering a series of recommendations which were adopted by the Society.

During the last two years the renamed "Committee on Drug Abuse" has focussed its attention on the ever widening scope of abuse and illicit use of non-narcotic drugs such as marihuana, amphetamines, tranquilizers and hallucinogens.

This report constitutes a revision of the Society's paper, "The Dangerous Drug Problem" formulated by the Subcommittee on Narcotics Addiction of the Committee on Public Health and approved with amendments by the Society on March 28, 1966 and issued on May 5, 1966. This revision attempts to clarify our position in some areas and to up-to-date information and recommendations on the problem of drug abuse.

¹ Report of Subcommittee on Drug Abuse consisting of:
Sidney S. Greenberg, M.D., *Chairman*
William Antopol, M.D.
Michael M. Baden, M.D.
May E. Chinn, M.D.
Judianne Denson-Gerber, M.D.
Jere B. Faison, M.D.
Donald B. Louria, M.D.
Helen D. Mayer, M.D.
Elda C. Patton, M.D.
Eric Gordon, M.D., *Cochairman*

II. BACKGROUND AND CURRENT PROBLEMS

(Products of the ubiquitous hemp plant, *Cannabis sativa* are referred to by the generic name Cannabis. Cannabis preparations include marihuana (U.S.A.) dagga (South Africa), kif (Morocco), ganga and charas (India)).

A. Marihuana

Several features of marihuana use should be noted.

1. There is evidence that marihuana use is increasing among young middle and upper income groups, especially those on college campuses. Recent articles show that an average of 7-15% of college students use marihuana on one or more occasions during a four-year collegiate career. In certain colleges the incidence is substantially higher (20-40%).

2. There is no statistical evidence that marihuana use is associated with crimes of violence in the United States.

3. Marihuana is not a narcotic nor is it addicting. It is a euphoriant and mild hallucinogen. However, it can produce all the untoward effects attributed to more potent hallucinogens. It should be emphasized that marihuana users frequently have impaired judgment in certain areas, particularly in skilled activities, such as driving.

4. The continued linking of marihuana with opiates and cocaine potentially results in excessively harsh penalties at both federal and state levels. According to federal law, conviction for possession of marihuana may result in a 2 to 10 year sentence for the first offense, and 5 to 20 years for a second offense. In 62% of the states, the penalty for marihuana possession is a minimum of 2 years imprisonment. The maximum possible sentence in 44 states ranges from 5 years to life. Conviction on a second possession offense may incur a sentence of a minimum of 5 years in 37 states.

5. Part of the confusion concerning the dangers of marihuana can be resolved by identifying the potency of the cannabis preparation used, Indian ganga and hashish are highly potent. Habitual and heavy use of these forms of cannabis has been associated with criminality, violence and psychosis. The marihuana used in the United States, the kif used in North Africa and the bhang drunk in India are perhaps $\frac{1}{2}$ the strength of hashish and are less dangerous. Acts of violence have not been statistically correlated with use of less potent forms. Although anecdotal reports indicate that in a given individual marihuana may unleash aggressive tendencies, the many psychoses induced by kif in Morocco occurred mainly among those who used large amounts over long periods of time. However, cannabis is an unpredictable drug and is potentially harmful even in its mildest form, even occasional use can produce (although rarely) acute panic, severe intoxication or an acute toxic psychosis.

6. The statement that marihuana users frequently progress to heroin needs careful scrutiny. The lack of correlation between marihuana use and subsequent heroin addiction was authoritatively reported by the New York City Mayor's Committee on Marihuana in 1944. Experience suggests that many individuals use marihuana only once or at infrequent intervals. Most individuals who eventually become heroin addicted or use LSD previously used a variety of drugs including marihuana. However, use of marihuana may initiate the individual into the morass of drug abuse and this may result in subsequent use of other drugs such as LSD or heroin.

B. Barbiturates, amphetamines and tranquilizers

Approximately one-half of the estimated 13 billion pills and capsules of these agents produced yearly in the United States are diverted to the illicit market, selling for \$.10 to \$1 per single dose. The consumption of these drugs has increased markedly in the last 30 years. In 1936, for example, 231,167 pounds of barbituric acid were produced in the United States. By 1960 this had risen by 250% to 852,000 pounds. In the same period the population had increased by only 25%. Between 14 and 18% of all physicians' prescriptions are for sedatives or tranquilizers. The profits in the illicit market are enormous, the estimate ranging between 250 and 500 million dollars annually.

Barbiturates such as Phenobarbital, Pentobarbital, Secobarbital, Amobarbital (amytal), and the combination of Secobarbital and Amobarbital (Tuinal), are the most abused drugs in this category. Every year there are about 3,000 deaths due to accidental or intentional overdose of barbiturates, but a far more common problem is habituation and addiction. Barbiturate addiction, defined by physical dependence, is characterized by intellectual impairment, self-neglect, slurred

speech, tremor, defective judgment, drowsiness, emotional lability, bizarre behavior and ataxia. Those who treat it consider it a "nasty" addiction, often characterized by excessive activity, agitation, and by aggressive, sometimes paranoid behavior. Withdrawal, if abrupt, may produce nausea, vomiting, weakness, tremulousness insomnia fever (up to 105 degrees F) delirium hallucinations convulsions stupor and coma which may be fatal.

A survey of six state and two city hospitals with narcotic detoxification units reveals that heroin addicts are currently having withdrawal problems, not because of the opiate but because of concomitant addiction to barbiturates. They can easily be withdrawn from the opiate but the barbiturate withdrawal is prolonged and trying. Over half the heroin addicts use multiple drugs, and according to a careful study at Lexington, Kentucky, 22.8% are also physically dependent on barbiturates. (JAMA 189:366, 1964)

Of the plethora of non-barbiturate sedatives and tranquilizers on the market, several, such as glutethimide, have been found to be addicting. The addiction and withdrawal manifestations of these drugs are similar to those observed with barbiturates. Physical dependence to these may develop and on some occasions, abrupt withdrawal has led to convulsions. Death has been reported during withdrawal from some of these drugs.

Amphetamines are habituating and dangerous. Judgmental and intellectual impairment, aggressive behavior, incoordination and hallucinations, all may occur during habituation. A variety of symptoms may also occur during withdrawal. Furthermore, amphetamines are being implicated in increasing numbers of automobile accidents. The use of amphetamine-like stimulants, such as methedrine or desoxyn, intravenously has been associated with a remarkably high incidence of paranoid psychoses. Such intravenous administration of amphetamines has increased markedly in recent years, especially among so-called hippies and among opiate users.

Tranquilizers, sedatives and stimulants are not only dangerous in themselves, but if taken in combination, their potential harm is markedly augmented. This applies not only to combinations of these three but also to concurrent use with ethyl alcohol.

C. Hallucinogens

In somewhat arbitrary fashion the commonly used hallucinogens can be divided into 3 groups according to potency. These can be summarized as follows:

1. *Mild hallucinogens*.—Airplane glue, gasoline, nutmeg, marihuana (American type), Freon and morning glory seeds.

2. *Moderately potent hallucinogens*.—dimethyltryptamine (when smoked); psilocybin (serotonin-related); bufotamine; peyote and mescaline (epinephrine-related); more potent preparations of cannabis (marihuana) including Indian hashish and ganga.

3. *Highly potent hallucinogens*.—LSD (d-Lysergic acid diethylamide), intravenously administered dimethyltryptamine, and STP (variously described as a phenylethylamine or a combination of mescaline and amphetamine).

LSD, an indol derived from lysergic acid, was isolated from the fungus *Claviceps purpurea* in 1938 by Hofman, together with ergotamine and ergonovine. Its hallucinogenic properties were discovered inadvertently 3 years later. Since that time it has been studied extensively by the medical profession; more recently it has become the center of an increasingly vitriolic controversy.

Discussion

In the United States the use of dimethyltryptamine, STP, morning glory seeds, psilocybin, nutmeg and mescaline are minor problems. Glue sniffing remains a persistent and disturbing problem among children at school age. The major hallucinogenic abuses are related to the use of marihuana (American type) and LSD-25.

LSD currently is licitly unavailable except for experimental investigations sanctioned by the National Institutes of Health.

LSD has been reported to be of benefit in the treatment of psychoneuroses but until additional, careful, long-term studies are performed, the precise role of LSD in the treatment of psychoneuroses will not be clear. It has also been claimed by several investigators that administration of LSD to alcoholics on 1 to 3 occasions has resulted in 6 to 12 months abstinence rates of 20 to 60%. These investigations, although optimistic, suffer from lack of adequate controls and prolonged follow-up. It should be noted that in those recovering, substantial adscititious therapeutic measures were also initiated. Furthermore, there is

a marked decrease in sobriety found between the 3rd and 6th months of the follow-up period.

LSD has also been said to be useful in the treatment of frigidity and sexual perversions, and in the study of psychoses, but the data are inadequate and conflicting. It appears to offer some promise in the treatment of arthritic children.

LSD has also been recommended for the treatment of severe pain in patients with terminal illnesses such as cancer. It should be emphasized that LSD given experimentally by trained physicians and psychiatrists is usually used in relatively small dosage, under which conditions untoward reactions are less likely to occur.

There are then at present no indications for use of LSD except in a strictly controlled experimental setting. Although LSD's medical use is confined to valid experimental projects, its more prevalent use is illicit in the form of LSD coated sugar cubes, in capsules, or dissolved in water or soft drinks. The LSD used for such purposes is obtained from "amateur" chemists from organized criminal operatives who either manufacture LSD here or import it from abroad, or from legitimate companies in foreign countries who sometimes ship batches of lysergic acid to unauthorized persons who request it on legitimate-appearing letterheads.

Once obtained, 100-600 mcg. of LSD are ingested. This is called "taking a trip"—a "trip" is infrequently taken more than twice a week. The cost of the individual cube varies from \$1 to \$10. The cubes once saturated with LSD may remain potent for a period of several months. The illicit user has no way of telling the exact amount in the cube or drink.

After the cubes, containing 100-600 mcg. each, are ingested, a startling series of events occurs with marked individual variation. All senses appear sharpened and brightened; vivid panoramic visual hallucinations of fantastic brightness and depth are experienced as well as hyperacusis. Senses blend and become diffused so that sounds are felt, colors tasted, and fixed objects pulsate and breathe. Depersonalization also occurs frequently so that the individual loses ego identity; he has a feeling of unity with other beings, animals, inanimate objects and the universe in general. The body image is often distorted so that faces, including the user's assume bizarre proportions and the limbs may appear extraordinarily short or elongated. The user is enveloped by a sense of isolation and often is dominated by feelings of paranoia and fear. If large doses are ingested (over 700 mcg.) confusion and delirium frequently ensue. During LSD use, repressed material may be unmasked which is difficult for the individual to handle. Although the duration of the experience is usually 4-12 hours, it may continue for days.

There are some sociologists and psychologists as well as a substantial number of interested lay people who insist that LSD has a miraculous capacity to induce an ecstatic religious and mystical experience permitting a person to expand his mind to understand God, the universe, himself, love and the hereafter. Some of those persons advocate the unrestricted use of LSD-25 by all who so desire it. However, there is no clear evidence that valid transcendental experiences have taken place as a result of LSD.

The members of the Subcommittee on Drug Abuse, noting that the legitimate uses of LSD have not yet been clearly defined, are deeply concerned over reports of adverse effects observed in persons to whom the drug is administered in a non-scientifically controlled setting.

In an 18-month period between 1965 and 1967, over 130 persons were admitted to the psychiatric division of Bellevue Hospital with acute psychoses induced by LSD. Prior to that time, LSD intoxication was rarely observed in that hospital. One hundred and fourteen of the hospital charts were available to the committee and were scrutinized. All 114 took LSD in a non-scientifically controlled setting.

Of the 114 patients 88% were white and 68% were male. These figures contrast with those available for heroin; among heroin addicts over $\frac{2}{3}$ in New York City are from lower socio-economic minority groups (Puerto Rican or Negro). The average age was 23 years with a range of 15-43 years. Seventy-three percent had taken LSD on only 1-3 occasions. The predominant manifestation in 13% was overwhelming fear, and an additional 12.3% experienced uncontrolled violent urges. Others were found running or sitting nude in the streets. Homicide or suicide was attempted by 8.6%. One-third of the 114 appeared to have underlying psychoses or schizoid personalities. Approximately half of these were actively psychotic prior to LSD use while the others either had been treated in psychiatric institutions in the past but were adequately integrated into society until

given the LSD or had no prior known psychoses but clearly had schizoid personalities.

Interestingly, although visual hallucinations usually predominate in LSD psychoses, $\frac{1}{2}$ had prominent auditory hallucinations, including one patient whose "voices" told him to jump in front of a subway train, which he did (without serious injury).

Most of those with acute LSD psychoses recovered rapidly, becoming oriented and "normal" (for them) in less than 48 hours. In others the psychoses resolved in less than a week. In 15.8%, however, recovery did not take place during their Bellevue hospitalization and they had to be referred for long-term hospitalization; half of these had no history of underlying mental disease.

The data from the literature and the Bellevue experience indicate that apparently normal, well-adjusted persons can undergo an acute psychotic break under the influence of LSD, and those with unstable personalities may experience prolonged LSD-induced psychoses. Thus, Grinker noted in 1963 (Arch. Gen. Psychiat. 8:425) "Latent psychoses are disintegrating under the influence of even single doses."

The question remains unanswered whether "normal," well-adjusted persons given LSD can suffer prolonged (as contrasted to transient) psychoses. Reports of children accidentally ingesting single doses of LSD indicate that severe personality disturbances and recurrent hallucinations may persist for weeks or even months.

The dangers of LSD have been summarized by many others including Levine and Ludwig (Comp. Psychiat. 5:314, 1964, JAMA 191:92, 1965), by Cohen and Ditman (JAMA 181:161, 1962) and by Frosch, Robbins and Stern (New Engl. J. Med. 273:1235, 1965). These include (1) acute or prolonged psychoses, (2) acting out of sociopathic character disorders, (3) acting out of homosexual impulses, (4) suicidal or homicidal attempts, (5) uncontrolled aggression, (6) convulsions, and (7) reappearance. The last named is an intriguing phenomenon in which the manifestations of LSD intoxication, including hallucinations, reappear weeks, months or even to two years after LSD use when the user finds himself in a stressful situation.

Grinker (Arch. Gen. Psychiat. 8:425, 1963; JAMA 187:768, 1964) notes, "The drugs are indeed dangerous even when used under the best precautions. There are increasing numbers of reports that temporary or even permanent harm may be induced despite apparently careful pretherapeutic screening of latent psychosis and careful precautions during the artificial psychosis." Here again is the story of evil results from the ill-advised use of a potentially valuable drug due to unjustified claims, indiscriminate and premature publicity and lack of proper controls.

Clearly, the danger is far greater in non-medical hands. The ease of manufacture, the potential profits in the illicit trade, the gaudy publicity, and the activities of certain proponent groups all have contributed to hallucinogenic drug abuse.

In addition to the aforementioned dangers, the recent studies on chromosome change appear convincing. Eighty to 85% of those using LSD manifest both an unusually high incidence of chromosomal breaks and chromosomal rearrangement. Similar chromosomal abnormalities have been found in some offspring of women who took LSD during pregnancy. Thus, the spectre of genetically induced damage in the users or their progeny is raised. The actual significance of these chromosomal findings await additional genetic and epidemiologic studies. (Of the studies on humans available at this writing, two show chromosomal aberrations, whereas in four studies, chromosomal defects were found.)

Recommendations

1. No hallucinogen (LSD, mescaline, STP, psilocybin or dimethyltryptamine) should be administered except by a physician trained in its use, and this should apply even if current studies show LSD to be of value in the treatment of psychoneuroses, sexual perversions, frigidity, alcoholism or other illnesses. We stand unalterably opposed to any expansion of the use of psychedelic drugs beyond their use by physicians. Even use by trained physicians should continue to be limited to careful controlled experiments.

2. Appropriate educational materials should be made available to the public emphasizing the potential dangers of the more potent hallucinogens as well as the amphetamines and barbiturates.

3. The local and state medical societies should prepare adequate educational materials for physicians so that hallucinogenic (and also barbiturate and amphetamine) toxicity can be readily recognized.

4. In regard to barbiturates once severe habituation or addiction has been diagnosed, withdrawal should be performed in the hospital because of the dangers of convulsions and coma. Most barbiturate addicts require psychiatric treatment.

5. Persons using LSD who have adverse reactions should be promptly referred by physicians to a psychiatric institution or to a psychiatrist trained in its manifestations and treatment. If a patient is severely ill because of LSD use, treatment given prior to referral for psychiatric help should consist of intramuscular chlorpromazine. It is important to emphasize that oral chlorpromazine is often ineffective in this situation and may even exacerbate the illness. The recent abuse of STP has complicated the treatment problem, since chlorpromazine will accentuate STP mania. It is therefore crucial that the physician know exactly what the patient has taken before prescribing.

6. Marihuana should at long last be relegated to its rightful position as a mild hallucinogen, and should be removed from the opiate-cocaine category. New York State should take the lead in attempting to mitigate the stringent federal laws in regard to marihuana possession. However, we would make it clear that we condemn marihuana use and do not recommend changes in the marihuana laws related to illicit sale or smuggling for sale.

7. The dangers of LSD and other potent hallucinogens such as mescaline, psilocybin, STP and dimethyltryptamine are so great that penalties for their illegal manufacture, distribution or sale should be increased both at federal and state levels; these crimes should be made felonies with severe penalties. (The current laws in New York State are satisfactory in this regard but they must be revised in other states.)

8. The intentional administration of LSD, mescaline, psilocybin, dimethyltryptamine or STP to any person without that person's knowledge is a heinous act and should be categorized as a felony.

9. A special advisory body made up of pharmacologists and physicians should be instituted by county medical societies to continuously advise the Mayor of New York City, and a similar body should be established at the State Medical Society to continuously advise the Governor of New York on those drugs (especially new ones) which are dangerous or addicting and might have to be controlled by legislation.

10. There should be increased flexibility in modifying laws governing the abuse of dangerous drugs in accordance with newer knowledge and the advent of new drugs so that penalties can be modified with relative ease.

11. A special committee composed of legislators, pharmacists and physicians should be formed to evaluate the effects of recently enacted laws on the abuse of stimulants, depressants and hallucinogens. If the committee is formed now and engages in a continuing study, recommendations concerning any needed modification in the laws could be ready for the legislature by 1969.

12. We urge that physicians exercise great care in prescribing sedatives, tranquilizers and stimulants, limiting the use of these drugs to those in whom there are clear indications that such treatment is beneficial.

13. A mandatory reporting system should be initiated through the New York City Department of Health and the State Department of Mental Hygiene so that accurate data can be collected on the incidence of hallucinogenic abuse.

14. The treatment of established drug abuse is far more difficult than its prevention or arrest at an early stage. As a result, a massive educational campaign must be conducted in our schools and colleges. Additionally, it is imperative to undertake extensive research and epidemiological studies to determine what traits or personality constellations underlie drug abuse. It is especially important to determine why one individual in a given environment subjected to certain stresses turns to drugs and another individual under identical circumstances does not. An understanding of such factors may allow early detection of the drug prone individual and permit initiation of effective preventive measures.

Mr. ROGERS. Our first witness this morning is our colleague from Florida, the Honorable Sam Gibbons.

STATEMENT OF HON. SAM GIBBONS, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF FLORIDA

Mr. GIBBONS. Mr. Chairman, I appreciate this opportunity to testify in support of legislation to provide penalties for the unauthorized possession of LSD and other hallucinogenic drugs. This legislation is designed to deal with a problem of growing significance to our Nation.

Too many of our young people are experimenting with dangerous hallucinatory drugs. There is no doubt that adequate safeguards are urgently needed.

Since the effects of LSD on the psyche of the user and upon his behavior are very unpredictable anyone who takes it without proper medical supervision is playing "Russian roulette" with a sugar cube. Eating, inhaling, or injecting even as small a quantity of LSD as one two-hundred eighty-thousandths of an ounce causes symptoms ranging from hallucination, distortion, and intensification of sensory perception to panic, impulses toward violence, suicidal acts, and psychosis. These disastrous consequences frequently require extensive psychiatric treatment to restore the individual.

There are also dangerous physical effects associated with the use of LSD. These include an increase in blood pressure, heart rate, and blood sugar, accompanied by nausea, chills, irregular breathing, trembling, and sweating. Sleep becomes virtually impossible until at least 8 hours after the LSD episode is over. The pupils of the eye are so widely dilated that the user has to protect himself against the light with dark glasses, even at night. I call attention to these physical effects because it is important to note that people in this condition cannot function as normal members of society.

I think another aspect of drug abuse merits careful consideration. Not only do people become incapacitated, but they also become destructive. The record of human disasters associated with the use of LSD provides ample evidence to support changes in our laws. The use of LSD often results in the elimination of protective attitudes, sensible judgment, and the ability to perceive and evaluate dangers. The Food and Drug Administration recently reported a case in which a college student jumped to his death from a window either in the belief that he could fly or to attempt to flee the panic which he experienced from the use of LSD. Another young man on an LSD trip stepped directly in from of onrushing traffic with his hand raised to halt the vehicles as if he were omnipotent. Murders and bizarre self-destruction can be expected to grow if the spreading abuse of hallucinatory drugs go unchecked.

Mr. Chairman, while the manufacture, sale, or other disposition of LSD without authorization is a violation of the Food, Drug, and Cosmetic Act, I do not think the penalties are adequate. I certainly endorse the stiffer penalties under consideration by this committee.

I am particularly concerned about the role of organized crime in the illegal sale of drugs. They prey on the disadvantaged and uninformed. They start many people on a life of crime as robbery and other illegal acts are committed to obtain funds to pay for drugs. A major effort must be undertaken to stop their activities.

I also think it is in the best public interest to make the unauthorized possession of LSD and other hallucinogenic drugs a criminal act.

While I recognize that this is only one way to protect both the individual and our society from the dangers of drug abuse, I feel it is an important step that should be taken promptly.

I want to commend this committee for its efforts to deal with the problems of drug abuse. You can count on my full support.

Mr. ROGERS. Thank you Mr. Gibbons.

Our next witness is Hon. Ed Reinecke, our colleague from California. Welcome Mr. Reinecke.

STATEMENT OF HON. ED REINECKE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. REINECKE. Mr. Chairman, I am deeply grateful for this opportunity to express my views before your committee in support of the legislation which I have sponsored to amend the Federal Food, Drug and Cosmetic Act to provide for additional controls over the very dangerous drug, LSD.

My bill, H.R. 14804, would forbid possession of LSD except by certain clearly authorized persons, such as researchers and investigators. This bill provides that no person, except those specifically named in present law, may be authorized to possess any hallucinogenic drug, except pursuant to a prescription by a duly licensed practitioner. I see no reason to allow persons who are not qualified to administer LSD, or to conduct legitimate research which the drug, to have such a dangerous agent in their possession.

Establishing a possession penalty should aid in the law enforcement process, because agents will not have to show evidence of illegal sale or other transaction in order to make a case. This measure will also help to clearly establish that the illegal presence of LSD and other dangerous hallucinogenic drugs is firmly condemned when used for nonmedical purposes.

Despite nearly 25 years of laboratory and clinical research, LSD still has no general medical application in the modern world of therapeutics. Although continuing research with LSD may someday lead to the drug's practical application, it is now only known that LSD has tremendous psychological effects upon human beings. Without careful medical supervision by persons highly skilled in its use, LSD represents a clear and present hazard to the safety of inexperienced experimenters and to the safety of those about them.

Mr. Chairman, your committee has heard expert testimony reveal the psychic dangers which the use of LSD brings to the unwary and unskilled. Despite claims about the wondrous effects this powerful psychotoxic agent has on the mind, we have case after case of human tragedies reported where LSD has been used.

Since the drug eliminates protective attitudes, blocks sensible judgment, and destroys the ability to perceive and evaluate dangers, we find that youngsters have violently beat each other, have hurled themselves and their companions out of fourth story windows under the drug's influence, and have suffered complete and total mental breakdowns requiring extensive hospitalization and care. It also appears that researchers have found some evidence that, in addition to its psychic effects, LSD may be involved in chromosomal damage to the body.

While permanent damaging affects of LSD are not yet proven, it is a fact that LSD is a first step to drug use. Once a user has gone this far, then the use of marihuana, heroin, and other dangerous drugs become a high degree of probability.

Present law provides for stringent controls over the manufacture and use or sale of LSD and other hallucinogenic drugs. Only approved investigators may now legitimately receive and use quantities of LSD. The drug is not available from drugstores, and physicians skilled in medicine may not prescribe the drug, as they would other chemical agents, for the treatment of their patients. But, despite these limitations, the Federal law does not provide penalties for, or prohibit the possession of, LSD by individuals—if such possession is for personal use, or for use by a member of the possessor's family, or for administration to the possessor's animals.

Mr. Chairman, although most public alarm about the growing problems of drug abuse has focused on LSD and other hallucinogens, we cannot overlook the fact that other dangerous drugs are being consumed in our society in ever-increasing quantities without proper medical supervision.

In a recent trip to California, I was shocked to learn that the use of stimulant drugs, such as amphetamines and methamphetamines, is sharply rising. As you know, Methdrine is the tradename for methamphetamine produced by Burroughs Wellcome & Co. of New York. There are many manufacturers of methamphetamine hydrochloride. Unlike hallucinogens, which today have no practical medical application, amphetamines are lawfully prescribed for overweight, for narcolepsy, and other disorders. Used indiscriminately, however, these drugs are potent stimulants to the central nervous system.

In 1965, Congress enacted controls over these dangerous drugs. Yet counterfeiting, diversion from legitimate distribution channels, and even perhaps some indiscriminate prescribing, has resulted in readily available supplies of these stimulant drugs. It is my hope, Mr. Chairman, that the distinguished members of this committee will also give careful attention to ways in which existing controls over all dangerous drugs can be strengthened, so that the tide toward drug abuse may be halted and turned about.

Mr. ROGERS. Thank you for your views, Mr. Reinecke.

We have as the next witness today Dr. Donald B. Louria, Infectious Disease Laboratory, Bellevue Hospital, New York City, N.Y. Dr. Louria is president of the New York State Council on Drug Addiction.

Dr. Louria, the committee appreciates your being here today, and we will be pleased to receive your testimony.

STATEMENT OF DR. DONALD B. LOURIA, INFECTIOUS DISEASE LABORATORY, BELLEVUE HOSPITAL, NEW YORK CITY, AND PRESIDENT, NEW YORK STATE COUNCIL ON DRUG ADDICTION

Dr. LOURIA. I have a short statement that I would like to read if I may.

Mr. ROGERS. That would be fine.

Dr. LOURIA. Mr. Chairman, I am delighted to have this opportunity to express my views regarding changes in the legal structure to potent hallucinogenic drugs. There are several points I would like to make.

There can be no question about the enormous risks encountered by an individual taking LSD under promiscuous circumstances. The well-documented acute, untoward effects include intentional or inadvertent suicide—attempted, and in a few cases completed—homicide, self-mutilation, uncontrolled aggression, overwhelming panic, and acute psychosis requiring hospitalization. The psychosis may last for days, weeks, or even months.

The chronic undesirable effects are equally frightening. These include recurrence of unpleasant experiences, long-lasting psychosis, drug-induced withdrawal, and genetic damage. Recurrence is a fascinating phenomenon. There are now cases on record of persons, ingesting LSD, having unpleasant hallucinations and then, despite no further LSD ingestion, having the hallucinations return up to 2 years later. Panic may also recur for example, I know of one effectively functioning individual who ingested LSD on a single occasion at the importuning of a friend. For 12 hours he had a very pleasant experience, but then underwent 12 hours of unremitting panic. He called me 2 years later, requesting advice, because panic had recurred with gradually decreasing intensity during that entire 24-month period, although he had not taken LSD or any other hallucinogen again.

In regard to long-lasting psychosis, there is no doubt that a single ingestion in a normal person can induce a psychosis lasting for months; in an unstable, neurotic, or compensated psychotic, LSD may precipitate a psychosis lasting for many months, or even years. If the drug is ingested repeatedly, the likelihood of initiating or precipitating a prolonged psychosis is increased. We still do not know whether a previously normal person can have a psychosis lasting years, or even permanently; if this occurs, it must be rare indeed, and then is limited to those who ingest the drug on many occasions. However, in a predisposed person, especially if the drug is used repeatedly, a psychosis lasting years, or presumably even one which is permanent, can be induced.

Drug-induced withdrawal is a problem of increasing severity in our society, and LSD is only one vehicle for this. Even marihuana in heavy doses can, after repeated use, produce the same loss of ambition, rejection of previously established goals, and retreat into a solipsistic, drug-oriented cocoon.

The chromosomal abnormalities clearly do occur, but their significance remains as yet unclear. At present there are five published studies on effects on human white-blood-cell corpuscles taken from LSD users; three of these showed up to about 80-percent chromosomal breaks and/or chromosomal rearrangements. In the other two studies, no such changes were found. Four animal studies have been published; in three the injection of moderate amounts of LSD early in pregnancy in rats, hamsters, or mice resulted in a striking increase in embryologic abnormality or a profound increase in the number of stillbirths; the fourth experiment, in rats, showed no such effects. Additionally, I am told there are two as yet unpublished studies showing injection of small amounts of LSD-produced genetic changes in reproductive tissues of experimental animals.

If these last two studies, which I have only heard secondhand, turn out to be valid, I think they are extraordinarily important. I am unable to give the committee any additional data, since I have not read them or seen them in the literature.

Mr. ROGERS. I wonder if you could furnish the names of the investigators in those studies?

Dr. LOURIA. One of the studies is being done by Dr. Maimon Cohen at the Mount Sinai Hospital in New York City, and by Dr. Hirshhorn in Buffalo. They can give you details of the other study, which I am told is about to be published in the *Journal of Science*.

Perhaps the most important aspect of the current studies is the observation that the chromosomal aberrations tend to persist. Thus, adults have been followed as long as 15 months after stopping LSD, and still show chromosomal abnormalities. Infants born of mothers who took LSD during pregnancy also may show abnormalities, and in one child these have persisted for 2½ years.

These findings are important. Although no gross infant malformations can yet be unequivocally attributed to LSD ingestion by the mother, the possibilities of harm are substantial. It will take two generations to make this judgment, since the genetic abnormalities described may produce anomalies or disease not in the first generation of offspring but in the second. Suffice to say that the medical profession, armed with the genetic data on LSD we have today, would never prescribe a drug with such potential for harm without very good indications, and then only if it was absolutely necessary, or the specter of genetic defect made no difference—for example, in a patient dying of cancer.

Those who would dismiss the genetic complications of LSD do so by saying tranquilizers, measles vaccine, caffeine, and antibiotics can produce similar changes. These facile statements require careful scrutiny. The tranquilizer and live measles-vaccine changes are limited to breaks which disappear in a short time, and are thus dissimilar to LSD-induced changes. The antibiotic-induced changes relate not to our everyday drugs but rather to a special class of anticancer drugs, and the implication that routinely used antibiotics—such as, for example, penicillin—induce chromosomal breaks is, as far as I know, specious. The caffeine studies are primarily on the fruit fly; the equivalent dose in man has been calculated at about 30 gallons daily, and there is no indication chromosomal changes have been found in inveterate coffee drinkers. Thus, the comparisons used appear to be inappropriate. The fact is that LSD users have every right to be concerned about harm to themselves that may be manifest years later, or harm to their offspring or their children's children.

In summary, LSD is indeed a fantastically dangerous drug. The LSD devotees may pay an appallingly high price for the ephemeral sensate pleasures and illusions of a psychedelic trip. I would urge the following considerations on the committee in your deliberations on the proposed legislation.

1. LSD is so dangerous that penalties for its manufacture, sale, or distribution should be harsh. It is well to remember that some distributors have grown rich on LSD sales; the markup from manufacturer's cost to street sales is in the range of 50:1 to 100:1. What costs 10 cents sell for \$5 to \$10; the biggest profit is made by the illicit chemist, who makes about a tenfold profit.

2. Administration of the drug to an individual without his knowledge is heinous and reprehensible, for the recipient feels he is losing his sanity without the at least partially reassuring knowledge that

he has taken a drug and will presumably regain sanity when the drug effects wear off. The penalties for this should be harsh, too.

It would seem appropriate to note that in 1966 the Medical Society of the County of New York called for making such offenses a felony, and many States, New York included, have done so.

3. The problem regarding possession alone is a more difficult one. There is a large body of medical opinion which says there should be no penalty for mere possession. I respect this, but do not agree with it. If our society has made the judgment, and it clearly has, that it must control potentially dangerous drugs, then a misdemeanor penalty for possession of inordinately dangerous drugs such as LSD seems reasonable to me. To do less is to encourage abuse. The argument that we should not have such penalties on the ground that it would make certain young people criminals seems to me to be a bit bizarre. This is not injection of an innocuous substance; it is abuse of a drug, which can result in antisocial behavior, prolonged institutionalization, or self-injury, and is a threat to both the individual and society. No one is compelled to take LSD. It makes little sense to say this is an extraordinarily dangerous drug, that we will punish severely its sale or manufacture, but will exculpate those who make the criminal conspiracy involved in manufacture and sale possible. If society is to regulate its dangerous drugs and intoxicants, it cannot condone use but harshly punish distribution.

4. It seems to me the Congress must carefully consider our whole dangerous-drug problem, not the parochial area of LSD alone. We are now in a period of burgeoning use of a potpourri of stimulants and potent mind-altering drugs in many ways as dangerous as LSD; in the latter group are surely STP, and perhaps MDA, DMT, and a new compound with deliberately scatological initials. Furthermore, it is now common to give mixtures of dangerous drugs such as mescaline, LSD, and cocaine, or STP and atropine, or LSD and methedrine. Each of these should be in a category which would make sale a felony, and possession a misdemeanor. And the hippy legacy is much that many young people will ingest a capsule of they know not what, so long as the promise of intoxication is offered.

At the same time, we are surely overreacting to marihuana. To permit the anachronism of its continuing link with heroin, or the insanity of having less severe penalties for far more dangerous potent hallucinogens or stimulants, is unwise and unjust. Surely we can make the laws sensible and realistic in regard to this drug, without either condoning or legitimatizing it.

Consequently, it would seem to me that this is a time to revise all our dangerous-drug laws, to separate them into valid categories according to the documented dangers. Under such a revision, codeine and marihuana might belong in one category of less dangerous drugs, whereas LSD, heroin, and injectable stimulants, such as cocaine and methedrine, would be in another consisting of more dangerous drugs.

If such a complete revision were made, a considerable amount of the fire would disappear from the current trivial polemic over the ubiquitous and unimportant hemp plant, and then all of us, relieved of the burden of the debate over the incongruities of the marihuana laws, could get on with the task of attempting to effectively educate our

young people against becoming involved in the moral, psychological, physiological, and legal quagmires of illicit drug use.

Mr. ROGERS. Thank you very much, Doctor, for a very excellent statement. Dr. Carter?

Mr. CARTER. I think the gentleman has certainly made a very fine statement. There are a few questions I would like to ask about this, however.

I notice that you state that no one is compelled to take the drug; is that right?

Dr. LOURIA. Yes, sir.

Mr. CARTER. However, you state in another part of your statement that it can be given to people perhaps on a sugar cube, or in some other similar way.

Dr. LOURIA. That is correct.

Mr. CARTER. I agree a person who does this should have a severe penalty. I am glad to talk with a man of your expertise in this field.

Could you tell me about what percentage of the youngsters in your area, or the people in your area in college and high school, are users of LSD?

Dr. LOURIA. Nobody can give you an absolutely accurate answer to that. The best studies, both in our area and across the country, suggests that a reasonable statement, as of last summer—and that is really the last time one can talk about, because it was then that the chromosomal abnormalities became evident—it can only be estimated at 1 to 2 percent. At some of the colleges on the east coast and west coast, it ran substantially higher. At one of the major colleges on the west coast, it was about 7 percent. On the east coast, again at some of our major colleges, it also has run as high as 7 to 10 percent for LSD.

Mr. CARTER. I believe in one survey in one high school, in a certain county in California, 8.7 percent of the students used this.

Dr. LOURIA. That is right.

Mr. CARTER. How would you handle these students? I notice that you seem to want to pursue the hard line, in this case, with them.

Dr. LOURIA. I don't think I am pursuing a hard line. I think that there ought to be legal sanctions. Are you asking how would I handle the student problem?

Mr. CARTER. Yes, sir.

Dr. LOURIA. I think in two major ways. One, I think we need a massive educational campaign. It is one which we do not currently have, and I think it has to be up to date and impeccably honest education.

Our difficulty in this field is that some of the people doing the education have surprisingly little knowledge, and tend to utilize scare tactics. This is especially true in marihuana, for example. I have heard people who really know better get up and talk to high school audiences and say, "If you smoke marihuana, it will cause lung cancer; and, if you sniff glue, every time you do there is death of brain cells." The kids in the audience know this is not true. Having made a specious statement like that, it does not make any difference what else they say; in effect, the kids turn them off and, indeed, the speaker has done more harm than good.

I think we need an extensive educational program with talks, films, charts, et cetera; but I think it has to be completely up to date, and it has to be very honest, indeed.

I think if we do that there is little doubt in my own mind that we could reduce the incidence of LSD use, or the use of similar other potent hallucinogens.

Those deeply involved in the educational processes, prior to the knowledge of chromosomal abnormalities, were very much impressed if we could just guarantee that high school and college audiences would walk out of a lecture convinced of the dangers of the drug. The problem was not that we couldn't educate, but rather we did not know enough and we did not have sufficient educational materials.

Secondly, I think in our high schools and colleges we desperately need regulations, not the sanctions of laws necessarily applied but regulations applied by the colleges. In a society that has become extraordinarily permissive, this has spilled over into the drug area. Some colleges, for example, are saying really it almost is not their responsibility. I just do not think that is true. I think we all should be doing what Harvard told the students about a year ago: "If we catch you using illicit drugs such as marihuana or LSD, we are not going to call in the police, but you are disobeying our law," and I am paraphrasing this, "if you are stupid enough to use these drugs, then we assume you are not here for the serious purpose you should be and we feel we can take any action up to dismissal including transgression."

That makes sense to me—a combination of education and rules.

Also, we ought to markedly reduce the supply. That is why I think the proposed legislation makes sense.

Then I think we ought to have provisions for legal sanction against possession. I think you have to be very cautious in just how you apply them, but I think they ought to be in the law.

Mr. CARTER. You would be very careful about simple possession; that is, possession, not for sale; is that right, in small amounts?

Dr. LOURIA. Yes, sir; except I feel that possession of LSD should be a misdemeanor offense. I think you could utilize probation, suspension, et cetera, but I don't think we ought to be in the position of condoning it. There is a major reason for this. If we have no penalty for marihuana possession, then—

Mr. CARTER. We are not discussing marihuana.

Dr. LOURIA. I am glad we are not, as a matter of fact. If we are discussing LSD possession, if we have no penalty for this, then you run into the zealot phenomenon; that is, say you have five or 10 people in a substantial size student body who are committed to LSD. There is no penalty for their use and they keep using it. They remain in situ enlarging the drug subculture within the college. If you don't have some mechanism for effectively punishing people for possession, then I think the problem will just ineluctably spread.

Mr. CARTER. Have we had severe penalties against marihuana? Have we had a decrease in the amount or the number of users?

Dr. LOURIA. No, sir; we are in a period of massive increase in the use of marihuana.

Mr. CARTER. You would say then the penalties have not been too effective regarding the use of marihuana—

Dr. LOURIA. No, sir.

Mr. CARTER (continuing). But at the same time you say penalties would be effective in the use of LSD; is that right?

Dr. LOURIA. No, I am not really saying that.

Mr. CARTER. You are not saying that but you say they are necessary; is that right?

Dr. LOURIA. Right. What I feel about marihuana is that our legal structure is so ridiculous in regard to penalties for possession that nobody believes them. If a person is arrested in New York State, for example, or New York City, if a person is arrested for felonious possession of marihuana, he is virtually never prosecuted there. They convince him in every way they can to take a plea for a misdemeanor offense; that is, plead guilty to a misdemeanor so he can go to trial and be given parole, et cetera, or a very brief jail sentence, so he does not have to be involved in a felony offense.

By the same token, the judiciary does not believe in the penalties. We are in a position in this country in regard to marihuana that nobody believes in the legal structure we have, and I think that is why the problem is so difficult.

Mr. CARTER. Yet you want to apply the same structure, which is so bad and inefficient, to LSD.

Dr. LOURIA. No, sir.

Mr. CARTER. We have the same penalties and even harsher penalties now against marihuana. Simple possession is punishable by 2 years in the penitentiary; is it not?

Dr. LOURIA. But that is the point.

Mr. CARTER. At the same time, you want a penalty against one of these youngsters in the high school, at 8.7 percent of some of the high schools, 18 years and younger, with a penalty up to 1 year in jail for these, even if they have one tablet one time. That is just beyond good reasoning, I should think. Certainly, I believe in your educational program. I am agreeing with you that that is great, and I believe in mass education, and many of us are taking advantage of that at the present time. Circulating films and educational materials are important in these areas, but to get a youngster under 18 years old and send him to jail for 1 year for possession, as you said, of one tablet, and you want that to be effective, one tablet, one time, the initial time; I certainly cannot go along with such an idea as that.

Dr. LOURIA. I think you are misinterpreting what I said.

Mr. CARTER. I can't see it that way.

Dr. LOURIA. Let's make sure that you do not feel that I am saying we ought to equate the LSD possession laws with the possession laws for marihuana. My point is diametrically opposed to that. My point is the laws, federally, and in the States, are so ridiculous in regard to marihuana possession that nobody believes them or accepts them, that a lot of the problem with the illegality of marihuana, from the possession point of view, is that the laws are ridiculous and they are not applied. They are not applied because, as you point out, they are inordinately harsh. That does not mean that in urging revision of those that I am urging that there be no penalty for marihuana possession. I have urged consistently for realistic sanction so a conviction on an offense of marihuana possession, for example, would result in assignment to a local poverty program for a specific period of time, or weekends, and so forth, and then expunging of the sentence. If one repeatedly does this, then I would invoke misdemeanor sanctions.

Mr. CARTER. That is exactly what I wanted to bring out. I say, for the first offense, you would probate this youngster.

Dr. LOURIA. For marihuana, for the first use, and I would have sentences that would (a) be constructive, an assignment for a short period of time to something worth while; (b) I would expunge the conviction after serving that; (c) I would never have possession offense more than 6 months in prison no matter how many times he did it; (d) if he refused to obey the law—

Mr. CARTER. We are discussing LSD at the present time.

Dr. LOURIA. As far as LSD is concerned, I think you can be perfectly flexible and have suspension, probation, whatever you want in your sanctions legally, but I think it is imperative that if we are going to prevent this drug, and others like it, from becoming used inordinately and massively available that we are going to have to have some sanction against possession. I just don't understand how we can ever be in the position of saying, "Look, we are going to punish you severely if you supply this drug to this fellow, but if he uses it, that is your problem."

Mr. CARTER. You are getting away from the point. I am not talking about a habitual user. I am talking about the youngster who uses this drug for one time and has one tablet in his possession. What is your answer as to what you are going to do to these high school youngsters? Are you going to put them in jail for a year?

Dr. LOURIA. No.

Mr. CARTER. You are not. What are you going to do with them then?

Dr. LOURIA. I presume there would be judicial discretion in the law so that they can be given suspension, probation—I am no lawyer, so I don't know—but I presume you could arrange it so they are assigned to a constructive program on the one hand or, if necessary, they undergo psychiatric help if that is their problem. I am not at all for jailing these young people.

Mr. CARTER. Yet you support this penalty?

Dr. LOURIA. Yes, sir.

Mr. CARTER. Yet, you say you want to water it down, you want to pass a law and then not enforce it and more than likely it would be just like the law on marihuana, just like you say.

Thank you very much. I have taken up considerable of your time.

Mr. ROGERS. Is there any example that you know of where a penalty, say, for possession has been a deterrent? In other words, what we are trying to do is stop the spread of LSD in the consideration of this legislation. If we have to have a penalty as a deterrent to young people to stop those high school students, and to stop the college students, to let them know society does not approve, that it is harmful and we want to stop the spread of it, this is the problem, not to put people in jail but to stop other people from using it.

Dr. LOURIA. Let me make it clear that I am not suggesting that we pass a law and then water it down or don't apply it. I am suggesting that we pass a sensible law and then do apply it.

I am also suggesting that the possession provisions are almost mandatory because of the evangelical phenomenon surrounding LSD. I am talking about LSD only.

As far as other situations in which this has been applied and worked, I think the one that might be most comparable to our situation is what happened in Japan in the 1940's and 1950's with amphetamines. Here, again, was a new drug, popularized in the press as a stimulant instead

of hallucinogen but an awful lot was comparable in a bustling, urbanized society like ours. In 1953 or 1954 Japan had between 500,000 and 600,000 amphetamine habitues; 300,000 of these took it intravenously, the main-line route—an extraordinary number. I cannot give you all of the data but I can summarize it for you very briefly; namely, that about 1954 they decided to have a three-prong campaign: (1) massive education; (2) attempt in every way they could to control the source of the amphetamines; and (3) passing legal sanctions.

The law was possession could incur up to a 5-year penalty; zero to 5 years, or a fine—whatever it was in yen, I don't remember—that the potential penalty was a fine from zero to 5 years and up to 100,000 yen. The arrests in 1954—

Mr. ROGERS. Would this be amphetamine offenses and not marihuana?

Dr. LOURIA. This whole thing is amphetamines.

The arrests for amphetamine offenses in 1954 were around 55,000. A year later, they dropped to 32,000, as the law was being implemented; and 1 year later they were down to 7,000. We are intrigued with this problem, and there are many people—I am not one of them—who traveled over there to find out why they were so effective, because they now do not have any massive amphetamine problem. They saw their problem, they took appropriate steps with a three-pronged attack, and they effectively controlled it. There is a perfect example in which legal sanctions combined with education and control of the source did indeed strikingly reduce an astounding problem.

Mr. ROGERS. Doctor, I think that is most interesting, and I would hope that the passage of any law with a penalty would act in this way in this country, and this is, of course, what this committee is considering.

Let me ask you this: Simply because a person is arrested the first time does not necessarily mean that that is the first time the person has used that drug, does it? Does this automatically mean this is the first time that person used the drug?

Dr. LOURIA. Of course not.

Mr. ROGERS. To say just because a person is found with it one time, I think, does not assure that at all. So that the courts, I presume, under the law, as they normally do have some discretion particularly where there is the first arrest, and I would presume they would want to do some research and have the presentencing investigation that is normal to find if this is a person who has been using the drug, and so forth, so that the penalty would be appropriate.

If we do not have a penalty for possession, how do we get at the continual user? There is no way now to get at the continual user unless he sells it or buys it; is that correct?

Dr. LOURIA. That is correct. I think the last thing any of us wants to do is throw young people in jail or even if we could avoid it have any penalty provisions for this at all. I certainly sympathize with and respect the opinion that suggests we have no penalty. I just do not see an alternative to at least having it available to be used if necessary.

For example, what would you do if somebody is not caught for sale but is spending virtually his whole life in a college or other community inveigling others into the use of LSD with all of the consequences?

This is exactly what has been happening over the past few years, saying it is a wonderful experience and the stuff about chromosomes is put on by the establishment and all of these stories about people jumping out of the window. At one hearing it was suggested to me that a suicide was my fault, that if I had not mentioned in public testimony that people committed suicide, nobody would have committed suicide. That is the kind of argument that is used. If you are in situ, a member of the group, a member of the zealot, then you can undo the most massive education done by someone coming out and saying, "Here are 10 dangers of LSD and you should abjure their use."

I do not see how you can have a law that does not have at least a provision for those who are deeply involved and committed to being evangelists, even if they are not selling it. They are giving it away and can be punished if they are caught with possession of the drug.

Mr. ROGERS. I think you have pointed up the problem extremely well.

What would you think of a proposal, for instance, as they have done in Colorado where they allow in the law the court, particularly on a first offense, and it may not mean he has used it only one time, but the first time he is caught using it and there as a great distinction people do not make about that. They simply say this is the first time he is caught so he has only one pill. Well, that is not necessarily true and we need to distinguish this point. What would you think though of a first offense and if it is shown perhaps he is not an inveterate user, from a presentencing investigation to allow the court authority, and they might have it anyway, but a set provision in the law to provide that this person take psychiatric treatment for a year, and if he goes through that treatment properly, then the record would be expunged for the first offense. What would be your feeling to some approach like that?

Dr. LOURIA. Not only would I support it, but I would carry it further and be for that kind of evaluation and provision whether or not he was an inveterate user and whether or not it was the first offense. As the dangers of LSD become more apparent, at least in the Bellevue population it is being found that the people who take the drug do so to—some of them anyway—ameliorate or cure substantial underlying psychiatric problems and, of course, they do this under nonmedical aegis, so a provision such as that in the law, I think, would be highly salutary.

Mr. ROGERS. Mr. Kyros?

Mr. KYROS. Doctor, recently I had occasion to visit in Chicago and there I met a Dr. Daniel X. Freedman, a professor, and chairman of the Department of Psychiatry at the University of Chicago and an expert in the field of psychopharmacology. It was his opinion that enacting laws which have penal sanctions in the use of drugs in terms of mere possessors, not sellers and people who traffic in it, would drive these people who use the drug deeper into the subculture of drugs. They would alienate themselves from what he called "the establishment" and these people could not be reached. He felt that education should be stressed. How do you feel about that?

Dr. LOURIA. I think we should stress education. I think for some reason that is a facile statement that everybody makes that we will drive it underground. That is ridiculous. I think we will stop use.

In comparison with prohibitions, I think they are erroneous. We are not taking something that is well established within the mores of society and now say, "You must not use it." We are taking a newly

introduced drug with inordinate dangers and saying, "You must not use it or we will punish you." I think all of the evidence of whether you want to talk about the Japan experience or the experience in Iran with narcotics in innumerable areas in which the utilization of legal sanctions has resulted not in driving the drug underground but striking decrease in its use. It does not mean, I don't think, that education is the major facet. Indeed, if you want to cure the drug problem, the name is commitment. You get people, young kids committed to something that they believe in with which they can identify, and you find that the incidence of drug abuse will diminish astoundingly. That is perhaps one of the charming fallouts of the internecine warfare that seems to take place in both of our political parties. Young people in hordes will get committed to politics and I would wager that if that happens the amount of drug experimentation will just be reduced very substantially.

Mr. KYROS. Dr. Freedman, a very intelligent psychiatrist, felt that all of our resources and energies should be directed toward the pusher and the seller and toward education. Therefore, if we took action, for example, on the part of this bill we have proposed here, making mere possession a crime and providing sanctions for it, it would be a diversion of energies and resources that should go forward the other aspects of the problem. Would you comment on that?

Dr. LOURIA. I think that is an important point. I surely agree that education and control of the supply should be the two major prongs of any attack. I absolutely concur in that. But, to me, the eradication or at least the minimizing of drug abuse necessitates, mandates a multifaceted attack and as part of that you need at least in this case sanctions against sellers and users as well.

I do not mean to imply this ought to be the major thrust of the attack, but I do not think it is a case of divergent energies by doing that. I think it is a case of having a complete attack on the potent hallucinogens which is a very difficult problem for our society.

Mr. KYROS. He also said something that surprised me. He said the testimony about chromosomal damage is entirely inconclusive; that there have been other drugs in common use which we have found cause these types of changes; that this is entirely a phenomenon that we should not be talking about and startling people because there has been no proof whatsoever.

Dr. LOURIA. Is this Daniel Freedman?

Mr. KYROS. Yes.

He has said there is no more proof that caffeine or aspirin causes chromosomal changes than that LSD will cause harm in human beings.

Would you care to comment on that?

Dr. LOURIA. Dr. Freedman is a renowned authority in the biochemistry of hallucinogenic drugs. He and I were on a symposium together 3 or 4 days ago and he made that statement there. I disagreed with him then and I disagree with him now. I do not think you can apply, say, caffeine studies in the fruitfly to the studies in man. If you could apply it in man, I think that would have meaning. I do not think you can suggest that transient breaks that you get from a virus inspection or tranquilizers persist in abnormalities.

I agree that there is no proof that any infant has ever been malformed from the use of LSD. By the same token, Hirshhorn and his

colleagues, I think, have very convincing evidence that although, again, as far as numbers are concerned, we do not know the percentage and good investigators have negative evidence, but their evidence looks very convincing that you do get chromosomal breaks, and these persist and they could be transmitted to the offspring, and it will take a long time to sort out just what this can or cannot do, and it may skip a generation.

If I were an LSD user now, especially a girl, I would be terrified at having used LSD, thinking of the potential consequences, acknowledging that none of this is proved.

Remember, we have just started looking for the defects and the kind of things you are going to have to look for are the same things you can get after radiation, and those can be very serious effects.

So, I think it is a mistake to imply on the basis of emotionalism that there is a link between LSD chromosomal abnormalities and the offspring of users. It is equally unwise to denegate the current findings. These are fascinating findings and we have to find out if it is something taken with the LSD to adulterate it which causes harmful effects also. So, there are a lot of things that have to be studied, but the potential for genetic harm, concern for those who might be thinking of using it, I think that is absolutely valid, and if these studies which I know your committee is going to pursue in regard to reproductive issues in animals after use of LSD, if those are valid, then the weight is overwhelmingly on the side of those who say you must abjure because of the potential damage to either you or your offspring.

Mr. KYROS. While in Chicago we were told there was no known legitimate medical use for the drug.

Mr. CARTER. Would the gentleman yield?

Mr. ROGERS. It is not an approved drug.

Mr. CARTER. I disagree with that. It has been used, and it has been used at some of the finest clinics in the United States and it is under use at NIH right now for treatment for two different kinds of diseases. One is terminal cancer and the other is schizophrenia in children.

Mr. ROGERS. I think probably the statement was made, was it not, that it is not now on the approved drug list? It is simply an investigational drug, I believe, at present.

Mr. CARTER. It has been sold and it was sold by Sandoz Co. in Switzerland. LSD is a component of Sanserd. I believe you will find that to be true if you check.

Dr. LOURIA. I think where we stand on it, there is no situation in which its use is proved, that is, to be valid medical therapy so that it should be currently utilized.

There are four situations in which it has been studied carefully and is currently being studied, two of which you pointed out, in which the results are very encouraging.

I would not put schizophrenia of children in that category. It has been used in a very small number of childhood schizophrenics and it ought to be investigated further.

I think you will hear more about this from those who are experts and more up to date than I.

Mr. ROGERS. Perhaps we can have Dr. Yolles go into this and tell us of the status.

Dr. LOURIA. I am agreeing with you, but I am saying there are four situations in which it is under investigation.

Mr. KYROS. In regard to the medical use. Dr. Freedman's point was that there has been investigation as to whether there can be medical use.

I think his only intention was to say there was no known accepted medical use, but you can't say there is no medical use ultimately for the drug; is that correct?

Dr. LOURIA. Yes, sir; and you can go one step further and say initial reports are sufficient enough to warrant valid investigation to determine the propriety of use for chronic alcoholism, schizophrenia, or terminal cancer.

Mr. KYROS. Dr. Freedman took the view that he did not consider marihuana that harmful and did not think it should have a sanction for mere possession. Do you want to comment on that?

Mr. ROGERS. I hate to interrupt, but we have two more witnesses. Dr. Louria has made a statement on this quite strongly that explains his feeling on it. He thinks the law is not appropriate to marihuana. If the gentleman would permit, I would like to go on.

Thank you very much, Doctor. Your testimony has been most helpful to the committee and we are grateful to you for taking your time and the expense involved to come down and be helpful to the committee.

Dr. LOURIA. Thank you for listening.

Mr. ROGERS. We are grateful to you.

Dr. Stanley F. Yolles is our next witness. Dr. Yolles is Director of the National Institute of Mental Health, Public Health Service, Department of Health, Education, and Welfare.

STATEMENT OF STANLEY F. YOLLES, M.D., DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH, PUBLIC HEALTH SERVICE, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY DR. MORTON MILLER, DIRECTOR, DIVISION OF SPECIAL MENTAL HEALTH PROGRAMS; AND DR. ROGER MEYER, CHIEF, CENTER FOR STUDIES OF NARCOTIC AND DRUG ABUSES

Dr. YOLLES. Mr. Chairman, I should like to introduce the two gentlemen accompanying me. On my immediate left is Dr. Morton Miller, Director of the Division of Special Mental Health programs of the National Institute of Mental Health; and on my far left is Dr. Roger Meyer, Chief of the Center for Studies of Narcotic and Drug Abuses at the National Institute of Mental Health.

I am happy to appear today on behalf of the Public Health Service to discuss recent research on LSD, marihuana, and other dangerous drugs, supported by the National Institute of Mental Health.

There has been considerable progress in elucidating the nature and extent of the LSD problem. Intensive research efforts have enabled us to obtain a better understanding of the short- and long-term implications of LSD use, particularly in regard to its psychologic and biologic effects.

The scope of research either funded by the NIMH, or utilizing LSD from the NIMH supplies, covers a wide range of activity from surveys and epidemiologic studies through basic biochemical and experimental psychopharmacologic research. Currently, the NIMH is supporting a

total of 58 studies, and will have expended over \$3.4 million in fiscal year 1968 for research in the area of LSD and related hallucinogenic agents. This represents an increase of 20 projects, and \$1.7 million over the level of support in fiscal year 1966.

During early 1967 there was considerable concern regarding the extent of the LSD problem in the United States, particularly in the light of reports that the number of users was increasing at a very rapid rate. NIMH is continuing to support several studies designed to measure the extent and trends of LSD and other hallucinogenic use. Preliminary findings from these studies indicate that we have witnessed in the past year a significant decline in LSD use in the United States.

I am sure that there are a number of factors associated with this decline. Our evidence would indicate that a key factor in explaining this decline has been the availability of factual scientific information based on research findings which suggest that LSD can cause severe psychotic reactions and may cause chromosomal changes not only in the cells of the user, but also, for women, in their children.

CONFERENCE ON TOXIC EFFECTS OF LSD

Five months ago, the NIMH convened a meeting of the country's leading research experts to evaluate the information then available regarding the toxic effects of LSD.

I would like to submit a summary report of this conference for the record.

(The summary report follows:)

REPORT ON A CONFERENCE: "ADVERSE REACTIONS TO HALLUCINOGENIC DRUGS"

A number of clinical and research observations have suggested a discreet pattern of psychopathologic behavior among chronic users of LSD and persons on "bad trips." These findings have raised concern about possible outbreaks of new forms of acute and/or chronic organic psychosis related to hallucinogenic drug use. Additionally, preliminary reports from various biological laboratories suggest the possibility that LSD may be implicated in serious chromosomal aberrations. These observations have led some to conclude that LSD might be leukemogenic and/or teratogenic. Concerned with these reports of psychological and biological damage, the NIMH Center for Studies of Narcotic and Drug Abuse convened a meeting of leading research investigators in this area on September 29, 1967. A list of participants is attached. This report summarizes the findings presented at the meeting.

The discussion indicated that evidence of persisting psychological damage from chronic LSD administration was minimal. While some psychological tests done on persons who have used LSD eighty or more times suggest borderline evidence of organicity, electroencephalographic findings subsequent to LSD administration (but not during the LSD trip) are generally normal. Dr. Julian Silverman, reporting on a study done with eight chronic LSD users at the National Institute of Mental Health, indicated that amplitudes of EEG evoked responses (secondary to photic stimuli) were elevated in the chronic LSD user (while not under LSD). These higher amplitudes paradoxically returned to normal levels when 50 gamma of LSD was administered. Of some interest was the observation that chronic users (when not on LSD) showed uniformly lower thresholds to auditory stimuli, and that these thresholds resembled those of Addisonian patients being withdrawn from steroid maintenance. This suggests the possibility that sensory overload may be a problem for the chronic LSD user, even when he is not ingesting this drug. It was speculated that, in some way, this phenomenon may be related to the absence of goal-directed behavior among the chronic users of LSD.

Dr. Humphrey Osmond of the New Jersey Neuropsychiatric Institute and a pioneer in early research efforts with LSD confirmed some of Dr. Silverman's

findings by his own observations at the New Jersey Neuropsychiatric Institute. Several participants described the phenomenon of recurring psychedelic experience without recurrent ingestion of the drug. Of particular concern were descriptions of recurrent paranoid episodes, at times accompanied by vivid hallucinations, in some users of LSD. It was not clear how this phenomenon differed from the recurrence of emotionally significant events in the mental life of normal persons who have not ingested LSD.

While it was reported that the frequency of "bad trip" admissions to general hospitals and other institutions has been decreasing, it appears that this is still a continuing problem for mental health professionals.

Several clinicians noted that "bad trips" are seen almost exclusively among persons in the 15 to 25 age group. One postulated that this relationship might represent the potentiation of adolescent adjustment crises into severe acute reactions by LSD. Other participants focused on the treatment of the "bad trip." Some noted that thiorazine has been oftentimes ineffective and, in some centers, routine sedation and psychological support is the preferred treatment. Most participants agreed, however, that the psychiatric community should gain increasing familiarity with this new syndrome and that each psychiatrist should develop familiarity with a treatment program that could include phenothiazines and/or the use of sedative drugs and psychological support.

Drs. Maimon Cohen and Kurt Hirschhorn summarized their data relative to LSD and *in vivo* and *in vitro* chromosomal aberrations. Since their initial report in *SCIENCE* they have also observed chromosomal damage secondary to thiorazine and certain other tranquilizing drugs. Others report similar damage associated with aspirin, caffeine and viral infection. They note, however, that these aberrations are not as severe as the dislocations and translocations observed secondary to LSD administration. Dr. David Hungerford of the Cancer Research Institute in Philadelphia also investigated the circulating lymphocytes of some LSD users but failed to confirm Dr. Cohen's findings. On the other hand, Dr. Hermann Lisco of Harvard University observed chromosomal changes in persons who had been given psilocybin in a psychological experiment. Persons attending this meeting were unclear as to the ultimate significance of these conflicting reports.

Dr. Robert Miller of the Epidemiology Section of NIH noted that time would be the significant factor in observing the evolution of possible leukemia-type syndromes. Underlying all of the discussion was the concern that these reported chromosomal changes have also been observed in survivors of the Hiroshima attack and other persons exposed to high doses of ionizing radiation, all of whom have an increased likelihood of developing leukemia-type syndromes.

Early reports from Dr. Auerbach at the University of Wisconsin noting teratogenic effects of LSD administered to mice (plus an increase in the rate of spontaneous abortions) were not confirmed in studies done on rats by Dr. Josef Warkany of the Children's Hospital, Cincinnati. Subsequent reports of teratogenic effects in the hamster suggest species differences in fetal response to LSD.

Some reports subsequent to this meeting suggest that the chromosomal changes secondary to LSD may be transient phenomena similar to those observed in viral illness and therefore not analogous to the chromosomal changes observed after radiation exposure (which are permanent). At this time our information about the biological hazards of LSD and other hallucinogenic drugs must be considered incomplete. It was agreed that we should advise against the use of LSD with particular emphasis on the possible hazards for women in the child-bearing ages. Additionally, the Committee was strongly supportive of continuing, refining and integrating research into the mechanism of actions and biologic and psychologic effects of LSD.

MEETING ON ADVERSE REACTIONS TO HALLUCINOGENIC DRUGS, NIMH, SEPTEMBER 29, 1967

Dr. Keith Ditman, 10921 Wilshire Blvd., Suite 809, Los Angeles, California 90024.

Dr. Thomas Ungerleider, Department of Psychiatry, UCLA Medical School, Los Angeles, California.

Dr. William Frosch, Department of Psychiatry, New York Univ. School of Medicine, New York, N.Y.

- Dr. Daniel Freedman, Chairman, Dept. of Psychiatry, Univ. of Chicago School of Medicine, Chicago, Illinois.
- Dr. Humphrey Osmond, N. J. State Neuro-Psychiatric Institute, Princeton, New Jersey.
- Dr. David Smith, Drug Abuse Screening Unit, San Francisco General Hospital, San Francisco, California.
- Dr. Kurt Hirschhorn, Mt. Sinai Hospital, New York, N.Y.
- Dr. Charles Shagass, Dept. of Psychiatry, Temple University, Henry Ave. and Abbottsford Rd., Philadelphia, Pa. 19129.
- Dr. Maimon Cohen, Dept. of Pediatrics, School of Medicine, State University of New York, Buffalo, New York.
- Dr. Josef Warkany, Prof. of Research Pediatrics, Children's Hospital Research Foundation, Elland Avenue & Bethesda, Cincinnati, Ohio 45229.
- Dr. David Hungerford, Institute for Cancer Research, 7701 Burholme Avenue, Philadelphia, Pa. 19111.
- Dr. Jerome Levine, Chief, Psychopharmacology Research Branch, National Institute of Mental Health, 5454 Wisconsin Avenue, Chevy Chase, Maryland 20203.
- Dr. Milton Joffe, Chief, Abuse and Liabilities Branch, Div. of Drug Studies and Statistics, Food and Drug Administration, Washington, D.C. 20204.
- Dr. Joseph A. DiPaolo, National Cancer Institute, 7550 Wisconsin Avenue, Bethesda, Maryland 20014.
- Dr. Robert W. Miller, Chief, Epidemiology Branch, National Cancer Institute, 7550 Wisconsin Avenue, Bethesda, Maryland 20014.
- Dr. Lyman C. Wynne, Chief, Adult Psychiatry Branch, National Institute of Mental Health, Building 10, Room 3-N-212, 9000 Rockville Pike, Bethesda, Maryland 20014.
- Dr. Julian Silverman, Adult Psychiatry Branch, National Institute of Mental Health, Building 10, Room 3-N-208A, 9000 Rockville Pike, Bethesda, Maryland 20014.
- Dr. Hermann Lisco, Cancer Research Institute, New England Deaconess Hospital, 185 Pilgrim Road, Boston, Massachusetts 02215.

Dr. YOLLES. The final report of the proceedings is being completed. I would like to discuss briefly some of the highlights of this conference.

The discussion indicated that with several exceptions the evidence for persisting psychologic damage from chronic LSD administration is minimal. One exception is the observation that chronic users (when not on LSD) showed uniformly lower thresholds to auditory stimuli. This suggests the possibility that sensory overload may be a problem for the chronic LSD user even when he is not ingesting this drug. In other words, these persons are more sensitive to sounds and might have difficulty in discriminating between low- and high-intensity sounds.

Several workers have described the phenomenon of recurring hallucinogenic experience without recurrent ingestion of the drug. In some instances users of LSD without taking the drug have recurrent paranoid episodes, at times accompanied by vivid hallucinations. The significance and extent of these reactions are not as yet fully known.

Though a continuing problem, admissions to psychiatric units of persons with so-called bad trips are declining. Dr. William Frosch, who reported in 1966 that there was a rapidly rising rate of such admissions to Bellevue Hospital in New York City, now informs us that the admission rate for such cases at his hospital has declined.

Some investigators in the past year had expressed concern about possible outbreaks of new forms of acute and/or chronic organic psychoses related to hallucinogenic drug use. The consensus of those present at the meeting was that there is not sufficient evidence to justify this concern. However, modification of the usual therapy for acute hallucinogen-caused psychoses is indicated. The results in terms of terminating the acute psychotic reactions are in most instances good.

CHROMOSOME DAMAGE

Considerable public attention has recently been focused on the relationship between LSD and chromosome damage. These reports are particularly alarming because of the association of chromosomal damage with leukemia-type syndromes and birth defects. The types of chromosomal changes noted in some LSD users have also been observed in survivors of the Hiroshima atomic blast and other persons exposed to high doses of ionizing radiation, all of whom have an increased likelihood of developing leukemia-type syndromes.

The initial report of chromosome damage possibly attributable to LSD by Dr. Maimon Cohen of the University of Buffalo School of Medicine sparked a flurry of research activity around the effects of hallucinogenic drugs on chromosomes in vivo and in vitro and upon the offspring of exposed human and animal subjects.

The NIMH is currently supplying LSD to 20 investigators engaged in research of this type. The initial report of Cohen referred to the production of chromosomal abnormalities in human white blood cells (lymphocytes) cultured with LSD. These changes were not observed when LSD was not present in the medium, although similar changes have now been observed when such cultures have been made with thorazine, aspirin, and caffeine.

Dr. Cohen's findings were confirmed nearly immediately by Drs. Irwin and Egozcue of the University of Oregon School of Medicine. They additionally reported chromosomal abnormalities in the circulating lymphocytes of several "hippies" in the Portland area. Dr. Herman Lisco of Harvard University has reported identical changes in persons who had been exposed to psilocybin, another hallucinogen.

Similar human in vivo reports about LSD were made by Drs. Cohen, Frosch, and Hirshhorn. Their findings, however, were not confirmed by several investigators at the University of California, by Dr. David Hungerford of the Cancer Research Institute in Philadelphia, or by Dr. Albert Kurland's group at Spring Grove State Hospital. In the several studies where chromosomes were examined before and after LSD administration in man, the Irwin and Cohen findings could not be replicated.

If LSD does in fact cause chromosomal abnormalities in man, the significance can only be learned over time. Similar changes occur after certain viral illnesses; but in these conditions the effects are short term and are not associated with serious pathological consequences. Long-lasting chromosomal damage of this type has, however, been reported in persons exposed to atomic radiation and other individuals considered highly vulnerable to leukemia. In considering the leukemia-causing potential of LSD, we must consider that longitudinal studies in identified individuals are mandatory to determine whether such changes are long term and a prelude to leukemia. Short-term chromosomal changes may not have any pathological significance.

Mr. ROGERS. Do I understand we don't know if it is short term or long term?

Dr. YOLLES. Yes, sir.

Mr. ROGERS. It could be long term.

Dr. YOLLES. Yes, sir; but we don't know yet.

BIRTH DEFECTS

Observations of chromosomal abnormalities also led to several studies to determine the effects of LSD on offspring in several animal species. In the mouse and the hamster, when LSD was administered early in pregnancy, there was a significant increase in the number of spontaneous abortions and birth defects. Contradictory reports have appeared about such findings in the rat. Experts in this field tell us that it is impossible to generalize from one species to another with regard to drug effects upon the fetus. Thalidomide, for example, failed in several animal studies to present birth defects across species lines although it did produce birth defects in man.

There have been a number of newspaper articles which have attempted to relate LSD to reported birth defects. One report in the New York Times of February 10 quotes Dr. William Frosch of New York University describing one child with retarded mental development. This investigator pointed out that there was no direct evidence that the drug was to blame. There has been one report from the University of Iowa which was reported in *Lancet* and purported to show that an offspring who had been exposed to the drug during the mother's 45th day of pregnancy showed findings similar to that of Thalidomide-exposed infants. Dr. Hirshhorn has reported chromosomal breaks in 50 percent of infants exposed to LSD in utero. There have been two reports of encephalocele, an unusual defect in which the brain herniated through an incompletely fused skull in fetuses who had been exposed to LSD early in the pregnancy and then were spontaneously aborted.

Evidence that hallucinogenic drugs can cause birth defects in exposed humans is at best presumptive at this time. Reports from animal studies and in utero chromosomal investigations suggest a possible link between some of the birth defects reported and maternal ingestion of LSD. These investigators themselves would be the first to argue that their findings are not definitive and that a reasoned and deliberate response is indicated.

At this time our information about the biologic hazards of LSD and other hallucinogenic drugs must be considered incomplete. However, in light of the preliminary findings, one should add to the usual warnings about LSD use particular emphasis on the possible hazards for women in the childbearing ages.

Additionally, the advisory committee was strongly supportive of continuing, refining, and integrating research into the mechanism of action and the biological and psychological effects of LSD, because of its abuse, its unique nature, and its possible therapeutic potential.

SURVEYS OF LSD USE IN COLLEGES

I would now like to turn to a discussion of findings from several surveys of LSD use in college populations. Five percent of the college students polled admitted to using LSD with a range among individual colleges of 2-9 percent. LSD users are much more likely to have also used marihuana as well as other drugs such as amphetamine and barbiturates. Conversely, only a small percentage of those who have used marihuana also use LSD. LSD users tended to be "experimenters" with only 30 percent of the sample "serious" LSD users.

We now have some data about the characteristics of the student drug user. The academic standing of the occasional user was better than average, while the heavily involved drug users had lower than average scholastic grades. There is a relatively small group, perhaps 3 to 4 percent of student drug users, for whom taking drugs is no longer a question of "just being in," but whose problem of drug abuse represents a complicated and severe psychiatric problem. There is a decline in the number of admissions to college health services of students with psychotic reactions secondary to LSD use paralleling the decrease at Bellevue noted earlier.

ONGOING RESEARCH

Research continues on the possible therapeutic usefulness of LSD particularly in the treatment of alcoholism and psychoneurosis. We currently have 12 studies and are spending this year over \$1 million in this area.

I have already indicated what research results there are and I would now like to describe briefly some of the other research going on in this area and what we are hoping to find out.

There are currently a total of 93 studies being conducted which are using LSD supplied by this Institute.

The only legitimate supply of LSD in the United States is at the Institute.

All requests for this drug are reviewed by a joint FDA-NIMH committee to establish the soundness of research designed and to guarantee that all necessary precautions are observed.

A large number of these studies are devoted to elucidating the mechanism of action of LSD. This agent has been of great interest to neuropharmacologists and others studying the central nervous system, because its actions appear to be related to the levels of serotonin, and perhaps to catecholamine levels in the brain. Serotonin and catecholamines are naturally occurring substances which appear to play a key role in the biochemical transactions of the brain.

Sixty percent of studies are in animals, 16 percent in humans, and 24 percent in isolated tissues. Most of the animal and tissue culture studies are devoted to elucidating the mechanisms of action of LSD. Recent reports by Dr. George Agahanjian and Dr. Daniel Freedman suggest that LSD may exert subtle chemical and/or electrical effects on the very area of the midbrain which is believed responsible for phase I/R.E.M. sleep. This is particularly intriguing in view of reports of temporary psychosis in individuals who are specifically deprived of this type of sleep. Additionally, many psychotropic drugs specifically inhibit this phase of the sleep cycle.

Other investigators are studying the metabolism of hallucinogenic drugs. Research is also proceeding on the effects of LSD upon brain protein metabolism and nucleic acid synthesis, in order to better understand the biochemical basis of learning and memory. These studies are all correlated with behavioral and learning studies in various animal species. It is clear that LSD is an extremely valuable research tool which has opened up broad vistas for basic research that would be impossible to develop without its ready availability to the research community.

Human studies are designed to test the therapeutic potential of LSD in alcoholism, psychoneurosis, and other treatment-resistant psychiatric conditions. Additionally, LSD has some behavioral and subjective effects in man which cannot be derived from animal studies. As a tool to study perception, sensory integration, and basic emotional mechanisms, LSD and other hallucinogenic drugs should continue to be available for human pharmacological studies.

MARIHUANA

I shall now turn to the subject of marihuana. The official name of the drug is cannabis. Basic research to uncover knowledge about the pharmacology and physiological activity of cannabis has been severely hampered by the lack of availability of adequate legitimate sources of a standardized natural product. The little research that has been done has utilized marihuana seized by the Federal Bureau of Narcotics and supplied to researchers. Unfortunately this material was relatively old and had lost much of its original potency.

PROBLEMS OF RESEARCH

A key problem in the field of research on cannabis is the lack of a standard product. For results of scientific investigation to be reproducible, researchers must have available agents whose chemical constituents and potency are identical. There is tremendous variability in black-market cannabis. Seized materials may be adulterated with other plant or chemical materials, or maybe mixtures of different varieties of cannabis.

We know that the potency of cannabis varies according to its age and where it is grown. Until recently, the only solution to this problem appears to be the development of a special facility for growing a standardized variety of cannabis. While this project still has high priority to facilitate scientific studies of natural cannabis, the recent synthesis of a number of tetrahydrocannabinols, the chemically active constituents of cannabis, shows great promise in expediting research in the field.

The synthesis of the tetrahydrocannabinols and their increasing availability for research purposes now makes it possible for us finally to perform the vitally needed pharmacologic, biochemical, genetic, and behavioral research necessary to answer our questions about the mode of action and toxicity of cannabis. Where there have been reports over the year from foreign countries about irreversible psychoses associated with marihuana use, in recent years responsible scientists in this and other countries have raised considerable question about the validity of these conclusions. For instance, many of these foreign studies were done on chronic institutionalized persons. We are well aware from our own research on institutionalized schizophrenics that after several years it is extremely difficult, if not impossible, to distinguish between the effects of the disease and the effects of institutionalization. Additionally, these foreign studies have dealt with populations with chronic physical diseases, malnutrition, et cetera, which make it extremely difficult to delineate which symptoms are due to chronic marihuana use and which are due to other factors.

PROPOSED RESEARCH

With the impending availability of adequate supplies of synthetic tetrahydrocannabinol, we have developed and have given high priority to an intensive systematic plan of research to elucidate a number of basic facts. These studies will range from the investigation of long-range toxicity in animals through biochemical research and carefully controlled human studies. Additionally, we will expand on our current program of social and psychological investigations of marihuana users. We have already begun negotiations to perform studies in these foreign countries where the "marihuana psychosis syndrome" has been described.

We estimate that studies of marihuana will cost approximately \$5.25 million over the next 3 years. Though major gaps in our knowledge do exist, data from ongoing and past research have already given us some answers.

SURVEYS OF MARIHUANA USE IN HIGH SCHOOLS AND COLLEGES

Surveys of high school and college drug use indicate that approximately 20 percent of the college students questioned reported some experience with marihuana. It is estimated that about 2 million high school and college students have had some experience with marihuana. Generally, more men students reported involvement. Of those who reported having ever used marihuana, 65 percent had used it less than 10 times, with "once or twice" the commonest response. It is of great interest that fully 50 percent of those who have tried marihuana experienced no effects. This finding may be a function of at least four factors: (1) the agent may not have been potent; (2) frequently, effects are seen only after repeated use; (3) the expectation of the user has a significant effect on what he experiences; (4) the social setting in which use takes place has an effect on the response.

Under National Institute of Mental Health contract support, a survey instrument for more accurately assessing the prevalence of drug abuse in high school and college populations has been developed. On the basis of successful pilot studies with this instrument, a grant proposal for a 5-year study is pending review by the National Advisory Mental Health Council at its meeting next month.

Our evidence would indicate that, in contrast to the decreasing use of LSD, use of marihuana has been increasing.

The United Nations estimates that in 1950 there were 200 million users of marihuana in the world, mainly in India and in North Africa. In the United States, we are not quite sure of the exact extent of the problem. Estimates as high as 20 million have been made, but it is much more likely that in the neighborhood of 4 to 5 million persons have used it at least once.

EFFECTS OF CANNABIS

Little can be added to previous reports on the toxicity of marihuana. It is considered to be a mild hallucinogen, taken by the usual route of smoking, occasionally by ingestion. It may induce a mild euphoria and lead to heightened suggestibility and a faulty perception—really, an exaggerated notion of thinking more clearly, profoundly, and cre-

atively. In addition, it is known to cause reddening of the membranes of the eyes, rapid heartbeat, muscular incoordination, unsteadiness, drowsiness, and distortion of time and space perception.

In acute intoxication, especially when ingested, it may also produce visual hallucinations, pronounced anxiety, paranoid reactions, and transient psychoses lasting 4 to 6 hours. It generally tends to lessen inhibitions and creates for the user a false reality based on his wants, his motivations, or the set. In this respect it is similar to LSD but its effects are not as potent.

The muscular incoordination and the distortion of space and time perception commonly associated with marihuana use are potentially hazardous since the drug adversely affects one's ability to drive an automobile or perform other skilled tasks.

We still do not know enough about the long-term effects of marihuana use. As in the case of tobacco, it is possible that there are serious consequences of chronic use which will only become apparent through careful longitudinal studies.

One needs to be particularly concerned about the potential effect of a reality distorting agent on the future psychological development of the adolescent user. We know that normal adolescence is a time of great psychological turmoil. Patterns of coping with reality developed during the teenage period are significant in determining adult behavior. Persistent use of an agent which serves to ward off reality during this critical developmental period is likely to compromise seriously the future ability of the individual to make an adequate adjustment to a complex society.

While we have no data to indicate that marihuana can affect chromosomes, this possibility is being investigated.

PREVENTION AND EDUCATION

Prevention and education efforts in the area of hallucinogenic agents have a high priority for the NIMH. Efforts in this and other areas related to research are coordinated with the FDA through a mechanism by which the Chief of the FDA's Division of Drug Studies and Statistics has a joint appointment in the NIMH Center for Studies of Narcotic and Drug Abuse. So, both programs work together.

I would like to point out that prevention and education efforts aimed at the student population demand extremely careful preparation and implementation. Even high school students are extremely sophisticated about drugs. We are constantly impressed at speaking appearances before high school and college audiences about:

1. The extent of accurate knowledge mixed with misinformation about all drugs, not just LSD and marihuana, but barbiturates, amphetamines, et cetera; and

2. The suspicion with which students approach information supplied by "official sources."

"Scare" techniques are not only ineffectual, but are even detrimental to conveying needed information about the hazards of drug abuse. With the present incidence of marihuana use, many students have either experienced or observed firsthand the effects of this drug. They know that psychoses or other grave consequences are not an inevitable concomitant of smoking one marihuana cigarette.

It is clear that to be effective, a preventive educational effort must be carefully tailored to specific population groups and must be based on the best educational and scientific footing. The decrease in LSD use is, at least in part, I would suggest, a function of the degree to which users will respond to scientific evidence of potential danger.

Let me give you one example of how we have implemented this approach. In September 1966, the National Association of Student Personnel Administrators joined with FDA, NIMH, and the Treasury Department in planning a program to provide student personnel and other college administrators with up-to-date, accurate information which would help them understand and cope with student drug use. Subsequently, FDA funded a contract to implement these plans. Under the direction of Dr. Helen H. Nowlis, professor of psychology and former dean of students at the University of Rochester, the National Association of Student Personnel Administrators' Drug Education project was developed. In February and March 1967, over 1,400 persons participated in seven regional conferences for the purposes of acquiring and exchanging information about the problems of drug abuse on the campus.

The continuing demand for consulting services for professional groups and colleges planning drug education programs led to a continuation of the project on a part-time basis. I am sure that Dr. Nowlis, who I understand will also appear before the committee, can provide a detailed discussion of this project.

The NIMH is now developing a variety of materials as part of its education efforts. Films for television as well as small groups, film strips, pamphlets, et cetera, are being prepared. We have consulted with leading experts in the communications industry as well as educators so that our materials will be instructive, effective, and scientifically sound.

ALIENATION

Mr. Chairman, I think that it is critical to point out that in trying to understand scientifically the problem of drug abuse, one must look beyond the specific problems of such agents as LSD, marijuana, amphetamines, and barbiturates to some of the underlying causes of widespread drug use and abuse. We live in a drug-oriented culture. From aspirins to sleeping pills, from tranquilizers to "the pill," Americans, of all ages, are ingesting drugs in greater variety and greater numbers than ever before. I think that if we are to get to the root of this problem of drug abuse, we must be prepared to investigate and identify the underlying problems which lead people to choose to distort to ward off reality with drugs.

One way of conceptualizing the problem is to view drug abuse in the student population in the broader context of the nature and extent of "casualties" of the educational system. Through our interest in school and college mental health, suicide prevention, and alcoholism, we have become increasingly aware that a fair percentage of our brightest and most competent youth are not "succeeding" in their encounter with the higher educational system.

Behavioral scientists use the term "alienation" in describing the cross-generational disease epitomized by the youth-coined term "don't trust anyone over 30." Alienation has been characterized as: "rebellion

without a cause—rejection without a program—a refusal of what is without a vision of should be.”

Lapses in communication between generations were noted by Greek philosophers over 2,000 years ago, and more recently were manifested in American society by the so-called lost generation of the 1920's and the silent generation of the 1950's. However, the current problem of alienation in the United States is wider, deeper, and more diffuse than at any previous time in our history. It affects the rich and the poor, the college student and the school dropout, the urban and the rural youngster. The number of persons, both young and old, beset by alienation is far greater than that ever seen in any previous generation.

Because many alienated youngsters question the relevance of major societal values and institutions, they find themselves unable to learn from the various opportunities that presently are available to them. As Freedman and Brotman point out:

To ask one of the youngsters, as one of the authors did, “Where's the action?” elicits a scornful answer: “There's only action if you have a high.” The implication is clear; what is meaningful is the subjective state. If an undrugged state is defective, myopic, why not alter perception through drugs and create a new “reality”? Some youngsters who feel helpless to accommodate to or change an unacceptable world, consciously choose to alter their own * * *. Their most frequent statement is that life is a “drag.” It lacks meaning for there is no engagement; the future is unknown but certainly horrible.

Since you cannot alter the world or determine the direction in which it will go, you must alter your state of consciousness and perception; that is, see the world and experience the world through a “high.” Any alteration is acceptable, and thus, the barbiturate user can describe to you the joys of a “drowsy high” and the amphetamine user will talk about the “high” he gets on benzedrine—and likewise for the LSD, marihuana, and heroin abuser. All that is important is in one's subjective state. Perceptions and beliefs of the square world or the nondrug world are superficial, distorted, meaningless * * *.

This rejection of many goals of the society, the unwillingness to model themselves on any stable adult leaders and the inability to acquire the necessary attitudes and skills for responsible adult behavior, make urgent the development of new and innovative approaches to bridge the intergenerational gap.

If this is not done, there are serious dangers that large proportions of current and future generations will reach adulthood embittered toward the larger society, unequipped to take on parental, vocational, and other citizen roles, and involve in some form of socially deviant behavior.

I would propose that if we are ever to solve the problem of drug abuse, it is critical for us to focus on, and try to solve, the root causes of alienation.

We would be pleased to answer any statements.

Mr. ROGERS. Thank you very much for your statement, Doctor. It has been very helpful.

Mr. Kyros.

Mr. KYROS. How accurate are these polls that you say you take? For example, under the section, on page 14, on marihuana, you say surveys of high school and college drug use indicate that approximately 20 percent of the college students questioned reported some experience with marihuana. You then go on to say that about 2 million high school and college students have had some experience with marihuana.

First, how is this poll conducted?

Dr. MILLER. In the college study, where our data is somewhat more extensive than in the high schools, information we have is based on studies done in high-use areas and, indeed, may not be indicative of patterns of use in all parts of the country. The areas reflect the research interest where there is evidence of heavy usage.

For example, in California, preliminary reports reported on five colleges and universities in which students indicated on a random questionnaire that 1 in 5 used marihuana.

Mr. KYROS. How about in the Northeast, such as in Maine?

Dr. YOLLES. Studies in some of the smaller communities are proceeding this year. As a matter of fact, our major effort last year was to survey the areas of high use, but in order to develop a total program and in order to have some basic information about what is happening in the United States, obviously it is necessary to survey most of the other areas. This surveying is going on and it will go on this year as well.

Mr. KYROS. But you do believe the use is extensive?

Dr. YOLLES. Yes. No one can guarantee that 20 percent is an absolute. It is an average figure at the present time. I feel that 20 percent, plus or minus 5 percent, would be a quite accurate figure.

Mr. KYROS. As I read your very excellently prepared statement here, there is no question in my mind about how you feel about the dangers of LSD. Are you familiar with Dr. Freedman, the gentleman I mentioned earlier?

Dr. YOLLES. I know him quite well.

Mr. KYROS. He believes the drug is dangerous.

Why have you not been able to convince him of all of the things you say in your statement?

Dr. YOLLES. Such as?

Mr. KYROS. You suggest very strongly that there is chromosomal damage which is serious. There are possibilities of incipient leukemia and carcinogenic influence. He does not go along with that at all.

I admire the man very much, because he is a very fine scientist and, therefore I am interested in the difference of views that apparently exists.

Dr. YOLLES. I do not believe there is any difference in our opinion, basically. I am sure Dr. Freedman would agree that some of these studies are quite valid. We have evidence that there are other studies which are equally valid, as best we can tell, but with contradictory results. This frequently happens in science in an early stage of investigations. Only time will help us learn what is the absolute answer.

However, as a Government agency with the responsibility for the kinds of research which goes on, using LSD, which we distribute, we have to be concerned, even in the preliminary phase, about indications that there may be damage to women in the child-bearing age, hence, our warning in addition to the usual warnings about psychotic episodes, and so on.

Mr. KYROS. That is another position Dr. Freedman takes very strongly. When I spoke with him about what the Federal Drug and the NIH people tell us, he said that this is an "establishment" view and they have to say it.

Has anyone in "the establishment" told you what to say to us about drugs?

Dr. YOLLES. No, sir, not at all.

Mr. KYROS. When I pointed out on the number of youngsters that may be involved—these large figures, these horror stories suggesting a large number of youngsters would be picked up for mere possession of marihuana or LSD—I believe our courts have enormous discretion. They have all kinds of procedures for delineating the hard-core criminal, if you will, from some innocent youngster. But in Chicago both Dr. Freedman and Dr. Jaffe, assistant professor of psychiatry at the University of Chicago and director of the drug abuse program of the Illinois Department of Mental Health, insisted the courts there may well use possession of LSD or possession of marihuana for the purpose of incarcerating those individuals in society whom they found undesirable. Do you find any substantive evidence for that remark?

Dr. YOLLES. I am not an expert in this area and I really would not have any scientific evidence in that area.

Mr. KYROS. I have no further questions. Thank you, Dr. Yolles.

Mr. ROGERS. Do you have any questions, Mr. Nelsen?

Mr. NELSEN. After receiving your statement, I wonder whether you are in support of the bill or not?

Dr. YOLLES. Let me explain my position on this. There has been considerable discussion about the control of LSD over the past 2 years both in Congress and in the administration and the NIMH has been very much concerned, as has been the Food and Drug Administration.

Our position in 1966 was quite clear as far as the administration was concerned. We felt that adequate control could be achieved through the drug abuse control amendments through control of distribution and sale as well as educational efforts.

During the past 2 years, with our experience with the act, it has become apparent to those individuals of the Food and Drug Administration and other law enforcement authorities that certain changes in the law are required. This was posed 2 years ago, that if such changes were felt to be necessary that we would come back to the Congress and ask for such changes.

It is now the feeling of the enforcement people that this is necessary.

As a physician, I have the highest regard for these people and their principles and opinions in the area of law enforcement. I have great respect for their decisions in this area and, accordingly, I would support their decision and, therefore, I support this bill.

However, as a physician, I have certain reservations, and these are in the area of the penalty for personal possession. I am concerned that in the operation of the law that it not be implemented to the detriment of the very individuals that we are trying to protect by this law, by keeping them from seeking medical help when they need it because of a bad trip, et cetera, for fear of self-incrimination.

I have other reservations. I am fortunate that, as a medical expert, I do not have to weigh the importance of these various elements. I personally believe very strongly that no one should administer LSD or be involved in its administration except a registered physician and then only under the most careful conditions.

As a matter of fact, if you allow me, I would like to quote the NIMH position that we still maintain. It was the position of the New York County Medical Society in 1966 and we still maintain this position:

No hallucinogen (LSD, mescaline, psilocybin or dimethyltryptamine) should be administered except by a physician trained in its use, and this should apply even if the current studies show LSD to be of value in the treatment of psychoneuroses, sexual perversions, frigidity, alcoholism or other illness. Even use by trained physicians should continue to be limited to carefully controlled experiments until incontrovertible data are available documenting LSD's efficacy and safety.

I believed that then and I believe that now. That is a very dangerous drug.

As a physician and as one who studies the usage of LSD, I am very much aware of some of the reasons why youngsters in our society use this drug. They use it to be with the "in" group or they try it purely for curiosity.

I am concerned that we do not so penalize a youngster for experimenting, that the result is damage to his entire future. I realize this needs to be weighed against the need for control of distribution of the drug.

I leave this to the law enforcement authorities and to the legislators who must come up with the solution to this problem. I can merely point out from a medical point of view some of my concerns.

Mr. NELSEN. In other words, a youngster who might have experimented, should he need medical attention later, he would be fearful of going to a doctor for fear of being implicated in other ways.

Dr. YOLLES. Exactly.

Mr. NELSEN. I notice on pages 6, 7, and 8 you refer to birth defects and abnormalities and, finally, on page 8 you indicate that some of the statements that have been made by other experts have not been entirely corroborated; is that right?

Dr. YOLLES. That is quite right.

Mr. NELSEN. I have no other questions. Thank you very much.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. Doctor, I certainly appreciate very much your appearance here today, and I think you have presented an excellent paper.

I have had a great deal of difficulty in expressing the ideas which you have done so well this morning and getting their acceptance by this group. I think you are to be commended on your work, and I certainly agree with the truth of what you have said this morning.

Now, there is one thing that I would like to go over with you for just a moment. You say perhaps 5 percent of our college students have used or use LSD. That would be 5 percent of approximately 14 million students. Would you say the percentage of high school students is that great or not? 5 percent of those attending school who have used it?

Dr. YOLLES. I think the percentage of high school students—and perhaps my colleagues can bear me out—is somewhat less than 5 percent in high schools.

Mr. CARTER. In one high school I noticed the percent was approximately 8.7 percent. Supposedly that was a school in the United States in which the use was most prominent.

I agree that education and the right type of education is certainly necessary and that perhaps we should have broad recreational pro-

grams to occupy a lot of loose time that has developed for our youngsters in both high school and college.

The dangers of LSD are great and certainly we do not want to minimize them. Perhaps the evidence is not absolute but from things we have seen it is quite likely that future generations might be affected by the use of LSD, having deformed youngsters. In fact, one physician testified as to abnormalities of fetuses in cases of miscarriage, that these were actually seen.

Of course, we have not known the drug long enough, as I would see it, to reject it. We cannot yet figure into the second and third generations because we have not known it that long.

Again, there is one little question I would like to ask and that is suppose you have a youngster who has one tablet or 250 micrograms—I believe that is the dose of LSD, is it not?

Dr. YOLLES. 100 or 200 micrograms.

Mr. CARTER. 100 to 250 micrograms—suppose you have a high school student who has one tablet which has been given to him. Would you think it would be wise for the law to be so worded that that youngster, upon disclosure of his source, could be freed upon disclosure? Would you agree to that with that disclosure clause in the law?

Dr. YOLLES. I could only have a personal position. I am told by the Justice Department that this is a very important reason for the possession clause, the penalty for possession in the law. Not having tried to enforce any of these laws, I really have no personal experience on which to base an opinion.

Mr. CARTER. Certainly I think that would be wise. After all, there are so many of these youngsters and, as you say, we could do irreparable harm to them in keeping them from going to their physicians if they develop nervous or psychoneurotic or psychopathic disorders.

Thank you very kindly.

Mr. ROGERS. Dr. Yolles, do we know at what microgram level the hallucinations begin?

Dr. YOLLES. The usual dosage has been somewhere between 100 micrograms and 250 micrograms. It depends on the individual concerned. As with most of the hallucinogenic drugs, there are a number of factors which go into the effect on the individual. One is the amount and the quality of the substance ingested. The second is the expectation of the individual. The third is the environment in which the drug is taken.

Mr. ROGERS. What is the least amount that your experiments show they have obtained hallucinations?

Dr. MEYER. You have increased perception and what could be called hallucinations at 50 micrograms, but the so-called psychedelic experience which is desired by the user usually begins at about 100 micrograms.

Mr. ROGERS. What is the normal amount used? Is it from 100 to 600 micrograms?

Dr. MEYER. In terms of the attempted therapeutic uses, it is 100 to 250 micrograms.

In terms of the street, Dr. Alpert says he has used as much as 1,000 micrograms and over an extended period of time. I suspect that this amount has been used on the street.

Mr. ROGERS. Do you build up a tolerance?

Dr. YOLLES. Yes, very quickly.

Mr. ROGERS. So you would have to take more and more to get an effect?

Dr. MEYER. Yes, it is an acute tolerance. Over a period of a few days it disappears. It is quite different from the tolerance to heroin which lasts much longer.

Mr. ROGERS. Is LSD an approved drug at present?

Dr. YOLLES. No, it is not. In the sense that an investigational new drug permit has to be acquired for anyone who is going to use it. This is the purpose of the committee that has been established by the FDA and the NIMH.

Mr. ROGERS. In other words, a doctor just cannot prescribe this now?

Dr. YOLLES. That is right.

Mr. ROGERS. So there is no approved medical use of this presently?

Dr. YOLLES. No, there is no approved—

Mr. CARTER. Would the gentleman yield?

Mr. ROGERS. Would you just permit him to answer the question.

Dr. YOLLES. There is no approved use without certain controls on use of the drug. There are experimental and research uses for the drug at the present time.

Mr. CARTER. Was it not a component part of the product manufactured by Sandoz?

Dr. YOLLES. A related chemical constituent but not LSD per se.

Mr. CARTER. d-Lysergic acid is part of Sanserd?

Dr. YOLLES. It is a part of it, yes.

Mr. CARTER. That is so closely related. I knew that was a component part of Sanserd and it was prescribed and used at one time by physicians in the United States.

Mr. ROGERS. Was it approved by the Food and Drug Administration?

Dr. MEYER. Sansert was approved by the Food and Drug Administration with the appropriate warnings that in the therapeutic uses, there may be psychological and neurological difficulties.

Mr. ROGERS. But LSD has not been approved except for experimental purposes at present which is controlled and it is done through NIMH?

Dr. YOLLES. It is a joint endeavor of NIMH and the Food and Drug Administration. Food and Drug controls it and we supply it.

Mr. ROGERS. I have a copy of a book entitled, "LSD, Man and Society," edited by Richard D. DeBold and Russell C. Leaf. One of the statements in the book is this:

Thus, the researcher faces major hurdles in getting the drug to begin with, even if he has financial support from some other source, and an even more difficult task if he wishes to get both the drug and financial support from the National Institute of Mental Health. Once he has secured financial support and the drug, he faces yet a third hurdle—the Food and Drug Administration. Since LSD is not yet an approved drug, the prospective researcher must file an investigational new drug application (IND) with the Food and Drug Administration. This is a rigorous procedure and added to the rigorous procedure of securing the drug and financial support from the NIMH, it becomes an almost impossible task to actually commence research with LSD. Milton H. Joffe, of the Bureau of Drug Abuse Control of the Food and Drug Administration, has already stated, "the use of these drugs in research is reasonably plain, although I must admit that certain administrative procedures and coordination between FDA and NIMH have not been reduced to the smoothest operation in the world." There

is a great deal of truth in the accusation that meaningful research with LSD has been greatly retarded by the failure of coordination by those two controlling agencies.

What would be your comment on that, Dr. Yolles?

Dr. YOLLES. I am a prejudiced observer but I will try to be as objective as possible. We are presently supporting research on LSD at the level of \$3.4 million, an increase of \$1.7 million. Despite its high priority, there has been no shortage of funds in this high-priority area.

First of all, the LSD was taken over from Sandoz by the National Institute of Mental Health which is normally not a distributing agency for the principal purpose of protecting the research endeavor in the United States, so that it could go on and so that LSD would be available for researchers.

Secondly, in order to expedite and coordinate the activities of two Federal agencies, in one case the NIMH and, secondly, the FDA, we organized a joint committee to recommend by one decision to both agencies for the awarding of an IND drug permit as well as release of the drug.

As far as getting funds from the National Institute of Mental Health, overall I would say that we approve or the National Advisory Mental Health Council approves somewhere on the order of 40 percent of all applications.

I would like to point out that we hope that we could support all approvable research that comes in. However, it is not always the financial constraints that keep us from supporting the research. Some research is just not supportable because it is not worth supporting. There were a number of investigators who the committee felt had presented research which just could not be supported on a scientific basis.

Mr. ROGERS. Do you put a limitation on the amount of drugs that can be given to a person in research; for instance, in the micrograms? Is there a limitation placed on the researcher, or do you allow him to go to 100 or 150?

Dr. MEYER. A detailed protocol has to be submitted for the number of subjects and the amounts of LSD to be administered. The committee reviews the protocols for human studies very carefully so there are limitations on the amount of LSD that is administered.

Additionally, I might say that the committee has been really quite responsive to the demand for LSD; 93 studies are being currently made, as Dr. Yolles pointed out, and approximately 114 requests for LSD were received. Of those that were turned down, many of them were from high school students for science projects; most reputable physicians and psychologists received drugs where adequate protocols were submitted.

Mr. ROGERS. Some of the criticism I have heard is, for instance, an investigator is not allowed to give a dose to the person who may come to him to participate, and I understand they often get people who are taking the drugs to participate that are now on drugs—there is too much of a limitation on him and he really does not have very much discretion in the amount of dosage, that it is reduced before it is approved. In other words, 50 micrograms rather than letting him have 100 or 200 for use at his discretion.

Dr. MEYER. Are you referring to a specific study that is being done?

Mr. ROGERS. I do not know where the study is being done.

Dr. MEYER. The investigator has to receive permission, of course, of the institution where he is doing the research.

In terms of a limitation at 50 micrograms, I know of only one study that had this limitation.

Mr. ROGERS. There is one that has that limitation.

Dr. MEYER. That was in the protocol they submitted to limit the dose to 50 micrograms to people who had experienced greater dosages in the street. That was at their discretion.

Mr. ROGERS. Do you have investigations going on by volunteers, people who never took the drugs who have volunteered?

Dr. MEYER. There was a study recently terminated at Patuxent Prison in Maryland under the auspices of the Psychopharmacology Branch where prisoners who had not experienced the drug had been given the drug and the reaction was recorded.

Mr. ROGERS. How many persons were involved in that, do you recall?

Dr. MEYER. As I recall there were 30 prisoners involved in the study.

Mr. ROGERS. I would like to see some examples for the record of how many people are involved in all of your research projects.

Dr. MEYER. Again, I would have to submit this information for the record.

(The following information was received by the committee:)

EXPERIMENTAL USE OF LSD IN HUMAN SUBJECTS

	Number of studies	Number of subjects	Comments
Mental illness:			
Alcoholics.....	2	145	
Nonpsychotic (primarily character disorders).....	5	120	
Psychotics.....	3	46	Including 6 children.
Physical illness:			
Psychosomatic illness.....	1	9	
Terminal cancer.....	1	6	
Normals.....	2	70	Including 30 prisoners Patuxent
Total.....	14	396	

Mr. ROGERS. Could you give us any rough idea now?

Dr. MEYER. I would hesitate to do that but I will furnish that information to you.

Mr. ROGERS. I have one or two other questions.

Do you think our educational and informational projects are effective now?

Dr. YOLLES. As I said before, I think that in large measure the reduction in LSD use in the United States is a reflection of the kind of information that was gotten out through such educational projects. One of the large ones involves the colleges, the deans of colleges and student personnel administrators in a large-scale project to educate not only the faculties of the universities and colleges but also the students. We hope to expand this effort considerably during this coming year.

Mr. ROGERS. What have they done in that project? You say educate the students. How do you do that?

Dr. MILLER. This started with education of the personnel administrators. Courses were held primarily to educate them.

Mr. ROGERS. Do you just have a conference and tell them of the dangers and let them go back to the school? How long does it last?

Dr. MILLER. They were 2-day conferences. There was opportunity not only for presentation of papers but also opportunity for discussion which is very critical to this. These persons then returned to their campuses and continued and expanded their previous activities in terms of educating their students.

Mr. ROGERS. What would they do?

Dr. MILLER. They would have seminars and meetings with key student leaders to instruct them on what they had learned about the dangers related to LSD and other dangerous drug use.

Mr. ROGERS. Is there any way of knowing whether that got through to the student body or not or does it just go to the few student leaders?

Dr. MILLER. It is extremely difficult to evaluate the effects of an educational campaign.

I would agree with Dr. Yolles that the reported dropoff in use of LSD is some index of the efficacy.

In terms of a firm, scientific relationship between an educational campaign and drug use, we currently are considering some proposals which would try to measure this. It is an extremely difficult thing to do from a research standpoint, but we are trying to develop some techniques to measure use before and after to see if it is related to an educational type campaign.

Mr. ROGERS. It seems to me a very quick way of getting a student population to enlist the American Medical Association. It does not cost much, the doctors generally are willing to give of their time, and if you prepared the necessary basic material for them, this could be done in this Nation within a 2-month period of time. It is being done, I know, in one of my counties and it is being well received by the students, and the doctors go in with the scientific facts, like you say, not an emotional appeal or trying to moralize but simply here are the facts, and I dare say they probably take it as well from a doctor who is giving a very unemotional speech and says, "Here is what science has found and here are the results," rather than having a speech from some teacher whom they might question whether this teacher really has the competency to know.

I wonder why your program where you have an educational program has not enlisted this sort of help on a crash program basis very quickly. Could this not be done?

Dr. YOLLES. Yes, sir. As a matter of fact, it is being done at the present time. Right now, we are enlisting the aid of a number of medical societies. We hope to have this spread across the entire United States.

Mr. ROGERS. I talked to the president of the American Medical Association and he seemed very receptive, and I would hope you could follow up on this and see if we couldn't get this initiated throughout the Nation. I think it could be done very quickly, and I think it could be very helpful.

Thank you for being here and giving the committee the benefit of your thoughts.

Our next witness is Dr. Randolph Edwards, professor, Department of Health, Physical Education, and Recreation, College of Education, Temple University, Philadelphia, Pa.

Dr. Edwards, we are very pleased to have you here and we appreciate your making yourself available to the committee to give us the benefit of your experience and knowledge in this field.

STATEMENT OF DR. RANDOLPH EDWARDS, PROFESSOR, DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, AND RECREATION, COLLEGE OF EDUCATION, TEMPLE UNIVERSITY

Dr. EDWARDS. Mr. Chairman, I am very happy to be here this morning. Before I begin with my statement, I would like to say that there is a tremendous amount of lipservice throughout the country indicating how important education is in this area. I know there are various Federal agencies doing a lot. The AMA has made some attempts, but as far as I am concerned, unfortunately, we have not gotten down to the grassroots, brass tacks part of the problem, and that includes most or all of the kids in this country and in most of our school districts.

So, I would like to begin by asking the question. What is the educational process in the United States doing to constructively inform our youth of the many and varied ramifications of the growing drug abuse problem? Unfortunately, at this point, the answer is—far too little—or, nothing at all. There are two basic reasons for this negative observation:

1. A lack of knowledge in, unconcern for, and a reluctance to admit to, or accept, the problem of youthful drug abuse.
2. Educational systems that are uninformed, ill equipped, and unwilling to acknowledge their role of responsibility.

Despite legislation by States, the White House Conference on Narcotic and Drug Abuse in 1962 stated:

The general public has not been informed of most of the important facts related to drug abuse and, therefore, has many misconceptions which are frightening and destructive. This situation is due to many causes, among which are the failure of our schools to recognize the problem and provide instruction of equal quantity and quality with that provided for other health hazards.

Many individuals feel that the sordid image of the addict, street pusher, and criminal has made the schools reluctant to introduce the subject into the curriculum. It has been labeled as too controversial a subject—one that is fraught with potential dangers for both pupils and teachers. A distorted picture of addiction and drug abuse has led many communities, boards of education, school administrators and teachers to minimize any form of instruction concerning the misuse of drugs.

In my opinion, the greatest single drawback to effective drug abuse education today is the lack of knowledgeable and well-trained teachers. They are not receiving adequate training in the teacher-training institutions of this country. There is also a deficiency in the number of in-service and workshop opportunities for teachers desirous of this supplementary training.

In an aside here, Mr. Chairman, I might make note of the fact that I have taken the liberty to go into a minimum amount of specificity here in regard to what we mean when we say knowledgeable individuals such as a knowledgeable teacher. I feel that this is the crux of the entire matter.

Let us now look at some of the important reasons why teachers need to be informed concerning the drug abuse problem:

1. This social health problem is growing among our youth—spreading from cities into the suburban and rural areas. Teachers need to

be aware of its impact on youth in the classroom, school, and community. Most teachers, even professional health educators, are almost completely ignorant of the drug problem and its many aspects.

2. The great lack of family function calls for this educational task to be performed by the school and well-informed teachers. Parents are ignorant of the facts and all too often lack the necessary understanding to cope with its many complexities.

3. A well-informed teacher is necessary in order to use valid curriculum and recommended teaching procedures, as well as productive motivational and evaluative techniques.

4. Misconceptions, distortions, and fallacious information should be corrected by the teacher.

5. Teachers will be dealing with the public as well as many students, administrators, other faculty, parents, PTA, community organizations, et cetera. They must have reliable information and a sensible approach to the many questions and problems that will confront them.

6. Lack of teacher interest and concern in teaching about the drug problem is directly attributable to a deficiency in knowledge and training. In research involving many hundreds of teachers I have found this to be an irrefutable fact; That unless teachers are secure in their knowledge of the drug area, their teaching is basically ineffective, or they simply refuse to approach the subject at all. With such a potentially volatile yet delicate subject, this attitude is readily understandable. This is particularly true in areas of greater drug concentration, where many students often know more than their teachers regarding usage.

Mr. Chairman, we have practically in every State in this Union a State law requiring the teaching of drugs, among other health hazards. We have many school districts in this country with the finest literature and finest curriculum and finest teaching tools and in far too many cases they sit right on the shelves, and they sit there and are simply not used because the teachers are not comfortable and secure in their background in this area.

Why do teachers need specific instruction and training? Research and experience indicate the following:

1. Teachers must know what is appropriate to teach at what age and grade level—a most perplexing question and one that is being asked constantly.

2. They must have competency in the effective use of—

- (a) varied curriculum,
- (b) unit outlines,
- (c) incidental teaching procedures at the most opportune time,
- (d) motivational devices,
- (e) project possibilities,
- (f) audiovisual sources, and
- (g) community resources.

3. Teachers should have some competency in observing and detecting student users or those suspected of using drugs and to properly report such cases—particularly in communities of drug concentration.

4. To effectively stress the sociological, psychological, and physiological aspects in proper relationship to the total problem.

5. Teachers must be able to pursue the subject frankly, openly, and realistically.

6. Teachers should understand that no one plan, approach, or program will adequately meet existing conditions with all students, classes, schools, or communities.

7. Teachers must know the people, customs, mores, and problems of the community.

8. Teachers must be aware that this is a potentially emotional topic—particularly in a community of considerable drug concentration.

Our teachers need additional help in understanding just what the problems of today's society are. Through this greater understanding they can then approach the discussion of drug abuse and related problems with knowledge and security. The educational approaches should remain flexible, so that interactions and modification of ideas and attitudes on the part of teacher and student may become attainable objectives. Teachers should assist students:

1. To become familiar with authentic information concerning narcotics, dangerous drugs, various chemicals, and other commercial substances detrimental to human health and the problems their abuse produces.

2. To develop knowledge and understanding of the personal, moral, and social problems that may develop through the indiscriminate and illegal use and abuse of narcotics and dangerous drugs.

3. To stimulate desirable health habits and attitudes that will enable students to acquire stability and exhibit behavior indicative of a responsible citizen in the home, school, and community.

4. To familiarize students with the important aspects of drug abuse and narcotic addiction, such as crime, delinquency, treatment, and rehabilitation.

5. To understand the dangers of self-medication and acquire knowledge of community sources where students may obtain advice and assistance.

6. To emphasize the importance, desirability, and advantages of a strong, respectful parent-son or -daughter. The value of confidence in, and consultation with, parents on matters such as invitations to parties, dances, sports events, friends, use of spare time, and other out-of-school activities.

A vital ingredient to effective drug-abuse education is the establishment of authoritative teachable curriculum for all grade levels. There is voluminous material available (medical and law enforcement in particular), but it must be made useful and practical to the trained and knowledgeable teacher. They desperately need a structure for information and teaching, particularly for this comparatively new subject of narcotics and dangerous drugs. Teaching techniques and visual-aid materials must be established and selected. These are important adjuncts to effective teaching.

Another significant aspect of drug-abuse education is the determining of student knowledge and attitudes. This information will prove invaluable in the preparation of curriculum and in the development of an overall educational program. We must determine what students really know, their questions, their misconceptions, and how they feel that teachers and education can help them. Students are extremely curious and hungry for knowledge and understanding of their thoughts and problems. They truly want the facts.

I might say here probably in the many thousands of youngsters I have talked to and surveyed in an educational light, that I would

say the majority of them are pretty well confused. They hear stories about taking spices off their mother's kitchen shelves and mixing them up for sniffing purposes, and they hear stories about sniffing gasoline and mixing tea in marihuana, and why it was outlawed in northern New Jersey a year or so ago. A student could not go in and order a cup of hot water for tea, thinking that the law enforcement authorities might think the mixing of tea and marihuana might be detrimental. What about the mixing of liquor and pills? What is STP and barbiturates? At the high school and college level there are questions which are just monumental and just too numerous to list here.

Our educational system must be enlightened to the seriousness of the growing drug abuse problem in this country. There are no shortcuts to the prevention of this psychosocial disorder in youth. Educators and supporting public leadership must understand and face up to this fact. We logically cannot expect the home and church to accomplish this involved and many faceted educational task. Effective school instruction will not provide a panacea for the drug abuse problem, but it is a strong beginning, and therefore an essential requisite of any preventive-educational program.

This educational process must be all inclusive. It should be carried on from elementary school to college to professional graduate study and to adult and community education. There are several critical guidelines that we are recommending for the stimulation of drug abuse education in our Nation's schools.

1. Teacher training institutions of higher learning must amplify their curriculum and undergraduate student exposure in the drug abuse-psychosocial area. Colleges and universities must provide a greater number of graduate courses, workshop and clinical experiences for graduates and teachers in the field.

2. There needs to be a meeting of the very best minds available to consider authentic drug abuse information from a physiological, psychological, sociological, pharmaceutical, educational, legal, and law enforcement point of view. This expert consultant body is to be charged with the task of building a reservoir of factual content material which will then be molded into graded teaching curriculum by educational experts. This validation of information and creation of logical teaching curriculum is essential because of the vast amount of misinformation and fact versus theory confusion that prevails throughout the entire drug abuse area. School systems across the Nation would then have an authoritative source of information upon which to draw for their individual programs.

4. They would also establish criteria and programs for teacher training workshops, clinics, and in-service education that could be used at State or school district levels.

I might say as an aside inadequate programs are being set up across the country in school districts. I have run into them personally. They are constructed under pressure. The material involved is far from the best and incomplete, to say the least, and we do have a substantial amount of health testing as far as behavior is concerned in this coun-

try to show that behavior can be bettered with direct instruction, and this would apply also to the drug abuse area.

A consultant project such as this would doubtless require financial support from the Federal Government as the services of experts from many fields would be required. However, the results of their efforts would be a gigantic step forward in implementing an effective educational drug abuse program nationwide. School systems could no longer blame their deficiencies on untrained teachers, or a lack of curriculum and teaching materials. Their responsibility to their students could then be met with confidence and the finest in educational procedure.

A major effort to provide all of the essential ingredients for effective drug abuse education is now in the planning stage. In a joint research project the Philadelphia, Pennsylvania, School District is cooperating with Temple University in a major experimental endeavor designed to train teachers, establish valid curriculum and teaching materials, determine student knowledge and attitudes, and, finally, to culminate these findings in the classroom for evaluative purposes. It is hoped that Federal funds can be obtained for this important project as it will doubtless have critical implications for drug abuse education nationwide. Research must play a significant role in the development of drug abuse programs as we in education search for the best answers.

As an influential sector of the community, today's schools should emphasize development of psychological and sociological programs of significance to the student. This will encourage him to develop an awareness of a variety of value systems and assist in clarifying his personal values. We cannot afford to waste kids by waiting until they experience serious trouble with society through misuse of drugs.

If education is to be considered as an informative and preventative measure, the burden of educational responsibility is heavy upon our shoulders, and the time for positive action is now—before it is, too often, too late.

Thank you, Mr. Chairman.

Mr. ROGERS. Thank you very much, Dr. Edwards, for that excellent statement. We appreciate your being here.

Mr. KYROS. I have one or two questions, Mr. Chairman.

Dr. Edwards, I think this is a very fine statement. Let me ask you this: Assuming that we could go ahead on this educational program which you point out here so excellently, what about deterrence—that is, putting the laws into effect that would make mere possession of LSD a crime? Do you think we should proceed again on the deterrent aspect, as well as proceeding on the education levels?

Dr. EDWARDS. You are really asking about an area about which I am not too familiar. I do feel that there has to be some type of deterrent, yes. Just what it is legally, law-enforcement-wise, I am really not qualified to say.

Mr. KYROS. I have heard some discussions that indicate that the young people today, when they are given this kind of information, even from teachers, even the kind of factual information you want to put out in the best possible format, nevertheless will continue to use these drugs in a form of rebellion against what they consider "the establishment." How do you feel about that?

Dr. EDWARDS. I think there is a great deal of merit to what you say. We have done a great deal of educating in the venereal disease field, and we have not completely sloughed off that problem. It has been my experience in working with the youngsters throughout the East and Midwest, when they are given the facts and are able to discuss their problems, when they are able to present their own ideas, ask their own questions, not merely just the presentation of facts, I think we accomplish much more, and I think this is where the knowledgeable person—namely, the teacher—must have a broad background in training in this area to do an effective job.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. Certainly I am glad to see someone who is so vitally interested in this field. We need more people, like you. I enjoyed your testimony very much. Thank you, Mr. Chairman, and Dr. Edwards.

Mr. ROGERS. In this joint research project that you are doing with the Philadelphia School District and Temple University, how is that being set up—or has it been set up as yet?

Dr. EDWARDS. As I indicated, our funding is the big problem, but we are setting it up so that we have complete access with the Philadelphia School District's enthusiastic responsibility to take a group of pilot teachers and train them in all aspects—say, 50—to have them thoroughly trained as well as we reasonably can, and at the same time construct valid curriculum, and then have these trained teachers take this curriculum into the classroom on a year or a year-and-a-half basis, to see the advantages on a controlled situation, the evaluation of the training, and of the newly established curriculum.

Mr. ROGERS. Have you been to NIMH to request funds?

Dr. EDWARDS. Yes, indirectly I have, and also to the Food and Drug Administration.

Mr. ROGERS. I think we would be interested in knowing what their reaction is on this. Would you keep us advised on that?

We are more than grateful to you for being present this morning and helping us in this important field. If there are no other questions, the committee stands adjourned.

(The following material was submitted for the record:)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., February 26, 1968.

HON. HARLEY O. STAGGERS,
Chairman, Interstate and Foreign Commerce Committee,
Rayburn, House Office Building,
Washington, D.C.

DEAR MR. CHAIRMAN: I have no doubt that LSD is dangerous in inexperienced hands and I believe that this Congress should do everything it can to see that this drug is not easily available. We can help our law enforcement officers crack down on the use of this dangerous drug by making possession illegal and the penalties stiffer. I strongly support this legislation.

I am enclosing two telegrams I have received in support of the hearings before your committee today. I hope your committee will consider them as part of the record.

Yours very truly,

GEORGE BUSH,
Member of Congress.

[Telegram]

HOUSTON, TEX., February 23, 1968.

Hon. GEORGE BUSH,
House of Representatives,
House Office Building,
Washington, D.C.:

Congratulations on your proposal to make possession of LSD a Federal offense. This menace to our youth must be controlled.

Warmest personal regards.

H. B. SHORT,
Chief of Police, Houston, Tex.

[Telegram]

AUSTIN, TEX., February 26, 1968.

Representative GEORGE BUSH,
House Office Building, Washington, D.C.:

Urgently request that you do all possible to place LSD and other hallucinogenic drugs in the Federal law as felony offenses.

HOMER GARRISON, Jr.,
Director.

WILSON E. SPEIR,
Assistant Director,
Texas Department of Public Safety.

AMERICAN MEDICAL ASSOCIATION,
Chicago, Ill., March 6, 1968.

Hon. PAUL G. ROGERS,
Committee on Interstate and Foreign Commerce,
U.S. House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN ROGERS: We appreciate this opportunity of submitting these comments for the record of your hearings on H.R. 15355, a bill to amend the Federal Food, Drug, and Cosmetic Act with respect to penalties for the illegal manufacture, traffic, and possession of all hallucinogenic drugs and depressant and stimulant drugs. The American Medical Association has a continuing interest in drug abuse and its prevention, as well as the treatment and rehabilitation of those who are drug dependent.

Today, hardly a day passes without comment in a local newspaper or weekly periodical, or on a radio or television news programs, of the illicit traffic and abuse of dangerous, habit-forming drugs. The problem becomes even more acute when the evidence points to a significant number of our youth as being addicted to the use of these drugs. It is because of these facts that we commend you and your Committee for the concern shown in calling and conducting these hearings.

The American Medical Association has for many years encouraged education programs aimed at emphasizing the harmful effects in the illicit use of drugs. We have published and distributed numerous articles and pamphlets, designed either to inform physicians or the public on the dangers existing in the use of drugs without medical supervision. I have enclosed, for the information of the Committee, five such articles published in the *Journal of the American Medical Association*, as well as a pamphlet on drug dependency titled "The Crutch that Cripples".

In addition to the printed word, several local medical societies have organized committees of volunteer physicians to lecture in schools on the dangers of harmful drug use and addiction. For example, one such program is located in the vicinity of your own Congressional district, Mr. Rogers, in Broward County, Florida. An article appearing in the July/August 1967 issue of the AMA's *PR Doctor* describing this program, is also enclosed for your information.

We share your acute interest and concern in this subject and support many aspects of H.R. 15355. We are mindful, however, of the need to preserve the continued legitimate use of drugs in the treatment of illnesses and disease and we will carefully evaluate the provisions which will make possession, under certain circumstances, unlawful.

Once again, thank you for the opportunity of commenting and adding some detail to the valuable information already gathered by your Committee.

Sincerely,

F. J. L. BLASINGAME, M.D.,
Executive Vice President.

(Pertinent articles referred to in letter follow, other articles have been placed in committee files.)

[From the Journal of the American Medical Association, Oct. 2, 1967]

DEPENDENCE ON LSD AND OTHER HALLUCINOGENIC DRUGS

(Council on Mental Health and Committee on Alcoholism and Drug Dependence)

In June 1966, the House of Delegates of the American Medical Association took cognizance of the serious consequences of indiscriminate use of hallucinogens.

A resolution urging strict control and supervision of their production and administration included a warning that "these drugs can produce uncontrollable violence, overwhelming panic . . . or attempted suicide or homicide, and can result among the unstable or those with pre-existing neurosis or psychosis, in severe illness demanding protracted stays in mental hospitals."

There is no accurate measure of the number of persons who take hallucinogens. It is apparent, however, that in recent years their ranks have increased, especially among college students. Widespread publicity has been given to allegedly beneficial effects of lysergic acid diethylamide (LSD), and LSD cliques have sprung up throughout the country. Because of continued illicit manufacture and distribution of LSD in particular, physicians in urban communities and university towns can expect to encounter patients who have taken these drugs.

HISTORY

Although LSD was synthesized in 1938 by Stoll and Hofmann, it was not until five years later, when Hofmann accidentally ingested an infinitesimal amount, that its hallucinogenic properties were discovered.

Subsequently, LSD was used by several investigators to induce a "model psychosis" thought to resemble schizophrenia. It was soon recognized, however, that the vivid hallucinations, spectacular illusions, and sensory distortions induced were not characteristic of that disorder, even though the resulting depersonalization was somewhat similar.

By the early 1960's an increasing number of persons were abusing (self-administering) the drug, perhaps abetted by the publications of Aldous Huxley and of Timothy Leary and his associates lauding its "consciousness expanding" qualities.

By 1965, the medical literature contained numerous reports of the adverse, and often catastrophic, untoward effects of the drug, particularly among those with preexisting severe psychopathological conditions. Twenty-seven patients with severe complications of self-administration of LSD were admitted to New York's Bellevue Hospital in a four-month period in 1965. Substantial numbers have since been admitted to that and other hospitals.

Today LSD is recommended only for strictly controlled research, and its legitimate production and distribution are limited to research purposes by the Food and Drug Administration.

The AMA House of Delegates in 1966 resolved "that no hallucinogen (LSD, mescaline, bufotenine, psilocybin, or dimethyltryptamine) shall be administered except by a physician trained in its use, and this shall apply even if the current studies show LSD to be of value in the treatment of psychoneuroses, sexual perversions, frigidity, alcoholism, or other illnesses.

"The American Medical Association stands unalterably opposed to any expansion of the use of psychedelic drugs beyond use by physicians. Even use by trained physicians should continue to be limited to carefully controlled experiments until incontrovertible data are available documenting LSD's efficacy and safety."

Some of the other hallucinogens have been available for longer periods. Peyote has been used for the past 150 years by Indians in Southwestern United States and Mexico in connection with religious rituals and ceremonies of the Native

American Church. Such use rarely if ever leads to dependence among these people. This dried top of cactus, however, is generally available on the illicit market in urban centers with relatively high drug-abuse rates. Mescaline, a product refined from cactus, is moderately available. Psilocybin and dimethyltryptamine (DMT) are relative newcomers to the illicit trade. The former is obtained with difficulty, but the latter is fairly available, and readily so in some areas.

The hallucinogens usually are taken orally, but users have experimented with practically every conceivable route of introduction, including sniffing, and subcutaneous and intravenous administration. The capsule and the sugar cube are the common carriers for LSD, although animal crackers have been used in at least one area, posing a hazard for unsuspecting children. The physical appearance of the more commonly abused hallucinogens was described in the Journal by Ludwig and Levine.

PHARMACOLOGY AND BIOCHEMISTRY

Hallucinogenic drugs include LSD, a semisynthetic derivative of ergonovine; the seeds of some morning glory varieties ("*Oloioiqui*," *Rivea corymbosa*; *Ipomoea violacea*), the active principle of which is closely related to LSD; mescaline, a phenethylamine present in the buttons of a small cactus (mescal, peyote, *Lophophora williamsii*); psilocybin, an indole found in a mushroom ("*teonanacatl*," *Psilocybe mexicana*); and DMT, a synthetic indole, also found in seeds of a South American plant (*Piptadenia peregrina*). These are highly potent, with LSD being one of the most potent drugs now available. Tolerance to hallucinogens develops rapidly, but usually is lost in two or three days. Some users have built up their LSD doses to 1,000 μ g or 2,000 μ g over a period of days. The average dose is 200 μ g to 400 μ g.

Further, there is cross-tolerance among LSD, psilocybin, and mescaline, although tolerance to mescaline develops more slowly than to the other two. Paradoxically, some users report a state of increased sensitivity to LSD once they have lost their tolerance. Relapse simulating the drugged state has been reported without the ingestion of additional LSD.

LSD in crude form is relatively simple to synthesize, given a supply of lysergic acid or one of the ergot alkaloids. Lysergic acid, in turn, can be produced by deep fermentation processes with only moderate difficulty, provided there is suitable equipment and knowledge. The synthesis of lysergic acid, however, is accomplished only with great difficulty. Since lysergic acid has been brought under federal control, DMT, a relatively new synthetic with a somewhat shorter and more "harsh" action than LSD, has appeared on the illicit market. An LSD "trip" or "experience" usually lasts about 12 hours and the onset is said to be fairly "gentle," whereas a DMT trip lasts about two hours and has a sudden or "rough" onset.

DEPENDENCE: PATTERNS OF ABUSE

Hallucinogen-induced dependence is psychological, not physical. The drugs have a particular attraction for adolescents and young adults who are socially maladjusted or emotionally inhibited and who constantly seek new "experiences" and "insights."

Because there is no evident physical dependence and because tolerance develops and disappears rapidly, periodic rather than continuous use is the usual pattern. Three general classes of users have been described.

One consists of narcotic drug-dependent persons who took LSD or other hallucinogens on infrequent occasions after a "fix" with narcotics.

Another group includes users of other drugs, especially marihuana, who relished the more intense effects of hallucinogens in their quest for "agents to raise them from their apathy, to make life more meaningful, to overcome social inhibitions, and to facilitate meaningful conversations and interpersonal relationships."

A third group is composed of persons who repeatedly took LSD only or in combination with one or more of the other hallucinogens over a sustained period of two weeks to a month. Unlike those in the second group, they took the drugs not for social purposes but to achieve "some personal, esoteric goal."

As with marihuana, no one knows how many experimenters try hallucinogens once or twice and then give them up. For some, the "experience" not only fails to "fulfill" but is unpleasant and often frightening. Whether the trip is "good" or "bad" depends on a combination of factors, including the user's motives and attitudes, the nature of his companionship at the time of the trip, the physical surroundings, and possibly the purity of the drug itself.

COMPLICATIONS

A variety of complications have been reported in the medical literature, but three appear to be most prevalent.

1. Reappearance of the hallucinated, disorganized state without further ingestion of an hallucinogen is one type of complication. This has occurred in subjects within two months after a series of relatively few exposures. It also has occurred more than 12 months after a series of more than 200 exposures that had extended over a period of years.

2. Panic is a frequent complication. Hospitalization may be sought by the user or his companion, neither of whom can cope with the sense of terror.

3. A third relatively common complication is the development of an extended period of psychosis, sometimes after a single exposure, and usually involving a person who was prepsychotic or had a history of current or previous psychosis. There is no available evidence to suggest that the massive, disorganizing experience resulting from the taking of hallucinogens has been therapeutic for any psychotic patient. Quite the contrary!

One study describes three patients hospitalized for extended psychoses after single ingestions of LSD. All previously were schizophrenics who attempted to gain "new understanding of themselves" through the drug.

"As the effects of the drug wore off, (they) were faced with the problems of returning to the real world and accommodating a vague new self image, achieved under the influence of the drug, to reality. Conflict arose as they began to interact with other people and had to become reconciled to the fact that their new understanding was not readily grasped or responded to by others. Rather than give up their newfound fictional sense of self, the psychotic patients strove to maintain their sense of uniqueness and withdrew from the world."

Other types of complications arise when the user becomes delusional to the degree that he believes he has unusual powers or personal invulnerability. Several suicides while under the influence of hallucinogens have been reported. Some users have been killed while crossing busy streets in the mistaken belief that they could not be hit or injured. Others have met their death in attempts to fly from a roof or window. For protection and other reason (for example, to help control panic, should it occur) the trip taker usually enlists the aid of a "guide," an experienced user who stays with the "tripper" but takes no LSD himself at the time.

There is evidence that some chronic users, irrespective of other effects or factors, have become less productive. Limited observations suggest the need to explore the possible impairment of abstract thinking and the ability to reason. It has not been demonstrated conclusively that permanent organic or other defects result from prolonged abuse. Recent studies show that chromosomal damage can result.

RECOGNITION OF LSD INTOXICATION

Because LSD was once used to produce a "model psychosis" in the study of schizophrenia, it is not unusual for an LSD-intoxicated person to be mistaken for a patient suffering from an acute schizophrenic episode. LSD may be in the picture if one has a patient with "schizophrenia" or an acute panic reaction with sudden onset and essentially complete recovery in 12 to 72 hours, although overdosage of amphetamines produces somewhat similar reactions.

Laboratory tests are not practical in diagnosis. A procedure has been developed for measuring LSD in blood plasma following intravenous injection, but in the case of oral administration, blood samples would have to be taken within two or three hours after ingestion to obtain measurable amounts. In either case, the procedure is not suitable for routine clinical application.

"Drugs of the LSD type induce a state of excitation of the central nervous system and central autonomic hyperactivity manifested by changes in mood (usually euphoric, sometimes depressive), anxiety, distortion in sensory perception (chiefly visual), visual hallucinations, delusions, depersonalization, dilation of the pupils, and increases in body temperature and blood pressure."

The usual dose of LSD taken by a nontolerant person is 200 μ g to 400 μ g, at which level there is often rather complete disorganization. Some physical effects are experienced, however, when doses of as little as 30 μ g are taken.

The other hallucinogens cause slightly varied, and often less intense, reactions that differ more in degree than in kind. Mescaline produces peripheral autonomic effects, such as nausea, which tend to limit its use.

As with marihuana use and most other forms of drug abuse, the diagnosis of hallucinogen intoxication or dependence is facilitated by a careful history from the patient and his associates. It is important to couple the history with a mental status examination and a personality inventory to determine whether there are features which might make hallucinogens attractive to the patient.

A prompt response to a therapeutic trial with phenothiazines or barbiturates in an acutely intoxicated patient may also assist in the diagnosis.

TREATMENT

In the acutely intoxicated state, the patient should have an immediate trial with phenothiazine medication, preferably administered intramuscularly. The phenothiazines tend to block the action of LSD. Dosage will, of course, vary with the severity of the intoxication. Barbiturates also may be found useful in lieu of, or in addition to, phenothiazines. Caution relative to the additive effects of these drugs must be observed if they are used in combination. Once the period of intoxication is over, and if symptoms of mental illness are apparent, any medication prescribed should be on the same basis as for a similar type of mentally ill person who has not been involved with hallucinogens.

Drug dependence is a multifaceted problem, embracing almost every aspect of our culture and socioeconomic system. There is no simple solution for such a complex problem. The treatment and rehabilitation of the hallucinogen-dependent person also will require the attention of persons with special skills beyond those of the physician. There may be complicating legal, educational, social, moral, or religious issues which will require the services of other professionals.

Because the hallucinogens do not cause physical dependence, there are no physical complications of withdrawal. The physician, however, must determine at the onset of treatment whether other drugs are being taken simultaneously which require careful withdrawal management. Often this is so.

It may, on occasion, be necessary to hospitalize, at least briefly, a psychologically dependent person who is not acutely intoxicated or psychotic, to separate him from his source of supply. Complete cessation of the use of the drug is necessary. Circumstances may require the family or others to seek legal means by which the patient can be brought to treatment. There is wide variation among the states in regard to the civil commitment of the mentally ill, and it may be prudent to seek advice from attorney as well as representatives of the medical profession on such questions.

The major focus of effective treatment cannot be on the drug intake alone, because dependence in its various forms is almost universally symptomatic of underlying personality problems, severe neurotic conflicts, or psychotic reactions interacting with environmental factors. The task of the treating physician is to learn from the patient *what really bothers him* at both conscious and unconscious levels and what needs are being spuriously met at both these levels by taking drugs.

Then it becomes the physician's task to help the patient come to a full comprehension of his intrapsychic and interpersonal problems and how to cope with them. Short of this, the physician may have to give long-term supportive therapy that will enable the patient to live as productive and satisfying a life as possible with his psychic handicap and in a drug-free state.

The physician, of course, cannot change real vocational, family, social, and other environmental problems contributing to the patient's difficulty merely by treating his intrapsychic disorder. For this, as noted earlier, collaboration with others possessing additional pertinent skills is essential.

If the physician does not have sufficient professional training to equip him to handle these difficulties, early psychiatric referral may be indicated. When psychiatric resources are not available, the physician may be called upon to provide limited individual, group, or family therapy over an extended period of time. In such cases, it is particularly important to seek additional help in the community from the appropriate agencies, interested lay organizations, or concerned professionals who can add substance to the treatment program.

The physician should remember that the drug-dependent person (psychological, physical, or both) is sick and deserves understanding and treatment, even though he may have been involved in unlawful activity. While the hallucinogen user may resort to such activity to obtain his drug or become involved in unlawful behavior through his associations with others or as a consequence of taking drugs, the abuse of drugs is not necessarily equated with criminality, although several states make possession and use of hallucinogens a crime.

A concomitant consideration is that through the use of the drug a behavioral pattern may have been established in which the patient has experienced rejection by society and acceptance perhaps only by those with similar problems. He therefore may have alienated himself from more desirable associates and family, or perhaps may never have achieved a period of reasonably satisfactory adjustment to which he can return. Rehabilitation in all probability will require concerted community support, with simultaneous efforts to provide housing, employment, spiritual assistance, and other aids. Each patient presents a unique therapeutic problem calling for ingenuity on the part of all who endeavor to help.

LEGAL CONTROL

The control of illicit distribution of drugs is an important aspect of prevention of drug dependence. Federal enforcement rests with the FDA under the Drug Abuse Control Amendments of 1965. Possession of hallucinogens outside of legitimate channels with intent to sell is illegal and, under any circumstances, unless the drug has been obtained legally, it is subject to seizure. An exemption is made for the use of peyote in bona fide religious ceremonies of the Native American Church.

State laws in the area of control are less uniform than those in relation to opiates and marihuana and in some instances are nonexistent. A few states cover peyote under their narcotic laws. Because hallucinogens are rarely administered by physicians, and then only in a carefully-controlled setting, their possession by a person for his own use would almost always be associated with abuse.

THE PHYSICIAN-CITIZEN'S ROLE

Only an aroused and concerned public can create, mobilize, and implement resources to deal adequately with as serious a problem as drug dependence in all its forms. Education, which can provide the proper stimulus to accomplish this, must come from community leaders aware of the needs and from professionals who apply themselves to these needs.

Frank and forceful public discussion, focusing on the futility and inherent dangers in experimentation with drugs such as the hallucinogens and on the consequences of dependence, may deter the uninitiated from starting. Expanded counseling services in schools could provide more effective and more suitable alternatives to young people in dealing with their problems.

Persistent vigilance by law enforcement agencies in eliminating illegal sources of the drug needs public support and sufficient funds to do the job. Real crusading may be required before sufficient public and private funds are devoted to creating and operating adequate treatment facilities and programs for the afflicted and for the control of illicit drug use. And finally, only community understanding, compassion, interest, and active aid will enable the rehabilitated drug-dependent person to find a satisfactory place in society.

THE CRUTCH THAT CRIPPLES: DRUG DEPENDENCE

(By the Committee on Alcoholism and Drug Dependence, Council on Mental Health, American Medical Association)

INTRODUCTION

Some individuals feel compelled to abuse drugs as a way of life—a way to shut out the real world or enter a world of unreality.

Others, especially young people, may see drug abuse as an adventure—a road to supposedly new experiences.

For all of us, drug abuse is an expensive practice. Millions of tax dollars are spent each year controlling abuse and treating persons dependent on drugs. Equally important, additional millions are lost by those who, often unknowingly, rob themselves of their ability to be productive, and jeopardize their physical and mental health.

The pressures of modern society contribute to the drug abuse problem. So do its material advantages. Among those youngsters and others who do not have to struggle for the essentials of life, some may turn to drugs for excitement. It seems they have learned how to use their minds, but not how to develop and enjoy their senses without artificial stimulation.

Most of us take drugs for medical reasons. People with headaches or colds take aspirin. Heart patients take digitalis. People with peptic ulcers take antacids.

Drugs are chemicals that act upon the body's own chemistry. Sometimes they substitute for chemicals the body may lack, such as insulin. Frequently they help fight infections or improve our ability to function by stepping up or slowing down the activity of our glands and organs. It is clear that drugs can promote and preserve good health when they are taken on the advice of a physician, or according to directions on the label.

On the other hand, drug abuse—taking drugs without professional advice or direction—can injure vital parts of the body; the liver, the kidneys, the heart, the brain. Abuse of certain drugs also can lead to drug dependence, either psychological, physical, or both.

Drug dependence, although seldom fatal, can cripple its victims in body and mind—in some cases, permanently.

What is drug dependence?

Which drugs can cause dependence?

What are proper uses for these drugs in medical treatment?

Why do people abuse drugs?

What effects do abusers experience and what are some of the results of their dependence?

Can drug abuse be prevented?

This booklet is an attempt to answer questions such as these. It was written not only because drugs are being abused by millions in the United States today, but because drug dependence goes far beyond the individuals directly involved. It touches the life of everyone.

THE TWO ARMS OF DEPENDENCE

Drug dependence comes about from taking certain drugs regularly and often in increasing amounts and at shorter intervals.

Dependence is based on a psychological or emotional need to continue taking a drug because of the relief of uncomfortable tension or the apparent feelings of pleasure or well-being that can result. In the case of drugs that depress the central nervous system, dependence also is based on a physical need, added to the psychological.

Abuse of narcotics, for example, causes both physical and psychological dependence. Abuse of LSD or marihuana can cause only psychological dependence, harmful in itself.

Drug abuse does not always result in dependence. When it does, it is because the roots of dependence lie within the psychological makeup of the individual himself, rather than in the properties of the drug. The drug feeds those roots and makes them grow. If the individual had not turned to drugs for this "nourishment" he might have used other harmful means of relieving his tensions and anxieties. Or, with help, he could have found constructive ways to deal with his problems.

Many drugs can lead to dependence through abuse. Those most often abused fall into four major categories:

1. The narcotics (pain killers), such as heroin, codeine and morphine.
2. The sedatives, such as barbiturates, tranquilizers and alcohol.¹
3. The stimulants, such as amphetamines.
4. The hallucinogens, such as LSD and marihuana.

MEDICAL USES OF THESE DRUGS

Most of the narcotics, barbiturates and amphetamines have a proper place in the legitimate medical treatment of physical and mental illness. This is not true of the hallucinogens.

Narcotics, which come from the opium poppy, are administered by physicians to relieve pain. When a patient has acute pain, the physician tries to get at the cause and eliminate it quickly. Sometimes when that isn't possible, or as a part of treatment, he will prescribe morphine or a similar pain killer. When he does, the patient gets the drug only when significant pain returns. The less the drug has to be used the better.

¹ Dependence on alcohol, or alcoholism, is the most prevalent of all the drug dependencies. But because the AMA has separate publications dealing with alcoholism, it is not covered in this booklet.

There is good reason for this. It seems that certain central nervous system cells actually become dependent on the narcotic's presence by adjusting their activity to the drug. When this happens the cells, in effect, hunger for more, and if they don't get it withdrawal symptoms appear.

Paregoric and codeine are other narcotic drugs used in medicine. The former is prescribed for intestinal trouble and the latter is a common ingredient in cough syrup and pain medications. Taken as directed, they do not present problems.

Barbiturates are sedatives which also play an important part in medical practice. Either singly or as the principal ingredients in mixtures, they can be effective in treating epilepsy, insomnia and emotional and mental illness. Significant quantities beyond proper use usually are necessary to cause physical dependence.

Amphetamines and other stimulants, popularly known as pep pills, are prescribed for certain types of mild depression and as short-term aids in weight control. Stimulants do not cause physical dependence, even when abused. But because psychological dependence and side effects can occur rapidly, the physician prescribes these drugs for only a limited time and a specific purpose.

WHO ARE THE DRUG ABUSERS?

Patients who take drugs under a physician's orders can abuse them, intentionally or otherwise, by not following directions.

The majority of abusers, however, are persons who do not take drugs under medical supervision.

There is the unemployed young man with no prospects of a job who shoots heroin into his arm to forget his problems.

There is the housewife who takes tranquilizers, or drinks regularly, to dull the constant noise of her bickering children.

There is the truck driver who swallows pep pills to keep awake on an all-night run.

There is the college sophomore who turns his back on society with disgust, and picks up a sugar cube with LSD to take a trip away from the real world and to a "society" of his own making.

People of all ages, from all walks of life, and in all economic and social circumstances, abuse drugs. Interestingly enough, each of the four categories of the dependence-producing drugs tends to have its own type of abusers and its own physical and emotional consequences.

ABUSE OF NARCOTICS: RIDING THE MERRY-GO-ROUND

It is a well-known fact that since ancient times narcotics have been used by people to escape from reality. In other countries and in other days, it was opium and morphine, an opium derivative. Today in the western world, the narcotic drug of choice is heroin, a white powder made from morphine which is not used in medical practice in the United States.

Heroin, or "horse" as it is often called, would not be available if the laws were obeyed. In this country, as in most others, it cannot be made, sold or used legally. But it is manufactured and smuggled in from overseas and across the border in quantities sufficient to maintain more than 50,000 persons in a state of dependence.

Most of these dependent persons live in or around large cities, and the majority are men. They usually are young—under 30: some don't live long because they run themselves down physically; others "mature out" of their dependence. One study of 7,200 former addicts showed the majority of them voluntarily stopped using heroin by age 35, and that by age 47, all but 13% had done so.

Typically, heroin abusers have financial problems, particularly because of their habit. Well over half of them are Negroes and Puerto Ricans, and as such they also may have social problems. But it is apparent that other factors are involved. Most persons in similar circumstances and with the same cultural backgrounds don't abuse narcotics. The causes are complex and different for each individual.

As in the case of most drug dependent persons, heroin abusers tend to have dependent personalities to start with. Often, they have a history of being treated like children even past adolescence by over-protective mothers. They feel insecure and inferior, and they try to counteract these feelings with their drug. Usually, they will experiment with drugs other than heroin first, notably mari-

huana, and find that these drugs don't blot out their emotional pain. It is also common for heroin abusers to continue taking other drugs along with heroin.

The old picture of the "dope fiend" who rapes and murders is not an accurate one. Heroin abusers seldom commit crimes of violence, and they have little interest in sex as such. Many do have a history of delinquent behavior before they become addicts, and often after they are addicted they will steal to get money to maintain their expensive habit, which may run as high as \$75 a day. Thus, a large proportion of the crime in New York City has been traced to addicts, with their offenses consisting mainly of burglary, shoplifting, prostitution and other acts related to their need for money.

A Way of Life

Heroin can be so addicting, both physically and psychologically, that once a person is "hooked" he thinks of little else. For him, heroin becomes a way of life. His main concern in the morning is to get his wake-up fix. He will dissolve some heroin powder on a spoon, draw it into a hypodermic syringe or dropper through a piece of cotton which acts as a filter, and then inject it into a vein. He will repeat this process one or more times during the day. Generally, the *longer* he takes the drug the *more* he will take because his body needs increasing amounts. His last business before the end of the day is to make sure he has a supply for the next morning.

Getting a person to give up his habit is not easy. Addicts may come in voluntarily for treatment when they realize they have little hope of raising themselves out of their dismal condition. Some states have compulsory commitment—addicts are sent to hospitals rather than jails when they are arrested for possession of the drug. Under federal law, persons who are addicts and are charged with, or convicted of, any federal offense, can be committed for treatment. Addicts not charged with any offense also may be committed if they seek treatment.

Rehabilitation The Goal

Withdrawing from heroin need not be dangerous or even very painful. Many addicts are able to withdraw without help. Symptoms begin about eight hours after abstinence in the average case and reach a peak in about 40 hours. Starting with a running nose, tearing eyes, perspiration and goose flesh, the addict later experiences cramps, muscle twitching, vomiting, diarrhea and insomnia in varying degrees.

Though highly discomfoting, withdrawal is not the hardest part of the treatment process. More difficult is keeping the addict from backsliding once withdrawal is completed—overcoming his underlying psychological need to take the drug. Hospitals, physicians and social service organizations all try to rehabilitate the heroin abuser to make it possible for him to take his place in society in a drug-free condition.

With or without treatment, an addict may "mature out" of his dependence on drugs. But the odds are long against success. The roots of insecurity and immaturity, which led him to drugs in the first place, go deep. If he returns to the same surroundings he left, he may well experience the old frustrations and temptations, with "assistance" from his associates and the pushers.

Nevertheless, every heroin-dependent person should be encouraged to seek help. Although the road to recovery is rough and often seemingly endless, treatment is still his best hope.

ABUSE OF SEDATIVES: TURNING FROM TENSION TO TROUBLE

Until the middle of the 19th century, those looking for substances to ease their tensions had to depend almost entirely on herbs and alcoholic beverages. In the 1850's, however, new chemical compounds known as bromides were introduced and they immediately became popular as sedatives. And with use came abuse.

Abuse of bromides waned in the 1930's when other more powerful sedatives called barbiturates were introduced. Especially subject to abuse are the short-acting ones like pentobarbital, secobarbital, and amobarbital. Phenobarbital and other long-acting barbiturates are not frequently abused because they don't produce quick effects. Since the 1950's, the tranquilizers, another class of sedative-type drugs, have been abused in much the same manner as the short-acting barbiturates.

Because barbiturate prescriptions must be ordered by physicians, and dispensing by drug stores is controlled by law, the huge quantities sufficient to

maintain abuse come largely through illegal channels. The person who becomes dependent on barbiturates may first have used the drug under a doctor's care. But others simply learn something of the drug's intoxicating effects and begin to experiment and self-prescribe.

Many of those abusing barbiturates might be called "silent abusers." They take pills in the privacy of their homes and do not cause disturbances in their community. These are mainly middle-aged and older persons—the types not often found abusing other kinds of drugs.

Most abusers of barbiturates who become dependent are individuals who find life's tensions and anxieties unbearable. Like alcoholics, they need the feeling of security and well-being they believe their drug will give them. Indeed, it may give it to them while they are "drunk." But, as in alcoholic intoxication, there can be other effects: confusion, irritability, incoordination, and depression. Even when the effects are desirable, the person is later faced with his same old tensions and anxieties, plus a hangover.

That is why some carry their abuse to such an extreme that they remain bed-ridden in a constant state of semistupor. Suicide can occur through overdose, intentional or otherwise. With narcotics, suicide from overdose is rare because increasing tolerance raises the lethal limit. This limit is not raised significantly by barbiturate tolerance.

A few persons abuse barbiturates for reasons other than release from tension and anxiety.

There are those who take them in combination with another drug to get "far-out" results. When the other drug is alcohol or one of the narcotics, a possible far-out result is death, because each drug increases the action of the other. When the other drug is a pep pill, the abuser gets on a seesaw of sedation and stimulation.

In some unusual cases, barbiturates are taken for exhilaration and for a sense of increased efficiency, just like pep pills. This may happen after tolerance develops through prolonged abuse, because then the drug can have a stimulating rather than a depressing effect.

Barbiturates also are used as a temporary substitute for narcotics when addicts run out of heroin.

The long-term abuse of barbiturates causes strong physical dependence, making withdrawal a serious business. Withdrawal from narcotics is bad enough, but barbiturate withdrawal if abrupt and sudden can be fatal.

Physicians know that the process must be accomplished very slowly and carefully. Preferably the patient should be in a hospital where he can be observed constantly. Short of death, withdrawal complications can include convulsions and delirium.

ABUSE OF STIMULANTS: FERVOR WITH A FALSE FACE

Although amphetamines and related stimulants are, like the barbiturates, legally available only by prescription, supplies move briskly through the black market.

Some persons abuse these drugs to overcome depression or to combat fatigue. More numerous are those who take them not to attain feelings of well-being, but to go beyond to exhilaration and super-sensitivity. Generally these are younger people who experiment with a variety of drugs and who may abuse a combination of them.

Recently, they have taken to injecting amphetamine to get faster and more intense results. Some claim they can achieve a kind of "controlled hypersensitivity" by injecting a combination of amphetamine, barbiturate and heroin.

When large doses of amphetamine are taken, either orally or by injection, tolerance can build up quickly, and then larger and larger doses become necessary to attain the desired effects. One of the chief hazards of abusing stimulants is that a person can over-estimate his physical capabilities. These drugs mask underlying fatigue caused by unusual expenditure of energy and lack of rest. That is why after an amphetamine spree, a person may collapse from exhaustion. He can also suffer damage to his heart and circulatory system.

Another possible complication is a mental illness known as amphetamine psychosis in some individuals who take sizable doses for a long time. In this condition, the patient believes others are plotting to harm him and he has hallucinations—seeing or hearing things that aren't there.

Fortunately, withdrawal from amphetamines is usually painless—physically. Psychologically, abrupt withdrawal can bring on serious depression with potential suicide. And because stimulants frequently are abused in combination with other

drugs, the effects of withdrawal from the others also must be taken into account. For these reasons, it is best that withdrawal be carried out in a hospital under a physician's supervision, as in the case of barbiturates.

ABUSE OF HALLUCINOGENS: IT CAN BE A ONE-WAY TRIP

Hallucinogens are unique among the drugs that can cause dependence: they have no accepted use in medical practice.

Strictly speaking, an hallucinogen is a drug that produces hallucinations. Actually, there are fewer hallucinations than distortions—seeing or hearing things in a different way than they actually are.

Many substances have properties which can cause distortions, including morning glory seeds and an extract from a Mexican mushroom called psilocybin. First in popularity among the hallucinogens is marihuana. Next, and by far the most potent and dangerous of all, is LSD.

Accidental Discovery

LSD is an abbreviation for *lysergic acid diethylamide*, a chemical so powerful that an amount smaller than a grain of salt is all that it takes to become intoxicated.

Its effects were discovered in 1943 by a chemist who had made it in a Swiss pharmaceutical laboratory five years earlier. He accidentally swallowed a bit of it and soon entered a weird realm of odd-shaped undulating objects of vivid color.

After he reported his experience, some scientists thought LSD might be useful in studying schizophrenia—a mental disorder in which patients live all or part of their lives in fantasy. Carefully controlled research into its possible medical uses was begun and still goes on.

Meanwhile, the word was out. Some fairly prominent persons, among them authors, movie stars and university instructors, experimented with LSD and gave to the public glowing accounts of their "trips." Two educators became convinced that LSD could expand the mind and allow people to make use of talents and abilities they didn't know they had. They started an LSD crusade, directed particularly at college students and other young adults.

Since then, abuse has spread rapidly throughout this and other countries. Studies of those who have taken the drug are now revealing why they take it, what they get out of it and what happens to them later. It is not the bright picture painted at first.

Purposeful Pursuit

Like other drugs, LSD is tried by many who are simply curiosity seekers. For the most part, however, abuse has been purposeful especially among young people. They are looking either for pleasure or self-improvement.

The pleasure-seekers are generally a passive lot. They sit fascinated while new sounds, shapes, colors and smells flood their senses, and new thoughts about themselves and their relationships to others intrigue their minds.

The self-improvers are more serious. They too experience these effects, but they try to act upon them. They are not like the pleasure-seekers who have, as one abuser put it, "a whole new team of horses without a wagon to hitch them to."

For the painter, the poet, the musician, LSD may mistakenly appear to be a vehicle for creating more original and more meaningful works of art. Although several creative persons have claimed success, objective observers recognize few if any improvements.

One observer has stressed the fantasy nature of these claims. Many who talk about writing great novels or poetry never seem to get around to it—the most notable thing about their "heightened creative powers" is inaction, he says.

Another, commenting on the same phenomena, declared that "a good writer or poet works hard, and drugs prevent hard work. Maturity is gained by recognizing one's own limits of creativity and drugs may only provide an illusion that one is a good artist."

The Disenchanted

There is another type of serious abuser. He is not like the typical narcotics addict who may personally know the pangs of poverty or prejudice. He is usually well-fed, well-clothed and well-regarded. But he sees that poverty and prejudice do exist in some places, he sees nations at war, he sees automation

taking over, he sees adults setting one standard for youth and another for themselves.

To him, trying to right wrongs is a waste of time. He believes society is incurably sick, and he wants no part of it. The wagon he takes on his "trip" leads to a society of his own filled with sensory delights and revelations of the meaning of life, love and brotherhood. He may seek out others of similar bent so together they can form back-to-nature colonies, grow their own food and enter the old world only to get money to buy marihuana and LSD.

From this vantage point, he sees society no longer as ugly, but ridiculous. He looks down and watches people playing games—the husband-wife game, the teacher-pupil school game, the nine-to-five office game, the cold-war game.

LSD itself does not create such attitudes. Other young people not on drugs also may see society as a series of farces. But LSD does facilitate these attitudes by loosening the abuser's hold on reality.

It appears that LSD may have a specific toxic effect on the retina of the eye, the optic pathways or the visual cortex. After taking LSD, a person will go through an average of eight hours of watching familiar objects take on new forms, feeling that he is outside himself looking in, hearing new sounds from an old phonograph record, or seeing colors he never saw before.

The trip is not always pleasant. It can be harrowing. The distorted objects and sounds, the illusory colors, the new thoughts—all may be menacing and terrifying. A trip like that usually eliminates the pleasure seeker. It may not deter others.

Echoes from Hospitals

No one, not even a trained psychiatrist, can say for sure whether a person will or will not have complications if he takes LSD. The fact is there is no basis for identifying those for whom any drug is safe. Even for the same individual, effects can vary from one time to the next.

Drug experimenters often think: "It won't hurt to try it, just once." With LSD, "just once" can be once too often.

Cases have been reported of recurring LSD intoxication over a period of months even though the person did not take more than one dose. It also is now evident that just a single dose can trigger mental illness. In a study at a New York hospital of 52 patients with LSD-induced psychosis, it was found that 26 had taken the drug only once. Hospitals are seeing more and more of such cases. Some of these patients had previous mental or emotional disorders, but others were apparently normal before their trips. Only 12 of the New York patients showed evidence of underlying psychosis. On the other hand, an analysis of the history of 20 patients in a San Francisco hospital revealed that in 75% of the cases, LSD was not the major factor leading to hospitalization. Usually, there was a series of attempts to cope with emotional problems, including the abuse of several drugs.

Although it is too early to tell, there is a possibility that LSD can cause permanent brain damage and can injure hereditary genes. One experiment has implicated LSD in damage to the chromosomes resulting in white blood cell abnormalities. Eight users of LSD and nine non-users were studied. In six of the LSD group, chromosomal breakage was found to be about three times greater than the expected or normal rate. Only one non-user had significant breakage, and he had received a series of x-ray treatments several years earlier.

Forward from Pot

Marihuana probably is abused by youth more than any other drug. It comes from the flowering tops of the hemp plant which are dried, powdered and rolled into cigarettes called reefers.

Smoking marihuana, or pot, produces feelings of well-being and also sensory distortions. These effects, though similar in kind to those produced by LSD and other potent hallucinogens, are far less intense. Ironically, this is marihuana's chief danger, because the user may then try stronger substances, including heroin.

Although marihuana does not lead inevitably to heroin abuse, it is a fact that most heroin abusers have experimented first with marihuana. Traditionally, they have been introduced to both drugs through friends or other contacts in the "hard drug" culture.

But the problem now is a much broader one. Pot parties are common among certain groups of college and high school students. For them, smoking mari-

huana has become an "in" thing to do. It carries with it the excitement of doing something illegal and the satisfaction of rebelling against authority.

Fortunately, most youngsters who try pot give it up after the novelty wears off and they realize that the kicks they get aren't worth the risks and the side-effects.

A sizable minority, however, are discontented with what they experience. They expect ever-increasing pleasurable effects, and they don't get them. Some will turn to heroin, but more of the discontented will try other drugs, particularly LSD, because they don't want to risk physical dependence. They often will continue on pot while taking other drugs in sequence or at the same time.

Although there is no evidence that marihuana causes any lasting physical or mental changes, recent studies indicate that hashish, a stronger cousin of marihuana prevalent in Africa and the Middle East, may do so. Hashish also can be obtained in this country. When a teen-ager is handed a reefer, he can't be sure it's just marihuana. It may be hashish, or a mixture containing hashish or even other more potent hallucinogens.

Proponents of marihuana claim the drug is less harmful than alcohol and that therefore it should be legalized. They overlook, or choose to ignore, important differences.

First, most persons usually do not take alcohol to the point of intoxication. One or two drinks a day normally have little effect. On the other hand, one or two reefers can produce marihuana intoxication.

Second, alcohol, even when it is abused, is compatible with a considerable period of productivity. The action of marihuana is far more rapid. It quickly interferes with social and economic productivity.

Finally, many drunks are aware that they can't handle certain tasks, such as driving, and they don't attempt them. But marihuana smokers as a rule have a false sense of ability, and the consequences can be serious.

Thus, both during and after intoxication, the abuser can misjudge distances and miscalculate time. Stepping off a curb into the street can be a major project. Crossing the street, or operating a car, can be a disaster.

Marihuana abusers often are listless, neglect their personal appearance and feel they are failures after they see that they can't accomplish the great things they thought they could while under the influence of the drug. Continuous abuse also may intensify temporary psychiatric illness.

For many, however, marihuana is most harmful as the teacher of "Drug Abuse A-1," an introductory course in the pleasures and pitfalls of dependence—where the pleasures seem to promise more to come and the pitfalls appear minor and easily avoided.

Bumping Into Reality

Whether they like it or not, drug abusers have to live in society. Even LSD colonists can't remain out of touch.

Physical illness or injury, both during and after intoxication, is not uncommon. Neither are mental disorders of varying degrees and kinds.

Returning to a comparatively cold and mundane world after intoxication can be discouraging and depressing—enough to shatter any remaining emotional stability. Three LSD users, all of whom had a history of schizophrenic behavior, believed they had achieved new personalities by taking the drug. When the effects wore off, however, they discovered that their friends didn't recognize their so-called "new image." Instead of accepting the fact, they refused to give up their altered conception of themselves. They had to be hospitalized—one was paranoid and the other two were catatonic, unable to assert themselves in any way.

Those who are drug dependent may neglect their personal habits or appearance, even to the detriment of their health. They go without food, inviting malnutrition. The mainliners, those who inject heroin or other drugs into their veins, risk blood poisoning, tetanus, hepatitis and other serious infections caused by unclean equipment.

Then there are the accidents. One LSD abuser walked out of a window several stories up because he believed he could fly. Another became a statistic when he thought he could stop traffic by standing on the expressway with his hand raised. Other accidents, many fatal, are caused by people driving under the distorting influence of drugs.

Everyone would like to turn on contentment and turn off discomfort at will. Drug abusers think they can. The trouble is that the facts of life, human and otherwise, cannot be changed with an injection or a swallow.

WHERE TO GET HELP

Although society doesn't permit people who are drug dependent to have their own way, it does try to help them overcome their habit.

Many want help and seek it out, others have to be persuaded.

It is not easy for the average person to recognize someone who is abusing drugs. Symptoms are varied, sometimes vague, and often similar to those of other conditions. *Drug abuse may be suspected, however, if the following signs are present.*

Inability to coordinate when standing or walking, muddled speech and impaired judgment can indicate barbiturate abuse. This intoxication closely resembles drunken behavior, except the individual doesn't smell of alcohol.

Rapid pulse, restlessness, jittery muscular twitches, heavy sweating and bad breath are hallmarks of amphetamine abuse. The individual also tends to be nervous, highly talkative and over-active.

Marihuana abuse typically leads to increased appetite with an especial craving for sweets. As mentioned before, the user is often apathetic, listless and careless about his personal habits.

If a person has widely dilated pupils and constantly wears dark glasses, even at night, LSD or marihuana may be involved.

Pin-point pupils, on the other hand, are a sign of possible abuse of heroin or another narcotic drug. So are chills and needle marks on the arms and legs. Addicts often wear long sleeve sweaters, even in summer, both to keep warm and to hide their scars.

Another way to tell if a person is taking drugs is to listen to the language he uses. The jargon of drug abusers has spilled over, to a certain extent, to the speech of the younger generation. "Turn on," "kicks" and similar expressions, once the property of the abuser world, are now in common usage. Certain words and phrases, however, are exclusively in the abuser's vernacular.

"Mainlining," for example, means injecting a drug into the veins.

"Pot head" and "acid head" refer respectively to abusers of marihuana and LSD.

"Barbs," "goofballs" and "candy" are popular slang for barbiturates.

Amphetamine abusers may refer to their drugs as "bennies," "co-pilots," or "wake-ups."

If you do know someone who is dependent on drugs, the best thing you can do is get medical attention for him.

If you don't know a physician, call the medical society of the county you live in or one of your local hospitals. They can give you the information you need.

Proper medical care is an essential first step. The physician will know whether to administer another drug to counteract the effects of the drug being abused. He will know how to treat other illness brought about by drug abuse. He will arrange for hospitalization if necessary.

He also will undertake the next step, often in consultation with a psychiatrist or with counseling services in the community. That step is the treatment of the mental and emotional disorders which preceded or resulted from drug dependence. As in all illness, the chances for recovery are better the earlier the treatment is started.

THE PREVENTION OF ABUSE: LEGAL SANCTIONS

Laws against drug abuse have been enacted to protect people from harming themselves and society.

Most drugs which have use in medical practice can be obtained legally only by prescription if they have a potential for causing dependence.

The manufacture and distribution of narcotics is controlled by the Bureau of Narcotics, a branch of the U.S. Treasury Department. Physicians and others dealing with narcotic drugs for medical purposes are required to register with the Bureau, pay special taxes and keep accurate records of how the drugs are dispensed.

Certain narcotics, like paregoric and preparations like cough syrups which contain narcotics, are considered exempt and in many states may be obtained without a prescription. The pharmacist, however, is required to keep a complete record of who buys these preparations.

Cocaine, which is a stimulant and an anesthetic, also is controlled by the Bureau of Narcotics. So is marihuana, principally because it has been distributed by the same elements that push heroin. All production of marihuana and heroin is prohibited, as well as distribution, because these drugs have no medical use.

The penalties for the illegal sale or transfer of drugs covered by the federal narcotics laws are stiff: for the first offense, five to 20 years; for succeeding offenses, 10 to 40 years. In addition, fines of up to \$20,000 may be levied. Illegal possession can incur penalties of from two to five years for the first offense, five to 20 years for the second, and 10 to 40 years for additional offenses.

Most states have laws modeled after the federal acts.

The barbiturates, amphetamines and hallucinogens are considered "dangerous drugs" and are controlled by the U.S. Food and Drug Administration and its Bureau of Drug Abuse Control.

For those dangerous drugs used in medical practice, special conditions must be met by manufacturers and distributors, including product purity and the keeping of accurate records of receipts and sales. Prescriptions older than six months cannot be filled, and refills are limited.

Only one company is licensed to produce LSD and then only for research purposes. Most other hallucinogens cannot be made or sold legally.

Illegal production and sale of dangerous drugs also can result in fines and imprisonment, although not as severe as under the narcotics laws.

State laws covering these drugs are varied.

There is no question that laws serve as a deterrent. But despite the penalties involved, drug abuse is on the increase. One reason is the tremendous profits that can be made in the black market. Even though enforcement agencies crack down hard on smuggling, enough marihuana and heroin gets through to keep the illicit trade well supplied. The narcotics racketeers also have gone into the pill business, diverting barbiturates and amphetamines for illegal distribution. Some have set up legal fronts and make pills themselves to supply the black market.

It is estimated that of the more than 10 billion amphetamine and barbiturate pills made each year, about half go through illegal channels to abusers.

Because LSD and other hallucinogens have been outlawed since 1966, the quality of these drugs is particularly questionable. Much of the LSD available today is made by individual amateurs who are looking for quick profits, or who take the drug themselves and want others to share their experiences. The inferior nature of this "bathtub acid" increases the possibility of a "bad trip."

If it is difficult to control manufacturing and smuggling, it is even more difficult to police distribution. Pushers of narcotics and pills are clever in their dealings. LSD is particularly hard to detect. A dose sufficient for a trip can be placed under a stamp and mailed on an envelope.

THE PREVENTION OF ABUSE: WHAT YOU CAN DO

One thing you can do is make sure you don't get trapped yourself. If you are taking any of these drugs under a doctor's orders, follow his orders to the letter. Don't take more than he tells you to, or take drugs more often than he directs.

Don't share your drugs with another person, even if he seems to have the same illness or condition you have. Tell him to see his doctor and get his own prescription.

Try to point out to the drug abuser the dangers involved as tactfully as you can, realizing that he probably is convinced that he is helping instead of hurting himself. Encourage him to see a physician, because the abuser often needs medical care and treatment.

If you are aware of any illegal traffic in drugs, give accurate information to your police department or to a branch of the Federal Narcotics Bureau or the Bureau of Drug Abuse Control, if one is located in your community.

If you are a parent, try to develop in your children, from the time they are babies, the fortitude they will need later to face the difficulties we all meet in life.

A child cannot be completely independent. But he can be taught to make decisions for himself—minor ones at first and more important ones as he grows older. Remember that drug dependence is only one facet of general dependence—relying on a variety of crutches and on other people to solve problems.

Most Americans, even those who earn low wages, enjoy a relatively high standard of living. While it has its obvious benefits, prosperity can lead to over-indulgence. When that happens, some people may grow tired of what they have and become disillusioned if they don't get more. Others expect life to be all pleasure and no pain.

There are children growing up in the midst of plenty who reflect such attitudes. The bored youth with an exaggerated need to indulge himself is a prime prospect for drug abuse.

This makes it important to encourage your child to see beauty and meaning in the world as it is and as it can be, to help him develop his emotional and spiritual resources, as well as his mind. Many adults who resort to drug abuse are emotionally stunted—they substitute drugs for life experiences which they never had.

* * * *

It is natural for young people to experiment with many things, to question, to examine. But if a youngster is capable of making intelligent decisions based on the facts of drug abuse danger, he may well avoid this kind of experimenting. Moreover, if he genuinely appreciates the many valuable attributes of the world around him, he is not likely to think about trading real living for "kicks"—now or in the future.

NEW YORK UNIVERSITY MEDICAL CENTER,
SCHOOL OF MEDICINE,
DEPARTMENT OF PSYCHIATRY AND NEUROLOGY,
New York, N.Y., March 5, 1968.

HON. HARLEY O. STAGGERS,
Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D.C.

MY DEAR MR. STAGGERS: Based upon my experience with several hundred admissions to the Psychiatric Division of Bellevue Hospital as a result of LSD ingestion, I would like to express my opposition to the provisions of H.R. 15355.

As I pointed out in my testimony before the Senate Special Subcommittee on Narcotics on May 19, 1966, the establishment of penalties for possession and use of hallucinogenic, depressant and stimulant drugs is a step in the wrong direction. The problem of drug abuse is a medical one. There is no evidence that the provisions of this bill will be enforceable or effective in controlling the use of these drugs. I strongly urge that these provisions be deleted from any proposed legislation, while retaining the penalties for illegal manufacture and traffic in these drugs.

Sincerely yours,

WILLIAM A. FROSCHE, M.D.,
Assistant Medical Director,
Bellevue Hospital, Psychiatric Division.

CITY OF PHILADELPHIA,
Philadelphia, Pa., March 7, 1968.

HON. PAUL G. ROGERS,
Acting Chairman, Public Health and Welfare Subcommittee, House Interstate
and Foreign Commerce Committee, House Office Building, Washington, D.C.

DEAR SIR: It is my pleasure to forward to you the following resolution which was adopted by the Executive Board of the Youth Referral Program on Wednesday, March 6, 1968.

Whereas there has been an alarming increase in the use of drugs,

And whereas, L.S.D. is not only being misused by today's youth, but apparently not covered by present federal narcotic legislation.

And whereas, L.S.D. is noted for its harmful effects, in terms of both psychological dependency and of harmful physiological damage,

Be it therefore resolved, that we, the Executive Board of the Youth Referral Program of the City of Philadelphia, representing some forty-three neighborhood youth committees concerned with promoting juvenile decency,

Do hereby support the efforts of the United States Food and Drug Administration to secure legislation to control the use and possession of L.S.D.,

And call upon the House Interstate and Foreign Commerce Committee, of the United States House of Representatives to support this proposed legislation.

Respectfully submitted,

Rabbi MATTHEW I. DERBY,
Chairman, Positive Action Committee,
Youth Referral Program.

THE UNIVERSITY OF CHICAGO,
DEPARTMENT OF PSYCHIATRY,
Chicago, Ill., March 2, 1968.

HON. TIM LEE CARTER,
House of Representatives,
Washington, D.C.

DEAR MR. CARTER: I am deeply concerned about the potential effects of the Drug Penalty Amendments (HR 15355) now under consideration. As a clinician and investigator who deals with the harmful consequences of self administered mind altering drugs, I strongly support administration efforts to reduce the illicit manufacture and distribution of these substances. However, if the object of these efforts is to protect the citizens of this country, then it would be grossly inappropriate to make simple possession of mind-altering drugs for personal use a criminal offense.

In my experience laws which penalize the users have a number of deleterious and very few beneficial effects. They penalize most heavily the users. These are the citizens who are easiest to catch, but they also also the citizens whom the laws were designed to protect. They create an even greater degree of alienation between the generation of users (usually younger and more radical) and the generation of law enforcers (usually older and more traditional). They increase the cohesiveness between law abiding younger drug users and antisocial elements by giving them a common ground: criminal stigmatization and real grievances against established institutions.

The actual penalty—time spent in a penal institution—is probably more damaging to both user and society than any of the proven effects of the drugs under discussion.

Perhaps worst of all is the way in which law enforcement manpower will be diverted from the important and difficult tasks of preventing the manufacture and distribution of these agents to the apprehension of the users. If there were no crime in the streets or a superabundance of police protection for nondrug using citizens, the diversion of resources to policing of users would still be unlikely to yield desired results. After fifty years of vigorous law enforcement, heroin is not only with us, but the users and distributors are now indistinguishable. But diversion of police resources at a time when crime and violence are rampant indicates a willingness to be influenced more by mass media than by concern for needs of citizens to feel secure in their homes and on their streets.

I believe that illicit drug use can be controlled without creating a new class of criminals.

Sincerely,

JEROME H. JAFFE, M.D.,
Assistant Professor of Psychiatry.

UNIVERSITY OF VIRGINIA,
DEPARTMENT OF PSYCHIATRY,
Charlottesville, Va., February 28, 1968.

Representative TIM LEE CARTER,
U.S. Congress,
Washington, D.C.

DEAR DR. CARTER: I am impressed by your concern over the present wave of drug abuse and am largely in agreement with your position about L.S.D.

I have been working with L.S.D. in research and psychotherapy since 1956. I have written a book and a number of papers on the subject as you will see from the attached bibliography. Under a separate cover I am sending you my book which I hope you may find interesting. It is somewhat out of date according to my present thinking, but some of the criteria for selection or rejection of suitable persons for L.S.D. still apply. I have taken part in most of the international conferences on the use of L.S.D. and other hallucinogens and have testified on the use and nature of these drugs in both civilian and military courts in the United States and Great Britain. Earlier this month I testified for the Legislature in Richmond, Virginia, on the nature and action of L.S.D. when an attempt was made to bring a bill which would label L.S.D. as a narcotic.

It was largely as a result of my work with L.S.D. that I was invited to join this faculty and was very happy to accept the invitation. I have been deeply concerned about the extent of the misuse of many of the hallucinogens both in

the United States and in Great Britain and have just returned from London where I have been able to talk to some of my colleagues about the same problems. Last year I was asked by the Organizing Committee of the American Psychiatric Association to present a paper on "The Social Aspects of the Illicit Use of L.S.D." I have spent a good deal of my time lecturing to groups of students, parents, teachers, lawyers and doctors as well as high school children on the subject of use and misuse of drugs and in 1966, I correspond with Senator Edward Kennedy about the L.S.D. problem. My own views are well known and have been reported in medical and lay press and other news media. They are based on twelve years of intensive work with L.S.D. and related drugs and on personally having treated over 250 cases with L.S.D. I have also had contact with over 1,500 cases treated with L.S.D. by a number of my colleagues in London. My other sources of information are the numerous individuals, mostly of school, college and university age, who invariably come up to me to discuss their own and other people's experiences following my lectures.

I believe that L.S.D. is probably the most valuable drug in psychiatry. Its main value at present is that it enables us to understand both the normal and abnormal functioning of the mind. Its second value is, as I have described in my papers and in my book, that in very highly selective cases and in very skilled hands the drug is a useful adjunct to psychotherapy where it can significantly shorten the length of treatment which would be necessary and also it may often facilitate psychotherapy for individuals who find it impossible to have any meaningful emotional experience otherwise. As a warning, however, I have to add that L.S.D. is the most powerful drug known to man. It is 8,000 times the strength of Mescaline. It is 30 times the strength of STP and it is probably weight by weight, a quarter of a million times the strength of marihuana. A good or a bad reaction in the user is related, as I have written, to the underlying personality and also to the set and the setting during the experience. In other words, in somebody who has an underlying, undisclosed, severe mental disorder, L.S.D. may precipitate this disorder. It may thus precipitate either a brief or a prolonged psychotic episode or, in selected cases, may lead to suicide. Even greater danger than the underlying pathology is the nature of the set and the setting during the experience itself. In other words, a person taking the drug by himself, in the dark, in isolation, may experience profound and lasting panic reaction which may leave him with a chronic anxiety state or even prolonged psychosis. Having said this, I must add that all these lasting adverse reactions can be eliminated by proper screening and proper support before, during and after the session. It obviously needs thorough psychiatric examination and psychological testings to be able to decide whether a person would profit from an L.S.D. experience and also whether such an experience would be safe for him.

As far as legal issues are concerned, I have no doubt that manufacture and sale of L.S.D. should be severely controlled by the criminal code. I am, however, worried about the proposed penalties for the possession and the usage of the drug alone. I can, to a certain extent, understand the legal arguments that it is impossible to control sale and production unless one controls possession because sale and manufacture can only thrive if there is a demand. What I would like to see, however, as a safety measure is greater discretion given to judges so that for possession or usage along the judge could recommend parole, probation, or forced treatment, rather than mandatory sentences.

I would be greatly honored if you would like to call on me to testify to you or your committee in private or in public that I may share with you my experience in this very important matter.

Respectfully,

Dr. JOHN BUCKMAN,
Associate Professor of Psychiatry.

EAST MISSISSIPPI STATE HOSPITAL,
Meridian, Miss., February 28, 1968.

HON. TIM LEE CARTER,
House of Representatives,
Washington, D.C.

DEAR DR. CARTER: This morning I had the opportunity to see and hear you on television, The Today Show, in which you discussed the pending Federal legislation relative to the global problem of drug abuse. Please let me commend your position, as I understood it from this presentation.

Attached please note a copy of a letter which I wrote fairly recently to a friend of mine, who is serving in the Mississippi Senate. It would appear that your thinking and mine are quite similar, in most aspects of this problem.

Additionally and coincidentally, I am an alumnus of the University of Louisville, having received the major part of my psychiatric residency training there.

Please do not feel that this letter requires any answer or acknowledgement. I simply wished to commend you on your position.

Sincerely,

REGINALD P. WHITE, M.D.,
Director.

EAST MISSISSIPPI STATE HOSPITAL,
Meridian, Miss., January 15, 1968.

Senator FRED ROGERS,
Mississippi Legislature,
Jackson, Miss.

DEAR SENATOR ROGERS: Let me first express my appreciation of your request that I give you my comments about the proposed piece of legislation which you and John Perkins plan to introduce in the current session of the Mississippi Legislature. I had read with interest, already, the accounts in the newspapers about your plan to do so, and I certainly applaud the motivation.

I hope, also, that you have, or will, involve those persons in our community who have even more intimate involvement with the problem of drug abuse, and possibly at an earlier stage. I refer to George Warner, Everette Keller, Chief Roy Gunn, and probably several others that you may also have thought of.

For what they may be worth, here are my thoughts about the global problem of drug abuse: First, such a bill would necessarily encompass chemical materials from diverse and totally different backgrounds. It would encompass those drugs which are already very strictly and rigidly controlled under the narcotic prohibitions, such as the narcotics themselves, marihuana and possibly other psychedelic drugs such as LSD, mescaline, peyote, STP, etc. There would also be the barbiturate and other sedative drugs such as meprobamate, Doriden, etc., as well as the amphetamines and other stimulants. Then there are other drugs which may be legitimately secured by prescription in relatively unlimited quantities, but which also are now "bootlegged", such as some of the minor tranquilizers, anti-depressants, etc. Finally there are the chemical substances which do not really fall in the realm of medications at all, either prescription or proprietary—I am, of course, referring to the substances such as airplane glue, gasoline, and possibly some other substances that even I don't know about.

In essence, I guess I am raising a point which you have probably already considered: namely, the need to be sure that we don't "throw out the baby with the bath-water". Or, stated in more elegant terms, we are concerned more with the *improper use* of these substances, than with the substances themselves. Much the same thing might be said about previous approaches to alcoholic beverages. The "Noble Experiment" of nationwide prohibition, as well as the retention of the farce that was Mississippi prohibition for so many years certainly should give us some basis for motivation to try another approach.

If I may digress somewhat, the recent enactment, by the Houses of Parliament in Great Britain, of the principles involved in the Wolfenden Report on male homosexuality might possibly give us some points to consider in this present question. Essentially, the Wolfenden Report took the position that total sanctions against the practice of homosexual relationships was unenforceable, and they therefore excluded from criminal responsibility those acts performed by consenting adults in private. What many people have failed to recognize, however, is that the penalties for the seduction of minors as well as those acts which were publicly offensive, were made even more severe, and, for the first time, the law enforcement authorities were able to concentrate on a manageable group, in terms of prosecution. To carry this concept over, roughly, to your pending bill, I would say that emphasis should be placed upon very stringent penalties against those "pushers" who prey upon our susceptible young people, and that a definite accompaniment of the punitive aspect of the bill should be the Statewide provision of factual, rather than "scare", information about the substances in question. If there is one thing that I can say positively, it is that you cannot frighten a teen-ager out of experimenting with "forbidden substances".

Finally, and this is more in my field than anything that I have postulated above, adequate and adequately staffed treatment resources for those individuals

who have, unfortunately, already become "hooked" on any of the various substances mentioned, should be provided, probably through the framework of the mental hospitals and/or the community mental health centers, which are being established. I realize that what I am proposing might be more appropriately handled in a separate but companion bill, rather than in the specific bill which you and John have in mind.

On reviewing what I have written above, I find that I may have fallen into the trap of sounding both pompous and pedantic. Certainly I do not know anywhere near all of the answers, and it was not my intent to "instruct" you. I do certainly want to be of any help that I can possibly be, and I will be glad to follow up on this letter with any personal assistance which you might require.

Thank you again for asking for my comments and opinions.

Sincerely,

REGINALD P. WHITE, M.D.,
Director.

NEW YORK, N.Y., March 7, 1968.

HON. JOHN JARMAN,
House of Representatives,
Washington, D.C.

DEAR SIR: I am calling your attention to Senate Bill No. S-2990 and House Bill No. H.R. 15355, in which criminal penalties are proposed federally for the use of LSD and other dangerous drugs.

I find these Bills unfortunate for the same reason that Dr. James Goddard has opposed them. It is fairly estimated that some ten to twenty million young people do use, or have used, marijuana. I would agree with Dr. Goddard that "it would be unwise to provide penalties which might mark a large number of young people just entering adulthood as criminals because they were found in possession of a small amount of drugs for personal use".

I have had considerable experience with young people and by and large find the use of marijuana relatively harmless and not necessarily leading to use of other drugs.

I respectfully request that you reconsider the measure and propose re-drafting with some differentiation among the drugs mentioned.

Cordially yours,

EDWARD J. HORNICK, M.D.

SYRACUSE, N.Y., February 28, 1968.

CONGRESSMAN TIM LEE CARTER,
U.S. House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN CARTER: I was very much interested in your remarks on NBC's *Today* show this morning, concerning the proposed legislation about the possession of LSD. I am grateful to you for your intelligent criticism of a potentially harmful piece of legislation. I think you are entirely correct.

Repeating somewhat your own remarks, I think I see about four reasons why the proposed bill concerning possession of LSD would be bad legislation:

1. As you say, with a "million possessors" the law would be unenforceable, or would be enforced in a discriminating way (and your recollection of the Volstead Act parallels my own);
2. Making criminals out of these young people would be a strange way of helping them;
3. The law would, in all likelihood, fail to achieve its stated purpose;
4. Finally, and most importantly, it seems to me that we are in very real danger of *passing too many laws*, of attempting to control by rules many matters that would be better controlled by education, by leadership, by persuasion, by tradition, by morality, or in similar ways.

What kind of a society will we have in future decades if we turn again and again to *legislation* to control, by punitive laws, more and more areas of human behavior? I hate to think of the answer.

May I thank you again for your well-reasoned opposition to a bad piece of legislation.

Sincerely,

ROBERT B. DAVIS, M.D.

A REPORT TO NASPA (NATIONAL ASSOCIATION OF STUDENT PERSONNEL ADMINISTRATORS) FROM HELEN H. NOWLIS, DIRECTOR, NASPA DRUG EDUCATION PROJECT

What was envisaged in the Summer of 1966 as a fairly straightforward project to help college administrators analyze the problem of drug use by college students and to provide them with up-to-date and factual information on all aspects of the problem has become increasingly more complex and the NASPA Drug Education Project has been cast in a central role in a number of current and heated controversies, the most central of which revolves around the Administration decision to throw its lot in with law enforcement in general and the Federal Bureau of Narcotics in particular, over the professional but *not the administrative* objection of both the Food and Drug Administration and the National Institute of Mental Health, both of which are parts of the Department of Health, Education, and Welfare.

Both Commissioner Goddard (FDA) and Director Yolles (NIMH), while supporting the Administration proposals both for increased penalties for illegal sale or disposal to another of stimulant, depressant and hallucinogenic drugs and to attach a misdemeanor penalty to possession of such drugs for personal use, have shown both integrity and courage in making it clear that as physicians they do not approve of criminal penalties for the possession of such drugs for personal use. Dr. Goddard has stated the issue clearly, both before the House Committee on Interstate and Foreign Commerce and the Senate Subcommittee on Juvenile Delinquency:

"In the course of examination of the problem within the Executive Branch, the question of penalties for illegal possession was reviewed, as it had been reviewed earlier by the Congressional committees. I had full opportunity to state my position that enforcement should concentrate on illegal traffic, that it would be unwise to provide penalties which might mark a large number of young people just entering adulthood as criminals because they were found in possession of a small amount of drugs for personal use, and that such a penalty was not necessary at this time. People with training, experience, and background in enforcement pointed out that the absence of such a penalty created a serious loophole under which peddlers might escape by claiming their possession was for personal use and not for sale, shifting a heavy burden of proof to the government, and that absence of a penalty was mistaken by some users as official approval of their use of these dangerous drugs in abuse situations. All agreed, however, that the highest priority should remain on drying up the sources of supply. The views of all were fully aired. This is as it should be in developing legislative proposals. The conclusion was reached that a penalty for personal possession would be an effective instrument for law enforcement. The law enforcement agencies of our Government believe that the personal possession penalty will aid them in their work, and the President supports them in their view. Their judgment on the need for this provision is one which I respect and, therefore, I support the Administration proposal."

In response to questions Dr. Goddard stated clearly that, as a physician, he did not feel that criminal penalties for possession were wise, that he doubted that such a penalty would deter use, and that such penalties would be difficult, if not impossible, to enforce. Instead, he advocated a judicious combination of research, education and enforcement, and pointed to evidence suggesting a decrease in the use of LSD, not because of penalties but because persons were becoming aware of its hazards, in contrast to current estimates of increased use of marihuana despite very severe penalties for possession of this drug.

Dr. Stanley F. Yolles, Director of the National Institute of Mental Health, testifying before the Senate Subcommittee on Juvenile Delinquency on March 6, stated that, while he supported the Administration's proposal to stiffen penalties for manufacture and sale of dangerous drugs, he had personal reservations as a physician about penalties for possession of these and other drugs.

Both Dr. Goddard and Dr. Yolles put great emphasis on education efforts. Dr. Yolles pointed out that "scare techniques" are not only ineffectual but detrimental to conveying needed information about the hazards of drug abuse. . . . It is clear that to be effective, a preventive education effort must be carefully tailored to specific population groups and must be based on the best educational and scientific footing. The decrease in LSD use is, at least in part, a function of the degree to which users will respond to scientific evidence of potential danger." By all means see the full page (26 C) coverage of his March 6 testimony in the N.Y. Times of Thursday, March 7.

Dr. Yolles also emphasized prevention by dealing with causes. "I would propose that if we are ever to solve the problem of drug abuse, it is critical for us to focus on and try to solve the root causes of alienation."

Law enforcement officials have testified that criminal penalties are necessary: (1) to act as a deterrent to widespread use, (2) to make enforcement simpler by obviating the necessity to prove sale or intent to sell, and (3) to provide incentive for cooperation with the police.

There has been no clear emphasis on the fact that these penalties will apply to all drugs now controlled under the Drug Abuse Control Amendments and to all brought under control at any future date by order of the Commissioner of the Food and Drug Administration. Some 6,000 preparations are under review. The current bills are being discussed both in committee and in the press as weapons against LSD and "Speed" (methedrine) and the protection of future generations against these terrible drugs. Dr. Yolles testified that "At this time our information about the biologic hazards of LSD and other hallucinogenic drugs must be considered incomplete. However, in the light of preliminary findings, one should add to the usual warnings about LSD use particular emphasis on the possible hazards for women in the childbearing ages."

This is clearly a battle between enforcement and health-education approaches to drug use. Both FDA and NIMH have gone as far as they can in supporting the health and education approach. It is now up to the scientific and educational community to back them up.

Your director, as director of, in Dr. Goddard's words, "Our largest educational effort for this purpose" (NIMH is also claiming us), was called before the Senate Subcommittee on Juvenile Delinquency to testify as an individual. (Copies of her statement available at Minneapolis). She testified that:

1. In her judgment criminal penalties for possession for personal use of any drug did not serve as a major deterrent and cited the recent up-surge in use of marihuana, for which there have long been extremely severe penalties for possession, as a case in point.

2. The present panic was an over-reaction to grossly exaggerated reports of the real situation and available evidence suggested that the great majority (still overestimated) of so-called users of marihuana, LSD, and similar drugs were really individuals who had tried it only once or twice. Dr. Yolles' testimony supports this position.

3. Most evidence points to a decrease in use of LSD by college students, a decrease which seems to be associated with (1) the availability of scientific evidence suggesting that there may be physical damage to the individual, and (2) first-hand knowledge of "bad trips" which may or may not have required medical intervention. This, also, was supported by Dr. Yolles' testimony.

4. That the present legal status of and criminal penalties attached to the possession of marihuana made it extremely difficult for an educational institution to get accurate information, to do research on the problem, or to handle it educationally in the same way that the innumerable problems of young people preparing for adulthood in an increasingly complex society are regularly handled. The University of Vermont program was cited as an example of what could be done if enforcement officials agreed to keep hands off.

5. In opposing the criminal penalty approach to the problem, she neither condemned nor encouraged the abuse of drugs, including alcohol; this is a matter of basic difference of philosophy as to how best to educate and to influence behavior.

6. Drug abuse is a symptom of underlying social problems and punishing symptomatic behavior leads only to the occurrence of other symptoms and contributes to an alienation which should concern us even more than occasional experimentation with drugs.

A number of alternatives have been suggested. Most of these include the following elements:

1. The need to look at the problem in its total context and to deal with the drug problem as a symptom of a broader problem of alienation of large segments of our population.

2. Delay of piecemeal panic legislative action which feeds rather than deals with the general public panic.

3. The appointment of a Presidential or Congressional Commission to provide a broader, more sophisticated, factual basis for genuinely effective drug legislation.

4. Recognition that legislative support for impartial study, research and education is perhaps the most effective support Congress can offer at this time.

I, personally, feel on the basis of my experiences during the past year that all of these points should be included in a proposal. I would add that it is crucial that the government undertake and support excellent public education programs designed to help the general public understand and learn to live intelligently with the chemical components of their environment.

On the basis of the above, I also urge the establishment of a national Commission to study and make recommendations regarding the following problems:

- (1) Learning to live in a chemical environment.
- (2) The role of legislation and of criminal sanctions in promoting individual physical, psychological or moral well-being.
- (3) The causes of alienation of large segments of society.

(4) Exploration of the status of youth and young adults in our society. Within 10 years these young people will represent the largest single group in the population. They represent the best educated and perhaps the most alienated generation in our history. "... there are serious dangers that large proportions of current and future generations will reach adulthood embittered towards the larger society, unequipped to take on parental vocational and other citizen roles and involved in some form of socially deviant behavior." (Yolles' statement of March 6)

The commission must be free of bureaucratic and political restraints and thus might properly be established by a major foundation.

Whatever your own position may be, it is important that you make it known. The Administration is apparently convinced, or is convinced that the American people are convinced, that drug abuse is a central factor in crime and that only criminal sanctions will control crime. It is perhaps relevant to note that these hasty and drastic steps are being taken even as the National Commission on the Reform of Federal Criminal Laws, with a major emphasis on drug laws, is already hard at work and due to make a preliminary report to Congress November 8, 1968. The Commission is under the chairmanship of former Governor "Pat" Brown and is made up of 16 commissioners, four appointed by the President, four each by the presiding officers of the Senate and the House and four by the Chief Justice.

BERKELEY, CALIF., February 26, 1968.

HOUSE OF REPRESENTATIVES,

Committee on Interstate and Foreign Commerce, Subcommittee on Public Health and Welfare, Rayburn House Office Building, Washington, D.C.

GENTLEMEN: I wish to submit the following statement in testimony in the public hearings on H.R. 15355, legislation with regard to control of hallucinogenic drugs. I am a research biophysicist at the Donner Laboratory of the University of California, Berkeley, and I have published papers in scientific journals on the metabolism of hallucinogenic drugs over the past seven years. This testimony is my own and in no way is to be considered to represent that of my employer.

Let me state first that I believe that drug abuse is a serious problem in this country and that some form of regulation of use of drugs is necessary. However, legislation based on insufficient evidence is very likely to do as much harm as good. It is abundantly clear, for example, that the use of marijuana has continued to increase in spite of increasingly severe penalties, and more and more enforcement at greater cost to the taxpayers. At the same time, the basic research so vital to an understanding of the fundamental basis of marijuana abuse has been virtually impossible because of the restrictions of the law but even more because of the social and political sanctions with regard to such research engendered by the law itself. I can testify that I know personally of three research projects which have been hampered to the point that they were essentially impossible to continue.

Because witnesses who testified for the government at the previous hearings emphasized the physical harm to be expected from LSD and related drugs, I wish to take this opportunity to present evidence that such statements are based on highly controversial scientific data, and to cite scientific papers which present opposite conclusions. Exhibit 1 is a paper by William Loughman, myself, and David M. Israelstam. We found no evidence of chromosome damage in eight illicit and heavy users of LSD. Exhibit 2 is another paper in SCIENCE by

Bender and Siva Sankar, in which no chromosome damage was found in children given pure LSD therapeutically. Exhibit 3 by Samuel Irwin, the first author who reported finding chromosome damage in illicit LSD users, is a note of caution that ends with, "... the relation between LSD-25 and chromosomal damage, thus, is by no means clear." Exhibit 4 by Jarvik and Kata, is a comparison of the effects of many compounds, including aspirin, on chromosomes of cells cultured in the test tube, not in humans. Their last paragraph is an excellent statement of the problem of chromosome damage caused by drugs of all types. Exhibit 5, by the prominent cytogeneticist W. M. Court Brown, is sharply critical of a chromosome study reported by Hans Zellweger.

Exhibit 6 is an article from a Danish newspaper, describing a retrospective study by Dr. E. Geert Jorgensen, chief of psychiatry at Fredericksburg Hospital in Denmark.¹ He has used LSD in psychiatric therapy for six years, and has examined all of the 34 children born to 207 of his previous patients. All of these children were normal and healthy, and one of these children was in utero at the time his mother received the drug. An extensive study of the chromosomes of these patients and children is in progress. Exhibit 7 is an article in *Science* by Warkany and Takacs who injected pregnant rats with doses many times that taken by humans and found no increase in abnormalities of the offspring. There are, in addition, two further studies which have not been published. One is by Dr. Nicholas Petrakis, University of California Medical Center, San Francisco, who found no chromosome damage among illicit LSD users. The most complete and accurate study is one by Professor Kenneth Taylor, San Diego State College, and Dr. David Hungerford of Philadelphia; they studied the same patients before and after being given pure LSD, and found in many of the patients no increase in chromosome abnormalities, and in some a barely significant increase. It is worth noting that many drugs in common use, such as chlorpromazine, are known to produce chromosomal damage in the same manner as LSD was alleged to, yet there seems to be no move to proscribe these drugs.

In conclusion, in my opinion there is at this time no well-confirmed scientific evidence that LSD or similar hallucinogenic drugs cause either chromosomal damage to humans who take it or damage to fetuses in utero. I am in favor of regulation of hallucinogenic drugs, but present and proposed legislation is such that the bureaucratic process and the extreme overcaution of persons sitting on regulatory bodies, over which there is no appeal or judicial review, make scientific research which is so vital in the area of drug abuse and more importantly in mental illness, virtually impossible. Although the law technically permits such research, I know from personal experience and that of my colleagues, that in practice it is extremely difficult if not impossible. Furthermore, present laws empower the Secretary of Health, Education, and Welfare to find, by review and promulgation of regulations, that any chemical that has the *potential* for abuse may be proscribed. Thus many scientists working in their laboratories may suddenly find that they are lawbreakers by executive order, orders which are in fact not even published widely. The recent proscription of ibogaine, bufotenine, and DET is a case in point: it was only by chance that I found the announcement of the proscription in a popular science journal, having seen it nowhere else, even though I read the FDA papers. It is particularly absurd because bufotenine has not been reported to be hallucinogenic.

I ask the committee not to recommend passage of the currently proposed bills, not because regulation is not needed, but because the entire legal system which regulates drugs of abuse needs a complete and broad-ranging scientific and legislative review. Only by research and understanding, not by suppression which suppresses such understanding as well as abuse, will we ever conquer the abuse problem.

Respectfully submitted,

THORNTON SARGENT, PH. D.

¹ Exhibit 6, an article printed in the Danish language, has been placed in the committee files.

EXHIBIT 1

[From Science, vol. 158, Oct. 27, 1967]

LEUKOCYTES OF HUMANS EXPOSED TO LYSERGIC ACID DIETHYLAMIDE: LACK OF CHROMOSOMAL DAMAGE

Abstract. Leukocyte cultures from eight human subjects who had had recent exposure to large doses of lysergic acid diethylamide were examined for chromosome abnormalities. The number of abnormalities was not significantly greater than that in control cultures.

Cohen and his co-workers have reported chromosomal damage in cultures of peripheral human leukocytes to which the psychotropic agent lysergic acid diethylamide (LSD) had been added at various concentrations for varying lengths of time (1). The leukocytes of a single patient previously treated with LSD were also studied, and the chromosome breakage in his cells were reported to be 12 percent, while that of a normal control was 3.7 percent. Because of our interest in chromosome aberrations accompanying various diseases and following treatment with various pharmaceuticals, we have observed chromosomal behavior following doses of LSD in vivo, and have compared it with that reported by Cohen.

Subjects claiming recent use of LSD, alone or in combination with other illegal drugs, were clients of a welfare agency in San Francisco. Histories and blood samples were obtained there. An extensive interview required divulgence of the claimed duration of illegal drug use, estimates of the size of each dose, and frequency of use. Each subject was questioned about his own exposure, and his parents' possible exposure, to dangerous drugs, toxic chemicals, radiation, and other agents thought to be responsible for chromosome aberration in vivo. The interviews revealed no exposure to agents known to be responsible for chromosome damage (Table 1). No pathophysiological effects other than chromosome damage to circulating leukocytes were studied; absence of such effects is not implied by our work.

We were entirely dependent on the subjects' own statements regarding drug use; thus the dosages, even if reported to the best of the subjects' knowledge, are uncertain. The integral doses (Table 1) are based on the subjects' recall of typical dose and frequency of use, and thus they are estimates of the total amounts of LSD taken. The smallest integral dose reported (5000 μg) is twice that of the previously reported patient (2500 μg) (1), the largest is 60 times as great. The estimates of dose may be in error, but there is no doubt that very large doses were used by these subjects. It is this heavy usage rather than the exact amount which is important here.

TABLE 1.—HISTORY OF DRUG USE BY EXPERIMENTAL SUBJECTS

[Ha, previous heroin addiction; R, heroin (occasional); S, dexedrine, methedrine, benzedrine; D, DMT; M, marihuana]

Subject	LSD use		Latest LSD dose		Integral LSD dose (μg)	Other drugs
	Dose (μg)	Frequency	Days since	Dose (μg)		
♂ D1.....	500, 1,000, 4,000.....	1 week, 9 months....	1	1,000	40,000	S, D, H.
♂ W2.....	About 300.....	50 times.....	6	300	15,000	S, D, H, M.
♂ R3.....	1,000 to 2,000.....	100 times.....	5	1,000	150,000	Ha, S.
♀ M4.....	1,000.....	25 times.....	1	4,000	25,000	None.
♀ L5.....	100 to 900.....	12 times.....	22	900	5,000	S.
♂ W6.....	1,000 to 4,000.....	70 times.....	1	2,000	140,000	S, H.
♂ W10.....	250 to 2,000.....	1 to 2 months.....	1	1,000	8,000	S.
♂ G12.....	100 to 700.....	40 times.....	7	333	16,000	S, M.

Our technique of leukocyte culture was similar to that used by Cohen and his co-workers. Two drops of blood were taken from a finger of each experimental subject and of a control subject with no history of drug use. The blood was allowed to drop into a culture tube containing 5 ml of medium (NCTC 109 with fetal bovine serum (15 percent), 2 percent phytohemagglutinin-M, 50 I.U. of heparin, 700 units of penicillin, and 0.4 mg of streptomycin sulphate). After 2 to 3 hours at room temperature the cultures were incubated at 37°C.

At 66 hours of culture, 0.5 μg of Velban was added to each tube to effect metaphase arrest. After 72 hours of culture the cells were harvested and placed in a

hypotonic solution until swollen. They were then fixed in propionic acid (45 percent) in 0.1N HCl. Chromosome preparations were made as squashes (in 2 percent lacticpropionic orcein) to minimize chromosome loss and breaks which might occur with methods of air-drying. The preparations were examined microscopically under low power, and cells which had apparently diploid chromosome complements were selected for examination under oil immersion at 1500 diameters. All selected cells were included in the tabulations. An individual with no knowledge of the subject's drug histories scored the types and frequencies of chromosome abnormalities and the distribution of numbers of chromosomes per cell. Those chromosome abnormalities scored were gross structural changes which could be detected without detailed karyotype analysis. These included dicentric, rings, acentric fragments, marked changes in size or arm ratio, and complex associations such as quadriradials, chromatid breaks, and chromatid gaps. A chromatid was considered to contain a break when it had a clear, non-staining discontinuity. A gap was defined as a region with little or no stain, little or no apparent chromatin, but not subject to clear definition as a break. No attempt was made to assess minor aberrations (small deletions, small differences in arm ratio or size, and so forth) detectable only with detailed karyotype analysis. The significance of differences (for all classes of aberrations) between frequency or aberrations among drug users, between drug users and the controls, and between drug users and control values culled from the literature, were assessed with a *t*-test (2) and a 5 percent significance level. Using "small-number" methods we programmed our calculations on an electronic desk computer.

There are no significant differences in frequencies of chromosomal aberrations among the drug takers, between the drug takers and the previous or present controls, or between drug takers and a sample taken from the literature (Table 2). Thus, although we did not repeat Cohen's work *in vitro* we are unable to confirm in our subjects the findings of Cohen on his patient. Polyploidy and the distribution of chromosomes per cell in cultures of cells from drug users were not significantly increased above our control values (Table 3). The mitotic index of each culture was comparable to that seen in 150 cultures done earlier for routine karyotyping.

The rate of aberration found by Cohen *et al.* in control cultures is much higher than we find and higher than many reported previously in the literature. Schmickel (3) gives a total aberration rate of 1.21 percent in 1569 normal control cells. If the gaps (0.45 percent) are omitted (not used by Cohen *et al.*), the remaining aberrations (0.76 percent) of all sorts are much fewer than the breaks reported by Cohen *et al.* for their control subjects. If we allow for a reasonable number of "two-break" aberrations in their control data, reducing the "break" frequency to an aberration frequency, their control value is still significantly higher than that often reported [See Schmickel (3), who cites several other authors in this regard, and Mouriquand *et al.* (4)]. Cohen *et al.* did not report each type of aberration separately; instead they converted all aberrations to an "equivalent" number of breaks and then summed them. Therefore their data cannot be compared directly with ours. Six individuals were used by Cohen *et al.* for control purposes; a fortuitously high value in one subject is thus an improbable source of error. If some condition of culture or cell preparation was less than optimum, a high control value could have resulted. A synergistic relation between growth conditions *in vitro* and the presence of LSD may result in high frequencies of aberration.

TABLE 2.—FREQUENCY OF CHROMOSOMAL ABERRATIONS

	Chromatid gaps			Chromatid breaks			All other aberrations		
	Number	Percentage	95 percent confidence limits	Number	Percentage	95 percent confidence limits	Number	Percentage	95 percent confidence limits
Control (1 subject, 112 cells).....	0	0	0-3.3	0	0	0-3.3	0	0	0-0.5
Previous controls (18 subjects, 561 cells).....	4	.7	.3-1.8	1	.2	0-1.0	11	.2	0-1.0
Control (ref. 3, 1569 cells).....	7	.4	.2-.9	11	.7	.4-1.3	1	.1	0-.4
Experimental (8 subjects 697 cells).....	3	.4	.1-1.3	0	0	0-.5	0	0	0-3.3

¹ Quadriradial.

Information on the distribution and fate of LSD in the human body is not available. However, Stoll *et al.* (5) have investigated the distribution and clearance of ^{14}C -LSD in mice. Analysis of his data indicates that his curves for clearance of radioactivity from the blood may be described as the sum of three simple exponential functions. The first two exponential functions probably represent distribution and mixing functions and have half times of about 1 minute and 23 minutes, respectively; in 30 minutes, the concentration in the blood is 25 percent of the uniform distribution value. Thereafter, the third exponential function of blood clearance has a half time of about 175 minutes, giving a mean time in the circulation of about 4 hours. Relative to chromosome breakage, the initial high concentrations of LSD may be of little importance. However, the third exponential of clearance from the blood has a long enough half time to yield a mean period of exposure, 4 hours, comparable to the exposure times used by Cohen *et al.*

The organ which most actively concentrates LSD is the liver (5). The maximum concentration in this organ occurs at 20 minutes, when it is five times that of blood. At 2 hours the concentration is 3.5 times that in blood, and this ratio seems relatively constant thereafter. The LSD is cleared from the liver (and most other organs studied) with a half time, by our analysis, of about 1 hour. This probably represents degradation, since at 2 hours only 10 percent or less of the radioactivity in every organ studied was found to be unchanged LSD. We suggest that a similar pattern may hold for man; Kahlben and Sargent have found that an analog of LSD, ^{82}Br -BOL (2-bromolysergic acid diethylamide), is concentrated in the liver and subsequently destroyed with a half time of 1 hour (6).

A 100- μg dose of LSD, uniformly distributed in a 70-kg man, will yield a uniform concentration of 0.0014 $\mu\text{g/g}$. The expected concentration in blood after 30 minutes is 25 percent of this value, or 0.0004 $\mu\text{g/g}$. The maximum concentration of LSD in the liver is five times this value. However, the mean value is closer to 3.5 times that in blood, or 0.0012 $\mu\text{g/g}$.

Thus if degradation of LSD is not considered, the maximum effective concentration in the human body after a 100- μg dose of LSD would be found in the liver, and would be essentially the same concentration as the lowest used by Cohen *et al.* in their studies *in vitro*. For this level and duration of exposure (0.001 $\mu\text{g/ml}$; 4 hours) Cohen found that the frequency of chromosome "breaks" was no different from control values. We believe that Cohen's data implies that no chromosome breakage is to be expected in humans given doses of LSD of 100 μg . If degradation of LSD is considered, as found by Stoll *et al.*, and if the breakdown products are not active, then the effective concentration of unchanged LSD achieved *in vivo* would be one-tenth of the lowest amount used by Cohen *et al.* The lack of significant effect in our studies is in agreement with the expectation based on animal studies (5) and studies *in vitro* (1).

At higher concentrations (in *vitro*) than would be expected in humans given 100- μg doses of LSD, Cohen found significant increases in chromosome damage.

TABLE 3.—CHROMOSOME COUNT DISTRIBUTION

	Chromosomes per cell (number)	Cells (number)	Percentage of total	95 percent confidence limits
Control (1 subject, 112 cells).....	40	0	0	0 - 3.3
	41	1	0.9	.2- 4.9
	42	0	0	0 - 3.3
	43	1	.9	.2- 4.9
	44	3	2.7	.9- 7.6
	45	7	6.3	3.1-12.3
	46	100	89.3	82.2-93.8
	47	0	0	0 - 3.3
	4n	0	0	0 - 3.3
Experimental (8 subjects, 245 cells).....	40	2	0.3	.2- 2.9
	41	3	1.2	.4- 3.5
	42	5	2.0	.9- 4.7
	43	4	1.6	.6- 4.1
	44	10	4.1	2.2- 7.3
	45	20	8.2	5.3-12.3
	46	200	81.6	76.3-86.0
	47	0	0	0 - 1.5
	4n	1	.4	.1- 2.3

All of our subjects had doses in excess of 100 μg ; one subject had a dose of 4000 μg only 1 day before our study. If the pertinent concentrations in liver and blood derived above are multiplied by 40, concentrations attained in vivo are similar to Cohen's values of 0.01 and 0.1 $\mu\text{g}/\text{ml}$. Even in this subject we have found no evidence of increased chromosome damage in peripheral blood leukocytes.

In this connection, it must be remembered that the dividing cells in peripheral blood cultures from normal humans are derived from mature, nondividing, circulating lymphocytes (7). At the time of blood collection these are almost exclusively in the G_1 or G_0 portion of the cell cycle (before DNA synthesis) (8, 9). They are presumably in G_1 at the time of exposure in vivo to LSD. In Cohen's studies, the stated durations of exposure to the drug were sufficiently long to contain a portion of the DNA synthetic period, or of the stage immediately preceding mitosis (8). Therefore, if the effects of LSD in vivo relative to chromosome damage are restricted to stages of active synthesis or preparation for division, no chromosome damage would be expected in exposed circulating lymphocytes. Precursor cells of lymphocytes, or any other cells actively engaged in division processes, might still be affected. Without examination of other tissues of the body, this possibility cannot be ruled out.

Occasionally in squash preparations of drug users' cells, we found large cells with multiple micronuclei. Such cells were not found in control cultures. Cohen has suggested that high concentrations of LSD may be toxic to leukocyte cultures exposed to it for prolonged periods. These micronucleated cells might be the progeny of stem cells exposed to high concentrations of LSD in vivo. However, if such micronucleated cells result from previous chromosome damage, one would also expect to see some chromosome damage in cells reaching metaphase; this was not seen in our cultures.

We conclude from our work that LSD, in doses as high as 4000 μg has not been shown to damage the chromosomes of human peripheral blood lymphocytes in vivo. This conclusion is supported by observations of Petrakis (10). Other tissues of the body must be examined before ruling out the possibility of chromosomal damage to cells actively dividing in vivo.

Note added in proof: Since submission of this paper a comparable study supporting conclusions opposite to our own has been reported (11). Also, a paper has been called to our attention reporting a half time of LSD in vivo in human plasma essentially identical to that which we calculated from the mouse data (12).

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EXHIBIT 2

[From *Science*, vol. 159, Feb. 16, 1968]

CHROMOSOME DAMAGE NOT FOUND IN LEUKOCYTES OF CHILDREN TREATED WITH LSD-25

The report by Samuel Irwin and Jose Egozcue on "Chromosomal abnormalities in leukocytes from LSD-25 users" (1) has been of great concern to child psychiatrists. It describes an increase in chromosomal breakage in six out of eight volunteers who had taken LSD-25 (before the experiment was run) compared to one out of nine volunteers who had never taken the drug. Those in the first group had taken from four to 200 doses per individual, with a mean dose range of 200 to 60 μg of LSD-25, and with the last dose 1 day to 6 months before examinations of the chromosomes. None of the drug users had been examined for chromosome damage before they had taken LSD-25.

Between 1961 and 1966 we used LSD-25 in pharmacotherapy of young schizophrenic children in the Children's Unit of Creedmoor State Hospital. These children received LSD-25 each day for weeks or months in two divided doses of 100 to 150 μg with favorable results (2).

In a separate experiment, which did not take into consideration diagnosis or therapeutic regime, we studied the chromosomes of children in our unit who were deemed most likely to demonstrate chromosomal abnormalities because of congenital anomalies or familial history. Twenty-seven children (7 had received LSD-25; 20 had not) were investigated by the leukocyte culture method of Moorhead (3). At least ten metaphases were counted for each patient. Karyotyping was made by the Denver reporting system (4). Of the 20 children not treated with LSD-25, one child yielded, out of many studies on each, an occasional XO and an occasional 21-trisomy. This is within the normal range of technical error and normal incidence of aneuploidy.

The seven children who were treated with LSD-25 were schizophrenic, ranged in age from 7 to 11 years, and had received LSD-25 in daily doses of 100 to 150 μg from 5½ to 35 months. The LSD was discontinued from 20 to 48 months before the chromosome study on the cultured leukocytes was made. Five of these children had entirely normal karyotypes. One boy's karyotyping showed occasional XX and one XO typing. One girl had several normal karyotypings, but showed an occasional 21-trisomy. These may be within the normal limits of error or may indicate a mosaic condition. However, the reported effects of LSD-25 are confined to chromosome breakage only.

After reading the report of Irwin and Egozcue, we studied the material again for chromosome breakages. Fifty metaphase plates from five of the children who had received LSD-25 (including the two with the above described abnormalities) were mixed with 50 plates from five other subjects who did not receive LSD-25, and these were reexamined without our knowing the source of the sample. Chromosome breakages of less than 2 percent of those examined were found in the children who had received LSD-25 and also in those who had not. Irwin and Egozcue found a percentage of breakage in their LSD-25 users of 12 to 38, and a range of 7 to 13.5 in their controls.

Although this is by no means a conclusive study of the chromosomes in the children in our hospital who received LSD-25, the negative findings are significant because these children received up to 150 μg daily of pure chemical over a known period of time, even as long as 2 and 3 years, in contrast with studies by Irwin and Egozcue, whose subjects received unknown materials of unknown strength.

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EXHIBIT 3

[From *Science*, vol. 159, Feb. 16, 1968]

Our original study (1) on chromosomal damage among LSD-25 users represented an effort to determine whether the findings *in vitro* reported by Cohen *et al.* (2) were relevant to the use of the drug *in vivo*. Available to us for study was a population of illicit users of LSD and other drugs. In this population chromosomal damage was found by us and, subsequently, by others (3). Insofar as LSD-25 use was the common denominator for subject selection, with coincident use of other drugs in most cases, we were careful to specify chromosomal damage "among LSD-25 users" rather than to specifically implicate LSD as such—although the latter seemed probable on the basis of the findings *in vitro*.

Lack of chromosomal damage in subjects administered pure LSD-25 as reported by Bender and Siva Sankar, has also been brought to our personal attention by others. In our series, also, was a negative finding in a single subject that received two doses therapeutically. Thus, except for the single positive case reported by Cohen *et al.* (2), there is no direct evidence to date demonstrating chromosomal damage after pure LSD-25 administration. It might conceivably have been produced by impurities present in the illicit material used. However, in our judgment, there also is insufficient data to rule out LSD as the incitant. In the study by Bender and Siva Sankar relatively low doses of LSD (100 to 150 μ g) were given, and only ten metaphases per patient were studied.

When investigating chromosomal breakage, we consider it necessary to examine at least 100 metaphases per subject (200 were examined in our series). Also, their subjects were studied 20 to 48 months after exposure to LSD. Since the life cycle of the circulating lymphocyte is believed to be 2 years (4), their negative findings (if valid) might merely reflect the normal replacement process of aging cells. There is still no data published or available to us concerning the persistence of the chromosomal damage once established. The relation between LSD-25 and chromosomal damage, thus, is by no means clear.

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EXHIBIT 4

[From the *Lancet*, Feb. 3, 1968]

IS LYSERGIDE A TERATOGEN?

SIR: Dr. Court Brown¹ recommends that "the same standards of reporting as are necessary for assessing the effects of ionising radiations or any other suspected chromatid or chromosome damaging agent" be applied to such studies as those on the effect of lysergide (lysergic-acid diethylamide, L.S.D.). Fully supporting his words of caution, we should like to add that rigorous adherence to standard scientific methodology is as important in evaluating the consequences

¹ Court Brown, W. M. *Lancet*, 1967, ii, 1154.

of adding L.S.D. to cultures of human leucocytes in vitro, as it is in assessing chromosomal aberrations observed in persons with a history of in-vivo ingestion of the drug.

Preliminary results of our own experiments suggest that the commonly used oxytocic ergometrine maleate (lysergic-acid hydroxyisopropylamide, ergonovine maleate U.S.P., 'Ergotrate', Lilly) and the analgesic acetylsalicylic acid (aspirin) are as effective as L.S.D. in producing chromosomal aberrations in cultured human leucocytes when added 4 hours before harvesting. In all experiments the total time in culture was 72 hours, with addition of demecolcine ('Colcemid', Ciba) at 70 hours. None of these drugs approaches the potency of streptonigrin ('Nigrin', Pfizer) as a chromosome-breaking agent (see accompanying table). To facilitate comparison with published reports, aberrations were converted to breaks in accordance with the scoring system employed by Cohen et al.² Nonstaining chromatid and isochromatid gaps received no score and are listed separately. Except for streptonigrin, which caused far more breaks than gaps, the percentage of gaps paralleled the percentage of breaks in control as well as drug cultures. Chromosome counts were made for each cell but karyotypic analysis was carried out primarily for cells showing some gross chromosomal abnormality. The detailed procedure has been reported.³

Our preliminary results are in general agreement with available, comparable, published findings on the two drugs. The frequency of 10.2% breaks for L.S.D. falls well within the range of 7.7-17.5% of breaks reported by Cohen et al.⁴ for cultured leucocytes independent of dosage and duration of exposure to L.S.D. The 35.0% of breaks recorded for 4 hours' incubation with 0.001 μ g. per ml. of streptonigrin is compatible with the frequency of 30.0% obtained after 6 hours' exposure to the same dose in a different laboratory.⁵ While the in-vitro concentration of L.S.D. (0.01 μ g. per ml.) approximates to the blood-level 1-4 hours after the ingestion of 1000 μ g.,⁶ the concentration of aspirin (0.1 and 1.0 μ g. per ml.—the results with these dosages have been combined, since the frequency of breaks with both is apparently similar) is far lower than the blood-level of 100-120 μ g. per ml. 2 hours after the ingestion of 2.0 g. Blood-levels of ergometrine maleate seem to be unknown.

Since many agents other than the well-known noxious ones such as radiation, viruses, and nitrogen mustard), among them caffeine as well as other xanthenes,⁷ are capable of producing chromosome damage when added to cultures of human leucocytes,⁸ a reappraisal of the potential hazards of a variety of chemical, pharmacological, and nutritional substances is clearly desirable. There is sufficient evidence of a relation between chromosome-breaking ability and ability to induce neoplasia to warrant concern. Let us not forget, however, that leucocytes are expendable, as any infection will demonstrate. The human organism is capable of eliminating damaged cells, be they somatic or gametic. Perhaps only under rare conditions do cells with chromosomal abnormality of the kind produced by ergot derivatives, aspirin, and other substances lead to carcinogenesis or teratogenesis. Nonetheless, there is a need to investigate whether compounds hitherto considered innocuous account for some of the unexplained foetal wastage, and neonatal morbidity and mortality, as well as adult neoplasia. Conceivably, use of such compounds could result in doubling the "spontaneous" rate. Clearly our ignorance in these matters is still profound.

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⁸ Kihlman, B. A. *Actions of Chemicals on Dividing Cells*. Englewood Cliffs, New Jersey, 1966.

CHROMOSOMAL ABERRATIONS IN CULTURED LEUCOCYTES AFTER 4 HOURS' DRUG EXPOSURE

Indexes	Control	ISD ¹	EM ²	ASA ³	SN ⁴
Number of metaphases counted.....	720	498	249	450	223
Number of chromatid breaks.....	28	33	19	32	61
Number of isochromatid breaks.....	2	7	5	2	7
Number of acentric fragments.....	2	7	0	11	8
Number of other aberrations.....	1 (2)	2 (4)	0	0	1 (2)
Total number of "breaks".....	34	51	24	45	78
Percentage "breaks".....	4.7	10.2	9.6	10.0	35.0
Percentage gaps.....	6.0	10.4	10.0	10.0	8.5

¹ 0.01 µg. per milliliter of lysergide.² 0.1 µg. per milliliter of ergometrine maleate.³ 0.1 and 1.0 µg. per milliliter of aspirin.⁴ 0.001 µg. per milliliter of streptomycin.

⁵ "Breaks" include chromatid and isochromatid breaks (not gaps), and acentric fragments (scored as 1 "break" each), as well as dicentric chromosomes and fusions (scored as 2 "breaks" each), following system of Cohen et al. Numbers in parentheses refer to "break" score, and numbers preceding those in parentheses indicate actual number of aberrations

EXHIBIT 5

[From the Lancet, Nov. 25, 1967]

IS LYSERGIDE A TERATOGEN?

SIR: There are increasing numbers of reports which suggest that lysergide (lysergic-acid diethylamide, L.S.D.) may cause chromatid and chromosome aberrations in vivo, detectable in cultured human lymphocytes. The report last week (p. 1066) by Professor Zellweger and his colleagues, which describes the birth of a female child with a malformed leg to a woman who had taken L.S.D. on three occasions during her pregnancy, may be cited.

Professor Zellweger and his colleagues report the results of blood-culture studies on the proposita and her parents, listing the total number of cells counted and the numbers of chromatid breaks found. Two breaks were found in 30 paternal cells, five in 30 maternal cells, and three in 60 cells of the proposita. Unfortunately the authors provide no other information, either on the time in culture or on the nature of the aberrations. While they give information on the numbers of cells counted they do not say whether a detailed analysis was done of every cell. In the absence of this information and of illustrations of representative karyotypes it is impossible to assess the quality of their preparations, so vital in this type of work, or to know whether they are reporting non-staining chromatid gaps, true chromatid breaks, isochromatid gaps, acentric chromosome fragments, or chromatid interchanges.

Assuming the time in culture to have been about 72 hours, then the findings in the mother may not differ significantly from what has been found in women, aged 15-24 years, in a randomly selected sample from the ordinary population. It is desirable to apply to this type of study the same standards of reporting as are necessary for assessing the effects of ionising radiations or any other suspected chromatid or chromosome damaging agent.

W. M. COURT BROWN.

EXHIBIT 7

[From Science, vol. 159, Feb. 16, 1968]

LYSERGIC ACID DIETHYLAMIDE (LSD) : NO TERATOGENICITY IN RATS

Abstract. Lysergic acid diethylamide (LSD) in doses of 1.5 to 300 micrograms was given to 55 pregnant rats during periods of organogenesis and on the 4th or 5th day of pregnancy to 34 rats. Examination of the resultant 887 young for congenital defects showed no greater frequency than in controls. These experiments failed to prove that LSD is teratogenic in rats.

The report of Cohen *et al.* (1) of chromosomal damage in human leucocytes, induced by lysergic acid diethylamide (LSD), prompted us to test this compound for teratogenicity in rats. A pilot experiment was planned to ascertain

possible effects of the drug administered to pregnant Wistar rats during periods of embryonic organogenesis. Delysid (Sandoz; batch 65002), containing LSD at 0.1 mg/ml, obtained from the National Institute of Mental Health, was administered intraperitoneally or orally in single doses on the 7th, 8th, or 9th day of gestation, or in multiple doses from the 7th to the 12th day. The total dosage to individual rats ranged from 1.5 to 300 μ g.

Fifty-five pregnant rats were treated; four litters were completed resorbed; 47 rats were killed on the 21st day of pregnancy and their young were removed; four were allowed to deliver and raise their young. The mean litter size of the 21-day fetuses was 10.2 ± 1.8 (controls, 10.0 ± 2.8); their mean weight was 3.53 ± 0.44 g (controls, 4.14 ± 0.71 g). The differences between experimental and control animals are not significant.

Of the 508 21-day fetuses, 504 (409 dissected and 95 cleared for skeletal examination) were normal and only four were considered abnormal. One had hydrocephalus, but 12 of its littermates were normal; its mother had been injected once on the 7th day with 50 μ g of LSD. Another fetus had short extremities and syndactylism; there were nine normal littermates; the mother had been injected daily from the 7th to the 11th day with 50 μ g of LSD. Two fetuses were small, weighing 1.7 and 2.1 g; they were from a litter of six, the other four being normal; the mother had been injected on the 7th and 9th days with 50 μ g of LSD. There was no common pattern in the abnormalities of the four young and there was no dose-dependence.

The four treated rats that delivered had 44 apparently normal young, some of which could be raised and bred. Since an incidence of about 1 percent of congenital malformations in the offspring of untreated Wistar rats is not unusual, our pilot experiments did not prove that LSD is teratogenic in rats. Even dosage as great as 300 μ g to rats did not harm their embryos. Such dosage is comparable to human dosage; on a weight basis it is more than 200-times larger.

Later we learned of the results of Alexander *et al.* (2) who gave single injections of LSD to rats early in pregnancy (4th day of gestation) and observed resorption of one litter and some stillborn, stunted young in others. On the 4th or 5th day of pregnancy we gave 34 rats doses ranging from 1 to 100 μ g of LSD (Delysid), and obtained from 32 females a total of 335 young. Of these, 296 were removed on the 21st day by cesarean section; with the exception of one fetus that was small, all were normal on external inspection, dissection, or clearing. Thirty-nine young were delivered and raised; they remain alive and healthy. Two of the 34 rats had no litters. A resorption rate of 5.9 percent is not different from that for pregnant Wistar rats injected with saline solution.

Although most of the doses administered in these experiments were very large (the highest single doses administered by us were about 80-times larger than those given by Alexander *et al.*), we found no abnormalities other than reduction in size of one of the young. Alexander *et al.* (2) used a dry LSD dissolved in saline, while we administered Delysid. The stocks of rats used in their and our experiments also must differ since they mention that their control offspring weighed an average of 64 g at 10 days; rats in our laboratory weigh about 19 g at 10 days. Donaldson (3) cites weights of 15 g for 10-day-old rats. If the LSD-treated rats weighed 44 to 46 g at 10 days, as Alexander *et al.* (2) state, it would appear that the drug did not reduce the weight of these animals but more than doubled it.

Thus we did not find LSD teratogenic during the organogenetic period and found no abnormalities in the offspring of rats injected on the 4th or 5th day of pregnancy, although the doses administered to some of the pregnant rats were as high as those used by human beings.

We draw no conclusions from the negative results with rats, concerning teratogenicity of LSD in man, since it is known that a drug teratogenic in one species may not be so in another; this general rule applies to results with mice (4) and hamsters (5) also.

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EVA TAKACS

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[Telegram]

NEW YORK, N.Y., March 4, 1968.

Congressman TIM LEE CARTER,
House Interstate and Foreign Commerce Committee,
House of Representatives, Washington, D.C.:

The undersigned wish to bring to the attention of those now considering the new legislation to be cited as the Dangerous Drug Penalty Amendments of 1968 (H.R. 15355) certain observations and recommendations representing their combined experience and unanimous opinion.

We write as a group of psychiatrists who work professionally with young adults in a broad range of American colleges and universities. All members of this group also are members of the Committee on the College Student of the Group for the Advancement of Psychiatry. This committee of GAP, with the assistance of its consultants from other disciplines, at present is engaged in a study of the problem of drug use on university campuses.

(1) Because of the widespread confusion associating marijuana with the drug heroin, whose properties are quite different, we recommend that marijuana, not a narcotic, be described separately and classified as a dangerous drug, as provided for by the 1965 Drug Abuse Control Amendment. (Attitudes toward drugs are so highly charged with understandable fear and concern that even the limited existing knowledge about hallucinogens, as contrasted with narcotics, may not find its way into the deliberations of legislators. We suggest that your committee review the clear, and to our knowledge, most authoritative statement available on this matter contained in the recent publication of the drug education project of the National Association of Student Personnel Administrators, entitled "Drugs on the College Campus," under contract FDA 67-3, Food and Drug Administration.)

(2) While recognizing the present and apparently increasingly widespread experimentation among young people with marijuana, it is our experience that this does not in the vast majority of cases lead to drug dependence nor to automatic use of other more dangerous drugs, nor to the use of heroin. Infrequent instances of drug dependence and progression of use to a variety of other drugs (rarely heroin) do occur. In our experience, however, college student drug use rarely appears as a vicious and criminal act but constitutes rather an instance of experimentation, which is characteristic of adolescent growth and development, experimentation comparable to that with the drug alcohol, with which most adults have personal experience.

(3) In considering measures designed to control the use of drugs we urge your committee to consider the following observations which have been reported in the press and which our own experience corroborates:

- (a) Wide increase in use of marijuana is occurring in the presence of already existing severe legal penalties for use, and

(b) The decrease in experimentation with LSD in the absence of legal penalties for use appears to be correlated with increased availability of information about actual and suspected ill-effects.

These developments argue for a program of education as to drug effects and question the deterrence value of severe legal penalties for use.

(4) We suggest a broad program of education on a Federal, State and local level to disseminate to children of high school age, young people of college age, parents, and other adults as accurate information as is now available of the proven and suspected harmful effects of a large number of drugs in use by adults, as well as by young people. These drugs should include, among others, nicotine, alcohol, tranquilizers (such as Miltown) barbiturates (sleeping pills), stiimulants (amphetamines such as dexedrine, benzedrine, methedrine), the Hallucinogens (including marijuana, a mild hallucinogen, and the more potent ones, such as LSD) and also, in a separate category, heroin and the opiates.

(5) We consider the manufacture, distribution and sale of marijuana, LSD, and other dangerous drugs to be, in the words of Commissioner Goddard: "A vicious practice of exploitation of a ready market for drugs liable to abuse." We support legislation expressly and exclusively designed to strengthen Federal control of manufacture, distribution, and sale of dangerous drugs.

(6) We wish to support the body of opinion distinguishing between the user and the pusher. At the same time, we recognize that the use of addicting drugs, such as heroin, leads in a majority of cases to criminal activity to support the addiction. Deterrence of use of the opiates and heroin seems to us a special problem requiring far more study for resolution. We believe this question should be clearly differentiated from the use of marijuana. Therefore, we advise against criminal penalties and legislation directed at marijuana use which, if strictly enforced at present, could lead to branding as criminal a portion of American youth to whom we look for constructive social contribution and leadership.

(7) From our emphasis on the deterrence value of education rather than criminal punishment, it appears to us logical to maintain statutory control of dangerous drugs under the Federal Drug Administration in the Department of Health, Education, and Welfare. At the same time we urge that provision be made for intensified research into the effects and properties of marijuana and the hallucinogens in order to establish the actual dangers of use.

Respectfully submitted.

Robert L. Arnstein, M.D., Chairman, Yale Department of Student Health; Harrison P. Eddy, M.D., Consultant, Columbia College Counselling Service, and Chairman, Committee on the College Student of the group for the advancement of psychiatry; Alfred Flarsheim, M.D., formerly Psychiatrist at University of Chicago; Alan, Frank, M.D., Psychiatrist, Pennsylvania State College; Mal-kah Notman, M.D., formerly Psychiatrist at Wellesley College; Kent E. Robinson, M.D., Psychiatrist, Morgan State College; Earle Silber, M.D., Consultant to National Institute of Mental Health; Benson R. Snyder, M.D., Psychiatrist in Chief, Massachusetts Institute of Technology; Tom G. Stauffer, Psychiatrist, Sarah Lawrence College; J. B. Wheelwright, M.D., formerly Psychiatrist, University of California at Berkeley; Joseph Katz, Ph.D., Director of the Institute for the Study of Human, Stanford University; Prof. Kenneth Keniston, Associate Professor of Psychology (Psychiatry), Yale University School of Medicine; Dr. Helen H. Nowlis, Director, Drug Education Project, National Association of Student Personnel Administrators, University of Rochester; Mr. Eugene Lichtenstein, Senior Research Associate, Center for Research in Education & American Liberties, Columbia University.

ANDOVER NEWTON THEOLOGICAL SCHOOL,
Newton Centre, Mass., April 13, 1968.

The CHAIRMAN,
Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR SIR: I understand that H.R. 15355 introduced by Representative Staggers has been referred to your Committee, and I am writing to encourage you to report this iniquitous bill unfavorably. The intent of the bill is to increase penalties for the sale and use of the so-called hallucinogenic drugs. My chief objection is that apparently little or no notice has been taken of their religious properties. Thousands of persons have ingested these drugs with the purpose of answering religious questions and discovering the meaning of their lives, an inalienable right which they believe that no law can take away from them. I do not believe that we wish to add to the numbers of such persons already languishing in prison. In the enclosed article from the California Law Review I attempt to give certain information about the drugs not ordinarily known and to put modern punitive legislation concerning them into historical perspective.

This does not mean that I think we are faced with an easy problem nor that the public in some way should not be protected from the hazards of the drugs, but that punitive laws passed hastily in times of fear and hysteria are not apt to be good laws. Unfortunately this hysteria has gripped even otherwise sober physicians who have opportunity to observe only the more harmful aspects of the drugs. Constructive laws in such a complex area can be drawn only with much study with the help of experts who have done careful study into *all* aspects of the drugs, including their therapeutic promise and religious significance. May I suggest that you get in touch with Dr. Albert Kurland, Director of Psychiatric Research, State of Maryland, Spring Grove State Hospital, Baltimore, who can supply you with such advisers.

Respectfully yours,

WALTER HOUSTON CLARK,
Visiting Professor of Psychology of Religion, Crane Theological School,
Tufts University.

[From Symposium: Drugs and the Law, California Law Review, January 1968]

Religious Aspects of Psychedelic Drugs

Walter Houston Clark*

Even so, this organ of knowledge must be turned around from the world of becoming together with the entire soul, like the scene shifting peract in the theater, until the soul is able to endure the contemplation of essence and the brightest region of being.

—Plato

ONE ASPECT of the very controversial "hallucinogenic" or "psychedelic" drugs is whether they generate religious experience, and if so, whether this experience is genuinely religious. This Article examines the available evidence that psychedelic drugs do induce religious experience in hopes that its conclusions might promote rational consideration of legal issues surrounding drugs.

Before considering the religious potential of psychedelic drugs, however, one must supply a working definition of "religion." Further, to identify the characteristics of a profoundly religious experience we shall study several historical figures to indicate how a person undergoing such an experience may be expected to feel and act.

I

THE DEFINITION OF RELIGION

Defining religion is difficult because each individual defines it to suit himself, his purposes, and perhaps his prejudices. I once circulated a questionnaire among social scientists interested in religion—a group who might be expected to supply definitions with some rigor—asking them to define religion. No two agreed, and their definitions ranged from perception of the supernatural to loyalty to institutions and creeds.¹ Webster's New International Dictionary lists nine definitions. It is obvious that each definition reflects, at least to some degree, that aspect of religion under study—in this case, religion as experienced. It is experiential religion that is claimed to accompany ingestion of psychedelic drugs.

The dictionary definition of religion closest to this purpose reads in part, "An apprehension, awareness, or conviction of the existence of a supreme being, or more widely, of supernatural powers or influences controlling one's own, humanity's or nature's destiny; also, such an appre-

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¹ Clark, *How do Social Scientists Define Religion?* 47 J. SOCIAL PSYCHOLOGY 47, 143-47 (1958).

hension, etc., accompanied by or arousing reverence, love, gratitude, the will to obey and serve, and the like; religious experience or insight"² This definition approaches my own. I see religion as *the inner individual's experience of a Beyond, especially as evidenced by his attempts to harmonize his life with the Beyond*. These definitions indicate that religion may be an individual affair presupposing neither church nor religious institution.

II

RELIGIOUS EXPERIENCE AND THE LAW

One salient characteristic of intense religious experience is its tendency to create within the beholder deeply held convictions which cause him to place religious considerations above all others. Those unsympathetic with such convictions may find them to be mere fanaticism or lunacy, which may in fact sometimes be the case. But it is difficult for contemporaries, without the benefit of history, to determine the wholesomeness of belief and behavior. Many of the world's great religious figures were once considered criminal, mad or both. Moses was a fugitive; the early Christians were accused of "hatred of the human race"; the religious integrity of George Fox sent him to prison many times; and Martin Luther was forced to maintain his integrity in the shadow of martyrdom. Contemporary America has confronted conscientious objectors whose religious convictions impell them to resist the draft and has watched the Amish sell their ancestral lands rather than compromise their religious convictions by sending their children to state approved schools.

In such cases the position of the law supported by contemporary public opinion finds echo in a Second Century document concerning Christians written by Pliny, Roman Governor of Bithynia, to his master, the emperor Trajan. Pliny gave those culprits who confessed Christianity a chance to recant. "Those who persisted I ordered to be executed, for I did not doubt that whatever it was they professed they deserved to be punished for their inflexible obstinacy."³

A. The Mystical Experience

This lack of understanding and failure of communication is compounded when the offense involves mystical religion—according to William James the "root and centre" of personal religious experience.⁴ The mystical state of mind as it has appeared throughout time has been most

² WEBSTER'S SECOND NEW INTERNATIONAL DICTIONARY, UNABRIDGED 2105 (1950).

³ Quoted in R. BAINTON, *THE HORIZON HISTORY OF CHRISTIANITY* 66 (1964).

⁴ W. JAMES, *THE VARIETIES OF RELIGIOUS EXPERIENCE* 299 (1961).

perceptively studied by W. T. Stace of Princeton University.⁵ Contrary to much educated though ill-informed opinion, mysticism is neither superstition nor vague emotion but, at least in its essential characteristics, an identifiable state of mind, probably the most intense and captivating of which human nature is capable. In the seventh book of *The Republic* Plato describes it as "the brightest region of being."⁶ At its core is a perception of the world so different from what is usually called reality that mystics universally failed in conveying its nature to those who have not enjoyed some measure of mystical perception themselves. The annals of mysticism reveal that mystics perceive a simple and yet marvelous unity underlying the appearance of all living things and matter. From this derives the compassion, empathy, and understanding so often developed as a prime fruit of the mystic's consciousness. The mystic also feels himself in touch with the Holy and Divine—that objective, ultimate reality beyond time and space that brings with it the "peace that passes understanding," yet which can be described to nonmystics only through paradox and riddles. Hence, the mystic is the artist and poet of the religious life. To ask the mystic to renounce his perception or to eschew behavior contingent on it is therefore tantamount to asking him to deny himself. The mystic's position is like that of a seeing man in a society of the blind. How would he justify his experience of sight? His stammering attempts to convey to the blind his experience of sight would only mark him as peculiar; and his adventures into the world based on a sense of sight would only appear as the sheerest madness and probably as a threat to the society. Plato tries to make this point in the seventh book of *The Republic* through his famous analogy of the Cave,⁷ a passage containing special significance for any mystic who delightedly comes upon it.

B. Historical Persecutions of Mystics

1. The Trial of Socrates

Because the mystic faces an inevitable struggle in sharing a truth which he may feel is "death to hide," Plato emphasizes his need for courage. Plato derived this conviction from perhaps history's most notable encounter between a mystic and the law—the trial and execution of Socrates. The jury was the total Athenian electorate. Speeches were made by the accused, his accusers, and his defenders according to clear rules

⁵ See W. STACE, *MYSTICISM AND PHILOSOPHY* ch. 2 (1960). For a review of the various forms of mysticism, see W. CLARK, *THE PSYCHOLOGY OF RELIGION* ch. 12 (1958). See also the writing of A. H. Maslow describing what he terms "peak-experiences," e.g., *RELIGIOUS VALUES, AND PEAK-EXPERIENCES* (1964).

⁶ W. CLARK, *THREE THOUSAND YEARS OF EDUCATIONAL WISDOM* 49 (R. Ulich ed. 1954).

⁷ *Id.* at 46-50.

of procedure. Socrates stood accused of corrupting the youth of Athens. Some of the fruits of this "corruption" appear in the writings of Plato, who became a disciple of Socrates. In his dialogues, Plato ascribes to Socrates many statements of a mystical nature, as in the allegory of the Cave. One can imagine that the people of Athens who acted as a collective jury at his trial unconsciously convicted Socrates as much for his mysticism as for anything. The tragedy of Socrates' execution was not the failure of a good judicial system or the failure of democracy, for both operated consistently according to their own rules. The tragedy was the failure of the solid citizens to communicate with the younger generation—the rebels and the hippies of their day—whose leader, Socrates, became the scapegoat for contemporary civic frustrations. Condemned to death by his contemporaries, Socrates, the mystic, was unable to convey his vision to those who were imprisoned in the Cave of delusion that caused them to regard anyone with a wider vision as a madman and a menace.⁸

2. *Mystics and the Law during the Middle Ages*

This same breakdown of communication between the accused and their judges occurred during the Middle Ages. Though some victims executed were doubtless evil characters who deserved their punishments, others were sensitive mystics guilty only of communicating their visions and experiences in terms which antagonized their theological judges. Ecclesiastical law, the most influential law of the time, considered heresy the most heinous of offenses, for, although it did not kill the body, it led the soul into everlasting damnation. But heresy was not always easy to detect; its determination sometimes took years of theological consideration. And often, as in the case of Socrates, the determination reflected a breakdown of communication since the theologians, though experts in ecclesiastical law, frequently had no intuitive or psychological understanding of the mystic's essential religious experience.

A case in point is that of Meister Eckhart, the great German Dominican mystic of the 13th and 14th centuries. Much bolder than some of his more docile followers who escaped condemnation, he interpreted theology in his writings and sermons directly and immediately from his own encounters with reality. Modern studies have discovered that his writings reflect the mystical consciousness with subtlety and precision.⁹ Yet the necessities of dogma demanded censure in the eyes of the ecclesiastical courts.

⁸ See A. E. TAYLOR, *SOCRATES* (1953) for an account of the trial and the role of Socrates' personality.

⁹ See, e.g., W. STACE, *supra* note 5.

Eckhart's theological crime was pantheism—equating God with all of the natural world and identifying oneself with this Whole, as did the great English poet, William Blake. Theoretically mysticism leads to confusing oneself with God and therefore to delusions of grandeur and theological arrogance. Eckhart often spoke of identity with God as a Christian virtue: "If I am to know God directly, I must become completely He and He I; so that this He and this I become and are one I."¹⁰ Fortunately Eckhart was a well-known preacher and influential ecclesiastic. Hence it was not until two years after his death that he was finally declared heretical and so saved from the flames that, as with Jeanne d'Arc, might well have been his lot. Nevertheless his judges lacked that keenness of spiritual consciousness that would have enabled them to identify Eckhart with some of the greatest Fathers of the Church and his religious experience with the piety to which centuries of Christian opinion had paid verbal homage.

Yet another witness to the mystical experience was the more docile and orthodox Blessed Angela of Foligno, an influential thirteenth century Italian mystic. When she was informed that her charity and consequent poverty were too radical, she cried, "Lord, even if I am damned, I will nevertheless do penance and will strip myself of everything and serve Thee!"¹¹ This attitude emphasizes the passion and the conviction of even the more conventional mystics.

C. Mysticism and Freedom of Religion

The confrontations which occur when the mystic's intense feeling collides with the judge's lack of experience lead at best to impass and at worst to tragic miscarriages of justice. A mystic like the Blessed Angela who can show such independence in the face of God would probably also defy an earthly judge who required her to desist from certain religious activities. This kind of passion has doubtless influenced Western peoples, so far as possible, to respect the religious ways of deeply convinced religious partisans. To harass a patently sincere person for pursuing a profound religious leading not only offends religious sensitivities, but also causes civil disturbance. In part this explains the development of religious freedom.

III

PSYCHEDELIC DRUGS AND RELIGIOUS EXPERIENCE

The history of mysticism provides a background for assessing the religious potential of psychedelic drugs. We understand cases like those

¹⁰ Quoted in E. UNDERHILL, *MYSTICISM* 420 (1955).

¹¹ Quoted in W. CLARK, *supra* note 5, at 288.

of Socrates and Eckhart involving historical episodes about which we have had time to make up our minds. Because history never exactly repeats itself, it would be specious to argue with particularity from Socrates and Eckhart to the prosecution of contemporary psychedelic mystics. But there are close parallels worth considering—perhaps too close for us to feel completely comfortable about restrictive narcotics legislation.

Before reaching conclusions on these problems, it will be necessary to determine whether psychedelics in fact release profound mystical or other religious experiences. If so, religious groups and even individuals may be constitutionally protected in using psychedelic drugs in the pursuit of religious aims.

A. Psychedelic Drugs Help Induce Religious Experiences

I have already indicated my conviction that mystical experience is at the heart of the religious life. It is significant that religious experience so often has been reported in connection with the psychedelic drugs. The ingestion of a psychedelic drug will not invariably touch off a mystical experience. Therefore, we cannot think of the psychedelics as the cause of religious experience. It is true that a mystical experience is more likely to occur the larger the dosage of the drug taken. But the participant's intention, his personality, and the setting in which he ingests the drug all play a part in the production of a religious experience. Probably the primary and necessary cause of mystical experience is the mystical capacity residing within the person himself. Whether all have this capacity is a matter of dispute; but probably, like the capacity to experience beauty, it is present in everyone to some degree. Some simply are more apt to have mystical perceptions than others. Psychedelic drugs, in common with such stimuli as scenes of natural beauty, childbirth, the dance, music, poetry, liturgical splendor, and the presence of other mystically sensitive people, will trigger mystical experience. Furthermore they constitute the most reliable triggers that we have. Millions of Americans, if they are ever to enjoy profound religious experience, will only do so through psychedelic drugs. I have been persuaded of this quality of psychedelic drugs mainly by one well-designed experiment at Harvard University. Dr. Walter N. Pahnke, who has university degrees in both medicine and religion, obtained twenty theological students as volunteers.¹² After suitable preparation, ten were given 30 mg. of psilocybin

¹² *Drugs and Mysticism: An Analysis of the Relationship between Psychedelic Drugs and the Mystical Consciousness*, Doctoral dissertation, Harvard University, 1963. A summary of the same experiment may be found in *THE USE OF LSD IN PSYCHOTHERAPY AND ALCOHOLISM* 629-49 (H. Abramson ed. 1967).

and ten a placebo, and all were sent to a two and a half hour Good Friday service. Of the ten that received the psilocybin nine reported unmistakable features of mystical experience. Of those who had the placebo only one did so, and he to a minor degree. Six months later the two groups could still be distinguished significantly, the experimental group reporting more positive signs of having benefited from the experience than the control group. One of the experimental group, for example, had been seriously thinking of dropping out of school and even of committing suicide before the experiment. He experienced an intense mystical experience and afterward gave up both ideas and finished his work for a degree. He is now (five years later) serving a church.

It is not necessary, however, to study the therapeutic values of religious experience from religious scholars alone. The Second International Conference on the use of LSD in Psychotherapy and Alcoholism at Amityville, New York, included leading psychotherapists and researchers in the field from North America and Europe.¹³ Again and again in the papers presented at the conference, allusion was made to subjects and patients who had reported transcendental experiences of a profound nature. For example, Dr. Ruth Fox, Medical Director, National Council on Alcohol, stated:

In this transcendental experience there may be a recognition of 'cosmic consciousness'. Not every patient experiences this complete feeling of 'being at one with the universe'. It seems that the closer one comes to it, however, the more effective and lasting is the change in personality.¹⁴

Like Dr. Fox, most of these therapists had little or no initial interest in religion as a psychotherapeutic agent until LSD began releasing religious experiences which, not universally but often, produced amazingly effective therapeutic results.

B. Therapy through Drug Induced Religious Experience

1. An Experiment with Alcoholics

Early researchers stumbled across the value of religious experience in psychotherapy. The value of LSD in treating alcoholics was demonstrated initially by two Canadian psychiatrists, Drs. Humphry Osmond and Abram Hoffer, in connection with provincial health services in Saskatchewan. Relying on its supposed psychotomimetic properties, they had intended to frighten very difficult alcoholics with large doses of LSD. Instead, a great many sustained profound transcendental experiences. In

¹³ For the proceedings of this meeting see *THE USE OF LSD IN PSYCHOTHERAPY AND ALCOHOLISM*, *supra* note 12.

¹⁴ *Id.* at 482. For other similar and pertinent statements on LSD and the mystical see *id.* at 343, 391, 419, 462-63, 482, 501-02, 561, 569-76.

an informal report Hoffer stated that five years afterward half the treated group were still abstainers; most of these had had a religious experience.¹⁵ Hoffer has also summarized eleven studies of LSD use with alcoholics involving a total of 269 cases,¹⁶ with varying dosages and follow-up periods. Of these cases 145 were judged clinically much improved—in effect no drinking—forty-four improved, and eighty unimproved. In a comparison group of eighty alcoholics treated, but without LSD, eleven were much improved, seven improved, and sixty-two unimproved. As a direct result of hysteria concerning the drugs there are now only a few similar projects underway at hospital centers in the United States. One of these is based at the Spring Grove State Hospital in Baltimore, Maryland, where deliberate stimulation of the transcendental experience is used to treat both alcoholism and depression.¹⁷

Since severe alcoholism is a life and death affair, it would seem that not even the possibility of genetic damage to future generations should hinder science in investigating the uses of psychedelic drugs as treatment. The situation may be illustrated by a middle-aged alcoholic who was referred to me with the mistaken idea that I could administer LSD as treatment for alcoholism. An educated man, he had lost his skilled position and had alienated his family and children. No firm would hire him. He had tried psychiatry, Alcoholics Anonymous, and several varieties of cure. He was in despair and was seriously considering suicide. I knew that LSD had improved if not cured cases as serious as his. Although I referred him to one or two research projects, I had little hope that he would be accepted as a volunteer. I could not but wonder in what legal position he would be if he broke the Massachusetts law against the use of hallucinogenic drugs in pursuit of his right to health.

2. *Rehabilitation of Criminals*

LSD has also led to religious experience associated with favorable clinical and rehabilitative results in the field of criminology. In 1961 and 1962, Dr. Timothy Leary, then at Harvard, obtained permission to administer psilocybin to thirty-five inmates at Concord State Reformatory, a maximum security prison in Massachusetts. Recidivism rates were considerably improved, though the results must be considered suggestive rather than definitive, due to the collapse of the project following Dr. Leary's troubles at Harvard.

¹⁵ See THE USE OF LSD IN PSYCHOTHERAPY 18-19, 114-15 (H. Abramson ed. 1960).

¹⁶ Hoffer, *A Program for the Treatment of Alcoholism*, in THE USE OF LSD IN PSYCHOTHERAPY AND ALCOHOLISM, *supra* note 12, at 351.

¹⁷ Kurland, Unger, and Shaffer, *The Psychedelic Procedure in the Treatment of the Alcoholic Patient*, in *id.* at 496-503.

Somewhat skeptical, I obtained through Dr. Leary an introduction to those subjects still in prison to investigate for myself the depth of their religious experiences and to perform a follow-up investigation.¹⁸ I concluded that there was no doubt of the notable religious experiences reported by several of the convicts. Those who were serving long terms started a self-directed therapy group within the walls, somewhat modeled on Alcoholics Anonymous. Through the enthusiasm of those who had used the drug, this group spread its influence among many both inside and outside prison walls. Well over a hundred members of the "Self-Development Group," as it is called, have now been released, with recidivism rates considerably better than the general ex-prison population.

One member of the original group is a former armed robber who was serving a twenty-year term at the time of the experiment. Aged thirty-six, he had not been beyond the eighth grade and had spent most of his adult life behind bars. His bleak prognosis was reversed through the drug experience. Starting with low doses, he was given 60 mg. of psilocybin on the eighth administration. There followed a vision of Christ and a realistic symbolic participation with Christ in some events of the Crucifixion. Shortly after this, he told me, he looked out of the window, "Suddenly all my life came before my eyes, and I said to myself, 'What a waste!'" I have followed his career carefully during the last five years. Information from prison guards and officials have confirmed my impression that the man has been rehabilitated. Recently he was released and offered a job in the loan business by a former fellow inmate at 300 dollars a week. Being penniless he was tempted, but he turned it down. "I knew what kind of a loan business it was," he told me, "but I knew also that I would lose the inner freedom I secured from my vision if I accepted." The latter has become for him a kind of touchstone or point of reference which stands him in good stead in times of crisis.

Both domestic and foreign studies¹⁹ indicate that psychedelic drugs may possibly be a most effective agent for treating the criminal psychopath—or any psychopath, for that matter. The psychopathic personality is one of the most resistant types of mental disorder—incurable according to some authorities. It reflects both on American bureaucracy as well as on public hysteria concerning the psychedelics that no way has yet been found effectively to study this subject further.²⁰

¹⁸ For a preliminary account and religious estimate of the results see Leary and Clark, *Religious Implications of Consciousness Expanding Substances*, 58 RELIGIOUS EDUCATION 251-56 (1963).

¹⁹ See the account by Dr. Arendsen-Hein in HALLUCINOGENIC DRUGS AND THEIR PSYCHOTHERAPEUTIC USE 101-06 (R. Crockett, R. Sandison, & A. Walk eds. 1963) (14 of 21 criminal psychopaths reported as clinically improved).

²⁰ I have secured permission from Commissioner John A. Gavin of the Massachusetts

3. *The Use of LSD in Treating Pain*

Officials have, however, been more cooperative in authorizing the use of LSD to alleviate pain. Several years ago Dr. Eric Kast, at the University of Chicago Medical School, administered LSD to 128 patients suffering from cancer estimated to be terminal in one to two months.²¹ Relief from pain was striking during the first twenty-four hours after administration; and there still remained some effective relief from intolerable pain twenty-one days later. In his reports Kast does not comment on the religious factor directly though it is implied in his statements concerning new and more wholesome attitudes toward death. This work is being followed up at the present time at Spring Grove State Hospital, Baltimore, Maryland. But it is still surprising that experimentation of such promising and humane nature is not more widespread.

C. Psychedelic Drug Use by Religious Institutions

If, as I have demonstrated, one of the consequences of ingesting psychedelic drugs is religious experience, one might expect their use by religious institutions. This has in fact been the case throughout history both in this country and elsewhere.

1. *The Ancients*

In Ancient Greece the Eleusinian Mysteries required the drinking of a secret potion as part of the initiation ordeal, and Plato made guarded reference to a drug much like LSD in *The Laws*.²² There is also good evidence that in ancient times the Indian inhabitants of Latin America such as the Aztecs used psychedelic mushrooms. In Mexico's back country ceremonies are still carried out by local priests utilizing such mushrooms.²³

2. *The Native American Church*

In the United States the Native American Church makes religious use of the psychedelics in its sacramental ceremonies. This church is a loosely organized association of some 250,000 American Indians representing a number of the principal American tribes. The drug used is

Department of Correction to draw up a research plan using appropriate volunteers from the state prison system to test the value of psychedelic substances in rehabilitation. However, red tape and legitimate fears concerning possible chromosomal damage have so far prevented any approach to the National Institute of Mental Health or other governmental agencies, the only present legal source of most of these drugs.

²¹ Kast, *Pain and LSD-25: A Theory of Attenuation of Anticipation*, in *LSD: THE CONSCIOUSNESS-EXPANDING DRUG* (D. Solomon ed. 1964); Kast, *The Measurement of Pain: A New Approach to an Old Problem*, 2 J. NEW DRUGS 344 (1962).

²² See Wasson, *The Hallucinogenic Fungi of Mexico*, 1 PSYCHEDELIC REVIEW 43-46 (1965).

²³ See *id.* at 27-42.

mescaline from the mescal button on the cactus plant, in its raw form called peyote, which is dried and then chewed or brewed as a bitter tea.²⁴ The practice and the cult have been traced back for nearly a hundred years and have doubtless existed in some form for many centuries. The cult is a syncretistic one combining both Christian and Indian elements, and peyote use has been a bone of contention not only between the peyotists and certain Christian missionaries but also within the Indian tribes themselves.

Most of the strictures heard in our society against LSD—such as that it drives people crazy, debases their morals, and leads to miscellaneous vices—can also be heard from Indians themselves. Further, the restrictive laws and regulations of white America have had their counterparts among the Indians. Finally, Indian agents and missionaries, zealous to protect the Indians from what they consider a debilitating and pagan influence, have harassed the peyote cults. Some of the regulations have succeeded in part, but apparently they never have been strictly obeyed. Detractors have always been handicapped by the inability to produce hard evidence of harm done by peyote. In fact, the weight of the evidence indicates that peyotists have reduced their tendencies to drunkenness, have lived more responsible family lives, and have become reliable members of their communities.²⁵

For many years the peyote cults, in their contacts with white missionaries and Indian agents have had their ups and downs. The Indians' chief white supporters have been scholars whose interests have been relatively dispassionate. They have reported the positive aspects of peyote religion and so refuted the thought that because peyote is a drug and strange to white people its use in worship must be a debilitating and immoral practice. In fact, white scientists' favorable testimony has led to a trend of recent judicial decisions supporting the Indians' right to use peyote sacramentally against federal, state, and even Indian tribal laws.²⁶

3. *The League for Spiritual Discovery and the Church of the Awakening*

Based partly on the understandable theory that what is permitted to Indians should be permitted to other citizens too, and partly on the undoubted evidence, as set forth in this Article, that psychedelic drugs

²⁴ See D. ABERLE, *THE PEYOTE RELIGION AMONG THE NAVAHO* (1966); W. LA BARRE, *THE PEYOTE CULT* (1959); J. SLOTKIN, *THE PEYOTE RELIGION* (1956).

²⁵ See J. SLOTKIN, *supra* note 24, at 48-77; D. ABERLE, *supra* note 24 at 354.

²⁶ For discussion of the legal status of psychedelic drugs, including the use of peyote by the Native American Church, through 1963, see Barrigar, *The Regulation of Psychedelic Drugs*, 1 *PSYCHEDELIC REVIEW* 394-441 (1964). For a theoretical discussion in the same issue, see Bates, *Psychedelics and the Law*, *id.* at 379-92.

release religious experience, several groups of whites have incorporated their own cultic use of the psychedelics. Perhaps the most visible of these is the League for Spiritual Discovery founded by Dr. Timothy Leary, incorporated as a religious institution in the State of New York with headquarters at Millbrook, New York. The organization does not insist on the use of drugs. A recent midnight raid on their headquarters turned up only a small quantity of marijuana in one guest's possession.

Probably the most conservative and careful of many such institutions in the United States is the Church of the Awakening, incorporated in New Mexico with headquarters at Socorro, New Mexico. It was founded by two retired physicians, Drs. John and Louisa Aiken, who ceased their practice in order to embark on a personal search for the spiritual meaning of life and to encourage others to do the same. The psychedelic drugs are regarded not as the sole means of pursuing a religious life but simply as one auxiliary which, when properly used, may aid in the quest. As licensed physicians the Aikens have been entitled to administer mescaline and peyote, though the present, more dubious status of these drugs has led them to be more cautious in recent years. In the past they have administered both mescaline and peyote under sacramental conditions after several preparatory and screening sessions. Recently the Food and Drug Administration refused a request by the Church of the Awakening for permission to use peyote, as does the Native American Church, in sacramental ceremonies. The Church of the Awakening is now considering whether to make a test case of its right to use psychedelic drugs under the Constitutional guarantee of freedom of religion.

IV

PSYCHEDELIC DRUGS AND THE LAW

Law enforcement agents tend to assume that the psychedelic drugs can be dangerous and that therefore no individual or group may be allowed to use them. Conceivably an irresponsible group might form a church as a cloak for engaging in activities harmful to the public. However, the experience encountered through drugs is usually so awesome, and the total process requires so much of those in attendance, that the ceremony is not apt to be pursued except by the earnest. In addition, however much religiously minded people may pioneer and innovate in a way that is shocking to the conventional religious mind, as soon as institutionalization of a new idea begins, conservatism begins to assert itself. This characteristic is much more effective than the law in keeping dangerous religious tendencies under control. Consequently, granting permission to religious groups to use psychedelic drugs may in the long run be the most effective method of minimizing the dangers of drugs.

Finally, whatever the conventions of the law may be, the disinterested citizen's common sense attitude might be that the law has no right to assume that a given religious institution would abuse its right to use the drugs. The wiser course might seem to be to wait until irresponsibility has been demonstrated before imposing sanctions. Even then it ought to be demonstrated that more harm than good has been caused by the right to use the drugs.

In its most profound and essential aspects, the mystical consciousness which can be released by the psychedelic drugs is like nothing before experienced. In a study of LSD's religious effects, eight normal volunteers were given low to moderate doses daily for a period of four to sixteen days. They were asked to rate their experiences on a number of parameters of mystical experience such as unity, timelessness, blessedness and peace, experience of God and the Holy, the feeling of death and rebirth, and the subjective sense of the significance of the experience, compared to their usual everyday experiences. They could designate six different levels of intensity, ranging from "no different from everyday life" to "beyond anything ever experienced or imagined." Of 160 ratings only seventeen were rated "no different from everyday life," while fifty-two were rated "beyond anything experienced or imagined." This was about one and two-thirds greater than the next most used category two grades below, "markedly and intensely above normal."²⁷

This study lends empirical confirmation to the mystical feeling that it is impossible to describe the experience to those who have not participated in similar experiences. It also further supports my point that prosecuting religiously motivated individuals who violate drug laws ironically forces violators to conduct their defenses before those who, no matter how well intentioned and experienced in the law, are nevertheless unable to appreciate the defendant's religious experiences. This is not to say that *all* ingesters of the psychedelic drugs are responsible citizens. But at least some will bear comparison with Socrates, Meister Eckhart, and Francis of Assisi in their apprehension of truth, their compassionate concern for mankind, and their willingness to hold to their vision in the face of threats of imprisonment and extreme punishment.

It is one of the tragedies of our time that dispassionate evaluation of the psychedelic drugs—their values and their dangers too—has been made so difficult, partly by the inability of even the educated mind to tolerate the intrusion of new methods and experiences on their accustomed

²⁷ These figures are from a study carried out by the Worcester Foundation for Experimental Biology under a Public Health Grant and reported in a paper by W. Clark and M. Raskin read at the American Psychological Association Meeting, Washington, D.C., Sept. 4, 1967.

comfortable thought patterns. So far, the voices most influential in swaying public attitudes toward the drugs and their users have been eminent medical men, mostly well-meaning psychiatrists acquainted only with the deleterious effects of drugs. What if the only information the public had about automobiles came from ambulance drivers! Quite contrary to public assumptions, the true experts are those who have had experience in carefully supervising a wide sampling of volunteer drug users. Since the important subjective dimension will always be missing for those who limit themselves simply to objective observation, the truly conscientious expert will be as willing to experiment on himself as he will be to subject others to the influence of the drugs.

From personal experience with both pseudo-experts and experts so defined, I can testify that the latter are much more impressed by the positive possibilities of drug use, anxious for further research, and open-minded on their possible use in effecting creative changes in artistic, religious, psychotherapeutic, and even educational spheres. No responsible person wants to see these powerful substances used without control, not even those drug users whom society has remanded to the irresponsible category. The question for everyone is not whether, but how to regulate them. Because psychedelic substances are so prevalent and circumvention of the law so easy, laws alone cannot effect this control.

Lawmakers must, of course, be guided not only by scientific findings but also by knowledge of all facets of psychedelics. Their most subtle and puzzling aspect is their religious agency. As a psychologist of religion, I have been impressed by the fact that psychedelic drugs, handled correctly, appear to offer incomparable opportunities for studying religious experience. Religious experience is the most profound and powerful aspect of the human personality and is the aspect most capable of bringing out the compassionate and creative qualities of the human spirit. Furthermore it is the most effective agent of wholesome, profound personality change. The law can maximize or minimize the value of the drugs for religion. It can also make the mistake of persecuting men who are merely attempting to experience that part of their nature that they feel most entitles them to regard themselves as human, namely their encounter with Ultimate Reality, or what they call God.

In pursuit of such encounter, religious people have felt compelled to defy the law when lawmakers have misunderstood the offenders' basic urge. Education, common intelligence, and judgment alone are therefore not enough in dealing with the problems of psychedelics. Men will require wisdom to cast off the chains that fetter them in the dark Cave of Illusion to encounter the sunlight which, for Plato, must enlighten those few fit to judge and govern the State.

(Whereupon at 12 o'clock the subcommittee was adjourned.)

