Nos. 00-16401

(Related Case No. 98-16950, 98-17044, 98-17137, 99-15838, 99-15844, 99-15879)

IN THE UNITED STATES COURT OF APPEAL

FOR THE NINTH CIRCUIT

UNITED STATES OF AMERICA,

Plaintiff-Appellant,

v.

OAKLAND CANNABIS BUYERS' COOPERATIVE and JEFFREY JONES,

Defendants-Appellees.

Appeal from Orders Modifying Injunction by the United States District Court for the Northern District of California

Case No. C 98-00088 CRB, entered on July 27, [illegible] by Judge Charles R. Breyer

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EXHIBITS TO BRIEF OF *AMICUS CURIAE* IN SUPPORT OF APPELLEES IN SUPPORT OF AFFIRMANCE

[illegible]

[illegible]

BARBARA J. PARKER

[illegible], City Attorney

[illegible]

[illegible]

[illegible]

[illegible]

EXHIBIT A

MARIJUANA:
MEDICAL PAPERS
1839-1972

chronic neurologic diseases, convulsive disorders, migraine headache, anorexia, mental illness, and bacterial infections.

Recently declassified secret U.S. Defense Department studies reconfirm marijuana's congeners to have therapeutic utility.

Cannabis indica, Cannabis sativa, Cannabis americana, Indian hemp and marijuana (or marihuana) all refer to the same plant. Cannabis is used throughout the world for diverse purposes and has a long history characterized by usefulness, euphoria or evil—depending on one's point of view. To the agriculturist cannabis is a fiber crop; to the physician of a century ago it was a valuable medicine; to the physician of today it is an enigma; to the user, a euphoriant; to the police, a menace; to the traffickers, a source of profitable danger; to the convict or parolee and his family, a source of sorrow.

This book is concerned primarily with the medicinal aspects of cannabis.

The Chinese emperor Shen-nung is reported to have taught his people to grow hemp for fiber in the twenty-eighth century B.C. A text from the period 1500–1200 B.C. documents a knowledge of the plant in China—but not for use as fiber. In 200 A.D., the use of cannabis as an analgesic was described by the physician Hoa-tho.[44]

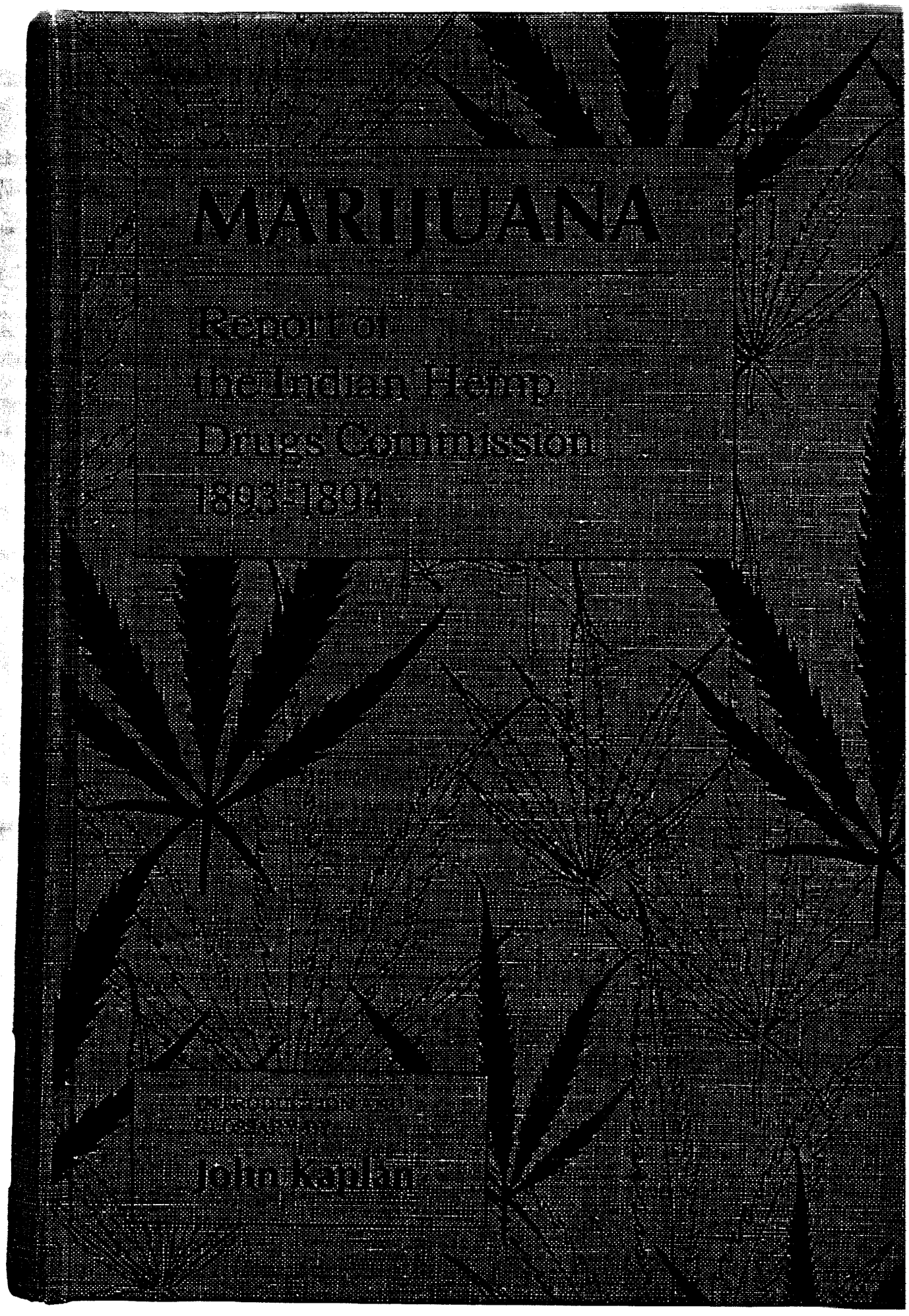
In India the use of hemp preparations as a remedy was described before 1000 B.C. In Persia, cannabis was known several centuries before Christ. In Assyria, about 650 B.C., its intoxicating properties were noted.[44]

Except for Herodotus' report that the Scythians used the smoke from burning hemp seeds for intoxication, the ancient Greeks seemed to be unaware of the psychoactive properties of cannabis. Dioscorides in the first century A.D. rendered an accurate morphologic description of the plant, but made no note of intoxicating properties.[10]

In the thirteenth and fourteenth centuries, Arabic writers described the social use of cannabis and resultant cruel but unsuccessful attempts to suppress its non-medical use.[44]

Although Galen described the use of the seeds for creating warmth, he did not describe the intoxicating qualities of hemp. Of interest is the paucity of references to hemp's intoxicating properties in the lay and medical literature of Europe before the 1800s.[44]

EXHIBIT B


MARIJUANA
Report of
the Indian Hemp
Drugs Commission
1893-1894
John Kaplan

MARIJUANA

Report of the Indian Hemp Drugs Commission 1893-1894

560. In Greece there is no law regulating or specially alluding to the production, manufacture, or export of hashish. The sale of it as merchandise is allowed, but a Police order of 1891 prohibits its sale and consumption in the small cafés of Athens and the Pirœus, in some of which, during the previous ten or fifteen years apparently, the habit of using this drug had been gradually introduced. The order was based upon a report of the Sanitary Board at Athens, in which prominent mention is made of the observations made in India by English doctors, and the statistics of insanity in Bengal lunatic asylums ascribed to the use of the hemp drugs are put forward as justifying repressive measures. The effect of the order passed is not mentioned, sufficient time not having elapsed.

Greece.

561. As regards Trinidad, the Commission are not sure that the hemp drugs are prohibited. The fact has been stated by the Indian Immigrants Commission, Natal, 1885-87,* and by Dr. Thomas Ireland, Government Medical Officer, British Guiana, in a paper published in the *Alienist and Neurologist*, St. Louis, in October 1893. But, on the other hand, Surgeon-Major Comins, lately on special duty in British and Foreign Colonies and the Netherlands, in his Note on Emigration from India to Trinidad, 1893, quotes a statement of the Protector of Immigrants, who says that in the year 1885 an Ordinance was passed requiring the payment of £100 per acre to obtain a license to grow ganja, which had previously been grown in large quantities. This practically put a stop to the growth and consumption for several years, but immigrants who had left Trinidad two years previous to the writing of his report had been growing it in Venezuela, and several seizures had been made by the Customs officers from persons endeavouring to introduce it into Trinidad. The Protector adds: "With a coast line such as ours, adjacent to that of the Spanish Main, it will be impossible to prevent its introduction into this colony if immigrants who go there continue to grow it." Dr. Comins himself says: "I do not know what are the laws in force here regarding the sale of opium and ganja."

Trinidad.

562. Thus in the case of other countries, where the use of the drugs has been prohibited, the Commission do not find in the literature available to them many arguments for prohibition. In Turkey it rests upon the theory accepted by orthodox Muhammadans that hashish "being a narcotic its use must of necessity be injurious," while in Egypt the prohibition emanated from Turkey. In both these countries the measure has by no means been attended with complete success. In Greece the prohibition in the cafés of Athens is based largely upon Indian experience, which the Commission have had cause in great measure to recast. In Trinidad, if there has been prohibition, it does not seem of late to have been effectual. It must be added that the Commission have no scientific information regarding the strength of the article of commerce called hashish, and it may differ to some extent from the Indian products. From the description of its manufacture given by the Mayor of Orchomenus in Mantinea in Arcadia, whence the Egyptian supply is mainly derived, it appears to resemble more the charas of Yarkand than the ganja or bhang of India.

Basis of prohibition and results in these countries.

563. Starting, therefore, from the position that what is known of the hemp drugs in the past is not sufficient to justify their prohibition in India, and that for such a measure there must be strong justification based on ascertained facts scientifically and

Is prohibition in India justifiable, feasible, and advisable?

* Report, Chapter II, paragraph 9.

systematically examined, the first question for the Commission to decide is whether such justification is to be found in the evidence before them, and the second whether, if this is so, prohibition is feasible and advisable on other grounds. These will now be considered.

Prohibition of bhang.

564 The effects of the hemp drugs have been treated in Chapters X to XIII of the Report; and as the first result of these conclusions, the Commission are prepared to state that the suppression of the use of bhang would be totally unjustifiable. It is established to their satisfaction that this use is very ancient, and that it has some religious sanction among a large body of Hindus; that it enters into their social customs; that it is almost without exception harmless in moderation, and perhaps in some cases beneficial; that the abuse of it is not so harmful as the abuse of alcohol; that its suppression, involving the extirpation of the wild hemp plant, would in some tracts be a matter of great difficulty; that such a measure would be extremely unpopular, and would give rise to widespread discontent; and, finally, that, if successfully accomplished, it would lead to the use of more hurtful stimulants. The Commission deem it unnecessary to traverse the evidence further than has been done in the preceding chapters of this report in support of these propositions. It is almost unanimous in regard to them. The utmost that is necessary in regard to this product is that it should be brought under more effective control, and this matter will be dealt with further on. But absolute prohibition is, in the opinion of the Commission, entirely out of the question.

Prohibition of ganja and charas.

565. Though it has been shown that as a rule ganja and charas are used in moderation, and that the moderate use ordinarily does not cause appreciable injury, yet it has been established that the excessive use of these forms of hemp drugs has been more injurious than in the case of bhang. Whether they should be prohibited or merely controlled is a question which might be settled merely with reference to their ascertained effects. The Commission consider that the effects are not such as to call for prohibition, and on the general principles discussed in the opening paragraphs of this chapter, such interference would be unjustifiable. Nevertheless, it seems advisable to refer to the other evidence with a view to ascertaining the generally prevailing views on the subject, and considering the grounds on which prohibition is advocated or opposed.

The evidence regarding prohibition of ganja and charas may be considered together.

566. In reviewing the evidence on these points, it will not be necessary to draw a distinction between ganja and charas. The effects of these two drugs have been shown to be similar, though charas is *cæteris paribus* the more potent. They are both ordinarily smoked, though very occasionally used for eating and drinking usually in the form of admixtures with other condiments. As stated by Mr. Lyall (Bengal 1): "Ganja and charas are really one, and in time, if the question be scientifically followed up, possibly charas will be the only form used." The refuse of ganja is used in some provinces as bhang, but this substance more nearly resembles bhang than ganja properly so called. The ganja of the different provinces varies in quality. But these distinctions cannot here be specially observed; it will be sufficient to bear in mind that the opinions in Bengal, the Central Provinces, Madras, Bombay, and the smaller Administrations relate to ganja; that those in the Punjab relate to charas; and that those in the

(10) Mr. Monteath, Collector.
(8) Mr. Lely, Collector.
(59) Mr. Foard, Superintendent of Police.
(57) Mr. Austin, District Superintendent of Police.
(54) Mr. Kennedy, District Superintendent of Police.
(26) Khan Bahadur Dadabhai Dinshaji, Deputy Collector.
(38) Mr. Almon, Assistant Collector of Abkari.
(49) Yashvantrao Nilkanth, Superintendent, Office of Survey Commissioner.
(104) Desaibhai Kalidas, Pleader.
(46) Balkrishna Narayan Vaidija, State Karbhari.
(39) Rai Sahib Ganesh Pandurang Thakur, Mamlatdar.
(110) Rai Bahadur Vishvanath Keshava Joglekar, Merchant.
(100) Parbhuram Jeewanram, Vaidya.
(115) Nanu Mian B. Shekh, Municipal Secretary, Surat.

Sind.

(1) Mr. James, Commissioner in Sind.
(4) Khan Bahadur Kadirdad Khan, Gul Khan, C.I.E., Deputy Collector.
(5) S. Sadik Ali, Deputy Collector.
(26) Seth Vishindas Nihalchand, Zamindar and Merchant.

(3) Prohibition might lead to use of dhatura or other intoxicants worse than ganja.

Bombay.

(1) Hon'ble T. D. Mackenzie, Commissioner of Abkari, etc.
(6) Mr. Sinclair, Collector.
(53) Mr. Vincent, C.I.E., Officiating Commissioner of Police.
(49) Yashvantrao Nilkanth, Superintendent, Office of Survey Commissioner.
(62) Rao Sahib Pranshankar, Inspector of Police.
(102) Ramchandra Krishna Kothavale, Inamdar.
(109) Secretary, Arya Samaj, Bombay.

Berar, etc.

584. From the minor administrations in Berar, Ajmere, Coorg, and Quetta-Peshin, there are no opinions requiring special notice. The statistical detail has been given in the table in paragraph 569.

General conclusions in regard to total prohibition of ganja, charas, and bhang.

585. A general review of the evidence relating to the question of prohibition of ganja and charas brings the Commission to the same conclusion as that which they have framed upon a consideration of the evidence on the ascertained effects alone. The weight of the evidence above abstracted is almost entirely against prohibition. Not only is such a measure unnecessary with reference to the effects, but it is abundantly proved that it is considered unnecessary or impossible by those most competent to form an opinion on general grounds of experience; that it would be strongly resented by religious mendicants, or would be regarded as an interference with religion, or would be likely to become a political danger; and that it might lead to the use of dhatura or other intoxicants worse than

CHAPTER XVIII.

SUMMARY.

Conclusions arrived at by the Commission.

740. The following are the conclusions arrived at by the Commission:—

I.—Total prohibition of the cultivation of the hemp plant for narcotics, and of the manufacture, sale, or use of the drugs derived from it, is neither necessary nor expedient in consideration of their ascertained effects, of the prevalence of the habit of using them, of the social and religious feeling on the subject, and of the possibility of its driving the consumers to have recourse to other stimulants or narcotics which may be more deleterious (Chapter XIV, paragraphs 553 to 585).

II.—The policy advocated is one of control and restriction, aimed at suppressing the excessive use and restraining the moderate use within due limits (Chapter XIV, paragraph 586).

III.—The means to be adopted for the attainment of these objects are :

(*a*) adequate taxation (Chapter XIV, paragraph 587);

(*b*) prohibiting cultivation, except under license, and centralizing cultivation (Chapter XVI, paragraphs 636 and 677);

(*c*) limiting the number of shops (Chapter XVI, paragraph 637);

(*d*) limiting the extent of legal possession (Chapter XVI, paragraphs 689 and 690).

IV.—The method adopted should be systematic and as far as possible uniform for the whole of British India, and it is advisable that this method should be suggested for adoption by certain of the Native States (Chapter XIV, paragraphs 588 and 590; Chapter XVI, paragraph 639; and Chapter XVII, paragraph 739).

V.—A Government monopoly of production and sale is not recommended for practical reasons, though there is no theoretical objection to it (Chapter XIV, paragraph 589).

VI.—For the purpose of adequately taxing consumption, the combination of a direct duty with the auction of the privilege of vend is ordinarily the best method (Chapter XVI, paragraphs 634 and 635).

VII. When sufficient provision has been made for restricting consumption of the drugs by the means above detailed, there should be as little interference as possible on the part of the Government with their distribution (Chapter XVI, paragraphs 638, 654, and 678).

VIII.—Import, export, and transport duties are undesirable as obscuring the real issue how far consumption needs to be checked by a rise in duty. But in regard to imports from Native States which have not assimilated their system to that in force in British territory, the levy of import duty may be necessary (Chapter XVI, paragraphs 657 and 679).

EXHIBIT C

The 1937 Marijuana Tax Act

BY DAVID F. MUSTO, M.D.

Social reformers successfully initiated federal restrictions on cannabis, along with alcohol, opiates, cocaine, and chloral hydrate in the first decade of this century. The Pure Food and Drug Act of 1906 required that any quantity of cannabis, as well as several other dangerous substances, be clearly marked on the label of any drug or food sold to the public.[1] Early drafts of federal antinarcotic legislation which finally emerged as the Harrison Act in 1914 also repeatedly listed the drug along with opiates and cocaine (for example, H.R. 25,241 61st Cong., Second Session [1910] which was prepared and endorsed by the State Department and introduced April 30, 1910). Cannabis, however, never survived the legislative gauntlet, probably because of the pharmaceutical industry's opposition. At that time, and for at least a decade longer, the drug trades did not see any reason why a substance used chiefly in corn plasters, veterinary medicine, and other non-intoxicating forms of medicaments should be so severely restricted in its use and sale. Not even the reformers claimed, in the pre-World War I hearings and debates over a federal antinarcotic act, that cannabis was a problem of any major significance in the United States.

Dr. Hamilton Wright, a State Department official who from 1908 to 1914 coordinated the domestic and international aspects of the federal antinarcotic campaign, wanted cannabis to be included in drug abuse legislation chiefly

Reprinted from *Archives of General Psychiatry*, vol. 26, February 1972, pp. 101–108.

because of his belief in a hydraulic model of drug appetites. He reasoned, along with numerous other experts, that if one dangerous drug was effectively prohibited, the addict's depraved desires would switch to another substance more easily available. He felt, therefore, that cannabis should be prohibited in anticipation of the habitual user's shift from opiates and cocaine to hashish. The narcotic reformer's task, then, was to prohibit and control as many dangerous and seductive substances as possible at one time.

Although congressional hearings rarely heard any witnesses defend opiates or cocaine, those against including cannabis in federal legislation spoke more openly. In January 1911 hearings were held on a federal antinarcotic law before the House Ways and Means Committee. The National Wholesale Druggists' Association (NWDA) representative protested, in addition to other aspects of the proposed legislation, the inclusion of cannabis alongside opiates and cocaine. Charles A. West, chairman of the NWDA Legislative Committee, complained that "cannabis is not what may be called a habit-forming drug."[2] Albert Plaut, representing the New York City pharmaceutical firm of Lehn & Fink, objected to including "insignificant articles, the habit-forming quality of which is more than doubtful."[2] In particular he objected to the inclusion of cannabis; he attributed its reputation more to literary fiction, such as the description of hashish in *The Count of Monte Cristo*, than to informed opinion. "Cannabis brought into this country," Plaut explained, "is used almost altogether for the manufacture of corn cures and in veterinary practice. As a habit-forming drug its use is almost nil.[2] When questioned as to whether cannabis might be taken by those whose regular supply of opiates or cocaine is restricted, Plaut responded that the effects of cannabis were so different from those of opiates and cocaine that he would not expect an addict to find cannabis attractive.[2]

The drug industry's complaints received stern rebuttals but no one denied that cannabis constituted at that time a very small part of drug abuse. Arguments for inclusion rested on the belief of such authorities as Dr. Alexander Lambert, of Bellevue Hospital and later President of the American Medical Association, that some of his patients were habitual users of cannabis and that, therefore, the drug was habit-forming.[2] One of the most stirring attacks on cannabis came from a

comrade of Dr. Lambert, the lay proprietor of a profitable hospital for addiction treatment, Charles B. Towns. Towns's chief fame arose from his popularization of a supposed cure for the cravings of drug-users, but he made an active sideline out of appearing before committees of inquiry and drafting model legislation to combat the evils of drug abuse. He was an impressive witness in 1911, nearing the peak of his fame as one of mankind's benefactors.[3] He took a very uncompromising attitude toward drug use:

> To my mind it is inexcusable for a man to say that there is no habit from the use of that drug. There is no drug in the Pharmacopoeia today that would produce the pleasurable sensations you would get from cannabis, no not one—absolutely not a drug in the Pharmacopoeia today, and of all the drugs on earth I would certainly put that on the list.

The "Father of the Pure Food Law," Dr. Harvey Washington Wiley of the Department of Agriculture, was no less adamant than Towns. Dr. Wiley favored prohibition of the drugs listed in the proposed legislation but if regulation was all he could get, he would settle for that. To his mind the list of drugs was too short and it should have included not only acetanilid, antipyrene, and phenacetin, but also alcohol and caffeine. Dr. Wiley declared alcohol to have no medicinal value and caffeine to be a habit-forming drug, sold indiscriminately even to children in cola and other drinks. The only value he saw to habit-forming painkillers was to permit an easy death; a patient who had a chance for recovery would be better off without them since he might establish a habit which could never be broken.[2]

While most spokesmen for the drug trades opposed federal regulation of cannabis, one distinguished member favored its control and most of the other provisions of the new legislation: Dr. William Jay Schieffelin of New York, like Dr. Lambert, was prominent in the nation's social and political life as well as in his profession as the president of a wholesale drug house. He moved with the progressive and reform spirit of the era and was, therefore, somewhat separated from the rank and file as regards the acceptable burdens antinarcotic legislation would place on the drug trade. Schieffelin believed

cannabis was "used only to a slight extent in this country," but he had heard that there was a demand for it in the "Syrian colony in New York" where he thought it was smoked like prepared opium. He concluded, "The evil is minute but it ought to be included in the bill."

Cannabis was not included, though, and except for the Pure Food and Drug Act's provision as to labeling, no federal regulatory law was enacted until 1937. (By 1931 regulations under the Food and Drug Act had limited the importation of cannabis except for medical purposes.) Meanwhile the two contrasting attitudes toward cannabis remained pretty much the same: the reformers feared its use; the drug industry, which used it in rather minor preparations, felt less concern about possible misuse and opposed its regulation. Both sides seemed to agree that cannabis was not as threatening as other drugs and that its inclusion in regulatory laws would be for the purpose of anticipating its popularity once opiates and cocaine were brought under control.

Complaints about cannabis continued to come to the attention of the federal government, although without the frequency or insistence which was to occur in the 1930s. In preparation for the First Hague Conference, which led to the Hague Convention (1912) for the control of the world's narcotic traffic, one of the American delegates, Henry J. Finger of the California Board of Pharmacy, wished to draw particular attention to the dangers of cannabis. Many Californians, particularly in San Francisco, were frightened by the "large influx of Hindoos . . . demanding cannabis indica" who were initiating "the whites into their habit."[5] Finger wanted the world traffic in cannabis to be controlled.[5] The United States delegation, of which Dr. Wright was a member, gladly adopted Finger's goal, but did not find the Hague Conference favorably disposed to include cannabis in the Hague Convention. The best the United States could accomplish at this time was the adoption of a recommendation that nations look into the character of the drug and see whether it merited regulation.[6] Agreement that international traffic in cannabis should be regulated did not come until the Second Geneva Convention in 1925.[7]

Domestic concern over cannabis seemed to originate in the Southwest and to begin increasing after the First World War. In 1919 the crucial Supreme Court decision outlawing addic-

tion-maintenance for pleasure or comfort led to national restrictions on physicians, druggists, and other outlets for drugs believed to be responsible for America's many addicts. Such a time was also appropriate for control of other dangerous substances. Of course, alcohol was outlawed for convivial consumption when the 18th Amendment became effective in January 1920. Cannabis also ought to be controlled, argued the Governor of Louisiana and the president of Louisiana's Board of Health. Their contact with "mariguana" had elements which would become familiar in the 1930s. A white, twenty-one-year-old musician in New Orleans had been arrested for forging a physician's signature in order to get some "marihuana" imported from Mexico. The musician said the substance was taken to "make you feel good," but the dangers of this substance were clear to Dr. Oscar Dowling and Governor John M. Parker. Dr. Dowling, who was also a member of and later chairman of the American Medical Association's Board of Trustees, warned the Governor that marihuana was "a powerful narcotic, causing exhilaration, intoxication, delirious hallucinations, and its subsequent actions, drowsiness and stupor."[8] He also urgently requested of the Surgeon-General of the Public Health Service that the federal government take "some action" to control the traffic in marihuana.[9] The Surgeon-General replied that he was in complete agreement with Dr. Dowling's concern.[10] Shortly thereafter Governor Parker claimed in a letter to Prohibition Commissioner John F. Kramer that "two people were killed a few days ago by the smoking of this drug, which seems to make them go crazy and wild" and he expressed his surprise that there were no restrictions against marihuana.[11] But the troubles the government was already having with enforcement of the Harrison Act may not have encouraged addition of more drugs for control.

International Control of Cannabis: 1911–1925

Yet, the United States continued to press for international control of cannabis, as well as of other drugs. International drug control, if obtained, would have solved much of the American problem since opiates, coca leaves, and some cannabis were imported. The cool reception other nations gave the American proposals to control cannabis did not discourage the American delegation, but rather added one

more proof of international perfidy. Since the earliest stirrings of an international campaign by the United States, American diplomats believed that other nations, some of whom received considerable revenue from the narcotic traffic, used various stratagems to discourage or nullify American efforts. That foreign governments should also oppose the inclusion of cannabis in a schedule of controlled drugs was almost a confirmation of the wisdom of controlling the cannabis market.

The United States, having started the antinarcotic campaign which resulted in the Hague Opium Convention of 1912, lost its premier role during the 1920s. The League of Nations assumed responsibility for the Hague Convention from the government of the Netherlands, a transfer which the United States would not recognize. Although the intricate formalities by which the State Department avoided any appearance of "recognizing" the League were certainly effective in achieving their goal, such actions also lost the United States its leadership in the world antinarcotic movement.

Repeatedly the League tried to involve the United States in planning for the international control of narcotics. While the United States maintained meticulously distant relations with the League's Advisory Committee on the Traffic in Opium and Other Dangerous Drugs, American cooperation did emerge. These hopeful signs were reversed, however, by the walkout of the American delegation, led by the chairman of the House Committee on Foreign Affairs, from the Second Geneva Opium Conference in February 1925.[12]

The delegates' exit was based on righteous indignation at the weak will of other nations: they left behind an opportunity to sign the first Convention which sought to bring the cannabis traffic between nations under international supervision.

Five years would pass before the United States would again sit in such an international meeting.

Rising Domestic Fear of Cannabis: 1920–1934

Fear of cannabis, or as it was beginning to be known, marihuana, was minor throughout most of the nation in the 1920s. Nevertheless, it still concerned the federal government. For example, in January 1929 Congress authorized two narcotic farms to be operated by the Public Health

Service largely for the treatment of addicted federal prisoners. The law specifically defined "habit-forming narcotic drug" to include "Indian Hemp" and made habitual cannabis users, along with opium addicts, eligible for treatment.[13] Although there seems to have been almost no transfer of cannabis users to the two "farms," later known as the Lexington and Fort Worth Hospitals, it is significant that congressional worry about cannabis continued after passage of the Pure Food and Drug Act and clearly was present before the Federal Bureau of Narcotics (FBN) was established in 1930.

In certain areas of the United States, however, the fear of marihuana was more intense. These areas mostly coincided with concentration of Mexican immigrants who tended to use marihuana as a drug of entertainment or relaxation. During the decade, Mexican immigration, legal and illegal, rapidly increased into the region from Louisiana to California and up to Colorado and Utah. Mexicans were useful in the United States as farm laborers, and as the economic boom continued they received inducements to travel to the Midwest and the North where jobs in factories and sugar beet fields were available.[14]

Although employers welcomed them in the 1920s, Mexicans were also feared as a locus of crime and deviant social behavior. By the mid-1920s horrible crimes were attributed to marihuana and its Mexican purveyors. Legal and medical officers in New Orleans began studies on the evil, and within a few years published articles claiming that many of the region's crimes could be traced to marihuana. They implicated it particularly in the most severe crimes, for they believed it to be a sexual stimulant which removed civilized inhibitions.[15] As a result, requests were made to include marihuana in the federal law which controlled similar substances, the Harrison Narcotic Act.[16]

When the great Depression settled over America, the Mexicans, who had been welcomed by at least a fraction of the communities in which they lived, became an unwelcome surplus in regions devastated by unemployment. Considered a dangerous minority which should be induced to return to Mexico by whatever means seemed appropriate, they dwelt in isolated living groups. A contemporary writer described their mood in 1930, the first year of the Depression.

> A . . . factor in decreasing Mexican immigration is what officials call "the fear of God." It may be indefinite, but it is very real; and the quality is standard all the way from California to Texas.
>
> And that *fear* hovers over every Mexican Colony in the Southwest is a fact that all who come in contact with them can readily attest. They fear examination by the border patrol when they travel; they fear arrest; they fear jail; they fear deportation; and whereas they used to write inviting their friends, they now urge them not to come.[17]

Naturally, cotton, fruit, and vegetable growers in the Southwest and sugar beet farmers in Colorado, Michigan, Montana, and the Northwest favored further immigration. On the other hand, the American Federation of Labor understandably favored strict bars against foreign labor. But another group which worked for an end to Mexican immigration as energetically as those with economic interests did so for social reasons, afraid that mixture with an "inferior race" was causing "race suicide." Citizens anxious to preserve what they believed valuable in American life banded together into "Allied Patriotic Societies," "Key Men of America," or the group which united many of these associations, the "American Coalition" whose goal was to "Keep America American."[18] One of the prominent members of the American Coalition, C. M. Goethe of Sacramento, saw marihuana and the problem of Mexican migrants as closely connected (*New York Times*, Sept. 15, 1935, section IV, p. 9):

> Marihuana, perhaps now the most insidious of our narcotics, is a direct by-product of unrestricted Mexican immigration. Easily grown, it has been asserted that it has recently been planted between rows in a California penitentiary garden. Mexican peddlers have been caught distributing sample marihuana cigarettes to school children. Bills for our quota against Mexico have been blocked mysteriously in every Congress since the 1924 Quota Act. Our nation has more than enough laborers.

Southwest police and prosecuting attorneys likewise raised a continual protest to the federal government about the

Mexican's use of the weed (H. J. Anslinger, oral communication, June 30, 1970).

In 1934, a U.S. marshal in Tulsa, Oklahoma, wrote to the FBN, describing marihuana as a most dangerous and crime-causing drug which gave its users the feeling that they had "superman and superwoman" powers.[19] Newspapers occasionally headlined the weed as a cause of horrible crimes. For example, in 1933 the *New York Mirror* presented an article in its Sunday supplement on "Loco Weed, Breeder of Madness and Crime." That same year Dr. Walter Bromberg, a respected researcher, informed a meeting of the American Psychiatric Association that some authors had estimated the number of marihuana smokers in the southern states to be one out of four.[20] Dr. Bromberg, who did not subscribe to the alarm over marihuana displayed by some writers, nevertheless told of its spread from the South to the large cities and to New York, "where its use is widespread."[20] He noted that marihuana's inclusion in the Harrison Narcotic Act had been requested. Although denying that crimes were directly and simply caused by marihuana and asserting that it was something like alcohol in its effect, nevertheless, on the basis of good physiological and psychological studies of cannabis, he was persuaded that it was "a primary stimulus to the impulsive life with direct expression in the motor field."[20] Marihuana "releases inhibitions and restraints imposed by society and allows individuals to act out their drives openly," and "acts as a sexual stimulant," particularly to "overt homosexuals."[20]

Dr. Bromberg's description of marihuana in 1933 differed in quality from the writings, for example, of New Orleans' Prosecuting Attorney who, in 1931 fearfully portrayed "Marihuana as a Developer of Criminals."[21] Yet, Dr. Bromberg's statements would not have calmed the apprehensive. Furthermore, neither the New Orleans studies, which began at least in the late 1920s nor Dr. Bromberg's research can be ascribed to any "campaign" by the FBN for a federal marihuana law. It is reasonable to assume that in the first few years of the 1930s, marihuana was known among police departments and civic leaders, particularly those connected with Mexican immigrants and even among scientific investigators as a drug with dangerous propensities. This situation led naturally to pressure on the federal government to take

"some action" against marihuana. What was the attitude of the new Federal Bureau of Narcotics to the growing concern over marihuana?

The Decision to Seek a Federal Anti-marihuana Law: 1935-1937

During its first few years, the FBN, as judged from its annual reports, minimized the marihuana problem and felt that control should be vested in the state governments. The report published in 1932 commented that:

> This abuse of the drug is noted among the Latin-American or Spanish-speaking population. The sale of cannabis cigarettes occurs to a considerable degree in States along the Mexican border and in cities of the Southwest and West, as well as in New York City and, in fact, wherever there are settlements of Latin Americans.
>
> A great deal of public interest has been aroused by newspaper articles appearing from time to time on the evils of the abuse of marihuana, or Indian hemp, and more attention has been focused upon specific cases reported of the abuse of the drug than would otherwise have been the case. This publicity tends to magnify the extent of the evil and lends color to an inference that there is an alarming spread of the improper use of the drug, whereas the actual increase in such use may not have been inordinately large.[22]

That year the FBN strongly endorsed the new Uniform State Narcotic Act and repeatedly stressed that the problem could be brought under control if all the states adopted the Act.[23] As late as January 1937, Commissioner Anslinger was quoted as advising that the distribution of marihuana was an "intrastate problem" and that "hope for its ultimate control lies . . . in adoption by states of the Uniform Narcotic Act" (*New York Times*, Jan. 3, 1937, section 3, p. 6). Study of the annual reports reveal an increasing amount of space taken up by marihuana-associated crime after 1935, but the FBN continued to recommend the Uniform Act. There seem to be several reasons why the FBN delayed advocacy of a federal marihuana law.

The Commissioner recalls that marihuana caused few problems except in the Southwest and the Western states. There the growing alarm was directed at the "Mexicans"

whom the "sheriffs and local police departments claimed got loaded on the stuff and caused a lot of trouble, stabbings, assaults, and so on." These states were "the only ones then affected . . . we didn't see it here in the East at all at that time." To Anslinger, the danger of marihuana did not compare with that of heroin and, after the Act's passage in October 1937, he states that he warned his agents to keep their eyes on heroin. If an agent started to make a series of arrests for marihuana possession, he was told to get back to "the hard stuff" (H. J. Anslinger, oral communication, June 30, 1970).

In addition to questioning whether a federal law would significantly ameliorate the "marihuana problem," the Commissioner also doubted the possibility of a law which would be constitutional. When the idea of a transfer tax was first broached to him by the Treasury's General Counsel, Herman Oliphant, he thought the notion was "ridiculous." Even after the decision was made to recommend the transfer tax to Congress, Anslinger "couldn't believe it would go through." It was not that he did not abstractly favor a marihuana law, but he had doubts about its constitutionality and about whether it would have any substantial effect on the problem of marihuana use (H. J. Anslinger, oral communication, June 30, 1970).

Lastly, the FBN had "put sandbags against the door" whenever anyone suggested it take over control of barbiturates and amphetamines. Such controls would mean very difficult problems in adjudicating "proper uses" and legitimate exceptions. The FBN preferred heroin as a target; it had no legal uses whatever. The whole question of enforcement was enormously simplified by tracking down a totally prohibited drug. Such an attitude would be consistent with hesitating to take on marihuana which, unlike heroin, was not imported but rather grew, as the Commissioner ruefully pointed out in 1936, "like dandelions," and which had a few legitimate uses.[24] It is significant that when marihuana was finally controlled by the federal government, almost all uses were outlawed with the exception of its use in bird seed (and then only if sterilized). The regulations for its use by physicians were so complicated that possibly no general physician has legally prescribed it since 1937.

The pressure for a federal anti-marihuana law was,

Anslinger states, "political," traveling from local police forces in affected states to the governors, then to the Secretary of the Treasury, Henry Morgenthau, Jr., and from him to the General Counsel, and the Commissioner of Narcotics (H. J. Anslinger, oral communication, June 30, 1970). Apparently the decision to seek a federal law was made in 1935, since by January 1936 Anslinger was holding conferences on what course to take to accomplish that end. The FBN's search for grounds on which to base a federal law was almost unsuccessful. It first claimed that only the treaty-making power of the federal government could sustain an anti-marihuana statute. Such a treaty was then attempted, but with an appeal to other nations which had almost no chance of success. If the FBN did not actually want a federal marihuana law, it had performed faithfully the task it had been given and the effort was about to fall short, when, claims Anslinger, the Treasury's General Counsel ingeniously contrived the "transfer tax."

The pressure on the Treasury could well have been sufficient to induce such cleverness, as the following letter of 1936 (Anslinger papers, Box 6) from the editor of the Alamosa, Colo, *Daily Courier* suggests:

> Is there any assistance your Bureau can give us in handling this drug? Can you suggest campaigns? Can you enlarge your Department to deal with marihuana? Can you do anything to help us?
>
> I wish I could show you what a small marihuana cigarette can do to one of our degenerate Spanish speaking residents. That's why our problem is so great; the greatest percentage of our population is composed of Spanish speaking persons, most of whom are low mentally, because of social and racial conditions.
>
> While marihuana has figured in the greatest number of crimes in the past few years, officials fear it, not for what it had done, but for what it is capable of doing. They want to check it before an outbreak does occur.
>
> Through representatives of civic leaders and law officers of the San Luis Valley, I have been asked to write to you for help.

It was this kind of attitude which the Tax Act was

designed "to placate," according to Anslinger, although he felt that little besides a law on the books could be offered the fearful citizens of the Southwest and their importuning officials (H. J. Anslinger, oral communication, June 30, 1970).

The Marihuana Tax Act

With the goal of trying to figure out how the federal government could pass such a law, the Narcotics Commissioner traveled in January 1936 to New York. There he met with a group of distinguished experts—a representative of the Foreign Policy Association; Joseph Chamberlain, Professor of Law at Columbia; Herbert L. May, a member of the permanent Central Board of the League of Nations; and Stuart Fuller, Assistant Chief of the Division of Far Eastern Affairs of the State Department. They concluded, Anslinger reported to Assistant Secretary of the Treasury Stephen B. Gibbons in a confidential memorandum, "that under the taxing power and regulation on interstate commerce it would be almost hopeless to expect any kind of adequate control."[25]

The Commissioner's recommendation was to follow the example of the Migratory Bird Act which had been declared constitutional, although it entered into the police powers of the states, because it was enacted as a requirement of international treaties with Canada and Mexico (Mo. vs. Holland, 252 US 416). He suggested a treaty requiring the control of marijuana. Once the treaty was ratified by the Senate, a federal law could be enacted which would not meet the constitutional blocks which he felt sure an anti-marihuana law would face if based on federal tax or commerce powers. Otherwise, the various details which imperiled simple prohibition of marihuana were coming near solution:

> The State Department has tentatively agreed to this proposition, but before action is taken we shall have to dispose of certain phases of legitimate traffic; for instance, the drug trade still has a small medical need for marihuana, but has agreed to eliminate it entirely. The only place it is used extensively is by the veterinarian, and we can satisfy them by importing their medical needs.

> We must also satisfy the canary bird seed trade, and the Sherwin Williams Paint Company which uses hemp seed oil for drying purposes. We are now working with the Department of Commerce in finding substitutes for the legitimate trade, and after that is accomplished, the path will be cleared for the treaties and for federal law.[25]

The Commissioner was permitted to try his idea in June of the same year when he and Fuller represented the United States at the Conference for the Suppression of Illicit Traffic in Dangerous Drugs, held in Geneva. The United States sought to incorporate a requirement for domestic cannabis control in a treaty with twenty-six other nations. Perhaps to have additional leverage, or perhaps to dramatize the opposition of other governments, the US delegation asked just before the conference opened for permission to abstain if the American proposals were turned down. Still recalling the regrettable isolation which followed American departure from a similar conference in 1925, the State Department refused permission. So, although their views were outvoted, the delegation stayed, but did not sign the Convention. It was the only nation represented which did not do so.[12]

In the summer of 1936, therefore, it became obvious that there would be no law to placate the police of the Southwest unless some federal legislation under the traditional legal powers was enacted. General Counsel Oliphant then suggested the marihuana transfer tax about which the Commissioner had strong doubts: (H. J. Anslinger, oral communication, June 30, 1970). The FBN loyally went along with the plan, though, and did its best to present a very strong case to Congress so as to ensure the greatest chance of passage. To Anslinger, Congress did not seem very concerned and "the only information they had was what we could give them in our hearings" before the Appropriations Committee or when the Tax Act was pending (H. J. Anslinger, oral communication, June 30, 1970).

The Treasury Department collected and considered scientific and medical opinion prior to the Tax Act hearings. But the desire to present a solid front when the Department appeared before the committees of Congress caused the officials to ignore anything qualifying or minimizing the evils

of marihuana. As suggested above, the political pressure to put "something on the books" and the doubt that it could be done combined to make the marihuana hearings a classic example of bureaucratic overkill.

For a balanced interpretation of the hearings it is necessary to keep in mind that marihuana had been extravagantly condemned in the halls of Congress at least as early as 1910 and that in some areas of the nation it was at that time an object of horror to respectable and vocal citizens. The Bromberg study would have offered ample reason for concern, although it can be read as reassuring about the dangers of marihuana. After the Tax Act was passed, even Dr. Lawrence Kolb, Sr., certainly no booster of the FBN, warned that "Continued use of the drug causes insanity in many cases, but very unstable persons may have a short psychotic episode from only a few doses. . . . No matter by what means taken marihuana is a dangerous drug . . . much more harmful in certain respects than opium . . . Enough is known about the drug to brand it as a dangerous one that needs to be strictly controlled" (Federal Probation 2:22–25, 1938).

The Treasury presentation to Congress may, therefore, have been exaggerated, but it was not without foundation in the current thinking of medical research. The government's witnesses could also be fairly confident that the congressmen had no preconceived, favorable, or even informed opinions.

In the tradition of federal departments, everyone from the Treasury Department who appeared for the Tax Act gave it full support, while those who might have had more moderate views remained in the background. In particular, the Public Health Service was not represented, although the opinion of its Division of Mental Hygiene (now the National Institute of Mental Health) was available to the Treasury Department months prior to the hearings in April. Like other authorities, Dr. Walter L. Treadway was asked a series of questions about marihuana, probably in late 1936, when the Treasury was gathering expert opinion on the botanical, chemical, pharmacological, and behavior-modifying characteristics of cannabis. To the question "What are the proofs that the use of marihuana in any of its forms is habit forming or addictive, and what are the indications and positive proofs that such addiction develops socially undesirable characteristics in the users?" Dr. Treadway replied in full:

> Cannabis Indica does not produce dependence as in opium addiction. In opium addiction there is a complete dependence and when it is withdrawn there is actual physical pain which is not the case with cannabis. Alcohol more nearly produces the same effect as cannabis in that there is an excitement or a general feeling of lifting of personality, followed by a delirious stage, and subsequent narcosis. There is no dependence or increased tolerance such as in opium addiction. As to the social or moral degradation associated with cannabis it probably belongs in the same category as alcohol. As with alcohol, it may be taken a relatively long time without social or emotional breakdown. Marihuana is habit forming although not addicting in the same sense as alcohol might be with some people, or sugar, or coffee. Marihuana produces a delirium with a frenzy which might result in violence; but this is also true of alcohol.[26]

Having received Dr. Treadway's opinion and that of other authorities, the Department held a conference in the Treasury Building on January 14, 1937. Attending were fourteen government officials and consultants, many of whom would testify a few months later before the Congressional committees deliberating on the Tax Act.[27] The purpose of the conference was to prepare a satisfactory legal definition of marihuana for the proposed legislation and to make some final arrangements for the presentation to Congress. Dr. Treadway was not present, although Dr. Carl Voegtlin, Chief of the Division of Pharmacology of the National Institute of Health, was there to assist, along with some chemists, pharmacologists, and Commissioner Anslinger. Two members of the Department's General Council's Office and the FBN's General Counsel were so present.

Fortunately, the conference was stenographically transcribed so that we can gain some appreciation of the attitudes surrounding the proposed legislation by the individuals who would present it to the House and Senate. Most of the conference was devoted to which part of the marihuana plant was pharmacologically active and what should be the name of the soon-to-be-taxed substance. Conversation was chiefly between the scientists and the Treasury lawyers and reveals

that the Department did take into consideration scientific and medical opinion in the preparation of the marihuana legislation.

The upcoming hearing was on the minds of the participants. They knew that they would have to be prepared to rebut any suggested valid use or to include it through some exemption. The goal, however, was to have a prohibitive law to the fullest extent possible. Exceptions, particularly trade or medical exceptions, would make enforcement considerably more expensive and the Act's future cost concerned the conference. Such a desire prior to the Act and the lack of any increased appropriations for several years after the Act are consistent with Anslinger's claim that the Tax Act was no boon to his bureaucratic structure.[27]

Tennyson, the FBN's Counsel, emphasized to the group that every detail of the legislation would have to be worked out well ahead of the hearings, because "we have to support it and everything in it when we go before the Committee."[27] Perhaps a little defensively, the Commissioner wanted the group to know that the enterprise was not "a fishing expedition." Two hundred ninety-six seizures had been made of cannabis in 1936 alone. "The illicit traffic," he complained, "shows up in almost every state."[27]

After about an hour the scientific evidence on the plant and its active principle had been exhausted and the group reverted to the hearings. With regard to the effects of marihuana on the personality, S. G. Tipton of the Department's General Counsel's Office asked the Commissioner: "Have you lots of cases on this—horror stories—that's what we want."[27] The Commissioner did indeed have a collection. Then, in one of the most significant moments in the meeting, Anslinger asked the opinion of Dr. Voegtlin on whether marihuana actually produces insanity. The NIH pharmacology expert replied: "I think it is an established fact that prolonged use leads to insanity in certain cases, depending on the amount taken, of course. Many people take it and do not go insane, but many do."[27] To which the Secretary of the Treasury's Consulting Chemist, H. H. Wollner, responded with a characteristic comparison of American frankness to foreign vacillation: "At the League of Nations, they whitewashed the whole thing."[27]

The hearings before the House were held in late April and

early May.[28] They were curious events. The Treasury's presentation to Congress has been adequately described many times, although no retelling has equalled reading the original transcript. As anticipated, the Representatives accepted whatever the Treasury Department asserted. The only witness to appear in opposition to the administration's proposal, AMA spokesman William C. Woodward, M.D., was barraged with hostile questions. One member of the Committee even questioned whether the veteran of many legislative battles dating back to before the Harrison Act actually represented the AMA. Nevertheless, he was able to get his message across: there was no need to burden the health profession with the bill's restrictions, the states could handle the problem without any additional assistance from the federal bureaucracy than was already available, and, finally, the evidence against marihuana was incomplete. He pointedly asked where the Public Health Service and Children's Bureau experts were, if it were true that the weed did have horrible physiologic effects and was wreaking havoc among America's school children. Dr. Woodward's arguments were ignored. One reason for his poor showing was that the AMA had aroused a lot of hostility by its successful defeat of President Roosevelt's plan to include health insurance in the Social Security Act. In a way reminiscent of the battle lines over the Harrison Act, the most "liberal" spokesmen were among the most eager to effect the protection of the public through the prohibition of cannabis.[29]

After the House and Senate hearings the bill was passed by Congress with no difficulty and came into effect on October 1, 1937. One of the regrettable aspects of the Marihuana Tax Act was that its role as a symbolic legislative gesture toward fearful groups made any qualification or moderation of the drug's intrinsic dangers a threat to the FBN. Anything less than prohibition would greatly diminish its value as a symbol as well as making enormously more difficult legal control with no additional appropriations. As regards enforcement, this task continued to be primarily the responsibility of local police aided by the occasional efforts of FBN agents. The arrest of those who violated the marihuana law was not difficult when compared to the task of stopping heroin smuggling, and, with no more agents, the FBN was able to put an impressive number of arrests before the public. After

the Act's passage the educational campaign of the FBN stepped up, but other publicity campaigns, by lay organizations who claimed that the menace was still out of hand, were muted by FBN opposition. For example, the creators of the often reprinted marihuana poster warning children of the "Killer Drug Marihuana" were in fact put out of business by the FBN because their tactics were beginning to alarm the citizens of Chicago.[30] It may surprise some to learn that the FBN attacked such apostles of fear and had only contempt for their profit making. One reason for the FBN's action may have been its policy of designing educational literature in such a way that no youth would be tempted to try the substance.[31] Another reason may have been a reflection of the Commissioner's belief that the problem was under control in the vast majority of the nation's communities and any impression that it was out of control would only embarrass the Treasury Department.

On the other hand, the FBN resented later medical rebuttal of claims that marihuana was an extreme danger, as, for example, the La Guardia Report (1944).[32] Two responses from the FBN—closing down the Inter-State Narcotic Association for spreading disturbing scare stories and a strong and publically effective attack on the medical criticism of the FBN's position on marihuana—demonstrate both the effectiveness and the philosophy of the FBN. Two goals seem to have guided the FBN's actions: to show (1) that the FBN fought a great menace and (2) that the menace was under control.

Why the marihuana law was so eagerly desired by some and, when enacted, so effectively placating are fundamental questions. From the evidence examined, the FBN does not appear to have created the marihuana scare of the early 1930s nor can the law be simply ascribed to the Commissioner's determined will. Such scapegoating offers no more than it did in the era when marihuana was blamed for almost any vicious crime. When viewed from the narrow goal of placating fears about an "alien minority," the Act was serviceable for more than a quarter of a century. For the broader significance of the marihuana law and an understanding of the dynamics involved in prohibitive legislation, the Tax Act must be placed in its cultural and institutional context.

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EXHIBIT D

TAXATION OF MARIHUANA

HEARING

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON FINANCE UNITED STATES SENATE

SEVENTY-FIFTH CONGRESS

FIRST SESSION

ON

H. R. 6906

AN ACT TO IMPOSE AN OCCUPATIONAL EXCISE TAX UPON CERTAIN DEALERS IN MARIHUANA, TO IMPOSE A TRANSFER TAX UPON CERTAIN DEALINGS IN MARIHUANA, AND TO SAFEGUARD THE REVENUE THEREFROM BY REGISTRY AND RECORDING

JULY 12, 1937

Printed for the use of the Committee on Finance

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1937

Senator BROWN. I think you can work that out.

Mr. HESTER. No; they just write a letter to the collector, that is all.

Mr. OLMAN. And of course we were afraid of the transfer tax, and so on.

I was interested in the question you asked the doctor, Mr. Chairman, and that was with reference to supervision or inspection. I believe that we are in a position to give the Government a great deal of help in supervising and inspecting and reporting the growth of hemp.

Senator BROWN. For your producers?

Mr. OLMAN. In our vicinity. I thank you.

Mr. HESTER. Fine.

Senator BROWN. How long a time will you gentlemen want, to submit to the committee such representations as may be agreed upon? Would Wednesday morning be about right?

Mr. HESTER. That would be fine.

Senator BROWN. Suppose, Senator Herring, we agree on 10 o'clock Wednesday morning for an executive session on this measure, unless there is a serious disagreement. If there is you gentlemen, who are in disagreement, can come in.

Mr. OLMAN. I am sure there will not be.

Mr. HESTER. Thank you very much, Mr. Chairman.

Senator BROWN. Before we adjourn, I desire to place in the record a letter regarding the pending bill addressed to Senator Harrison by Dr. William C. Woodward, of the American Medical Association, Chicago, Ill.

AMERICAN MEDICAL ASSOCIATION,
BUREAU OF LEGAL MEDICINE AND LEGISLATION,
Chicago, July 10, 1937.

Hon. PAT HARRISON,
Chairman, Committee on Finance, United States Senate,
Washington, D. C.

SIR: I have been instructed by the board of trustees of the American Medical Association to protest on behalf of the association against the enactment in its present form of so much of H. R. 6906 as relates to the medicinal use of cannabis and its preparations and derivatives. The act is entitled, "An Act to impose an occupational excise tax upon certain dealers in marihuana, to impose a transfer tax upon certain dealings in marihuana, and to safeguard the revenue therefrom by registry and recording."

Cannabis and its preparations and derivatives are covered in the bill by the term "marihuana" as that term is defined in section 1, paragraph (b). There is no evidence, however, that the medicinal use of these drugs has caused or is causing cannabis addiction. As remedial agents they are used to an inconsiderable extent, and the obvious purpose and effect of this bill is to impose so many restrictions on their medicinal use as to prevent such use altogether. Since the medicinal use of cannabis has not caused and is not causing addiction, the prevention of the use of the drug for medicinal purposes can accomplish no good end whatsoever. How far it may serve to deprive the public of the benefits of a drug that on further research may prove to be of substantial value, it is impossible to foresee.

The American Medical Association has no objection to any reasonable regulation of the medicinal use of cannabis and its preparations and derivatives. It does protest, however, against being called on to pay a special tax, to use special order forms in order to procure the drug, to keep special records concerning its professional use and to make special returns to Treasury Department officials, as a condition precedent to the use of cannabis in the practice of medicine in the several States, all separate and apart from the taxes, order forms, records, and reports required under the Harrison Narcotic Act with reference to opium and coca leaves and their preparations and derivatives.

If the medicinal use of cannabis calls for Federal legal regulation further than the legal regulation that now exists, the drug can without difficulty be covered under the provisions of the Harrison Narcotic Act by a suitable amendment By

such a procedure the professional use of cannabis may readily be controlled as effectively as are the professional uses of opium and coca leaves, with less interference with professional practice and less cost and labor on the part of the Treasury Department. It has been suggested that the incorporation of cannabis into the Harrison Narcotic Act would jeopardize the constitutionality of that act; but that suggestion has been supported by no specific statements of its legal basis or citations of legal authorities.

Respectfully,

WM. C. WOODWARD,
Legislative Counsel.

(Whereupon, at 11:35 a. m., Monday, July 12, 1937, the subcommittee adjourned.)

EXHIBIT E

TAXATION OF MARIHUANA

HEARINGS

BEFORE THE

COMMITTEE ON WAYS AND MEANS
HOUSE OF REPRESENTATIVES

SEVENTY-FIFTH CONGRESS

FIRST SESSION

ON

H. R. 6385

APRIL 27, 28, 29, 30, AND MAY 4, 1937

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1937

TAXATION OF MARIHUANA

TUESDAY, MAY 4, 1937

HOUSE OF REPRESENTATIVES,
COMMITTEE ON WAYS AND MEANS,
Washington, D. C.

The committee met at 10:30 a. m., Hon. Robert L. Doughton (chairman) presiding.

The CHAIRMAN. The committee will be in order. The meeting this morning is for the purpose of continuing hearings on H. R. 6385.

When we adjourned last week, Dr. William C. Woodward, legislative counsel of the American Medical Association, was here and ready to testify; but I understood that it would be satisfactory for him to come back this morning.

Dr. Woodward, if you will come forward and give your name and address and the capacity in which you appear, we shall be glad to hear you at this time.

STATEMENT OF DR. WILLIAM C. WOODWARD, LEGISLATIVE COUNSEL, AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL.

Dr. WOODWARD. Mr. Chairman and gentlemen, my name is Dr. William C. Woodward, representing the American Medical Association. The address is 535 North Dearborn Street, Chicago, Ill.

The CHAIRMAN. Doctor, would you prefer to make your formal statement uninterrupted, or do you mind interruptions as you go along?

Dr. WOODWARD. I should prefer to make a connected statement, but I submit very gladly to the pleasure of the committee in that respect, if I do not have the time charged against me that is taken up with interruptions.

Mr. CROWTHER. I move the gentleman be allowed to continue without interruption until he has completed his main statement.

The CHAIRMAN. Without objection, the gentleman will so proceed, after which it is understood he will submit to questions by members of the committee.

Dr. WOODWARD. Mr. Chairman and gentlemen. It is with great regret that I find myself in opposition to any measure that is proposed by the Government, and particularly in opposition to any measure that has been proposed by the Secretary of the Treasury for the purpose of suppressing traffic in narcotics.

I cooperated with Hamilton Wright in drafting the Harrison Narcotics Act. I have been more or less in touch with the narcotic situation since that time. During the past 2 years I have visited the Bureau of Narcotics probably 10 or more times.

Unfortunately, I had no knowledge that such a bill as this was proposed until after it had been introduced.

Before proceeding further, I would like to call your attention to a matter in the record wherein the American Medical Association is apparently quoted as being in favor of legislation of this character.

On page 6 of the hearings before this commitee, section no. 1, we find the following:

> In an editorial on this subject appearing in its editorial columns of April 10, 1937, the Washington Herald quoted the Journal of the American Medical Association in part, as follows:
>
> "The problems of greatest menace in the United States seem to be the rise in the use of Indian hemp (marihuana) with inadequate control laws."

I have here a copy of the editorial refererd to and clearly the quotation from that editorial and from the editorial in the Journal of the American Medical Association do not correctly represent the views of the association. The Herald is not discussing marihuana alone, but is discussing the narcotic invasion of America. It says:

> "This industry has spread its tentacles throughout the Far East and has direct connections with the narcotic rings in Europe and the Americas."

It continues:

> To the extent these charges are true the effect is to "weaken and debauch" not the Chinese but the American race.
>
> The evidence that they are largely true is contained in this recent statement in the Journal of the American Medical Association:
>
> "The problems of greatest menace in the United States seem to be the rise in the use of Indian hemp (marihuana) with inadequate control laws, and the oversupply of narcotic drugs available in the Far East threatens to inundate the western world."

Mr. VINSON. Whose article is that? That was in the American Medical Association Journal?

Dr. WOODWARD. That is from an editorial that appeared in the issue of the Journal of the American Medical Association for January 23, 1937, on page 3, in the nature of a review of the report on Traffic in Opium and Other Dangerous Drugs in the United States of America for the year ending December 31, 1935, and published by the Bureau of Narcotics of the Treasury Department.

Mr. VINSON. Are you going to put that in the record?

Dr. WOODWARD. I shall be glad to. The quotation has reference to the seeming situation that results from the statement of the Commissioner of Narcotics and not from any evidence that is in possession of the American Medical Association.

I shall be very glad to submit that.

(The editorials referred to are as follows:)

[Washington Herald, Apr. 10, 1037]

THE NARCOTIC INVASION OF AMERICA

Americans will pay close attention to the charge by the Council of International Affairs at Nanking that the Japanese concession in Tientsin is world headquarters for the narcotic industry.

Narcotics are reaching the United States in alarming volume.

We are deeply interested in their source.

America is only indirectly concerned in the council's belief that "narcotics are being employed by Japan as an instrument of national policy designed to weaken and debauch the Chinese race."

But America is vitally concerned in the further charge that the dope syndicates are engaged chiefly in exporting narcotics to the United States and that:

"The United States is the big-money market, and happy is the syndicate that can perfect its lines to that country."

The council's bulletin alleges:

"This industry has spread its tentacles throughout the Far East and has direct connections with the narcotic rings in Europe and the Americas."

To the extent these charges are true, the effect is to "weaken and debauch" not the Chinese but the American race.

The evidence that they are largely true is contained in this recent statement in the Journal of the American Medical Association:

"The problems of greatest menace in the United States seem to be the rise in use of Indian hemp (marihuana) with inadequate control laws, and the oversupply of narcotic drugs available in the Far East which threatens to inundate the western world."

It is not America's business to protect China against the purported plots of the Japanese. But when any foreign plotting results in a narcotics invasion of the United States, that is America's business.

American laws, Federal and State, to control and prevent traffic in narcotics must be adequate.

Such laws, properly enforced, will remove America as the "big-money market" of the world-wide narcotics industry, and will prevent the debauchment of the American people.

[Journal of the American Medical Association, Jan. 23, 1937]

Opium Traffic in the United States

As part of the international policy of controlling traffic in opium and other dangerous drugs, each nation signatory to the International Drug Conventions is supposed to prepare an annual report. The report of the United States of America for the year ended December 31, 1935, has been prepared and published by the Bureau of Narcotics of the Treasury Department.[1] The number of nonmedical drug addicts in the United States is difficult to determine accurately, but, while formerly believed to approximate one person in every thousand of the population, recent surveys indicate that this figure no longer obtains in many sections of the country. In the nature of a further inquiry into the problem of addiction, the Bureau of Narcotics examined the records of 1,397 of the persons investigated in connection with violation of the narcotic laws as to their personal use of drugs. Of these, 946 were found to be addicted to some form of opium or coca derivative, the other 451 giving no evidence of addiction. Of the addicts, 757 were male and 159 female. The average age of the men was 41 and the women 35. Seven hundred and seventy-five were white, 88 oriental, 78 colored, and 3 American Indian, while in two instances the race was not reported. A striking feature was the educational background of these addicted violators. Five hundred and twenty had attended only grade school, 211 had reached high school but not college, and 153 had received some college or university training. These figures indicate a considerably higher percentage of moderately educated people than that existing among the general public.

The reasons given for drug addiction were of interest. In 486 instances "associations" were blamed; in 337, illness or injury was named as the responsible factor; other causes mentioned less frequently were indulgence or drink in 50, mental strain or nerves in 14, curiosity or experiment in 10, physical strain or overwork in 6, and deliberate addiction in 1. The previous criminal records of the 946 addicts included 545 charges of felony, 408 misdemeanors, and 1,887 violations of either Federal or State narcotic laws. This is an extremely high criminal record; higher, in fact, than that found in any other group of lawbreakers.

The heaviest arrivals of raw opium in 1935 were in the Atlantic-coast area. There were 14 seizures, 3 of which concerned fairly large quantities: 23, 19, and 17 kilograms. The largest seizures of prepared opium were effected in the Pacific-coast area, almost all of which came from China and appeared to be mostly a blend of Chinese and Persian opium. More than twice as much

[1] Anslinger, H. J.: Traffic in Opium and Other Dangerous Drugs for the Year Ended Dec. 31, 1935, U. S. Treasury Department, Bureau of Narcotics. U. S. Government Printing Office, Washington, 1936.

smoking opium was seized in the United States in 1935 as in 1934, amounting in 1935 to 779 pounds. Morphine was seized in every area reviewed except Hawaii. The total quantity seized during the calendar year 1935 showed an increase of 27.5 percent over that seized the previous year. The amount of heroin seized showed an increase of about 19 percent over the previous year. The amount of cocaine taken, however, showed a decrease of 63 percent as compared with that seized in 1934. The records as a whole contain substantial evidence in the form of labels, packages, and detailed reports to show the existence of an extensively organized narcotic traffic in the Far East. The Opium Advisory Committee of the League of Nations has previously called attention to the extreme dangers resulting from this situation.

Closely allied with the opium traffic is the present situation with regard to Indian hemp, or marihuana. There is as yet no Federal legislation penalizing traffic in this drug, and Federal efforts are at present largely confined to restriction of imports and cooperation with those States or local bodies which have effective regulations.

The effectiveness of Federal efforts to control the drug traffic, in cooperation with the League of Nations, is manifest by the amounts of drugs seized, the relatively smaller quantities in which they are transported, and the high percentage of convictions obtained for violation of the laws. In this connection it is noteworthy that for every agent in the Federal field service there are 10 convicted narcotic violators in the Federal penitentiaries. Only about 511 kilograms of narcotic drugs was seized in 1935, as compared with 3½ tons during the fiscal year 1931, when smuggling was rampant. Much smaller shipments are now found, combined with higher adulteration and increased retail price. The number of criminal violations detected rose from 4,742 in 1934 to 5,200 in 1935, while the convictions increased from 1,816 in 1934 to 2,065 in 1935. The two problems of greatest menace at the present time seem to be the rise in use of Indian hemp with inadequate control laws and the oversupply of narcotic drugs available in the Far East, which threatens to inundate the western world.

Dr. WOODWARD. There is nothing in the medicinal use of Cannabis that has any relation to Cannabis addiction. I use the word "Cannabis" in preference to the word "marihuana", because cannabis is the correct term for describing the plant and its products. The term "marihuana" is a mongrel word that has crept into this country over the Mexican border and has no general meaning, except as it relates to the use of Cannabis preparations for smoking. It is not recognized in medicine, and I might say that it is hardly recognized even in the Treasury Department.

I have here a copy of a letter written by the Acting Secretary of the Treasury, April 15, 1937, in which he says:

> Marihuana is one of the products of the plant *Cannabis sativa L.*, a plant which is sometimes referred to as *Cannabis americana* or *Cannabis indica*.

In other words, marihuana is not the correct term. It was the use of the term "marihuana" rather than the use of the term "Cannabis" or the use of the term "Indian hemp" that was responsible, as you realized, probably, a day or two ago, for the failure of the dealers in Indian hempseed to connect up this bill with their business until rather late in the day. So, if you will permit me, I shall use the word "Cannabis", and I should certainly suggest that if any legislation is enacted, the term used be "Cannabis" and not the mongrel word "marihuana."

I say the medicinal use of Cannabis has nothing to do with Cannabis or marihuana addiction. In all that you have heard here thus far, no mention has been made of any excessive use of the drug by any doctor or its excessive distribution by any pharmacist. And yet the burden of this bill is placed heavily on the doctors and pharmacists of the country; and I may say very heavily, most heavily, possibly of all, on the farmers of the country.

The medicinal use of Cannabis, as you have been told, has decreased enormously. It is very seldom used.

Mr. COOPER. How is that?

Dr. WOODWARD. The medicinal use has greatly decreased. The drug is very seldom used. That is partially because of the uncertainty of the effects of the drug. That uncertainty has heretofore been attributed to variations in the potency of the preparations as coming from particular plants; the variations in the potency of the drug as coming from particular plants undoubtedly depends on variations in the ingredients of which the resin of the plant is made up.

To say, however, as has been proposed here, that the use of the drug should be prevented by a prohibitive tax, loses sight of the fact that future investigation may show that there are substantial medical uses for cannabis.

That there are medical uses for cannabis is admitted in a report, that has I think, been quoted here before, by a hospital pharmacist in Tunis, Dr. Bouquet. Dr. Bouquet is speaking of the medicinal use of cannabis and has this to say:

> The question is:
> Do any preparations of Indian hemp exist possessing a therapeutic value such that nothing else can take their place for medical purposes?

This is part of this pharmacist's report.

The answer is "no."

He submits these qualifications, however:

> (*a*) Indian hemp extract has been recommended for the preparation of corn cures, products that most often consist of a solution of salacylic acid in collodion; the action of the cannabis extract is nil.

I believe the average physician will readily admit that.

> (*b*) Indian hemp is employed in various preparations for internal use as a sedative and antispasmodic. It does not seem to give better results than belladonna, except perhaps in a few cases of dyspepsia accompanied by painful symptoms.

The number of the exceptions and the character of the cases in which cannabis gives these superior results are not stated. He adds:

> At my request, experiments were made for several months in 1912 with different preparations of Cannabis, without the addition of other synergetic substances (Professor Lannois' Service, Lyons Hospitals). The conclusion reached was that in a few rare cases Indian hemp gives good results, but that in general it is not superior to other medicaments which can be used in therapeutics for the treatment of the same affections.

He still admits that there are exceptions in which Cannabis cannot apparently be successfully substituted for.

> (*c*) The work of F. Pascal (Thesis, Toulouse 1934—Contribution to the Study of *Cannabis indica*) seems to show that Indian hemp has remarkable properties in revealing the subconscious; hence it can be used for phychological, psychoanalytical, and psychotherapeutic research, though only to a very limited extent.

These are the present uses recognized——

Mr. LEWIS. Are there any substitutes for that latter psychological use?

Dr. WOODWARD. I know of none. That use, by the way, was recognized by John Stuart Mill in his work on psychology, where he referred to the ability of Cannabis or Indian hemp to revive

old memories, and psychonanalysis depends on revivification of hidden memories.

That there is a certain amount of narcotic addiction of an objectionable character no one will deny. The newspapers have called attention to it so prominently that there must be some grounds for their statements. It has surprised me, however, that the facts on which these statements have been based have not been brought before this committee by competent primary evidence. We are referred to newspaper publications concerning the prevalence of marihuana addiction. We are told that the use of marihuana causes crime.

But yet no one has been produced from the Bureau of Prisons to show the number of prisoners who have been found addicted to the marihuana habit. An informal inquiry shows that the Bureau of Prisons has no evidence on that point.

You have been told that school children are great users of marihuana cigarettes. No one has been summoned from the Children's Bureau to show the nature and extent of the habit, among children.

Inquiry of the Children's Bureau shows that they have had no occasion to investigate it and know nothing particularly of it.

Inquiry of the Office of Education—and they certainly should know something of the prevalence of the habit among the school children of the country, if there is a prevalent habit—indicates that they have had no occasion to investigate and know nothing of it.

Moreover, there is in the Treasury Department itself, the Public Health Service, with its Division of Mental Hygiene. The Division of Mental Hygiene was, in the first place, the Division of Narcotics. It was converted into the Division of Mental Hygiene, I think, about 1930. That particular Bureau has control at the present time of the narcotics farms that were created about 1929 or 1930 and came into operation a few years later. No one has been summoned from that Bureau to give evidence on that point.

Informal inquiry by me indicates that they have had no record of any marihuana or Cannabis addicts who have ever been committed to those farms.

The Bureau of the Public Health Service has also a division of pharmacology. If you desire evidence as to the pharmacology of Cannabis, that obviously is the place where you can get direct and primary evidence, rather than the indirect hearsay evidence.

But we must admit that there is this slight addiction with possibly and probably, I will admit, a tendency toward an increase.

So that we have to raise the question at the present time as to the adequacy or the inadequacy of our present machinery and our present laws, to meet the situation. Those laws are, of course, of two kinds, the Federal laws and the State laws.

As to the State laws, you have been told that every State has a marihuana or Cannabis law of some kind.

My own inquiry indicated that there are two States that had not; but at least 46 States have laws of their own, and the District of Columbia, contrary to what has been told you, has a law that has been in force since 1906 and even at an earlier date.

The District of Columbia law, insofar as it relates to cannabis, is a part of an act passed by Congress in 1906 entitled "An act to regulate

the practice of pharmacy and the sale of poisons in the District of Columbia, and for other purposes", approved May 17, 1906, and originally published as 34 Statutes, 175, which is now to be found in the District Code, section 191 and following.

It limits the sale of Cannabis, its derivatives and its preparations to pharmacists and persons who are authorized assistants to pharmacists.

And in the case of sales by pharmacists and their authorized assistants, there must be either a prescription from an authorized physician, or there must be due inquiry and a proper record made so as to assure the proper use of the drug.

No one, whether a pharmacist or not, under this law, has any right to sell any preparation of *Cannabis indica* to any person under 18 years of age except on the written order of an adult. The penalties are rather heavy and the direct duty of enforcing the law is placed on the major and superintendent of police and the corporation counsel of the District of Columbia.

More interesting possibly is the Federal law relating to the matter. You have been told, I believe, that there is no Federal law. The Federal law is a very direct and a positive law and I shall be glad to indicate what seems to me to be the basic principle of it.

To go back, if you will, to about 1929 or 1930, when a bill was before Congress proposing to require every physician in the United States who desired to prescribe or dispense narcotic drugs to obtain a Federal permit before he did so, the medical profession objected to any such Federal control, even if it had been possible. It was not only impracticable, because of the size of the country and the number of physicians, but clearly, I think, most of us will admit, a law of that kind is clearly beyond the power of Congress.

At that time there was incorporated in the act this provision:

> The Secretary of the Treasury shall cooperate with the several States in the suppression of the abuse of narcotic drugs in their respective jurisdictions and to that end he is authorized (1) to cooperate in the drafting of such legislation as may be needed, if any, to effect the end named, and (2) to arrange for the exchange of information concerning the use and abuse of narcotic drugs in said States and for cooperation in the institution and prosecution of cases in the courts of the United States and before the licensing boards and courts of the several States.
>
> The Secretary of the Treasury is hereby authorized to make such regulations as may be necessary to carry this section into effect.

Mr. VINSON. What statute is that?

Dr. WOODWARD. That is the United States Code, 1934 edition, title 21, section 198. It is the statute of June 14, 1930.

Mr. VINSON. To what does it refer?

Dr. WOODWARD. To the statute that created the present Bureau of Narcotics.

If there is at the present time any weakness in our State laws relating to Cannabis or to marihuana, a fair share of the blame, if not all of it, rests on the Secretary of the Treasury and his assistants who have had this duty imposed upon them for 6 and more years.

That there has been no coordinated effort to bring into effect, in the several States, really effective laws on this subject, I think I can safely assert.

Part of my function in connection with the American Medical Association is the study of State legislation as it is submitted from time to time, and I feel confident that if there had been any general drive inaugurated by the Treasury Department for the purpose of making effective the laws of the several States, that fact would have come to my knowledge. And yet, after all, that is the essential place, the States, for laws of this character.

It has only been very recently, apparently, that there has been any discovery by the Federal Government of the supposed fact that Federal legislation rather than State legislation is desirable.

I have here a copy of a preliminary report on hemp and peyote. Peyote is a different drug, habit forming perhaps. This report is prepared by direction of Surg. Gen. Hugh S. Cumming. It seems to be undated. But it was received from the Public Health Service September 26, 1932, and, referring to Cannabis, the statement is made, on page 12 of this mimeograph copy:

> At present the situation does not seem to concern the American people as a whole, and local and State legislative measures seem the best means of restricting its abuses.

I have here another statement, submitted to the League of Nations Advisory Committee on Traffic in Opium and Other Dangerous Drugs. It reports on the situation as regards Indian hemp and was forwarded by the representative of the United States of America. In it you will find the following statement:

> The Bureau of Narcotics has always inclined to the opinion that the best method of attacking the problem lies in the enactment of appropriate State legislation and to that end has suggested to the States, as a portion of the measure known as the uniform Narcotic Drug Act terms of legislation designed to control the production and sale of cannabis, and because of the fact that the plant may be found over a widespread area in its wild state, a prohibition against its unauthorized possession.

Then there follows a discussion of the difficulties of Federal enforcement of any law dealing with the geographic extent of the States and the wild character of the drug, and matters of that sort.

I think it might be well to consider for a moment the relative difficulties that might be faced by the States, as compared with those encountered by the Federal Government, in the enforcement of a law such as is here proposed.

Here is a law that proposes to bring within its scope everyone who produces, wittingly or unwittingly, a particle of Cannabis. It goes into every farm and every bit of land of every kind. We have this definition of producer. This comes in section 1, paragraph (c), page 2, lines 7 to 12, of the bill:

> The term "producer" includes any person who (1) plants, grows, cultivates, or in any way facilitates the natural growth of marihuana; (2) harvests and transfers or makes use of marihuana or (3) fails to destroy marihuana within 10 days after notice that such marihuana is growing upon land under his control.

That means every potential owner of land in the United States is a potential and maybe an unwitting producer of marihuana. If the weed springs up on his land without his knowledge, he may have to go out and cut it, on notice.

You were told the other day that the notice must be a notice from the Secretary of the Treasury, but there is no such requirement. It

is any notice whatsoever. There is no statement that it must be a notice from the Secretary of the Treasury. You can realize the difficulty that the Federal Government would have in covering the entire United States by an inspection force such as would be necessary to locate the growth of marihuana even in considerable quantities.

Marihuana grows wild along railroad tracks, along highways, on land belonging to the Federal Government, on land belonging to the States, on immense farms and ranches, forest land and places of that sort; places to which, by the way, the Federal Goverment, I believe, has no inherent right of entry. I know that it can obtain a warrant for a search, if there is reason to believe that the law is being violated. But that is in contrast with the State laws that authorize, at least some of the State agencies, to enter upon property without search warrants. I refer now to the customary right of entry that is possessed by health officers in the country.

The Federal Government could never determine where this plant was growing. It could never undertake to prosecute, and if it did prosecute it would meet with the same difficulty that it met in prosecuting under the National Prohibition Act; the inadequacy of courts and the inadequacy of prosecuting attorneys, and I may say, the inadequacy of jails.

Incidentally, at this point, there is one provision in the section that I have just read that I feel confident may have escaped the notice of the Secretary of the Treasury when he recommended the introduction of this bill: because under the section that I have just read, anyone who makes use of marihuana is a producer. As a producer he must be taxed, but he apparently has the right to pay that tax and obtain the drug as a matter of course.

Reduced to its last analysis, that means that any addict that can afford to raise the tax can go in and register as a producer and can then obtain such of the drug as he wants on order forms, for his own use. That, it seems to me, must be clearly an oversight.

Coming back now to the question of State laws, I think admittedly they are weak. They have laws. But if the Federal Government, instead of proposing a law as is here proposed, will cooperate effectively with the States in the suppression, not only of marihuana addiction, but of opium and cocaine addiction, we shall get better results.

I have suggested more than once to the Commissioner of Narcotics, the advisability of following the plan that has been followed so successfully in the Bureau of Public Health, and that is being followed to a certain extent by the Bureau of Investigation in the Department of Justice. That is the establishment of a system of annual conferences with State officers, for the purpose of coordinating their work and making their work more effective.

The Federal Government will never get anywhere under this proposed bill without the cooperation of the States, and the most effective way to acquire it is through State conferences, and have the States enforce their own State laws, with the aid of the Federal Government.

I think there is a general tendency to evade responsibility on the part of the States and place their responsibility on the Federal Government. That is a thing that many of us think ought not to be tolerated.

In addition to the law that I have just read, there are other Federal laws, among them a law that has been in force for many years and with the enforcement of which the Secretary of the Treasury is not directly concerned, but I think a law, the enforcement of which he might well have interested himself in, in so far as it relates to narcotic drugs of all kinds, and particularly marihuana. I refer to the old statute that requires the teaching of the effects of narcotic drugs in all common public schools, in the District of Columbia and all the territories and places under the control of the Federal Government, and, incidentally, at West Point and the Naval Academy.

I think the proper preparation of an adequate course of instruction originating in the Treasury Department and distributed, it may be, through the Office of Education, would be an effective means of limiting dangers of narcotic addiction.

The trouble is that we are looking on narcotic addiction solely as a vice. It is a vice, but like all vices, it is based on human nature. The use of narcotics, as is trite at the present time in the medical profession, represents an effort on the part of the individual to adjust himself to some difficult situation in his life. He will take one thing to stimulate him and another to quiet him. His will is weakened in proportion as he relies on drugs of that sort. And until we develop young men and young women who are able to suffer a little and exercise a certain amount of control, even though it may be inconvenient and unpleasant to do so, we are going to have a considerable amount of addiction to narcotics and addiction to other drugs.

A very interesting recent popular book by Beverly Nichols, No Place Like Home, page 153, quotes the wonderfully efficient narcotic officer in Egypt as saying that persons were using tea for the purpose of getting a jag, if you will, boiling that tea, day after day, and day after day, until they got a hyperconcentrated extract, and then sitting up all night to drink it, and spending their money for tea, rendering themselves unfit and unable to work.

So that we must deal with narcotic addiction as something more than a police measure.

We, of the medical profession, of course, are interested, as are all citizens, in the prevalence or the growth of any narcotic habit. We are interested particularly in this bill because it proposes to tax physicians who desire to use Cannabis. And it taxes the pharmacists and the manufacturing pharmacists and others who supply them.

I think I may safely say, although I am speaking without direct authority from the house of delegates or the board of trustees—I think I may safely say that the American Medical Association would enter no objection at all to the inclusion of *Cannabis indica* or the various types of Cannabis, in the Harrison Narcotic Act.

Under that act we are already paying a slight tax, such a tax as is sufficient merely to give the Government jurisdiction. We have certain order forms that we have to fill out to get the drug. We are required to comply with certain conditions in giving prescriptions for any of the narcotic drugs. And if Cannabis should be included in the drugs so named, I think I can feel quite sure in saying that there would be no objection.

It has been alleged here that the reason for not including it is the fact that the constitutionality of the Harrison Narcotic Act has been passed upon the Supreme Court of the United States. It has, it is true, but only by a divided court. And unwillingness is expressed to incorporate in it any provisions relating to Cannabis, because of the supposed danger of jeopardizing the Harrison Narcotic Act. And yet, while you are told that in one breath, in another breath you are positively assured—with all the positiveness that a lawyer can have with respect to such matters—that this proposed bill is constitutional. If this proposed bill is constitutional, there can be no reason why its provisions should not be incorporated in the Harrison Narcotic Act. If it is not constitutional, obviously it should not be enacted.

But insofar as the regulation of the use of Cannabis by the medical profession is concerned, I think there can be no question concerning the constitutionality of incorporating in the Harrison Narcotic Act, provisions similar to those now there relating to opium and cocoa leaves.

And, then, if there are in this bill provisions that are of questionable constitutionality, I am quite sure that any competent draftsman will be able to draft a separate measure, and put them into a form where, if their constitutionality is called into question, the question will not affect the Harrison Narcotic Act.

I beg, therefore, that if you decide that it is better to enact Federal legislation of this kind than to provide the Secretary of the Treasury with adequate means for procuring State cooperation in the enforcement of their own laws, and in enacting proper laws,—I beg that you insist simply that so far as the medical profession is concerned these provisions be incorporated in the Harrison Narcotic Act.

I thank you, Mr. Chairman.

Mr. VINSON. Doctor, what is your connection with the American Medical Association?

Dr. WOODWARD. I am the director of the bureau of legal medicine and legislation and act as legislative counsel.

I should explain, perhaps, that I am a doctor, licensed to practice medicine; but I am also, I may say, a member of the bar, a lawyer.

Mr. VINSON. How long have you occupied that position?

Dr. WOODWARD. Since 1922.

Mr. VINSON. Before that time, did you have any connection with the American Medical Association?

Dr. WOODWARD. For a while I was a member of its council on health and public instruction. I was a member of the Association, and have been a member of it, since 1892 or 1893.

Mr. VINSON. Were you connected with the association, or did you appear at the time the Harrison Narcotic Act was pending before Congress?

Dr. WOODWARD. I was at that time not their legislative representative. I was merely a correspondent who passed along to them such news as came to my attention. I was requested by the association at that time to cooperate with Dr. Hamilton Wright in preparing the law.

Mr. VINSON. You and your association favored the passage of the Harrison Narcotic Act?

Dr. WOODWARD. I will not say we favored it. We felt it was an experiment.

Mr. VINSON. What was the position of the American Medical Association at the time the Harrison narcotic bill was being considered?

Dr. WOODWARD. So far as my recollection serves me, they were in favor of State legislation. They realized the uncertainty of the passage of the Harrison Narcotic Act.

Mr. VINSON. And that is the position that you take today in regard to marihuana?

Dr. WOODWARD. That the most effective way is adequacy of State legislation plus Federal aid; Federal aid directly, and Federal aid through the Pure Food and Drug Act; cooperation between the Federal Government and the States with respect to the transportation of marihuana in interstate and foreign commerce through the mails.

Mr. VINSON. Now, as I caught your statement, you said that you had received no instruction and had no specific authority from the American Medical Association to state their position in respect to this bill, but that you felt safe in submitting their position; is that right?

Dr. WOODWARD. If I created that impression, I created the wrong impression. I said that the policy of the American Medical Association was determinable—I intended to say that the policy of the American Medical Association was determinable by our house of delegates or our board of trustees, when it comes to legislation of this sort.

I should add, however, that the house of delegates, not being available from which to receive instructions, and the board of trustees not being available, I did receive instructions from the executive committee of the board of trustees of the American Medical Association to appear here and oppose this bill.

Mr. VINSON. Let us see. You have a house of delegates?

Dr. WOODWARD. Yes, sir.

Mr. VINSON. Is that a popular body in the association?

Dr. WOODWARD. It is.

Mr. VINSON. They have not acted, have they?

Dr. WOODWARD. They meet once a year and have had no chance.

Mr. VINSON. And what was the other group that had not acted?

Dr. WOODWARD. The board of trustees.

Mr. VINSON. How are they selected?

Dr. WOODWARD. They are elected by the house of delegates. That is the governing body in the interim between the annual meetings.

Mr. VINSON. And this other group, the executive council?

Dr. WOODWARD. The executive committee of the board of trustees.

Mr. VINSON. They are a smaller number?

Dr. WOODWARD. They are a smaller number; I think they are three or five men that get together during the intervals. They can do it more conveniently than nine men can from all over the country.

Mr. VINSON. When did they get together?

Dr. WOODWARD. It must have been about the 19th or 20th of the month.

Mr. VINSON. After the introduction of this bill?

Dr. WOODWARD. Yes.

Mr. VINSON. They got together and advised you of their position?

Dr. WOODWARD. They did.

Mr. VINSON. And that followed, in a general way, the attitude of the American Medical Association in respect to the Harrison Narcotic Act?

Dr. WOODWARD. It did.

Mr. VINSON. You seemed to take issue with the gentlemen representing the Treasury on the legal proposition; but I did not hear you say anything about the analogy of the *Firearms case* with the legal points involved in this act. You recognize that that opinion of the Supreme Court strengthens the position of the Treasury in the omission of certain functions that are contained in the Harrison Act?

Dr. WOODWARD. It broadens their functions. What I had in mind was the analogy of this act to the old Child Labor Tax Act, that you may recall, was decided in *Colletor of Internal Revenue* v. *The Drexel Furniture Co.* (259 U. S. 20, in 1922).

Mr. VINSON. But the doctor, who is also a judge, recognizes that there has been a line of demarcation, not only in the Supreme Court opinion, but in the State courts, between that which is injurious and deleterious in itself and that which is not.

Dr. WOODWARD. May I read from the——

Mr. VINSON. That is a correct statement, is it not?

Dr. WOODWARD. That is a correct statement.

May I read from what the Court said in that case with respect to the use of the taxing power for the purpose of enforcing moral purposes? I read in part:

> Taxes are occasionally imposed in the discretion of the legislature on proper subjects with the primary motive of obtaining revenue from them, and with the incidental motive of discouraging them, by making their continuance onerous. They do not lose their character as taxes because of the incidental motive. But there comes a time in the extension of the penalizing features of the so-called tax when it loses its character as such and becomes a mere penalty with the characteristics of regulation and punishment.

Mr. VINSON. When that same argument was directed at the Harrison Narcotic Statute, that argument fell, did it not?

Dr. WOODWARD. Fell by a divided court.

Mr. VINSON. I say, it fell?

Dr. WOODWARD. It fell; yes.

Mr. VINSON. While it was a divided court, it fell?

Dr. WOODWARD. Yes.

Mr. VINSON. How long has it been that the American Medical Association has been critical of the Federal Government in the matter of enacting legislation looking toward the control of the marihuana habit?

Dr. WOODWARD. It is not a habit that is connected with the medical profession and the medical profession knows very little of it.

Mr. VINSON. I did not ask you that, doctor.

Dr. WOODWARD. It arises outside of the medical profession, and the American Medical Association has no more evidence concerning it or the extent of the marihuana habit than this committee has.

Mr. VINSON. My question was this. Has the American Medical Association taken cognizance of the marihuana habit and the need for its control?

Dr. WOODWARD. Only in connection with the development of a uniform State narcotics act.

Mr. VINSON. Let us see, doctor——

Dr. WOODWARD. I spent 5 years in connection with the National Conference of Commissioners on Uniform State Laws, in drafting that act, and there you will find a reference to Cannabis. That reference is based on a thorough study of the Cannabis situation at that time. The National Conference of Commissioners on Uniform State Laws, cooperating with the American Medical Association and with the Bureau of Narcotics and the American Pharmaceutical Association and other agencies, could not then find evidence that would lead it to incorporate in the model act a provision with respect to marihuana or Cannabis.

Mr. VINSON. When was that?

Dr. WOODWARD. What it did, however, was to frame provisions that might be incorporated in the act by anyone who was interested in regulation.

Mr. VINSON. When was that study, when did that occur?

Dr. WOODWARD. That must have occurred—I do not believe I have a copy of it here.

Mr. VINSON. Approximately?

Dr. WOODWARD. Five years ago.

Mr. VINSON. I hand you here an editorial which I asked you to file. It seems to be the first editorial in the issue of the Journal of the American Medical Association dated Saturday, January 23, 1937, and it is headed Opium Traffic in the United States.

I take it that someone connected with the American Medical Association wrote that editorial.

Dr. WOODWARD. I assume that is correct.

Mr. VINSON. Do you know who did it?

Dr. WOODWARD. I do not know.

Mr. VINSON. Well, I want to read from the editorial a quotation that you did not call our attention to.

> Closely allied with the opium traffic is the present situation with regard to Indian hemp, or marihuana. There is as yet no Federal legislation penalizing traffic in this drug, and Federal efforts are at present largely confined to restriction of imports and cooperation with those States or local bodies which have effective regulations.

It just seems to me that that is something of a criticism that the Federal Government as yet has passed no legislation penalizing the traffic in this drug.

Dr. WOODWARD. Mr. Vinson, if you will read that as a whole, you will find that it is substantially a review of a report made by the Commissioner of Narcotics, and mirrors in its statement of the facts and opinions, the facts and opinions that were embodied in his report.

Mr. VINSON. Do you not think that an editorial appearing in a great periodical such as the Journal of the American Medical Association, which does not attribute its conclusions to Mr. Anslinger's report, is entitled to consideration?

Dr. WOODWARD. It is a discussion of the opium traffic in the United States and the footnote reference is as follows:

> Anslinger, H. J.: Traffic in Opium and Other Dangerous Drugs for the Year Ended December 31, 1935. U. S. Treasury Department, Bureau of Narcotics. U. S. Government Printing Office, Washington: 1936.

Mr. VINSON. What does that footnote refer to? I did not expect this of you. I looked to see where that footnote came in. To what does that footnote refer? It comes in about the second or third sentence, where it refers to a certain report.

Dr. WOODWARD. Yes.

Mr. VINSON. A report that was made by Mr. Anslinger?

Dr. WOODWARD. Yes.

Mr. VINSON. The rest of that article, or that editorial, is not a quotation from Mr. Anslinger's report. They are giving a history, a picture of the opium traffic; is not that correct? That is, the opium and other narcotics traffic.

Dr. WOODWARD. They are mirroring the picture of the opium traffic given by Mr. Anslinger, as you must realize if you see the figures that are embodied in the statement. We certainly could not get those figures otherwise than from Mr. Anslinger's report.

Mr. VINSON. But if it does that; if it mirrors, as you say, the statements in Mr. Anslinger's report, we find that it comes to another paragraph; and I ask you here whether this is the language of the editor who wrote the editorial, or whether it is the language of the Anslinger report:

> Closely allied with the opium traffic is the present situation with regard to Indian hemp, or marihuana. There is as yet no Federal legislation penalizing traffic in this drug, and Federal efforts are at present largely confined to restriction of imports, and cooperation with those States of local bodies which have effective regulations.

Dr. WOODWARD. I shall have to say that I do not know whether that is a substantially direct quotation from Mr. Anslinger's report or whether those are the words of the editor based on the report.

Mr. VINSON. To anyone who reads as he runs, to the ordinary person who would read this editorial, either a doctor or a layman, this editorial contained in the Journal of the American Medical Association under date of January 23, 1937, after the introduction of this bill, would there be anything to even squint at that being other than an editorial comment?

Dr. WOODWARD. In answer to that, I shall have to say, most certainly I can say, that no person of judgment reading that editorial would attribute it to any source other than Commissioner Anslinger's report.

Mr. VINSON. Let us get down here in the latter part of it.

Mr. MCCORMACK. Will the gentleman yield?

Mr. VINSON. I yield.

Mr. MCCORMACK. Editorial comment, of course, determines the policy of a magazine or newspaper?

Dr. WOODWARD. Not at all.

Mr. MCCORMACK. Editorial comment does not?

Dr. WOODWARD. No.

Mr. MCCORMACK. The editorial page is where I always look to find out the policy of the paper.

Dr. WOODWARD. The policies of the American Medical Association are made by the house of delegates, and under our bylaws, no one is authorized to express an opinion on behalf of the American Medical Association except the house of delegates, otherwise than as the board of trustees, in the interval between the annual meetings, may find it necessary to do so.

Mr. McCORMACK. Did the house of delegates tell the editor what he should write in an editorial; or would the house of delegates do that?

Dr. WOODWARD. It certainly does not.

Mr. McCORMACK. Assuming that what you say is correct, that this is a reprint of Commissioner Anslinger's report, quoting it in the editorial page, what would the average reader infer from that? Would he not infer that the editorial policy of the paper accepts the report of Commissioner Anslinger as the basis of their editorial?

Dr. WOODWARD. As the basis of their editorial, certainly.

Mr. McCORMACK. Accepts it?

Dr. WOODWARD. As the basis of the editorial. They are informative editorials. You might refer to many other editorials. You will find that the average one is an informative editorial rather than one that determines the policy or indicates, even, the policy of the association. The editor would not dare to express the policy of the American Medical Association in the editorial columns of the Journal in any way contrary to the policy as determined by the house of delegates.

Mr. THOMPSON. Will the gentleman yield?

Mr. McCORMACK. I yield.

Mr. THOMPSON. Doctor, is it not a fact that Dr. Fishbein is the editor of the American Medical Journal?

Dr. WOODWARD. He is.

Mr. THOMPSON. And does not the American public generally regard Dr. Fishbein as representing the views of the American Medical Association in what he says editorially?

Dr. WOODWARD. I can hardly say what the American public——

Mr. THOMPSON. It seems that way out in my country, at least. When he speaks, people think that the American Medical Association expresses itself through Dr. Fishbein.

Mr. VINSON. Doctor, you say that the medical profession have not seen that there is an increased number of addicts to marihuana. The very last sentence in this editorial, the same editorial, conveys to me the thought that not only is the menace recognized, but there is another criticism of lack of control; and I read this sentence:

> The two problems of greatest menace at the present time seem to be the rise in the use of Indian hemp, with inadequate control laws and the oversupply of narcotic drugs available in the Far East, which threatens to inundate the western world.

Dr. WOODWARD. I think we shall agree that, based on Commissioner Anslinger's statement, that does seem to be the case.

Mr. VINSON. Doctor, you have been appearing before committees of Congress on behalf of the American Medical Association for 15 years in your present status?

Dr. WOODWARD. About 15 years.

Mr. VINSON. And for several years before that; is that correct?

Dr. WOODWARD. Back to 1892, seldom a year has passed that I have not appeared before one or more committees of Congress.

Mr. VINSON. Would it be too much trouble for you to give us a statement of the bills on which you have testified, representing the American Medical Association, and the stand that you took in regard to the pending legislation?

Dr. WOODWARD. It would be certainly impossible to do that.

Mr. VINSON. Let us take the last 15 years. What bills have you advocated the passage of in behalf of the American Medical Association since 1922?

Dr. WOODWARD. We have most vigorously advocated the passage of food and drug, medical device, and cosmetic legislation, and we are doing so now.

Mr. VINSON. Which one?

Dr. WOODWARD. There are several.

Mr. VINSON. There are several bills, and there are several groups of folks who are fighting your bill. Which bill are you supporting? Is it the administrative bill?

Dr. WOODWARD. There are two administrative bills, so to speak. Either one of them can be amended to make it an effective bill. I should say, if you want my own judgment, it is that the Copeland bill, in its present form, is the best bill that has yet reached Congress; and it is woefully ineffective, so far as it relates to drugs, therapeutic devices, and advertising.

Mr. VINSON. What other legislation have you sponsored or favored?

Dr. WOODWARD. I would have to go back and look through the record.

Mr. VINSON. The point is that I want to know what legislation, what affirmative action of the Congress, has the American Medical Association sponsored since you have been connected with it.

Dr. WOODWARD. I should have to go back and search the records for it.

Mr. VINSON. Three years ago, when the social security bill was pending, when we had title VI before us, which some of us thought was quite helpful, where were you?

Dr. WOODWARD. Where was the American Medical Association?

Mr. VINSON. Where were you? I know where the American Medical Association was, because President Behring happened to be in town. He was president of the American Medical Association, was interested, and testified, not because he was authorized to do so by the house of delegates of your association, but he testified in favor of the legislation; title VI, dealing with public health. That was pending for several months. I was just wondering where you were when that piece of work, looking at it from a medical viewpoint, was pending.

Dr. WOODWARD. I personally, I presume, was in Chicago. That is where my headquarters are.

Mr. VINSON. You knew about it, did you not?

Dr. WOODWARD. We knew about it, and we might differ with you in your judgment as to whether it was or was not a piece of medical legislation.

Mr. VINSON. As a matter of fact, you do differ—you personally differ?

Dr. WOODWARD. Personally, I certainly do.

Mr. VINSON. You do not approve it now?

Dr. WOODWARD. Well——

Mr. VINSON. I am not speaking of the law, but you do not approve the performance of that kind of a function now?

Dr. WOODWARD. What kind of a function, Mr. Vinson?
Mr. VINSON. Title VI.
Dr. WOODWARD. What is title VI?
Mr. VINSON. I thought you understood what title VI was.
Dr. WOODWARD. Let us get that in the record, if you please.
Mr. VINSON. Title VI of the social security bill provided for an authorization of $10,000,000, $2,000,000 of which was to go for research and investigation and $8,000,000 of which was to be used in grants to States for public-health work.
Dr. WOODWARD. I do not believe the American Medical Association ever opposed provisions for research and investigation. It has been, and is, consistently opposed to anything that seems to involve, through subsidies, the purchase of State rights by the Federal Government.
Mr. VINSON. You do not agree with that policy?
Dr. WOODWARD. The purchase of State rights?
Mr. VINSON. I am talking about the policy set forth in the social-security bill, title VI, with which you are very familiar.
Dr. WOODWARD. Let us limit it. I shall say that I am thoroughly in favor of the appropriation by the Federal Government of adequate money for research by the Public Health Service or any other agency of the Government; and an adequate appropriation of money by the Federal Government to meet the needs of the destitute and suffering States anywhere.
Mr. VINSON. I still ask you to say whether or not you favored the passage of that act at that time, or whether or not you favor the principle set forth in it now.
Dr. WOODWARD. We took no position.
Mr. VINSON. I am not talking about "we." I am talking about you personally.
Dr. WOODWARD. Me personally?
Mr. VINSON. Yes, sir; because I know that you have quite an influence on the policy of the American Medical Association.
Dr. WOODWARD. You flatter me in that respect. I should say the general policy of the Federal Government with respect to the old-age pensions——
Mr. VINSON. No; that is not what I asked.
Dr. WOODWARD. You mean the health part of it?
Mr. VINSON. Title VI, "Public health."
Dr. WOODWARD. I just stated that we favor anything that promotes the public health.
Mr. VINSON. You did not favor it, did you?
Dr. WOODWARD. Yes; we favor that.
Mr. VINSON. You did not appear?
Dr. WOODWARD. I did not actively appear.
Mr. VINSON. We happened to catch the president of the American Medical Association while he was visiting here, and he was big enough and broad enough to come to the support of the legislation.
Dr. WOODWARD. I did not appear in that, because I was not instructed to. I might say—it is a personal matter, although it may interest the committee to see the background from which I come—I was health officer of the District of Columbia for 24 years, from 1894 until 1918.

I was health commissioner of the city of Boston from 1918 to 1922, when I took my present position.

I have graduated in the law and have been licensed to practice law in the District of Columbia, in Massachusetts, and in Illinois. I am a member of the Bar of the United States Supreme Court.

I am licensed to practice medicine in the District of Columbia and in Massachusetts.

The CHAIRMAN. You seem to qualify both as a lawyer and as a doctor.

Dr. WOODWARD. I have lectured on legal medicine in one or two or three or four colleges every year since 1892.

Mr. COOPER. Doctor, I agree with the chairman that you have established that you are both a doctor and a lawyer. Now I understood you to say that you did not favor the passage of the Harrison Narcotic Act.

Dr. WOODWARD. We favored it to the extent of actively cooperating in the framing of it and securing its passage. We did not regard it as an act that was going to accomplish what it set out to accomplish; and it has not. If you will stop for a moment to think that the addicts of the country are still obtaining their supply of narcotic drugs through the drugs that are illicitly brought into the United States in contravention of the provisions of that act, and that they distribute them in contravention of the provisions of that act—if you will examine certain testimony given by the Commissioner of Narcotics before the Judiciary Committee of the House a day or two ago, cited in this very hearing as evidence of his support of this bill, you will find that there is no such support at all but is a frank confession on his part that he needs more authority before he can enforce the Harrison Narcotic Act. We need heavier penalties; we need other provisions. We cannot enforce the act, and you would find the enforcement of this act a thousand times more difficult than the enforcement of the Harrison Narcotic Act.

Mr. COOPER. I understood you to state a few moments ago, in answer to a question asked by Mr. Vinson, that you did not favor the passage of the Harrison Narcotic Act, because you entertained the view that the control should be exercised by the States.

Dr. WOODWARD. I think you are probably correct. But we cooperated in securing its passage.

Mr. COOPER. You did not favor it, though?

Dr. WOODWARD. Did not favor the principle; no.

Mr. COOPER. Are you prepared to state now that that act has produced beneficial results?

Dr. WOODWARD. I think it has.

Mr. COOPER. You think it has?

Dr. WOODWARD. I think it has.

Mr. COOPER. You appeared before this committee, the Ways and Means Committee of the House, in 1930, when the bill was under consideration to establish the Bureau of Narcotics, did you not?

Dr. WOODWARD. I did.

Mr. COOPER. And at that time, did you not state that "the physicians are required by law to register in one form or another, either by taking out a license or by a system of registration that is provided for in the Harrison Narcotic Act; they are required to keep records of everything they do in relation to the professional and

commercial use of narcotic drugs. To that, I think, we can enter no fair objection, because I see no other way by which the situation can be controlled."

That was your view then, was it not?

Dr. WOODWARD. It was; and if I may interject, to that—that same method of regulating Cannabis, insofar as it is a medical problem, tying it in with the Harrison Narcotic Act—I think you will find that our board of trustees and house of delegates will object.

Mr. COOPER. I understood you as criticizing, or at least calling attention to, the failure of testimony to be presented here from the Bureau of Prisons, the Children's Bureau, the Office of Education, and other Government agencies on this subject.

Dr. WOODWARD. The Indian Bureau, for instance, among whose charges there is certainly a tendency to use narcotics. They have no evidence to submit on this bill.

Mr. COOPER. Regardless of all that, do you state now before this committee that there is no difficulty involved—that there is no trouble presented because of marihuana?

Dr. WOODWARD. I do not.

Mr. COOPER. What is your position on that?

Dr. WOODWARD. My position is that if the Secretary of the Treasury will cooperate with the States in procuring the enactment of adequate State legislation, as he is charged with doing under the law, and will cooperate with the States in the enforcement of the State laws and the Federal law, as likewise he is charged with doing, the problem will be solved through local police officers, local inspectors, and so forth.

Mr. COOPER. With all due deference and respect to you, you have not touched, top, side, or bottom, the question that I asked you. I asked you: Do you recognize that a difficulty is involved and regulation necessary in connection with marihuana?

Dr. WOODWARD. I do. I have tried to explain that it is a State matter.

Mr. COOPER. Regardless whether it is a State or a Federal matter, there is trouble?

Dr. WOODWARD. There is trouble.

Mr. COOPER. There is trouble existing now, and something should be done about it. It is a menace, is it not?

Dr. WOODWARD. A menace for which there is adequate remedy.

Mr. COOPER. Well, it probably comes within our province as to what action should be taken about it. I am trying to get from you some view, if you will be kind enough to give it. To what do you object in this particular bill, in the method that is sought to be employed here?

Dr. WOODWARD. My interest is primarily, of course, in the medical aspects. We object to the imposing of an additional tax on physicians, pharmacists, and others, catering to the sick; to require that they register and reregister; that they have special order forms to be used for this particular drug, when the matter can just as well be covered by an amendment to the Harrison Narcotic Act.

If you are referring to the particular problem, I object to the act because it is utterly unsusceptible of execution, and an act that is not susceptible of execution is a bad thing on the statute books.

Mr. COOPER. I would be more interested in knowing what objection you would offer from the doctor's or physician's standpoint.

Dr. WOODWARD. The matter of registration, added registration, added fees.

Mr. COOPER. What are the fees required under this act?

Dr. WOODWARD. They are low, but in the aggregate they will impose on the sick of the country a tax of probably a million dollars.

Mr. COOPER. The registration fee provided is $1 a year, is it not?

Dr. WOODWARD. It is a dollar a year for a practitioner.

Mr. COOPER. A dollar a year for the doctor or physician to pay. Do you think the doctors of this country would object to the payment of a dollar a year?

Dr. WOODWARD. The unnecessary payment of a dollar a year; yes.

Mr. COOPER. You think they would seriously object to the payment of a dollar a year?

Dr. WOODWARD. They would object not seriously to that if that were all.

Mr. COOPER. All right; that is what I am talking about; the payment of a dollar a year.

Dr. WOODWARD. They object to paying fees that they have to pay and the execution of forms and the use of special records, and everything of that kind.

Mr. COOPER. And that was one of the objections to the Harrison Narcotic Act, was it not?

Dr. WOODWARD. I do not recall that particular objection.

Mr. COOPER. Do you not recognize that some such regulation, some method as that in this bill is necessary if the problem is to be solved and the situation met properly?

Dr. WOODWARD. No. I recognize that it is entirely unnecessary, because a measure now exists in the Harrison Narcotic Act with which this can be tied in.

Mr. COOPER. Has the method employed under the Harrison Narcotic Act produced satisfactory results, in your opinion?

Dr. WOODWARD. If you will define "satisfactory", I should say the method of registration has not yet satisfactorily solved the narcotic problem for the United States, and never will.

Mr. COOPER. You do not think the Harrison Narcotic Act has produced any favorable results in the country, then?

Dr. WOODWARD. No; I said before that it has produced favorable results.

Mr. COOPER. And you do not think the system of registration provided for there has proven successful?

Dr. WOODWARD. No. I believe it has proved successful insofar as such a system can prove successful. It registers the honest man, the men who will comply with the law, and the offenders who will not comply with the law not only do not register, but they are not required to register.

Mr. COOPER. Is not registration of doctors or physicians necessary for an effective control of this problem that we have?

Dr. WOODWARD. They are already registered.

Mr. COOPER. I am not talking about that. It is necessary for an effective control of this problem that we have here?

Dr. WOODWARD. Registration is, but not new registration. We are already registered.

Mr. COOPER. I understand all that. But do you think registration is necessary to meet the problem that we have here?

Dr. WOODWARD. Some kind of registration; yes.

Mr. COOPER. All right.

Dr. WOODWARD. But we have it already.

Mr. COOPER. You recognize the fact, of course, that in your two professions, medicine and the law—and it is my privilege to be a member of one of those professions—the vast majority of ethical practitioners, noble men engaged in those laudable pursuits, vastly outnumber the few who are unethical and are no credit to the profession, do you not?

Dr. WOODWARD. That is true.

Mr. COOPER. But you do have a few in both of these great professions that reflect no great credit on the professions, is that correct?

Dr. WOODWARD. Undoubtedly.

Mr. COOPER. Do you not recognize the fact that when we are dealing with a problem as farreaching in its scope as this, that we have to have some regulation that will be effective on that small minority of those who are not willing to measure up to the high ethics of the procession, to regulate and control them in some way?

Dr. WOODWARD. We recognize that fully.

Mr. COOPER. And do you not believe that this vast majority of ethical practitioners will be glad to cooperate in order to see this small minority brought under a proper degree of control?

Dr. WOODWARD. They will be glad to cooperate and they are cooperating, but we ask cooperation on the part of the Federal Government by not imposing an unnecessary burden which in the end falls on the sick.

Mr. MCCORMACK. Will the gentleman yield right there?

Mr. COOPER. I yield.

Mr. MCCORMACK. You say, in response to Mr. Cooper's question, that one of the objections is registration. Do doctors register under the State laws now, where they exist?

Dr. WOODWARD. Yes, sir.

Mr. MCCORMACK. You said that another objection was the making out of forms. Do they make out forms under State laws where they now exist?

Dr. WOODWARD. Under the Harrison Narcotic Act.

Mr. MCCORMACK. I am talking about the uniform State laws with reference to marihuana.

Dr. WOODWARD. There is no uniform State law with reference to marihuana.

Mr. MCCORMACK. Thirty-five or thirty-six States have such a law?

Dr. WOODWARD. Some kind of a law.

Mr. MCCORMACK. Well, they register under those laws, do they not?

Dr. WOODWARD. They register under the Harrison Narcotic Act.

Mr. MCCORMACK. I am talking about State marihuana laws. Do they register under those State laws?

Dr. WOODWARD. If it is embodied in the uniform narcotic drug act; if the marihuana act of the State is embodied in its uniform State narcotic act, then, according to my best recollection, the act

requires a registration under the Harrison narcotic law as compliance with the State law.

Mr. McCORMACK. Then they have to make out forms under the State law?

Dr. WOODWARD. No. The Federal forms are adequate wherever there are Federal forms.

Mr. McCORMACK. But where there is a State law with reference to marihuana, they have to make out some kind of forms?

Dr. WOODWARD. Prescriptions, probably.

Mr. McCORMACK. They have to make a report of some kind, do they not?

Dr. WOODWARD. They probably do, but they do not deal with marihuana at all.

Mr. McCORMACK. I do not want to take up too much of Mr. Cooper's time, but I would like to ask this: You do not object to registration under State legislation?

Dr. WOODWARD. I do not.

Mr. McCORMACK. And you do not object to making out forms under State legislation?

Dr. WOODWARD. We do object—as a matter of fact, that is the reason that the uniform State law provides——

Mr. McCORMACK (interposing). Doctor, I just asked a very simple question. You do not object to registering under State law?

Dr. WOODWARD. We are already registered. We do not object to registering.

Mr. McCORMACK. You do not object to making out forms and other clerical records under State law?

Dr. WOODWARD. That is, if there is no other registration that duplicates it.

Mr. McCORMACK. All right; but under State law.

Dr. WOODWARD. Yes.

Mr. McCORMACK. And if the Federal Government did not undertake to meet this problem but left it to the States, then you would recognize that any State legislation would require registration and the making out of records and reports?

Dr. WOODWARD. That would depend upon the nature of the law, certainly.

Mr. McCORMACK. But you would not object to it?

Dr. WOODWARD. We would not object to any reasonable registration.

Mr. McCORMACK. Under State law?

Dr. WOODWARD. Under any law, Federal or State; any reasonable degree of registration, Federal or State, we are perfectly willing to abide by.

Mr. ROBERTSON. Will the gentleman yield?

Mr. COOPER. I yield.

Mr. ROBERTSON. Doctor, I understood from the editorial that you filed that the editor said we had no adequate law covering marihuana. I understood you to testify that it was covered by an act of 1930 and later you said that you thought it ought to be included under the Harrison Narcotic Act. Which of those three do you recommend to us?

Dr. WOODWARD. If I were called upon to adjust the matter, I should say that the Secretary of the Treasury should be provided with

means to enable him to discharge the duty imposed upon him by Congress, of cooperating with the several States in securing the enactment of adequate laws, and the enforcement of those laws, to prevent the prevalence and the continuance of the Cannabis habit.

Mr. ROBERTSON. Then we have no adequate law at the present time?

Dr. WOODWARD. Some of the State laws are adequate; others are not.

Mr. ROBERTSON. But no adequate Federal law?

Dr. WOODWARD. No adequate Federal law that relates to intrastate matters.

Mr. ROBERTSON. Yes. Now, does the production of Cannabis or marihuana or Indian hemp differ in some respects from the principal narcotics covered by the Harrison narcotic law?

Dr. WOODWARD. You mean the production generally?

Mr. ROBERTSON. The widespread production or possibility of production in this country.

Dr. WOODWARD. The only difference is that the cocoa plant and the opium plant do not grow here as yet and the Cannabis plant does.

Mr. ROBERTSON. Then that makes it a peculiar problem with respect to the Cannabis plant, if it is a habit-forming drug, deleterious in its effect?

Dr. WOODWARD. But the Harrison Narcotic Act provides for the registration of producers, and the men who grow are producers.

Mr. COOPER. I understood you to say a few moments ago, in response to a question that I asked you, that you recognize there is an evil existing with reference to this marihuana drug.

Dr. WOODWARD. I will agree as to that.

Mr. COOPER. Then I understood you to say just now, in response to a question by Mr. Robertson of Virginia, that some of the State laws are inadequate and the Federal law is inadequate to meet the problem.

Dr. WOODWARD. Yes, sir.

Mr. COOPER. That is true?

Dr. WOODWARD. I think that is clear.

Mr. COOPER. And, as you recall, there are two States that have no law at all?

Dr. WOODWARD. That is the best of my recollection.

Mr. COOPER. Taking your statement, just as you made it here, that the evil exists and that the problem is not being properly met by State laws, do you recommend that we just continue to sit by idly and attempt to do nothing?

Dr. WOODWARD. No; I do not. I recommend that the Secretary of the Treasury get together with the State people who can enforce the law and procure the enactment of adequate State laws. They can enforce it on the ground.

Mr. COOPER. Years have passed and effective results have not been accomplished in that way.

Dr. WOODWARD. It has never been done.

Mr. COOPER. And you recommend that the thing for us to do is to just continue the doctrine of laissez-faire and do nothing?

Dr. WOODWARD. It has never been done.

Mr. MCCORMACK. May I ask the gentleman from Tennessee to ask the witness this question? The doctor has made the statement that the Secretary of the Treasury should cooperate with the States in

the passage of legislation, and to enforce that legislation; that is, that the Federal Government should enforce the legislation. I wish the gentleman would pursue that a little further. What kind of legislation can the Federal Government pass? We have to have some kind of legislation.

Dr. WOODWARD. It is now the statutory duty of the Secretary of the Treasury——

Mr. COOPER. Proceed and answer Mr. McCormack's question, if you will.

Dr. WOODWARD. It is now the statutory duty of the Secretary of the Treasury to cooperate with the several States in procuring the enactment of effective State legislation and to cooperate with them in the enforcement of the Federal and the State narcotic laws.

The latter provision particularly was brought about by a practice that prevailed at one time in the Treasury Department, whereby the Bureau or the Division that was then enforcing the Harrison narcotic law, having clear evidence of a violation of State laws, refused to give any aid to the State.

Now, the Secretary of the Treasury has ample authority and it is his duty to give to the States information concerning the violation even of State laws, and to allow his own officers to go into the State courts and before State medical boards to enforce or help to enforce State laws.

Mr. MCCORMACK. That would require legislation.

Dr. WOODWARD. No; we have it here.

Mr. MCCORMACK. But so far as marihuana is concerned, there would have to be some kind of legislation?

Dr. WOODWARD. You mean in the States?

Mr. MCCORMACK. No; by the Federal Government to assist the States in enforcing the law.

Dr. WOODWARD. That is already on the statute books. I quoted from the statute a moment ago, and I am sure you will find it in the record. But the statute does not relate——

Mr. MCCORMACK. I know what you have in mind. But my question is this: In order for the Federal Government to assist the States in the enforcement of this legislation aimed at this evil, some action would have to be taken by the Congress giving them some enforcement capacity in this particular regard?

Dr. WOODWARD. No. The law relates to narcotic drugs, not to the Harrison law, and not to opium or coca leaves, but narcotic drugs.

Mr. MCCORMACK. But Congress would have to pass some kind of legislation with reference to marihuana in order to make the law applicable?

Dr. WOODWARD. No.

Mr. MCCORMACK. Do you mean to say that the Secretary of the Treasury, or some agent of the Federal Government, can now enforce this law without legislation on the part of Congress?

Dr. WOODWARD. I say that he can cooperate with the States to secure enactment.

Mr. MCCORMACK. He can cooperate; yes. I used the word "enforce" because you used the word "enforce."

Dr. WOODWARD. He can give them the aid of his own men, provide them with the evidence that his own men collect; to that extent he can aid them in enforcing their laws.

Mr. McCORMACK. He can do that now without legislation?

Dr. WOODWARD. He can.

Mr. McCORMACK. With reference to marihuana?

Dr. WOODWARD. With reference to any narcotic drug.

Mr. McCORMACK. Not designated, not stated in the law?

Dr. WOODWARD. Not stated in the law. Here is the statute as it reads——

Mr. McCORMACK. Can the Federal Government prosecute?

Dr. WOODWARD. Anyone can prosecute in a criminal court if he presents the evidence. The Federal Government can do it, but ordinarily they will do it through State officers.

The law reads:

> The Secretary of the Treasury shall—

Not may, but shall—

> cooperate with the several States in the suppression of the abuse of narcotic drugs in their respective jurisdictions.

At the very time that this was passed, the definition of narcotic drugs was enacted by Congress in connection with admissions to the Federal narcotic farms, and in connection with the definition of addict, the Cannabis habit was included.

Mr. McCORMACK. Go ahead. Where is the power of the Federal Government to enforce a State criminal statute?

Dr. WOODWARD. The Secretary of the Treasury—anyone who presents to a prosecuting officer the evidence can do that.

Mr. McCORMACK. Doctor, you are not telling me something that I do not know. You are talking about some agent of the Federal Government in his individual capacity doing something, which is entirely different from what I was talking about.

Dr. WOODWARD. I will read the entire section.

Mr. McCORMACK. You might just as well tell me that a police officer of the city of Boston, when he goes into court, goes in in his individual capacity as distinguished from his capacity as a police officer.

Dr. WOODWARD (reading):

> The Secretary of the Treasury shall cooperate with the several States in the suppression of the abuse of narcotic drugs in their respective jurisdictions, and to that end he is authorized (1) to cooperate in the drafting of such legislation as may be needed, if any, to effect the end named, and (2) to arrange for the exchange of information concerning the use and abuse of narcotic drugs in said States and for cooperation in the institution and prosecution of cases in the courts of the United States and before the licensing boards and courts of the several States.

That is a very specific provision.

Mr. McCORMACK. Additional legislation with reference to marihuana is necessary.

Dr. WOODWARD. The term "narcotic drug" covers that in this language.

Mr. COOPER. Coming back for a moment to the question that I asked previously, if the fact remains as you state, that there is this evil present, and it is not being effectively treated or dealt with, do you not think something should be done, or some attempt should be made, to do something to try to meet that evil?

Dr. WOODWARD. Certainly.

Mr. COOPER. To what extent is marihuana used by physicians in the country as a beneficial and a helpful drug?

Dr. WOODWARD. But very little.

Mr. COOPER. Very little?

Dr. WOODWARD. Very little.

Mr. COOPER. In fact, to such a small extent that the American Medical Association's own publication has left it out of the list of useful drugs, has it not?

Dr. WOODWARD. We probably did. I have not examined "Useful drugs", but we probably did.

Mr. COOPER. Then if it is apparent that this drug is not beneficial and useful in prescriptions given by physicians, but that an illicit traffic has developed in it for injurious and deleterious purposes, you agree that effective methods should be employed to meet that problem, do you not?

Dr. WOODWARD. I do.

Mr. LEWIS. Perhaps you can tell us from memory, Doctor, how many pharmacists there are in the United States.

Dr. WOODWARD. I cannot.

Mr. LEWIS. Can you tell us how many physicians?

Dr. WOODWARD. Approximately 160,000 registered; and probably, as a guess, I would say 120,000 in active practice. We have in the American Medical Association about 100,000 members.

Mr. LEWIS. There would not be half as many pharmacists, would there?

Dr. WOODWARD. Probably not. I have here a form that may be helpful in that regard.

Mr. LEWIS. You may supply the figures when you revise your remarks.

Dr. WOODWARD. The best that I can do is to supply the figures from the Commissioner of Internal Revenue as to the number of registrations under the Harrison Narcotic Act.

Mr. LEWIS. Do any of the gentlemen at the table know how many pharmacists there are in the country?

Mr. HESTER. About 48,000.

Mr. LEWIS. And 120,000 practicing physicians?

Dr. WOODWARD. I suppose there are 100,000 of them practicing. Many of them are retired and not in active practice; many are specialists.

Mr. LEWIS. A tax of a dollar on each of them would come to about $148,000. You spoke of a million dollars in taxes a little earlier in the day.

Dr. WOODWARD. I will supply the figures on which that estimate is based. It is taken directly from official reports, giving the number of potential registrants in each class. If the registrations under this act were in the same proportion as the registrations under the Harrison Narcotic Act, the annual tax would be approximately a million dollars a year. That is the best I can do.

Mr. VINSON. Will you break that down for the record?

Dr. WOODWARD. I will do that very gladly.

(The statement referred to is as follows:)

Amount of tax.—Assuming that all manufacturers, compounders, dispensers, and prescribers of drugs who now register under the Harrison Narcotic Act would register under this bill if enacted, and taking the latest report available

to show the numbers of persons so registered, the Annual Report of the Commissioner of Internal Revenue for 1935, we deduce the following:

Manufacturers, importers, and compounders (210, at $50)	$10,500
Wholesale dealers, (1,460, at $15)	21,900
Retail dealers, (53,687, at $15)	803,305
Practitioners (158,618, at $1)	158,618
Total	994,323

To this must be added the revenue derived from an unknown number of producers of Cannabis, at $25 a year, and from an unknown number of laboratory workers, at $1 a year; also the amount that must be added for registrants who register at more than one place.

The entire amount of this cost will presumably be passed along to the legitimate users of Cannabis, chiefly the sick, and the cost of sickness be thus increased. While it may properly be claimed that Cannabis is seldom used in medicine, nevertheless manufacturers, wholesale merchants, retailers, and practitioners will have to pay the prescribed taxes in order to be able to supply, or to prescribe, the drug if and when needed.

Cost of enforcement.—The sick, along with all other persons, will have to pay through general taxation the cost of enforcing this act, in excess of the taxes collected. Congress should labor under no delusions about the cost of enforcement, if genuine enforcement of the law be attempted. If it is not, the bill will be an idle gesture, an evidence of bad faith of the part of the Government, and it had best not be enacted.

Mr. LEWIS. Let me ask you this additional question. Judging from the expert medical testimony given here, it appears that it is rarely true, if it is ever true, that a physician would prescribe this drug. He would find other drugs more desirable, more sure in their operation. No physician, then, who did not think well of this drug, would need to take out a special license at all, would he?

Dr. WOODWARD. He would not have to. Most physicians would want to preserve the right to use it, probably. I do not know how many. The drug, however, is a peculiar drug. The products are uncertain in their action and the composition of the drug is hardly understood. We do know that the resin which is said to be the active principle is in fact the active principle, but may be broken down into other ingredients, some of which may have one effect and some of which may have another.

According to what has been quoted from this report of Dr. Bouquet there are evidently potentialities in the drug that should not be shut off by adverse legislation. The medical profession and pharmacologists should be left to develop the use of this drug as they see fit.

Mr. LEWIS. That is all.

The CHAIRMAN. I believe you said at the outset of your statement that the medical use of this drug has fallen off considerably.

Dr. WOODWARD. Very greatly.

The CHAIRMAN. In corroboration of that I have a statement here giving the number of prescriptions and showing the relative use of this drug as compared with other drugs.

In 1885 there were 5 prescriptions out of every 10,000, as fluid extract; in 1895, 11.6; in 1907, 8 out of every 10,000; in 1926, 2.3, and in 1933, the last figures we have 0.4 out of every 10,000.

That corroborates your statement that its use as a drug for the treatment of diseases, by the medical profession, has greatly fallen off and is on the decrease. The use of it seems to be negligible in the medical profession, according to that statement.

On the other hand, it seems that there has been a great increase in the use of it as a narcotic where it has its most dangerous and deleterious effects.

If its use as a medicine has fallen off to a point where it is practically negligible, and its use as a dope has increased until it has become serious and a menace to the public, as has been testified here—and the testimony here has been that it causes people to lose their mental balance, causes them to become criminals so that they do not seem to realize right from wrong after they become addicts of this drug—taking into consideration the growth in its injurious effects and its diminution in its use so far as any beneficial effect is concerned, you realize, do you not, that some good may be accomplished by this proposed legislation?

Dr. WOODWARD. Some legislation; yes, Mr. Chairman.

The CHAIRMAN. If that is admitted, let us get down to a few concrete facts. With the experience in the Bureau of Narcotics and with the State governments trying to enforce the laws that are now on the State statute books against the use of this deleterious drug, and the Federal Government has realized that the State laws are ineffective, don't you think some Federal legislation necessary?

Dr. WOODWARD. I do not.

The CHAIRMAN. You do not?

Dr. WOODWARD. No. I think it is the usual tendency to——

The CHAIRMAN. I believe you did say in response to Mr. Cooper that you believed that some legislation or some change in the present law would be helpful. If that be true, why have you not been here before this bill was introduced proposing some remedy for this evil?

Dr. WOODWARD. Mr. Chairman, I have visited the Commissioner of Narcotics on various occasions——

The CHAIRMAN. That is not an answer to my question at all.

Dr. WOODWARD. I have not been here because——

The CHAIRMAN. You are here representing the medical association. If your association has realized the necessity, the importance of some legislation—which you now admit—why did you wait until this bill was introduced to come here and make mention of it? Why did you not come here voluntarily and suggest to this committee some legislation?

Dr. WOODWARD. I have talked these matters over many times with the——

The CHAIRMAN. That does not do us any good to talk matters over. I have talked over a lot of things. The States do not seem to be able to deal with it effectively, nor is the Federal Government dealing with it at all. Why do you wait until now and then come in here to oppose something that is presented to us. You propose nothing whatever to correct the evil that exists.

Now, I do not like to have a round-about answer, but I would like to have a definite, straight, clean-cut answer to that question.

Dr. WOODWARD. We do not propose legislation directly to Congress when the same end can be reached through one of the executive departments of the Government.

The CHAIRMAN. You admit that it has not been done. You said that you thought some legislation would be helpful. That is what I am trying to hold you down to. Now, why have you not proposed any legislation? That is what I want a clean-cut, definite, clear answer to.

Dr. WOODWARD. In the first place, it is not a medical addiction that is involved and the data do not come before the medical society. You may absolutely forbid the use of Cannabis by any physician, or the disposition of Cannabis by any pharmacist in the country, and you would not have touched your Cannabis addiction as it stands today, because there is no relation between it and the practice of medicine or pharmacy. It is entirely outside of those two branches.

The CHAIRMAN. If the statement that you have just made has any relation to the question that I asked, I just do not have the mind to understand it; I am sorry.

Dr. WOODWARD. I say that we do not ordinarily come directly to Congress if a department can take care of the matter. I have talked with the Commissioner, with Commissioner Anslinger.

The CHAIRMAN. If you want to advise us on legislation, you ought to come here with some constructive proposals, rather than criticism, rather than trying to throw obstacles in the way of something that the Federal Government is trying to do. It has not only an unselfish motive in this, but they have a serious responsibility.

Dr. WOODWARD. We cannot understand yet, Mr. Chairman, why this bill should have been prepared in secret for 2 years without any intimation, even, to the profession, that it was being prepared.

The CHAIRMAN. Is not the fact that you were not consulted your real objection to this bill?

Dr. WOODWARD. Not at all.

The CHAIRMAN. Just because you were not consulted?

Dr. WOODWARD. Not at all.

The CHAIRMAN. No matter how much good there is in the proposal?

Dr. WOODWARD. Not at all.

The CHAIRMAN. That is not it?

Dr. WOODWARD. Not at all. We always try to be helpful.

Mr. VINSON. The fact that they took that length of time in the preparation of the bill, what has that to do with the merits of the legislation?

Dr. WOODWARD. The legislation is impracticable so far as enforcement is concerned, and the same study devoted to State legislation, with 44 State legislatures in session this year would have produced much better results.

Mr. VINSON. If the legislation had been prepared in one day you could have answered what your objection was. But it crops out here just at the end of your testimony that this legislation has been studied for 2 years and prepared in secret.

Dr. WOODWARD. Yes.

Mr. VINSON. What has that fact, if it be a fact, to do with the merits of the legislation, unless you are piqued?

Dr. WOODWARD. It explains why I am here voicing opposition to the bill that might have been adjusted to meet the needsr of the medical profession if we had been consulted at an earlier date. I should

have been glad to have cooperated with the Bureau of Narcotics in the preparation of a bill, if an opportunity had been afforded.

Mr. DINGELL. The impression I gain from your last remark is that it is only the medical profession that is interested in this bill; but what about the 125,000,000 people in this country? This is not only a bill that the medical profession is interested in, or that the American Medical Association is interested in, but all of the people are interested in it. Incidentally, I would like to ask how many doctors are members of the American Medical Association.

Dr. WOODWARD. Approximately 100,000.

Mr. DINGELL. That many are members of the American Medical Association?

Dr. WOODWARD. Yes, sir.

Mr. DINGELL. How many doctors are there in the United States?

Dr. WOODWARD. Probably 140,000 or 150,000, or there may be 160,000.

Mr. DINGELL. Are we to understand that the medical men of the State of Michigan, or the medical profession in Wayne County, or the medical association of Detroit, are opposed to this legislation?

Dr. WOODWARD. I do not know. No medical man would identify this bill with a medicine until he read it through, because marihuana is not a drug.

Mr. DINGELL. Please tell me this: What effort has been made in my State through the medical association to protect the school children and the unfortunate people who are falling victims to this habit? I ask that question since we are talking about controlling it through the States. I want to know what has been done by the State of Michigan and the members of the medical profession to give protection intended by this bill.

Dr. WOODWARD. It is, of course, impossible for me to say just what has been done in any particular State; but, in the Michigan laws of 1931, chapter 173, they do regulate the production and distribution of Cannabis indica.

Mr. DINGELL. What kind of regulation is that?

Dr. WOODWARD. I do not have the law here.

Mr. DINGELL. Can you tell me whether that legislation was at that time sponsored by the medical association of my State?

Dr. WOODWARD. I do not know. I cannot carry all of those details in my mind. You understand that marihuana is simply a name given Cannabis. It is a mongrel word brought in from Mexico. It is a popular term to indicate Cannabis, like "coke" is used to indicate cocaine, and as "dope" is used to indicate opium.

Mr. DINGELL. We know that it is a habit that is spreading, particularly among youngsters. We learn that from the pages of the newspapers. You say that Michigan has a law regulating it. We have a State law, but we do not seem to be able to get anywhere with it, because, as I have said, the habit is growing. The number of victims is increasing each year.

Dr. WOODWARD. There is no evidence of that.

Mr. DINGELL. I have not been impressed by your testimony here as reflecting the sentiment of the high-class members of the medical profession in my State. I am confident that the medical profession in the State of Michigan, and in Wayne County particularly, or in

my district, will subscribe wholeheartedly to any law that will suppress this thing, despite the fact that there is a $1 tax imposed.

Dr. WOODWARD. If there was any law that would absolutely suppress the thing, perhaps that is true, but when the law simply contains provisions that impose a useless expense, and does not accomplish the result——

Mr. DINGELL (interposing). That is simply your personal opinion. That is kindred to the opinion you entertained with reference to the Harrison Narcotics Act.

Dr. WOODWARD. If we had been asked to cooperate in drafting it——

Mr. DINGELL (interposing). You are not cooperating in this at all.

Dr. WOODWARD. As a matter of fact, it does not serve to suppress the use of opium and cocaine.

Mr. DINGELL. The medical profession should be doing its utmost to aid in the suppression of this curse that is eating the very vitals of the Nation.

Dr. WOODWARD. They are.

Mr. VINSON. Are you not simply piqued because you were not consulted in the drafting of the bill?

Dr. WOODWARD. That is not the case at all. I said, in explaining why I was here, that the measure should have been discussed and an expression of opinion obtained before the Treasury Department brought the bill before the Congress of the United States, so that it would be in a form that would be acceptable, with as few differences of opinion as possible.

Mr. COOPER. With all due respect to you and for your appearance here, is it not a fact that you are peeved because you were not called in and consulted in the drafting of the bill?

Dr. WOODWARD. Not in the least. I have drafted too many bills to be peeved about that.

Mr. MCCORMACK. There is no question but that the drug habit has been increasing rapidly in recent years.

Dr. WOODWARD. There is no evidence to show whether or not it has been.

Mr. MCCORMACK. In your opinion, has it increased?

Dr. WOODWARD. I should say it has increased slightly. Newspaper exploitation of the habit has done more to increase it than anything else.

Mr. MCCORMACK. It is likely to increase further unless some effort is made to suppress it.

Dr. WOODWARD. I do not know. The exploitation tempts young men and women to venture into the habit.

Mr. MCCORMACK. At any event, it is a drug.

Mr. WOODWARD. *Cannabis indica* is a drug; yes.

Mr. MCCORMACK. It is used, we were told, by 200,000,000 people throughout the world. All I know is what I have read about it. You realize that we are confronted with a situation where we are dealing with a drug that is produced in the United States?

Dr. WOODWARD. Yes.

Mr. MCCORMACK. While opium and coco leaves are not produced here.

Dr. WOODWARD. No.

Mr. MCCORMACK. In other words, the Harrison Narcotics Act really confines itself to imports.

Dr. WOODWARD. No, sir; it regulates production, too.

Mr. MCCORMACK. It regulates production, but the production it regulates is confined to drugs that are imported into this country.

Dr. WOODWARD. Yes, sir.

Mr. MCCORMACK. There is no opium grown here.

Dr. WOODWARD. No, sir.

Mr. MCCORMACK. And no coca leaves are grown here.

Dr. WOODWARD. No, sir.

Mr. MCCORMACK. So that the Harrison Narcotics Act, in its practical operation, concerns itself, in the first instance, with a drug that is imported into this country.

Dr. WOODWARD. In the first instance; yes, sir.

Mr. MCCORMACK. In this case, we have in the first instance a drug that is produced in this country.

Dr. WOODWARD. No, sir.

Mr. MCCORMACK. It is grown here.

Dr. WOODWARD. It is grown somewhat here.

Mr. MCCORMACK. Let me see if I understand your position. I have listened very carefully to your statement. You take the position that this drug habit is not of any benefit to the medical profession.

Dr. WOODWARD. I think that is universally admitted.

Mr. MCCORMACK. This legislation should be directed toward the source of the evil. The medical profession is not involved in the source of supply so far as the use is concerned. Is that right?

Dr. WOODWARD. Yes; that is right. We have no objection to the registration fee under the Harrison Narcotic Act.

Mr. MCCORMACK. You say you have no objection to registration under the Harrison Narcotic Act?

Dr. WOODWARD. No, sir; nor even in the case of Cannabis.

Mr. MCCORMACK. While you object to registration under this act, you do not object to registration under the Harrison Narcotics Act?

Dr. WOODWARD. No, sir.

Mr. MCCORMACK. You are just now beginning to oppose registration.

Dr. WOODWARD. No, sir.

Mr. MCCORMACK. Assuming that this bill was amended to permit the Secretary of the Treasury to put the medical profession under reasonable regulations, what would be your opposition to the bill?

Dr. WOODWARD. I am quite sure we could not object to that.

Mr. MCCORMACK. Then your objection to this bill would be removed.

Dr. WOODWARD. You could go a step further, and require the registration and recording of sales of Cannabis under the Harrison Narcotics Act. I am not inclined to think there would be any objection to that at all.

Mr. MCCORMACK. I am not including the Harrison Narcotics Act in my question, but my question was confined to this bill. Assuming that an amendment was made to this bill whereby the Secretary of the Treasury might prescribe regulations which would be beneficial to the medical profession, or that would be considered beneficial by the medical profession, would I be justified in assuming that your main objection to this particular bill would be removed?

Dr. WOODWARD. Yes, sir; you would.

Mr. DINGELL. Going back to that part of your testimony wherein you mentioned the matter of registration, was it your testimony that

the medical profession, so far as you can determine, is more than willing to cooperate in bringing about the suppression of this drug; or, more specifically, the traffic in marihuana; and does your sole objection rest upon the point that the bill requires an additional registration, additional forms, and the taking up of additional precious time of physicians; and that, further than that, if this practice could be regulated by an amendment to the Harrison Narcotics Act there would be no objection on the part of the medical profession to filling out new amended forms pertaining to both marihuana and narcotics?

Dr. WOODWARD. I believe that if that had been done, there would not have been a single objection raised to it. In my opinion, no voice would have been raised against legislation of that kind.

Mr. DINGELL. You think that with reasonable regulations we would have the fullest cooperation of the medical profession?

Dr. WOODWARD. Yes, sir.

The CHAIRMAN. Do you appear in the capacity of a medical expert, a legal expert, or a legislative expert, or in all three capacities?

Dr. WOODWARD. My profession is that of a practitioner of medicine and of legal medicine. I have lectured on legal medicine as a lawyer and doctor. I have combined the two. If you want to class me as an expert, you might class me as a medical-legal expert.

The CHAIRMAN. I would like to read a quotation from a recent editorial in the Washington Times:

> The marihuana cigarette is one of the most insidious of all forms of dope, largely because of the failure of the public to understand its fatal qualities.
>
> The Nation is almost defenseless against it, having no Federal laws to cope with it and virtually no organized campaign for combating it.
>
> The result is tragic.
>
> School children are the prey of peddlers who infest school neighborhoods.
>
> High-school boys and girls buy the destructive weed without knowledge of its capacity of harm, and conscienceless dealers sell it with impunity.
>
> This is a national problem, and it must have national attention.
>
> The fatal marihuana cigarette must be recognized as a deadly drug, and American children must be protected against it.

That is a pretty severe indictment. They say it is a national question and that it requires effective legislation. Of course, in a general way, you have responded to all of these statements; but that indicates very clearly that it is an evil of such magnitude that it is recognized by the press of the country as such.

The Washington Post had this to say recently in an editorial:

> With a Federal law on the books, a more ambitious attack can be launched It is time to wipe out the evil before its potentialities for national degeneracy become more apparent. The legislation just introduced in Congress by Representative Doughton would further this end. Its speedy passage is desirable.

As I understand it, you do not agree with that.

Dr. WOODWARD. I believe there is addiction, and I believe there is a temptation to children.

The CHAIRMAN. It is on the increase, is it not?

Dr. WOODWARD. Probably, but we do not know.

The CHAIRMAN. The public authorities dealing with this evil, the State authorities and Federal authorities, say that they need further legislation in order to protect the people from its insidious influence and effects. Under those conditions, do you not believe that Congress should try to do something?

Dr. WOODWARD. I think something should be done, but it is only a question of what should be done.

The CHAIRMAN. You stated awhile ago that you believed this law would be ineffective. Of course, the law against carrying concealed weapons, designed to protect people against criminals is not entirely effective, but you would not advocate the repeal of the law. The laws against prostitution and murder are not entirely effective, but without legislative control we would be at the mercy of the criminal class, and we would have no civilization whatever.

Dr. WOODWARD. I realize that.

The CHAIRMAN. I believe you stated that you sponsored the Copeland bill.

Dr. WOODWARD. I said that the present Copeland bill was the best pending food bill. I said it was the best of the lot.

The CHAIRMAN. Did you have anything to do with the preparation of the Copeland bill?

Dr. WOODWARD. I appeared before the committee from time to time and submitted a memorandum.

The CHAIRMAN. But they did not adopt your views.

Dr. WOODWARD. No, sir.

The CHAIRMAN. You said it was woefully defective, but that it was the best you have seen.

Dr. WOODWARD. Yes, sir; I sent to every Member of the House of Representatives a memorandum showing by section, page, and line just wherein it fails, and I think that anyone who studied the memorandum will agree with me.

The CHAIRMAN. But it is woefully ineffective.

Dr. WOODWARD. With respect to drugs and therapeutic devices; yes, sir.

EXHIBIT F

THE MARIHUANA PROBLEM

IN THE CITY OF NEW YORK

Sociological, Medical, Psychological
and Pharmacological Studies

by the

MAYOR'S COMMITTEE ON MARIHUANA

THE JAQUES CATTELL PRESS
LANCASTER, PENNSYLVANIA

Foreword

As Mayor of the City of New York, it is my duty to foresee and take steps to prevent the development of hazards to the health, safety, and welfare of our citizens. When rumors were recently circulated concerning the smoking of marihuana by large segments of our population and even by school children, I sought advice from The New York Academy of Medicine, as is my custom when confronted with problems of medical import. On the Academy's recommendation I appointed a special committee to make a thorough sociological and scientific investigation, and secured funds from three Foundations with which to finance these studies.

My own interest in marihuana goes back many years, to the time when I was a member of the House of Representatives and, in that capacity, heard of the use of marihuana by soldiers stationed in Panama. I was impressed at that time with the report of an Army Board of Inquiry which emphasized the relative harmlessness of the drug and the fact that it played a very little role, if any, in problems of delinquency and crime in the Canal Zone.

The report of the present investigations covers every phase of the problem and is of practical value not only to our own city but to communities throughout the country. It is a basic contribution to medicine and pharmacology.

I am glad that the sociological, psychological, and medical ills commonly attributed to marihuana have been found to be exaggerated insofar as the City of New York is concerned. I hasten to point out, however, that the findings are to be interpreted only as a reassuring report of progress and not as encouragement to indulgence, for I shall continue to enforce the laws prohibiting the use of marihuana until and if complete findings may justify an amendment to existing laws. The scientific part of the research will be continued in the hope that the drug may prove to possess therapeutic value for the control of drug addiction.

I take this occasion to express my appreciation and gratitude to the members of my committee, to The New York Academy of Medicine, and to the Commonwealth Fund, the Friedsam Foundation, and the New York Foundation which supported these important investigations so generously.

F. H. LaGuardia
Mayor

3. The cost of marihuana is low and therefore within the purchasing power of most persons.

4. The distribution and use of marihuana is centered in Harlem.

5. The majority of marihuana smokers are Negroes and Latin-Americans.

6. The consensus among marihuana smokers is that the use of the drug creates a definite feeling of adequacy.

7. The practice of smoking marihuana does not lead to addiction in the medical sense of the word.

8. The sale and distribution of marihuana is not under the control of any single organized group.

9. The use of marihuana does not lead to morphine or heroin or cocaine addiction and no effort is made to create a market for these narcotics by stimulating the practice of marihuana smoking.

10. Marihuana is not the determining factor in the commission of major crimes.

11. Marihuana smoking is not widespread among school children.

12. Juvenile delinquency is not associated with the practice of smoking marihuana.

13. The publicity concerning the catastrophic effects of marihuana smoking in New York City is unfounded.

EXHIBIT G

10 - 2

Marihuana: A Signal of Misunderstanding

First Report of the National Commission on Marihuana and Drug Abuse

Public Law 91-513
91st Congress, H. R. 18583
October 27, 1970

An Act

To amend the Public Health Service Act and other laws to provide increased research into, and prevention of, drug abuse and drug dependence; to provide for treatment and rehabilitation of drug abusers and drug dependent persons; and to strengthen existing law enforcement authority in the field of drug abuse.

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 "Comprehensive Drug Abuse Prevention and Control Act of 1970".

PART F—ADVISORY COMMISSION

ESTABLISHMENT OF COMMISSION ON MARIHUANA AND DRUG ABUSE

SEC. 601. (a) There is established a commission to be known as the Commission on Marihuana and Drug Abuse (hereafter in this section referred to as the "Commission"). The Commission shall be composed of—

(1) two Members of the Senate appointed by the President of the Senate;

(2) two Members of the House of Representatives appointed by the Speaker of the House of Representatives; and

(3) nine members appointed by the President of the United States.

At no time shall more than one of the members appointed under paragraph (1), or more than one of the members appointed under paragraph (2), or more than five of the members appointed under paragraph (3) be members of the same political party.

(b)(1) The President shall designate one of the members of the Commission as Chairman, and one as Vice Chairman. Seven members of the Commission shall constitute a quorum, but a lesser number may conduct hearings.

(2) Members of the Commission who are Members of Congress or full-time officers or employees of the United States shall serve without additional compensation but shall be reimbursed for travel, subsistence, and other necessary expenses incurred in the performance of the duties vested in the Commission. Members of the Commission from private life shall receive $100 per diem while engaged in the actual performance of the duties vested in the Commission, plus reimbursement for travel, subsistence, and other necessary expenses incurred in the performance of such duties.

(3) The Commission shall meet at the call of the Chairman or at the call of a majority of the members thereof.

(c)(1) The Commission shall have the power to appoint and fix the compensation of such personnel as it deems advisable, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and the provisions of chapter 51 and subchapter III of chapter 53 of such title, relating to classification and General Schedule pay rates.

(2) The Commission may procure, in accordance with the provisions of section 3109 of title 5, United States Code, the temporary or intermittent services of experts or consultants. Persons so employed shall receive compensation at a rate to be fixed by the Commission, but not in excess of $75 per diem, including traveltime. While away from his home or regular place of business in the performance of services for the Commission, any such person may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703(b) of title 5, United States Code, for persons in the Government service employed intermittently.

(3) The Commission may secure directly from any department or agency of the United States information necessary to enable it to carry out its duties under this section. Upon request of the Chairman of the Commission, such department or agency shall furnish such information to the Commission.

(d)(1) The Commission shall conduct a study of marihuana including, but not limited to, the following areas:

(A) the extent of use of marihuana in the United States to include its various sources, the number of users, number of arrests, number of convictions, amount of marihuana seized, type of user, nature of use;

(B) an evaluation of the efficacy of existing marihuana laws;

(C) a study of the pharmacology of marihuana and its immediate and long term effects, both physiological and psychological;

(D) the relationship of marihuana use to aggressive behavior and crime;

(E) the relationship between marihuana and the use of other drugs; and

(F) the international control of marihuana.

(2) Within one year after the date on which funds first become available to carry out this section, the Commission shall submit to the President and the Congress a comprehensive report on its study and investigation under this subsection which shall include its recommendations and such proposals for legislation and administrative action as may be necessary to carry out its recommendations.

(e) The Commission shall conduct a comprehensive study and investigation of the causes of drug abuse and their relative significance. The Commission shall submit to the President and the Congress such interim reports as it deems advisable and shall within two years after the date on which funds first become available to carry out this section submit to the President and the Congress a final report which shall contain a detailed statement of its findings and conclusions and also such recommendations for legislation and administrative actions as it deems appropriate. The Commission shall cease to exist sixty days after the final report is submitted under this subsection.

(f) Total expenditures of the Commission shall not exceed $[illegible]

marihuana: a signal of misunderstanding

First Report of the National Commission on Marihuana and Drug Abuse

March 1972

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price $1.90

National Commission on Marihuana and Drug Abuse
801 19th Street N.W.
Washington, D.C. 20006

March 22, 1972

To The President and Congress of the United States:

As Chairman of the National Commission on Marihuana and Drug Abuse, I am pleased to submit to you our first year Report in conformance with the mandate contained in Section 601 of Public Law 91-513, The Comprehensive Drug Abuse Prevention and Control Act of 1970.

This Report "Marihuana, A Signal of Misunderstanding" is an all-inclusive effort to present the facts as they are known today, to demythologize the controversy surrounding marihuana, and to place in proper perspective one of the most emotional and explosive issues of our time. We on the Commission sincerely hope it will play a significant role in bringing uniformity and rationality to our marihuana laws, both Federal and State, and that it will create a healthy climate for further discussion, for further research and for a continuing advance in the development of a public social policy beneficial to all our citizens.

Whatever the facts are we have reported them. Wherever the facts have logically led us, we have followed and used them in reaching our recommendations. We hope this Report will be a foundation upon which credibility in this area can be restored and upon which a rational policy can be predicated.

By Direction of the Commission

Raymond P. Shafer

Raymond P. Shafer
Chairman

The President
The President of the Senate
The Speaker of the House

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NOTE.—The following staff members are no longer with the Commission: Hugh E. Flaherty, Roy E. Kinsey, Maureen E. Biner, John Williams, Sherrill Sasser, and Valerie Boyle.

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introduction

This is the first of two Reports by the National Commission on Marihuana and Drug Abuse. Public Law 91-513 requires that we report to the President, Congress and the public initially on marihuana, and then on the broader issue of drug abuse in the United States. The second Report will include a review of the marihuana issue with particular attention to studies which have been conducted in the interim.

In large measure, the marihuana issue is a child of the sixties, the visual and somewhat pungent symbol of dramatic changes which have permanently affected our nation in the last decade. Some have argued that our mandate has placed the cart before the horse, and that we should have focused first on the wider social issue and then assessed marihuana's impact on society within that context. After much thought and investigation, we now believe that Congress was wise in focusing this Commission's attention first on marihuana. By separating it from the rest of the drug controversy, we have been better able to analyze the unique position marihuana occupies in our society.

Our mandate was a broad one, covering, for example, the nature and scope of use, the effects of the drug, the relationship of marihuana use to other behavior and the efficacy of existing law. Realizing that marihuana had never before in the American experience been the subject of a concentrated, authoritative governmental study, we launched a comprehensive research and fact-finding effort. We sought to evaluate and supplement existing material, to fill knowledge voids and to assess the so-called truths commonly posed in the marihuana debate.

Soon after funds became available on March 22, 1971, we commissioned more than 50 projects, ranging from a study of the effects of marihuana on man to a field survey of enforcement of the marihuana laws in six metropolitan jurisdictions. Of particular importance in our fact-finding effort were the opinions and attitudes of all groups in our society.

Through formal and informal hearings, recorded in thousands of pages of transcripts, we solicited all points of view, including those of public officials, community leaders, professional experts and students. We commissioned a nationwide survey of public beliefs, information and experience referred to in this Report as the National Survey. In addition, we conducted separate surveys of opinion among district attorneys, judges, probation officers, clinicians, university health officials and free clinic personnel.

This inquiry focused on the American experience. However, we have been well aware from the outset that the scope of marihuana use in the United States differs considerably from that in other countries where the drug has been used for centuries. Accordingly, the Commission sought to put the American experience in perspective by seeing the situation first hand in India, Greece, North Africa, Jamaica, Afghanistan, and other countries.

Because of our initial concentration on marihuana, certain issues common to marihuana and other drugs have been deferred for more complete coverage in the second Report. For example, a detailed analysis of educational programs about marihuana and its use will be considered when we evaluate drug education programs in general.

Further, we do not discuss the rehabilitation of the problem marihuana user since no such specialized programs exist; we found the subject is best approached from a broader perspective of rehabilitation programs for problem users of all non-narcotic drugs. An examination of federal and state organizational response to the drug issue, as well as an in-depth study of general law enforcement strategies, have both been undertaken and will continue, but will not be reported fully until the second year.

Officers of the Federal Government have set a high priority on fuller understanding of the marihuana issue and appropriate governmental action. President Nixon has frequently expressed his personal and official commitment to providing a rational and equitable public response to the use and misuse of drugs. Similarly, Congress has shown its concern in passing the Comprehensive Drug Abuse Prevention and Control Act of 1970. In appointing this Commission, both the President and Congress have recognized the need for an independent, nonpartisan appraisal of the nature of marihuana and the consequences of its use, for a similar appraisal of the abuse of all drugs, and for appropriate recommendations for public policy as a result of both studies.

The Commission decided early in its deliberations to write a Report that was complete but not overly technical so that the reader could understand the points discussed without analyzing detailed studies. Such studies and supporting data are included in an Appendix to the Report, which is published separately. For the researcher and others interested in greater detail, the Appendix provides the necessary technical data.

This Report focuses on marihuana, the popular name for a mixture of stems, leaves and flowering tops of the Indian hemp plant, *Cannabis Sativa L.* This Report presents the most significant information gathered to date about the drug and its users, concluding with the Commission's recommendations concerning the most appropriate public response to marihuana usage in our society.

1 marihuana and the problem of marihuana

"There are no whole truths; all truths are half-truths. It is trying to treat them as whole truths that plays the devil."
Alfred North Whitehead (1953)

We are a nation of problem-solvers. We are restless and impatient with perceived gaps between the way things are and the way we think they ought to be. Understandably, such an impulse toward self-correction never leaves us wanting for social problems to solve. Although it is a prerequisite to social progress, this problem-solving orientation sometimes misdirects our attention. In order to maximize public awareness, we are apt to characterize situations as being far worse than they really are. Because any activity is commonly regarded as a move toward a solution, rhetoric and stopgap legislation sometimes substitute for rational reflection. We become so impressed with social engineering that we overlook inherent human limitations.

Since the mid-sixties, American society has been increasingly agitated by what has been defined as a marihuana problem. The typical sequences of "a national problem" have resulted: exaggeration, polarization and the inevitable demand for a solution. The appointment of this Commission and the publication of this Report reflect the escalation of marihuana use into the realm of social problem. Since the beginning of our official life, we have grappled with the threshold

question: why has the use of marihuana reached problem status in the public mind?

Origins of the Marihuana Problem

Marihuana has been used as an intoxicant in various parts of the world for centuries and in this country for 75 years. Yet use of the drug has been regarded as a problem of major proportions for less than a decade. We will not find the reasons for contemporary social concern in pharmacology texts or previous governmental reports, for we are dealing with two separate realities: a drug with certain pharmacologic properties and determinable, although variable, effects on man; and a pattern of human behavior, individual and group, which has, *as a behavior*, created fear, anger, confusion, and uncertainty among a large segment of the contemporary American public. The marihuana behavior pattern is the source of the marihuana controversy.

The most apparent feature of the behavior is that it is against the law. But inconsistency between behavior and the legal norm is not sufficient, in itself, to create a social problem. Marihuana has been an illegal substance for several decades; and the widespread violation of laws against gambling and adultery have not excited the public to the same extent as has marihuana-smoking in recent years.

At the same time, we suspect that illegality may play an important role in problem definition where drugs are concerned. Alcohol is of proven danger to individual and societal health and the public is well aware of its dangers, yet use of this drug has not been accorded the same problem status. Marihuana's illegality may have been a necessary condition for the marihuana problem, but the increased violation of the legal proscription does not by itself explain the phenomenon.

The Commission believes that three interrelated factors have fostered the definition of marihuana as a major national problem. First, the illegal behavior is highly visible to all segments of our society. Second, use of the drug is perceived to threaten the health and morality not only of the individual but of the society itself. Third, and most important, the drug has evolved in the late sixties and early seventies as a symbol of wider social conflicts and public issues.

VISIBILITY

More than anything else, the visibility of marihuana use by a segment of our population previously unfamiliar with the drug is what stirred public anxiety and thrust marihuana into the problem area. Marihuana usage in the United States has been with us for a very long period of time, dating back to the beginning of the century. For decades, its use was mainly confined to the underprivileged socioeconomic groups in our cities and to certain insulated social groups, such as jazz musicians and artists. As long as use remained confined to these groups and had a negligible impact on the dominant social order, the vast majority of Americans remained unconcerned. From the other side, the insulated marihuana user was in no position to demand careful public or legislative scrutiny.

However, all this changed markedly in the mid-1960's. For various reasons, marihuana use became a common form of recreation for many middle and upper class college youth. The trend spread across the country, into the colleges and high schools and into the affluent suburbs as well. Use by American servicemen in Vietnam was frequent. In recent years, use of the drug has spanned every social class and geographic region.

The Commission-sponsored National Survey, "A Nationwide Study of Beliefs, Information and Experiences," indicated that some 24 million Americans have tried marihuana at least once and that at least 8.3 million are current users.

Other surveys uniformly indicate that more than 40% of the U.S. college population have tried marihuana, and in some universities the figure is much higher. Also, use of the drug has become almost as common among young adults out of college, and among older teenagers in high school. The National Survey indicates that 39% of young adults between 18 and 25 years of age have tried marihuana. The stereotype of the marihuana user as a marginal citizen has given way to a composite picture of large segments of American youth, children of the dominant majority and very much a part of the mainstream of American life.

Public confusion, anger, and fear over this development became increasingly apparent during the mid and late 1960's. Such mass deviance was a problem and the scope of the problem was augmented by frequent publicity. The topic of the usage of marihuana by the young received considerable attention from newspapermen and television reporters. The drug's youthful users abetted the media in this regard by flaunting their disregard of the law. Few of us have not seen or heard of marihuana being used *en masse* at rock concerts, political demonstrations and gatherings of campus activists.

In addition, new scientific and medical interest in marihuana and its use was stimulated by the sudden public interest. For the first time in the American experience, the drug became the subject of intensive scrutiny in the laboratories and clinics. Unfortunately, this research was conducted in the spotlight of public controversy. Isolated findings and incomplete information have automatically been presented to the public, with little attempt made to place such findings in a larger perspective or to analyze their meanings.

Any new marihuana research has had ready access to the news spotlight and often has been quickly assimilated into the rhetoric of the marihuana debate. Science has become a weapon in a propaganda battle. Because neither the reporters nor the public have the expertise to evaluate this information, the result has been an array of conflicting anecdotal reports, clinical studies on limited populations, and surveys of restricted utility.

Visibility, intense public interest, and fishbowl research are all important components of the marihuana problem.

PERCEIVED THREATS

Although marihuana is taken by most users for curiosity or pleasure, the non-using public still feels seriously affected by use of the drug. Several decades ago it was popularly asserted that the drug brought about a large variety of social and individual ills, including crime and insanity. As a result it was prohibited by federal law in 1937. The marihuana explosion of the mid-sixties occurred within the context of 30 years of instilled fear. Although based much more on fantasy than on proven fact, the marihuana "evils" took root in the public mind, and now continue to color the public reaction to the marihuana phenomenon. Even beyond the violation of law, the widespread use of marihuana is seen as a threat to society in other ways. And the threats grow proportionately as the controversy swells.

It has been astutely observed that any statement frequently repeated in public assumes the status of fact. With so many people continually arguing about marihuana, the public has understandably become alarmed and confused.

On the basis of the National Survey, we have tried to identify the ways in which the public feels threatened by marihuana use. Essentially these threats fall into three general categories: threats to the public safety, threats to the public health, and threats to the dominant social order.

In terms of public safety, the concern is with the relationship between marihuana and aggressive behavior, crime and juvenile delinquency. Threats to the public health usually refer initially to the impact of marihuana on the user. Lethality, psychosis, addiction potential and effects of chronic long-term use are major concerns. Additionally, the fear exists that marihuana leads to the use of more dangerous drugs, especially LSD and heroin.

The threat which marihuana use is thought to present to the dominant social order is a major undercurrent of the marihuana problem. Use of the drug is linked with idleness, lack of motivation, hedonism and sexual promiscuity. Many see the drug as fostering a counterculture which conflicts with basic moral precepts as well as with the operating functions of our society. The "dropping out" or rejection of the established value system is viewed with alarm. Marihuana becomes more than a drug; it becomes a symbol of the rejection of cherished values.

SYMBOLISM

The symbolic aspects of marihuana are the most intangible of the items to which the Commission must address itself, and yet they may be at the heart of the marihuana problem. Use of marihuana was, and still is, age-specific. It was youth-related at a time in American history when the adult society was alarmed by the implications of the youth "movement": defiance of the established order, the adoption of new life styles, the emergence of "street people," campus unrest, drug use, communal living, protest politics, and even political radicalism. In an age characterized by the so-called generation gap, marihuana symbolizes the cultural divide.

For youth, marihuana became a convenient symbol of disaffection with traditional society, an allure which supplemented its recreational attraction. Smoking marihuana may have appealed to large numbers of youth who opposed certain policies or trends, but who maintained faith in the American system as a whole. In a time when symbolic speech is often preferred to the literal form, marihuana was a convenient instrument of mini-protest. It was also an agent of group solidarity, as the widely-publicized rock concerts so well illustrate.

For the adult society, the decade of the sixties was a distressing time. The net effect of racial unrest, campus disruption, political assassination, economic woes and an unpopular war was widespread uneasiness. Attending a general fear that the nation was witnessing its own disintegration was a desire to shore up our institutions and hold the line. That line was easy to define where drugs, particularly marihuana, were concerned.

Use of drugs, including marihuana, is against the law. For many, marihuana symbolized disorder in a society frustrated by increasing lawlessness. Insistence on application of the law tended also to harden views, thereby escalating still further the use of marihuana as a symbolic issue.

The social conflicts underlying the drug's symbolic status have dissipated somewhat in the past few years; and in some ways, the Commission has similarly noted a partial deflation of the marihuana problem and of the emotionalism surrounding it. We are hopeful that our attempt to clarify the scientific and normative dimensions of marihuana use will further deemphasize the problem orientation and facilitate rational decision-making.

The Need for Perspective

This Commission has the task of exploring the marihuana controversy from as many vantage points as possible in its attempt to make sound, realistic and workable policy recommendations. Because we are dealing essentially with a complex social concern rather than a simple pharmacologic phenomenon, any social policy decision must discuss the realities of marihuana as a drug, marihuana use as a form of behavior, and marihuana as a symbol.

Particularly important is the determination of the longevity of the behavior. Are we dealing with a behavior that is becoming rooted in our culture or are we experiencing an aberration, a fad that will in time, of its own accord, pass away?

The vortex of the marihuana controversy is the present, but the prudent policy planner must not be blinded by the deluge of recent statistics. It is important that we scan the past for clues about the meaning of certain behavior and the promise offered by various social policy responses. We are convinced that a wider historical understanding will also go a long way toward deflating marihuana as a problem.

HISTORICAL PERSPECTIVE

When viewed in the context of American society's ambivalent response to the non-medical use of drugs, the marihuana problem is not unique. Both the existing social policy toward the drug and its contemporary challenge have historical antecedents and explanations. Somewhat surprisingly, until the last half of the 19th century, the only drugs used to any significant extent for non-medical purposes in this country were alcohol and tobacco.

American opinion has always included some opposition to the non-medical use of any drug, including alcohol and tobacco. From colonial times through the Civil War, abstentionist outcries against alcohol and tobacco sporadically provoked prohibitory legislation. One 18th century pamphleteer advised against the use of any drink "which is liable to steal away a man's senses and render him foolish, irascible, uncontrollable and dangerous." Similarly, one 19th century observer attributed delirium tremens, perverted sexuality, impotency, insanity and cancer to the smoking and chewing of tobacco.

Despite such warnings, alcohol and tobacco use took deep root in American society. De Tocqueville noted what hard drinkers the Americans were, and Dickens was compelled to report that "in all the public places of America, this filthy custom [tobacco chewing] is recognized." Nonetheless, the strain in our culture opposed to all non-medical drug use persisted and in the late 19th century gained ardent adherents among larger segments of the population.

Beginning in earnest around 1870, abstentionists focused the public opinion process on alcohol. As science and politics were called to the task, public attention was drawn to the liquor problem. "Liquor is responsible for 19% of the divorces, 25% of the poverty, 25% of the insanity, 37% of the pauperism, 45% of child desertion and 50% of the crime in this country," declared the Anti-Saloon League. "And this," it was noted, "is a very conservative estimate."

The Temperance advocates achieved political victory during the second decade of the 20th century. By 1913, nine states were under statewide prohibition, and in 31 other states local option laws operated, with the ultimate effect that more than 50% of the nation's population lived under prohibition. Four years later, Congress approved the 18th Amendment and on January 16, 1919, Nebraska became the 36th state to ratify the Amendment, thus inscribing national Prohibition in the Constitution.

Although on a somewhat smaller scale and with lesser results, public attention was simultaneously attracted to a growing tobacco problem. Stemming partly from the immediate popularity of cigarette-smoking, a practice introduced after the Civil War, and partly from riding the coattails of abstentionist sentiment, anti-tobacconists achieved a measure of success which had previously eluded them. *The New York Times* editorialized in 1885 that:

> The decadence of Spain began when the Spaniards adopted cigarettes and if this pernicious habit obtains among adult Americans, the ruin of the Republic is close at hand. . . .

Between 1895 and 1921, 14 states banned the sale of cigarettes.

Although there has been some posthumous debate about the efficacy of alcohol Prohibition as a means of reducing excessive or injurious use, the experiment failed to achieve its declared purpose: elimination of the practice of alcohol consumption. The habit was too ingrained in the society to be excised simply by cutting off legitimate supply.

In addition, the 18th Amendment never commanded a popular consensus; in fact, the Wickersham Commission, appointed by President Hoover in 1929 to study Prohibition, attributed the Amendment's enactment primarily to public antipathy toward the saloon, the large liquor dealers and intemperance rather than to public opposition to use of the drug.

Subsequent observers have agreed that Prohibition was motivated primarily by a desire to root out the institutional evils associated with the drug's distribution and excessive use; only a minority of its supporters opposed all use. And in this respect, Prohibition succeeded. Upon repeal, 13 years after ratification, liquor was back, but the pre-Prohibition saloon and unrestrained distribution had been eliminated from the American scene.

Both the scope of the alcohol habit and the ambivalence of support-

ing opinion are manifested in the internal logic of Prohibition legislation. The legal scheme was designed to cut off supply, not to punish the consumer. Demand could be eliminated effectively, if at all, only through educational efforts. Only five states prohibited possession of alcohol for personal use in the home. Otherwise, under both federal and state law, the individual remained legally free to consume alcohol.

The anti-tobacco movement was not propelled by the institutional outrage or the cultural symbolism surrounding the alcohol problem. It never succeeded on a national scale. Local successes were attributable to the temporary strength of the abstentionist impulse, together with the notion that tobacco-smoking was a stepping-stone to alcohol use. Lacking the consensus necessary to reverse a spreading habit, tobacco "prohibition" never extended to possession. Insofar as the anti-tobacco movement was really a coattail consequence of alcohol Prohibition, it is not surprising that all 14 states which had prohibited sale repealed their proscriptions by 1927.

By the early 1930's, the abstentionist thrust against alcohol and tobacco had diminished. State and federal governments contented themselves with regulating distribution and extracting revenue. When the decade ended, the general public no longer perceived alcohol and tobacco use as social problems. The two drugs had achieved social legitimacy.

A comparison between the national flirtation with alcohol and tobacco prohibition and the prohibition of the non-medical use of other drugs is helpful in analyzing the marihuana issue. In 1900, only a handful of states regulated traffic in "narcotic" drugs—opium, morphine, heroin and cocaine—even though, proportionately, more persons probably were addicted to those drugs at that time than at any time since. Estimates from contemporary surveys are questionable, but a conservative estimate is a quarter of a million people, comprising at least 1% of the population. This large user population in 1900 included more females than males, more whites than blacks, was not confined to a particular geographic region or to the cities, and was predominantly middle class.

This 19th century addiction was generally accidental and well-hidden. It stemmed in part from over-medication, careless prescription practices, repeated refills and hidden distribution of narcotic drugs in patent medicines. Society responded to this largely invisible medical addiction in indirect, informal ways. Self-regulation by the medical profession and pharmaceutical industry, stricter prescription practices by the state governments and regulation of labeling by the Federal Government in 1906 all combined in the early years of the new century to reduce the possibility of this accidental drug addiction.

About this same time, during the late 19th and early 20th centuries, attention within the law enforcement and medical communities was

drawn to another use of narcotics—the "pleasure" or "street" use of these drugs by ethnic minorities in the nation's cities. Society reacted to *this* narcotics problem by enacting criminal legislation, prohibiting the non-medical production, distribution or consumption of these drugs. Within a very few years, every state had passed anti-narcotics legislation, and in 1914 the Federal Government passed the Harrison Narcotics Act.

The major differences between the temperance and anti-narcotics movements must be emphasized. The temperance movement was a matter of vigorous public debate; the anti-narcotics movement was not. Temperance legislation was the product of a highly organized nationwide lobby; narcotics legislation was largely *ad hoc*. Temperance legislation was designed to eradicate known problems resulting from alcohol abuse; narcotics legislation was largely anticipatory. Temperance legislation rarely restricted private activity; narcotics legislation prohibited all drug-related behavior, including possession and use.

These divergent policy patterns reflect the clear-cut separation in the public and professional minds between alcohol and tobacco on the one hand, and "narcotics" on the other. Use of alcohol and tobacco were indigenous American practices. The intoxicant use of narcotics was not native, however, and the users of these drugs were either alien, like the Chinese opium smokers, or perceived to be marginal members of society.

As to the undesirability and immorality of non-medical use of narcotics, there was absolutely no debate. By causing its users to be physically dependent, the narcotic drug was considered a severe impediment to individual participation in the economic and political systems. Use, it was thought, automatically escalated to dependence and excess, which led to pauperism, crime and insanity. From a sociological perspective, narcotics use was thought to be prevalent among the slothful and immoral populations, gamblers, prostitutes, and others who were already "undersirables." Most important was the threat that narcotics posed to the vitality of the nation's youth.

In short, the narcotics question was answered in unison: the non-medical use of narcotics was a cancer which had to be removed entirely from the social organism.

Marihuana smoking first became prominent on the American scene in the decade following the Harrison Act. Mexican immigrants and West Indian sailors introduced the practice in the border and Gulf states. As the Mexicans spread throughout the West and immigrated to the major cities, some of them carried the marihuana habit with them. The practice also became common among the same urban populations with whom opiate use was identified.

Under such circumstances, an immediate policy response toward

marihuana quite naturally followed the narcotics pattern rather than the alcohol or tobacco pattern. In fact, marihuana was incorrectly classified as a "narcotic" drug in scientific literature and statutory provisions. By 1931, all but two states west of the Mississippi and several more in the East had enacted prohibitory legislation making it a criminal offense to possess or use the drug.

In 1932, the National Conference of Commissioners on Uniform State Laws included an optional marihuana provision in the Uniform Narcotic Drug Act, and by 1937 every state, either by adoption of the Uniform Act or by separate legislation, had prohibited marihuana use. In late 1937, the Congress adopted the Marihuana Tax Act, superimposing a federal prohibitory scheme on the state scheme.

Not once during this entire period was any comprehensive scientific study undertaken in this country of marihuana or its effects. The drug was assumed to be a "narcotic," to render the user psychologically dependent, to provoke violent crime, and to cause insanity. Although media attention was attracted to marihuana use around 1935, public awareness was low and public debate non-existent. As long as use remained confined to insulated minorities throughout the next quarter century, the situation remained stable. When penalties for narcotics violations escalated in the 1950's, marihuana penalties went right along with them, until a first-offense possessor was a felon subject to lengthy incarceration.

With this historical overview in mind, it is not surprising that the contemporary marihuana experience has been characterized by fear and confusion on one side and outrage and protest on the other. As scientific and medical opinion has become better known, marihuana has lost its direct link with the narcotics in the public mind and in the statute books.

But extensive ambivalence remains about the policies for various drugs. Marihuana's advocates contend that it is no more or less harmful than alcohol and tobacco and should therefore be treated in similar fashion. The drug's adversaries contend that it is a stepping-stone to the narcotics and should remain prohibited. At the present time public opinion tends to consider marihuana less harmful than the opiates and cocaine and more harmful than alcohol and tobacco.

Interestingly, while marihuana is perceived as less harmful than before, alcohol and tobacco are regarded as more harmful than before. In some ways, the duality which previously characterized American drug policy has now been supplanted by an enlightened skepticism as to the variety of approaches to the non-medical use of various drugs.

Despite this shift in attitudes, however, the use of alcohol and tobacco is not considered a major social problem by many Americans, while marihuana use is still so perceived.

This remains true despite the fact that alcoholism afflicts nine million Americans. According to the National Institute on Alcohol Addiction and Alcoholism of the National Institute of Mental Health:

- alcohol is a factor in half (30,000) of the highway fatalities occurring each year;
- an economic cost to the nation of $15 billion occurs as a result of acoholism and alcohol abuse;
- one-half of the five million yearly arrests in the United States are related to the misuse of alcohol (1.5 million offenses for public drunkenness alone); and
- one-half of all homicides and one-fourth of all suicides are alcohol-related, accounting for a total of 11,700 deaths annually.

Similarly, tobacco smoking is not considered a major public concern despite its link to lung cancer and heart disease. According to the Surgeon General in *The Health Consequences of Smoking, 1972:*

- cigarette smoking is the major "cause" of lung cancer in men and a significant "cause" of lung cancer in women; the risk of developing lung cancer in both men and women is directly related to an individual's exposure as measured by the number of cigarettes smoked, duration of smoking, earlier initiation, depth of inhalation, and the amount of "tar" produced by the cigarette; and
- data from numerous prospective and retrospective studies indicate that cigarette smoking is a significant risk factor contributing to the development of coronary heart disease (CHD) including fatal CHD and its most severe expression, sudden and unexpected death.

CULTURAL PERSPECTIVE

Realizing the importance of social change in understanding the issues surrounding the use of marihuana and other drugs, the Commission decided early that an objective appraisal of cultural trends was vital for the development of policy recommendations. Since neither the increase in marihuana use nor its attendant controversy is an isolated phenomenon, we sought a wider cultural perspective. To this end, the Commission sponsored a wide-ranging seminar on "Central Influences on American Life." With the cooperation of the Council for Biology in Human Affairs of the Salk Institute, we elicited a three-day conversation among 13 exceptionally thoughtful and perceptive observers of American life.*

*The participants included Jacques Barzun, as moderator, Mary Bingham, Claude T. Bissell, Kenneth Boulding, Robert R. Bowie, Theodore Caplow, Jay W. Forrester, T. George Harris, Rollo May, Jay Saunders Redding, Jonas Salk, Ernest van den Haag, and Leroy S. Wehrle.

It is well beyond both our mandate and our competence to attempt a definitive presentation of the status of the American ethical system. However, we shall try to suggest some of the more salient influences in our changing society, recognizing that only against the backdrop of society's fears, aspirations and values can a rational response to marihuana be formulated. Although we are not prepared to identify specific causal connections between these social trends and marihuana use, we do believe that some of the major points raised in the discussion of cultural change provide essential background in understanding the marihuana problem.

The Search for Meaning

One overriding influence in contemporary America is the declining capacity of our institutions to help the individual find his place in society. As one of the participants at the Seminar observed:

> A society is stable, peaceful, happy, not when it has rid itself of the tensions—because you never get rid of the tensions, because people's drives will be satisfied in ways that clash and so on—but when a very high proportion of the people feel fulfillment of some sort within the context which the society normally provides. The long-term problem now, for many many people, not just young people, is that this condition is not met.

Another noted:

> What is wrong with our social system, it seems to me, is that it no longer inspires in people a feeling of purpose, meaningfulness and so on.

A number of institutional trends have joined to deprive the individual of a sense of communal inspiration. Perhaps most important is the economic element. Whereas the individual's economic achievement formerly gave his life broad social meaning and inspired his existence, automation and technological advance have tended to depersonalize the individual's role in the economy. Instead of the economic system being dependent on individual productivity, the individual is increasingly dependent on the system. As his work dwindles in significance to the total society, it diminishes in meaning for him. Moreover, as more and more of our people share the nation's affluence, Horatio Alger's example is no longer needed to climb the economic ladder.

A particularly emphatic manifestation of the declining economic demand on the individual is the institutionalization of leisure time. Whereas the economy used to require long hours of work, now it barely requires more than a five-day week. Expanding vacation time and reduced work-weeks tend to diminish the strength of the work ethic. The implications of enforced leisure time are only now becoming apparent, and the concept of "idle hands are the devil's plaything" has to be reexamined in terms of acceptable forms of non-work behavior. This new time component, allowing for the assertion of individuality, has produced both privileges and problems.

In the last decade we have seen the beginnings of the institutionalization of this leisure ethic. A leisure-time industry has sprung up to organize this time period for the individual. Many Americans, due to the nature of their jobs in an automated economic system, find little personal satisfaction in their work, and many are now searching for individual fulfillment through the use of free time. Where meaning is not found in either work or recreational pursuits, the outcome is likely to be boredom and restlessness. Whether generated by a search for individual fulfillment, group recreation or sheer boredom, the increased use of drugs, including marihuana, should come as no surprise.

Another social development which has chipped away at individual identity is the loss of a vision of the future. In an age where change is so rapid, the individual has no concept of the future. If man could progress from land transportation to the moon in 60 years, what lies ahead? Paralleling the loss of the technological horizon is the loss of a vision of what the future, in terms of individual and social goals, *ought* to look like. Are times moving too fast for man to be able to plan or to adjust to new ways and new styles? This sense of the collapsing time frame was best summed up by one of the Seminar participants:

> . . . . there are great forces that have developed over the last several decades that cause one to lose sight of the distant future. Let me contrast a rural farm family of several decades ago which settled a farm. They expected their children to live there, they can imagine their grandchildren living there—there is an image of the future. There is really no one who [now] has any image of where his great grandchildren will be or what they will do. This comes about because of the nature of industrial society; it comes about because we have retirement plans instead of looking after one's own old age. There are a whole set of these [factors].
>
> Now the morality, the ethics get tied into it because ethics are really a long-time horizon concept. It's something you engage in because it's contrary to immediate reward and immediate gratification and so you look to some distant future. But as one loses sight of any future then I think the ethics and morality creep up to the very near term also . . . We have no one who has got an image of this country two hundred years from now, who is trying to create a structure that he believes will exist that long. So a number of these things . . . tie together in terms of the long-term

goals and how they have shifted. In any of our systems there tends to be a conflict between the short-term and the long-term goals. If the long-term goals are lost sight of then the short-term expediencies seem to be the things that well up.

To the extent that planning for the future no longer gives the individual his inspiration, he must look to the present. Such a climate is conducive to pleasure-seeking, instant gratification and an entire life-perspective which our society has always previously disclaimed.

A third force depriving the individual of a presumed place in society is the loss of a sense of community, a sense of belonging. Mobility, mass living and rapid travel all conspire to destroy the smaller community. The family moves from place to place and then separates, with each child going his own way. This global thinking leaves little time for home-town concern.

The dissipation of geographic roots parallels a social uprooting. As one of our Seminar participants noted:

> When you grow up with a small number of people with whom you have to live for a while, it does something which isn't done now. It forces you to face yourself. It forces you to ask what kind of person you are, because you can't get away with it with a group you're going to have to live with. They know what you really are. The mobility has the effect of making it possible for people to live playing parts for years. It seems to me we see it among the youngsters: role playing as distinguished from being somebody. . . .

All of these social trends have their most potent impact on young people who are just beginning to develop their values, beliefs and commitments. The adult society has found it easier to adjust to the emergence of the leisure value. Having experienced it as a gradual process, they see it as a reward for previous toil. For many of our young, however, a substantial segment of leisure time may be considered an essential part of living; they have known no other experience. Similarly, an adult society, increasingly influenced toward the present, at least has developed an historical perspective. Also, adult values were internalized at a time when a future vision was possible. For many of the young, however, the present weighs more heavily. This notion is best reflected in the vociferous youth response to the Vietnam conflict, the embodiment of a war fought for the future.

Finally, all of these cultural changes have occurred, especially for the young, in an environment of affluence. The successful economic system has maximized individual freedom. But the individual has been given unlimited choices at exactly the time when a value system within which to make such choices is in doubt. Because he has no sense of direction, the result is restlessness, boredom and an increase in the likelihood of present-oriented choices. Self-destructive drug-taking is one form such behavior may take. One of our Seminar participants observed in this connection:

> It seems to me that you've got this affluence. So that while most of us grew up with the feeling that the channels within which we were going to have to move and make choices were very narrow, channels for these youngsters look absolutely open. It's an absolutely a la carte menu—it's the biggest a la carte menu you can imagine. [This occurs] in a situation in which this sense of radical change is going on so fast that you can't master it, together with a feeling that the society is being operated by very large organizations which you can't get a grip on, giving one a sense of helplessness, of not knowing where to take hold. All these things inherently are disorienting to youngsters and don't give them a feeling of challenge, [but rather] a doubt as to the meaning of their own lives, of the significance of their being here, [a sense of] being atoms. So then they do act like children in the sense of behaving violently to call attention to themselves. They do a whole lot of other things which, it seems to me, are the sort of things you often see when people feel their lives have no meaning.

Skepticism

Another major influence in contemporary American life with substantial relevance to the marihuana problem is the uneasy relationship between the individual and society's institutions, particularly the state. For 50 years, there has been a continuing upward flow of power to large institutional units, whether they be corporate conglomerates, labor unions, universities or the Government. We have created a society which "requires the individual to lean on society," observed one of our Seminar participants, "in ways that formerly he did not have to do. He used to lean on the clan, on the family, on the village. We have used bureaucracy to deal with these problems." For many, the Federal Government epitomizes this development, bureaucratizing a social response to the most human of needs.

We suspect that the implications of this trend for the individual, although inevitable, became more visibly apparent in the 1960's. Mass institutions must deal through rules; the individual becomes a number. "Intuitively, [the individual] feels that bureaucracies must make man into an object in order to deal with him." So we have a depersonalization at exactly the time that many individuals are casting about for identity and fulfillment.

Simultaneously, technological advance poses the awesome prospect of 1984: the intrusion of the omnipresent state into the private affairs of the individual. Computerized data-banks and electronic surveillance are perceived as restrictions on individuality at a time when the desire for personal privacy is ascendant.

Another cultural feature of governmental bureaucracy during the sixties has been failure to match expectations. Government promises the elimination of poverty, the dissipation of racial discrimination, the excision of drug abuse, and creates rising expectations. But government is often ill-equipped or unable to perform such monumental tasks. As individual helplessness increases, as the "responsibility" of the bureaucracy enlarges, those in need often feel that the gap between public declaration and performance must be the result of a conspiracy to fail. And for the rest of us, there is the credibility gap. The net result is a loss of confidence in society's institutions. Viewed from this perspective, youthful dissent, cynicism and disobedience of the 1960's were not such surprising consequences.

Still another significant feature of institutional life in contemporary America is the lag between purpose and implementation. That is, some of our social institutions have not yet begun to deal with the consequences of the social and economic changes which have occurred over the last several decades. The best example, and the one most germane to the youth, is the educational system. Two generations ago, the labor force could assimilate the large majority of the nation's youth. Neither a high school nor a college education was prerequisite to occupational choice or achievement. Increased educational attainment was presumed to be limited to either the privileged or the able and would be rewarded by certain careers.

Today, however, the labor force grows more quickly than the system is able to assimilate it, and the educational system now serves as custodian as well as teacher. Although we sincerely wish to achieve the democratic ideal of a highly educated populace, we also keep our children in school as long as possible because we have nothing else for them to do. The trend is strikingly apparent even in the last 20 years.

Age	*Percent enrolled in school*	
	1950	*1970*
14–15	94.7	98.1
16–17	71.3	90.0
18–19	29.4	47.7
20–24	9.0	21.5

This custodial function confronts educators with a dilemma. Attrition is not in society's best interest; thus, single-minded devotion to the highest levels of achievement would be dysfunctional. In a sense, because the system no longer wants to turn away its subjects, the notion of failure has lost its meaning. As one of the Seminar participants observed:

> I think one of the problems is that there is no longer a penalty for failure. We—the educators—have had to lower standards in order to accommodate these people who need no longer fear failure. Of course this has been a cyclical thing, a wheel within a wheel. [If] there is no longer a penalty for failure, then there is no longer the need to acquire.

The changing function of education has been felt in both the secondary schools and in our institutions of higher learning. Numerous high school graduates cannot read. Colleges and junior colleges have sprung up overnight to accommodate the population, but many provide classrooms with little specific purpose. Only slowly is the educational system beginning to come to grips with its role in a changed society. At the university level, many educators have been appalled at sacrifices which have ensued from the custodial feature; rote learning, they contend, has supplanted citizen and character education.

Uncertainty about the role of the educational system has not escaped the students, particularly at the college level. Many of our youth, pressed into longer attendance, question its need or desirability. The demand for "relevance" is but another reflection of the search for meaning, for an understandable role in society. Drug use has perhaps provided an outlet for some members of this restless generation, uncertain of its place.

The Limits of Rationality

The social response to the individual's search for meaning has fostered an ambivalence, an unwillingness to act, a paralysis. In large measure, according to one Seminar member, this default of authority reveals the intensity of the search:

> In the same way we are getting universities that can't teach, families that can't socialize and police forces that can't catch criminals. In every case, the same issue is involved: the subject of authority questions the legitimacy of authority and the exerciser of it is unable to find—very often doesn't even try to find—a defense, because he feels in himself a sympathy, as do so many parents, with the challenge.

To a significant extent, society is waiting, hoping that the impulse for change will settle around certain fundamental attributes of the American ethic. At the present time, however, no consensus about the nature of these fundamentals exists. We are all looking for values that have deep roots, as we attempt to sort out the durable from the ephemeral.

All of the participants at our Central Influences Seminar agreed

that the unique feature of this search was its arational quality. As one observer put it:

> We have been discussing the question of how we change a society. I don't think it's changed by rational intention. As I understand societies, historically and our own, what really is required to change it is something on a deeper level that involves myth, ritual, sacrament—a number of these functions that have always been related to societies. On these you can't just suddenly make up your mind and then prescribe.
>
> Regarding our problem of authority, you cannot really ask the question: why can't these people hang onto their authority? They can't hang onto it because what gave them authority is something not of themselves, but part of the society, part of a ritual, a sacrament: a way of behaving in the group which gave them authority, [whether] professorial, parental or policy authority. In each one of these cases, what we see is not the diminishing of these men so much but rather the developing emptiness, the lack of the particular ethic that gave them authority to start with. This is why we are in a terrible dilemma.
>
> What is essentially lacking is a system of ethics, morality or religion that gives birth to the myths, the rituals, the sacraments that are its expression. These touch human beings on the unconscious level. These are the ways we see the world. They are not our conscious thought, but the ways we form ourselves—form each other, love each other or hate each other—in terms not so much of rational intention as a deeper unconscious—conscious and unconscious—which is my definition of a myth; much more of a feeling level, a living level. That is what is not present now.
>
> What we need, below and above all of our deliberations, is the growth and development of an ethical system. We just do not have this now.

As we move into the 1970's, our society is collectively engaged in the task of determining what America means, and how each individual should find fulfillment in a changing age. From this wider perspective of flux emerges an uncertainty about what the increased prevalence of marihuana use means for the individual and the total society.

Formulating Marihuana Policy

Present symbolism, past implications, and future apprehensions all combine to give marihuana many meanings. These diverse notions of what marihuana *means* constitute the marihuana problem. In this atmosphere, the policy-maker's position is precarious insofar as no assumption is beyond dispute. Accordingly, the Commission has taken particular care to define the process by which a social policy decision should be reached.

In studying the arguments of past and present observers to justify a particular kind of marihuana policy, we conclude that a major impediment to rational decision-making in this area is oversimplification. As suggested earlier, many ingredients are included in the marihuana mix—medical, legal, social, philosophical, and moral. Many observers have tended to isolate one element, highlight it and then extrapolate social policy from that one premise. In an area where law, science and morality are so intertwined, we must beware of the tendency toward such selectivity.

SCIENTIFIC OVERSIMPLIFICATION

It is wrong to assume, as many have done, that a particular statement of marihuana's effects compels a given social policy or legal implementation. An accurate statement of the effects of the drug is obviously an important consideration, but it is conclusive only if the effects are extreme one way or the other. For example, if the use of a particular drug immediately causes the user to murder anyone in his presence, we have no doubt that a vigorous effort to eliminate use of that drug would be in order. On the other hand, if the effects of the drug are purely benign, presenting no danger whatsoever to the user or society, no reason would exist to suppress it.

We know of no psychoactive substance, including marihuana, which falls at either of these extremes. Thus, it begs the issue to contend, as some have done, that because we don't know enough about the effects of heavy, chronic use, we should maintain the status quo. We know a lot about the adverse effects of alcoholism and heavy cigarette smoking, and yet no responsible observer suggests that we should adopt total prohibition for these drugs. Similarly, previous estimates of marihuana's role in causing crime and insanity were based on quite erroneous information; but to infer from this that marihuana should be considered totally benign and hence made freely available is also not logical. Both approaches are simplistic; both approaches fail to take into account the social context in which the drug is used and the dynamic factors affecting the role that marihuana use may or may not play in the future.

A similar manifestation of scientific oversimplification is the focus on causality. Many opponents of marihuana use feel compelled to establish a causal connection between marihuana use and crime, psychosis, and the use of other drugs, while their adversaries focus the dispute on negating such relationships. The Commission believes that this tendency misses the mark.

The policy-maker's task is concerned primarily with the effects of marihuana on human behavior. For both philosophical and practical

reasons, proof of causal relationships is next to impossible. At the same time, however, the extent to which marihuana use is associated with certain behaviors and whether any significant relationships exist can offer important clues.

We must be cautious when dealing with such data. Yet we cannot afford to paralyze the decision-making process simply because absolute "proof" is lacking. Spokesmen on both sides of the marihuana debate should focus not on causation but instead on the relevance of the association between various behavioral effects and marihuana use.

PHILOSOPHICAL OVERSIMPLIFICATION

Some partisans stoutly maintain that the state has no right to interfere with essentially private conduct or that the state has no right to protect the individual from his own folly. Some of the greatest minds of the Western world have struggled over such philosophical issues, always with the same outcome: a recognition of the need to draw a line between the individual and his social surroundings. That is, everything an individual does, in private or not, potentially may affect others. The issue is really to determine when the undesirable effect upon others is likely enough or direct enough for society to take cognizance of it and to deal with it. Coupled with this is the further question of whether the nature of the behavior and its possible effect is such that society should employ coercive measures.

Advocates of liberalization of the marihuana laws commonly contend either that the decision to use marihuana is a private moral decision or that any harm flowing from use of the drug accrues only to the user. Defenders of the present restrictions insist that society not only has the right but is obligated to protect the existing social order and to compel an individual to abstain from a behavior which may impair his productivity. Unfortunately, the issue is not so simple and the line often drawn between the *private* conduct and behavior affecting the *public* health and welfare is not conclusive or absolutely definable.

For example, a decision to possess a firearm, while private, is considered by many to be of public magnitude, requiring governmental control. A decision to engage in adulterous conduct, although generally implemented in private, may have public consequences if society believes strongly in the desirability of the existing family structure. Similarly, excessive alcohol consumption, in addition to its adverse effects on individual health, may impair familial stability and economic productivity, matters with which the total society is concerned.

So, while we agree with the basic philosophical precept that society may interfere with individual conduct only in the public interest, using coercive measures only when less restrictive measures would not suffice, this principle merely initiates inquiry into a rational social policy but does not identify it. We must take a careful look at this

complicated question of the social impact of private behavior. And we must recognize at the outset the inherent difficulty in predicting effects on the public health and welfare, and the strong conflicting notions of what constitutes the public interest.

Again and again during the course of our hearings, we have been startled by the divergence of opinion within different segments of our population. Sometimes the disagreement is quite vehement, and relates to the underlying social concerns of particular groups. For example, we were told repeatedly by leaders of the urban black communities that they wanted to purge all drug use from their midst, marihuana included, and that the "legalization" of marihuana would be viewed as part of a design to keep the black man enslaved.

On the other hand, we were informed repeatedly by the activist student element that the present social policy regarding marihuana was merely a tool for suppression of political dissent, and until the law was changed, there could be no hope of integrating the dissident population into the mainstream of American society.

Such statements reemphasize the degree to which marihuana is regarded as a symbol of a larger social concern.

The conflicting notions of the public interest by different segments of the population reinforced in the Commission's deliberations the realization that we have been called upon to recommend public policy for all segments of the population, for all of the American people. The public good cannot be defined by one segment of the population, the old or the young, users or non-users of marihuana, ethnic minorities or white majority. At the same time, the fears of each of these groups must be taken into consideration in arriving at the basic social objectives of the Commission's public policy recommendation. Where such fears are real, they must be confronted directly; where they are imagined, however, they must be put in perspective and, hopefully, laid to rest.

SOCIOLOGICAL OVERSIMPLIFICATION

Public debate and decision-making in our society suffer from the glorification of statistical data. After a particular social phenomenon, such as marihuana use, has been defined as a problem, armies of social-scientific researchers set out to analyze and describe the problem. A sophisticated computer technology instantly translates millions of bits of data into correlations, probabilities and trends. The most striking findings are then fed to a data-hungry public. The result is data overload.

Descriptive information about the nature and scope of marihuana use as a behavior is an essential component of the policy-maker's knowledge-base. However, such information does not in itself have social policy implications. The policy-maker must define goals and

evaluate means; only after he asks the right questions will statistical data suggest useful answers. Unfortunately, a tendency exists in the marihuana debate to assign prescriptive meanings to descriptive data without testing the underlying assumptions. Further, the data have often been accumulating in a fragmented way. No overall plan was devised beforehand; the result has been an *ad hoc* use of available data triggered by individual research interests rather than by long-term policy needs.

What does it mean that 24 million people have tried marihuana? Some have suggested that it means marihuana ought to be legalized. But does it mean the same thing if 15 million tried the drug once and have decided not to use it again? And does it mean the same thing if popular interest in the drug turns out to be a passing fancy, which wanes as suddenly as it waxed?

On the other side of the controversy, what does it mean that a substantial percentage of the public would favor increased penalties for marihuana use? The prescriptive implications of a democratic impulse may be offset by a preference for individual freedom of choice. Also, this segment of public opinion may have been influenced by incorrect information, such as unwarranted belief in marihuana's lethality or addiction potential. So, although the policy-maker must be aware of political realities, he must not allow his function to be supplanted by public opinion polls. This is an area which requires both awareness of public attitudes and willingness to assert leadership based on the best information available.

LEGAL OVERSIMPLIFICATION

Perhaps the major impediment to rational decision-making is the tendency to think only in terms of the legal system in general and of the criminal justice system in particular. This thinking is certainly understandable, given the history of marihuana's involvement with the criminal law. Nonetheless, the law does not exist in a social vacuum, and legal alternatives can be evaluated only with reference to the values and policies which they are designed to implement and the social context in which they are designed to operate.

Legal fallacies are apparent on both sides of the marihuana controversy. Many of the persons opposed to marihuana use look exclusively to the law for social control. This reliance on the law is stronger today because many of our fellow citizens are uneasy about the diminishing effectiveness of our other institutions, particularly when the non-legal institutions have been relatively lax in controlling drug-related behavior. Increasing reliance is placed upon the legal system to act not only as policeman, but as father confessor, disciplinarian, educator, rehabilitator and standard-bearer of our moral code. Little or no thought is given to what impact this over-reliance on the law has on

the viability of other social institutions, not to mention its effect on the legal process.

A society opposed to marihuana use need not implement that policy through the criminal law. Non-legal institutions, such as the church, the school and the family, have great potential for molding individual behavior. Accordingly, the policy-maker must delicately assess the capacity of the legal system to accomplish its task and must consider the mutual impact of legal and non-legal institutions in achieving social objectives.

We recognize the short-sightedness of an absolute assumption that the criminal law is the necessary tool for implementing a social policy opposed to marihuana use. But equally short-sighted is the opposing contention which attempts to analyze the law separately from its underlying social policy objective. This argument assumes that if the law isn't working, or if the costs of enforcing the law outweigh its benefits, the law should, therefore, be repealed.

If society feels strongly enough about the impropriety of a certain behavior, it may choose to utilize the criminal law even though the behavior is largely invisible and will be minimized only through effective operation of other agencies of social control. Laws against incest and child-beating are good examples. In weighing the costs and benefits of a particular law, one must provide a scale and a system of weights. The scale is the normative classification of behavior, and the system of weights is the largely subjective evaluation of the importance of the values breached by the behavior. This weighing process is what is open to dispute.

In sum, no law works alone. Where an unquestioned consensus exists about the undesirability of a particular behavior and all social institutions are allied in the effort to prevent it, as is the case with murder and theft, the law can be said to "work" even though some murders and thefts may still be committed. Where society is ambivalent about its attitude toward the behavior and other institutions are not committed to its discouragement, the law cannot be said to be working, even though many people may not engage in the behavior because it is against the law.

The question is whether the social policy, which the law is designed to implement, is being achieved to a satisfactory extent. To determine the role of law regarding marihuana, we must first look to society's values and aspirations, and then define the social policy objective. If we seek to discourage certain marihuana-related behavior, we must carefully assess the role of the legal system in achieving that objective.

The Report

In this Chapter, we have tried to put the marihuana problem in perspective. In the remainder of this Report, we explore several aspects of the phenomenon of marihuana use, its effects, its social impact and its social meaning, assessing their relative importance in the formulation of social policy.

In Chapter II, we consider the effects of the drug on the individual user, with particular attention to the size of the user population for whom various effects are relevant. The Commission emphasizes that this material is related only indirectly to its policy-making function. The social policy planner is concerned not about the effects on the individual *per se*, but about the impact of any adverse effect on his behavior and on the larger society and about the meaning of this behavior in the larger social perspective. The material in Chapter II serves primarily to educate and inform.

In Chapter III, the Commission evaluates the various threats which marihuana use is perceived to present to the public safety, public health, and dominant social order. This Chapter is designed to assess the social impact of marihuana use, the initial step in the policy-making process.

In Chapter IV, we consider what role marihuana use plays and will play in the life of American society. This is the dynamic element of marihuana use and is the most intangible of the marihuana realities, but is particularly important from a policy-planning perspective. This consideration is the one most overlooked by contemporary observers and participants in the marihuana debate.

Because social meaning is not a directly measurable entity, we must examine the ways in which society responds to the behavior and whether such responses, both formal and informal, are fluid or static. After analyzing public opinion, law enforcement behavior and the reactions of medical, educational, and other segments of the population, we then discuss what marihuana use has come to mean and is likely to mean in the future. Particularly important in this highly speculative endeavor is the wider cultural perspective which we described earlier in this Chapter.

In Chapter V, we bring this information to bear on a policy-making process. After establishing the philosophical framework, we explore the spectrum of social policy options, choosing the one we judge most suitable to the present time. Then we consider the range of legal alternatives for implementing this chosen policy, and select the one we believe to be most appropriate for achieving it.

In an addendum to the Report, we present some ancillary recommendations. Some of these recommendations flow from our basic premise, others are a result of independent evaluation by the Commission of other areas of concern.

We ask the reader to set his preconceptions aside as we have tried to do, and discriminate with us between marihuana, the drug, and marihuana, the problem. We hope that our conclusions will be acceptable to the entire public, but barring that, we hope at the least that the areas of disagreement and their implications will be brought into sharper focus.

II
marihuana use and its effects

"Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passions, they cannot alter the state of facts and evidence."

—John Adams (1770)

The ultimate objective of the Commission is to evaluate the total impact of actual and potential marihuana use on contemporary American society. This endeavor involves three phases: first, an evaluation of the nature and scope of contemporary American marihuana use; second, a careful reevaluation of the pharmacological effects of the drug on the human body, with special emphasis on the drug's capacity to alter or modify behavior; and third, an evaluation of the impact of marihuana use on society. This chapter deals with the first and second phases, and Chapter Three deals with the third.

The Marihuana User

Cannabis has been used widely for many centuries in nonindustrialized countries of Asia and Africa. Today, as in earlier years, use of the drug is concentrated primarily among lower socioeconomic groups. In these countries, the practice is estimated to be confined to a tenth of the lower socioeconomic, male population. Although such use of the

drug is well-established, it offers little direct comparison with the American experience.

Although the commercial, industrial and therapeutic value of the hemp plant was widely recognized and exploited in the United States from the earliest days of its history, knowledge and use of its intoxicating and psychoactive properties remained largely unknown until about 1900.

At that time, the custom of smoking marihuana was generally limited to groups of Mexican itinerant workers in the border states of the Southwest. By 1910, marihuana use began to emerge in other southern states and cities, particularly New Orleans, and in the port cities along the Mississippi River. In time, these cities became distribution centers for enterprising sailors. From there, marihuana use spread cross-country to other urban centers, mining camps, railroad construction sites, farm labor camps, "bohemian" communities of artists and jazz musicians, and various other groups outside the mainstream of American society.

Recently, of course, use of the drug has spread to young, white, middle class groups and especially to high school and college populations.

DEMOGRAPHIC CHARACTERISTICS

On the basis of the Commission-sponsored National Survey, we have concluded that contemporary marihuana use is pervasive, involving all segments of the U.S. population. The Survey estimated that about 24 million Americans over the age of 11 years (15% of the adults 18 and over, and 14% of the 12–17 year olds) have used marihuana at least once, referred to in this Report as ever-users. Until recently twice as many males as females had used it; the most up-to-date studies of high school students, college-age individuals, and young adults carried out by the Commission indicate that this sex differential appears to be diminishing. In many youthful populations use is almost equally distributed between males and females.

Marihuana use does not appear to vary significantly by race. With respect to the religious affiliation of the users, Jews and Catholics appear to be slightly overrepresented as compared to Protestants.

Usage is highest in cities, towns, and suburbs but not uncommon in rural areas. States in the Northeast and West have considerably higher rates of use than have the North Central states, which in turn have significantly higher rates than those in the South.

Use is found in all socioeconomic groups and occupations, though slightly more predominant among persons with above-average incomes. A New York survey of the state's general population indicated that ever-use as well as regular use is almost equally prevalent among

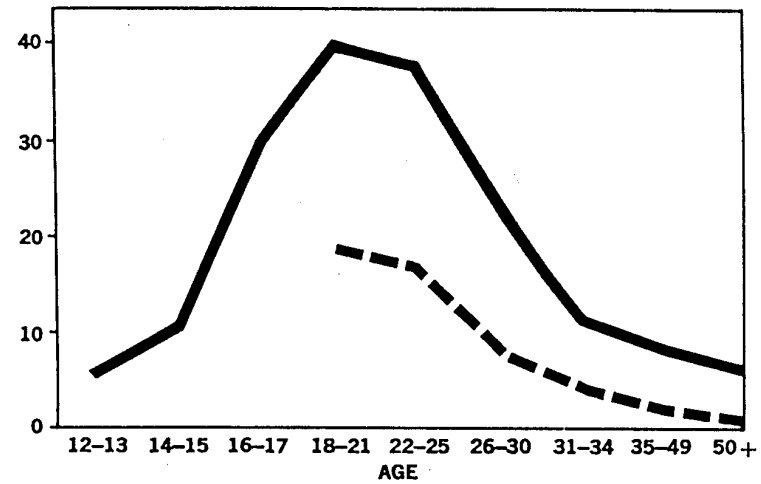
sales workers, clerical workers, skilled, semiskilled and unskilled workers, managers, owners, professionals and technical workers.

At the same time, the incidence of use seems to vary according to educational attainment. Among all adults not now in school, 5% of those with an eighth grade education or less have used the drug, contrasted with 11% of those who completed some high school, 14% of those who graduated from high school, 25% of those who completed some college and 21% of those who graduated from college.

Age is presently one of the most significant correlates of marihuana use. Among the total population, those who have tried or used marihuana at least once, termed ever-users, are heavily concentrated in the 16–25 age bracket. Of *all* the ever-users, about half are in this group. At the same time, however, we should emphasize that use is by no means confined to teenagers and young adults.

The proportion of individuals in different age groups who have used marihuana is indicated in Figure 1.

Figure 1. MARIHUANA EXPERIENCE BY AGE
Percent who have ever used marihuana (solid line) and of adults who use it now (dotted line)



The incidence of use is greatest among young people: 27% of the 16–17 year olds, 40% of the 18–21 year olds, and 38% of the 22–25 year olds have tried marihuana; at the low extremes, 6% of the 12–13 year olds and 6% of the over-50 generation have used the drug.

Among those now in school, incidence also seems to rise with increasing school level: Ever-users represent 44% of those persons now in college or graduate school; 30% of high school juniors and seniors; 17% of freshmen and sophomores; and 8% of students in junior high school.

At the same time, the use of the drug among adults is by no means confined to college students. Even among the 18–25 year olds, 75% of the ever-users are not now in school.

The initial patterns of contemporary marihuana use appear to be shifting; there is a trend toward increased use among college students as well as non-college students. Non-student users now span social class, income level and occupational classification. In addition, the proportion of users increases during the teens, peaks during the young adult years and then falls off rapidly (Figure 1).

Having described the incidence of *any use* of marihuana *ever*, and demographic characteristics of the 24 million Americans who have tried the drug, we recognize the need to place this information into perspective. The policymaker must also be concerned with the patterns of use: frequency, amount consumed at each smoking, and duration of use.

PATTERNS OF USE

The most striking of the use patterns revealed in the National Survey is that 41% of the adults and 45% of the youth who have ever used marihuana reported that they no longer use the drug. Twenty-nine percent of the adults and 43% of the youth reported that they are still using marihuana (see Table 1). When asked why they had terminated use, the overwhelming majority of adults (61%) specified, among other reasons, that they had simply lost interest in the drug.

Table 1.—EXPERIENCE WITH MARIHUANA

Frequency	Percent of ever-users		Designation
	Adults (18 and over)	Youth (12–17)	
Have used marihuana but no longer use.	41	45	Experimenters.
Once a month or less	9	15	
2–3 times per month	8	10	Intermittent users.
Once per week	4	9	
Several times per week	5	4	Moderate users.
Once daily	1	1	
More than once daily	2	4	Heavy users.
No answer	30	12	

These data indicate that at least 41% of the adults and 45% of the youth have used marihuana but have discontinued use; 9% of the adults and 15% of the youth use the drug sporadically, once a month or less. These persons can be characterized as experimental marihuana users.*

To ensure an understanding of this section of the Report, some definitions are required at this juncture. In this Report, the Commission employs the following designations:

Frequency of Use

Experimental—At least one trial to once a month or less.
Intermittent—Two to 10 times monthly.
Moderate—11 times monthly to once daily.
Heavy—Several times daily.
Very Heavy—Almost constant intoxication with potent preparations; brain rarely drug free.

Duration of Use

Short Term—Less than two years.
Long Term—Two to 10 years.
Very Long Term—Over 10 years.

Twelve percent of the adults and 19% of the youth who have ever used marihuana can be designated *intermittent* users; they continue to use the drug more than once a month, but less than several times a week, probably on weekends. Six percent of the adults and five per-

*All respondents for the National Survey were asked to complete a self-administered questionnaire. This instrument covered many sensitive areas, including a series of items on personal experience with marihuana and other drugs. Given the nature of the questions, the contractor took every precaution to insure that the interviewee responded honestly and that his responses were kept strictly confidential. Even the interviewer who orally administered the rest of the Survey was not permitted to view the written instrument.

One of the inevitable costs of such confidentiality is the risk that a certain percentage of respondents would not complete one or more of the questions. Where a significant number of questions remained unanswered, the questionnaire was not tabulated at all. However, in 30% of the otherwise complete questionnaires, the adult respondents who had ever used the drug did not answer the question, "On the average, about how often do you use marihuana at the present time?"

Concerned about the meaning of this non-response rate, the Commission directed the contractor to conduct a detailed analysis comparing the non-respondents with all respondents and with those individuals who had never used marihuana at all. On the basis of this analysis, we are confident that the overwhelming majority, if not all, of the non-respondents are experimenters.

In the first place, the demographic characteristics of the non-respondents coincide closely with those of the non-users and less frequent users. Very few of the young adults, where more frequent use is concentrated, failed to respond.

Secondly, the non-respondents are disproportionately located in the geographic regions where use was least prevalent and least frequent. For example, 50% of the ever-users in the North Central region failed to respond, compared to 7% in the West. Yet only 5% of the ever-users in the North Central region continue to use the drug more than once a week, compared to 21% in the West; and less than .5% of the ever-users in the North Central region use the drug more than once a day, as compared to 4% in the West.

cent of the youth are moderate users who continue to use marihuana several times a week to once daily.

Finally, 2% of the adults and 4% of the youth who have ever used marihuana are *heavy* users: they use the drug several times daily. A very small fraction of these heavy users may be *very heavy* users, who are intoxicated most of their waking hours and probably use very potent preparations of the drug.

In addition to frequency, duration of use is an important variable in discussing use patterns and especially when considering drug effects. Most users in this country have smoked the drug over a *short term*, that is, less than two years. Others have used the drug over a *long term*, two to 10 years. Very few Americans can be considered *very long term users*, that is, over 10 years.

Another important element of use is the amount of marihuana used on each occasion. Most intermittent and moderate users average about one-half to one cigarette per occasion, usually at night. Most heavy users smoke at least one to two cigarettes an occasion, with a few using as many as five consecutively.

As this brief description of use patterns suggests, marihuana use and the marihuana user do not fall into simple, distinct classifications. Although it is possible to sketch profiles of various marihuana-using populations, no valid stereotype of a marihuana user or non-user can be drawn. The spectrum of individuals who use or have used marihuana varies according to frequency, intensity and duration of use. It is meaningless to talk of "the marihuana user" or "marihuana use" without first clarifying descriptive data.

PROFILES OF USERS

Several studies by the Commission and many other recent college and high school surveys have elucidated a variety of personality types or categories of marihuana users. These profiles relate primarily to the patterns depicted above and to the meaning of marihuana use for various individuals. Essentially we will describe a continuum with much overlapping among the categories. The reader should understand that group identification is at best a hazardous occupation; the traits described are not exclusive to marihuana users. A much larger number of individuals who have not used the drug can be similarly described.

Experimental Users

The first and by far the largest group has been designated as "experimenters" because of their extremely infrequent or non-persistent marihuana usage. Experimentation with the drug is motivated primarily by curiosity and a desire to share a social experience. These experimenters are characteristically quite conventional and practically indistinguishable from the non-user in terms of life style, activities, social integration, and vocational or academic performance.

Disciplined, optimistic, and self-confident, experimenters appear to be as conventional, responsible, goal-oriented and orderly as non-users.

Intermittent Users

The intermittent users are motivated to use marihuana for reasons similar to those of the experimenters. They use the drug irregularly and infrequently but generally continue to do so because of its socializing and recreational aspects. For the intermittent user, marihuana often contributes to the establishment and solidification of close social relations among users similarly inclined. The individual has a sense of belonging to an intimate group.

Investigations of behavioral aspects of marihuana smoking clearly demonstrate that marihuana smoking is a social activity, believed by intermittent users to enhance the enjoyment of shared activities, especially music, art, films and food.

In a Commission-sponsored study to determine the effects of repeat doses of marihuana, under free access conditions, the subjects smoked almost exclusively in groups. A certain number of these individuals tended to share much of their leisure time in common activities, and marihuana smoking was the focal activity around which other types of social interactions revolved, such as conversation, watching TV, listening to music and playing games. The intermittent users studied exhibited an increased sense of well-being, relaxation, and friendliness during these activities. They were more inclined to seek and emphasize the social rather than personal effects of the drug.

Intermittent marihuana users, like the experimenters, are generally conventional in most respects. They are more liberal politically and socially and they tend to stress education for personal improvement rather than for recognition or high grades. Like many non-users, these individuals are likely to be self-expressive, intellectually and culturally oriented, creative, and flexible. Placing a high value on experimentation and responsible, independent decision-making, they often manifest a desire to search for new experiences, resulting in some behaviors which depart from the norms of the larger society. Often accompanying their search is a sense of uncertainty about the future.

Moderate and Heavy Users

The final groups of marihuana users are the moderate and heavy users. This range is wide and includes individuals who use marihuana more than 10 times a month to several times a day. Practically all of the American research effort to date has focused on the large majority

of individuals who use less often, that is, the experimental and intermittent users. Consequently, not enough is known about characteristics and behavior of the moderate and the heavy users, so it is difficult to distinguish accurately between the two groups. We suspect however that the moderate users share traits with both the intermittent and the heavy users. Having already discussed the intermittent group, we will now turn to the characteristics of the heavy group.

Heavy users seem to need the drug experience more often. Their initial and continued marihuana use is motivated not only by curiosity and an urge to share a social experience but also by a desire for "kicks," "expansion of awareness and understanding," and relief of anxiety or boredom.

Generally, the heavy marihuana user's life style, activities, values and attitudes are unconventional and at variance with those of the larger society. These individuals are more pessimistic, insecure, irresponsible, and non-conforming. They find routine especially distasteful. Their behavior and mood are restless and uneven.

Heavy users place particularly strong emphasis on impulsive response in the interest of pleasure-seeking, immediate gratification, and individual expression. They tend to evidence social and emotional immaturity, are especially indifferent to rules and conventions, and are often resistant to authority. However, several surveys have also revealed that they tend to be curious, socially perceptive, skillful and sensitive to the needs of others, and possess broadly based, although unconventional, interests.

The Boston free-access study permitted the Commission to observe a group of individuals whose life styles, activities, values and attitudes are representative of a segment of the unconventional youthful subculture. The month-long period of controlled study during the fall prevented the participation of individuals who were married, steadily employed, or enrolled in school.

Individuals who smoked marihuana once a week or less were sought by the researchers but were exceedingly unusual among the population available for the study. Consequently, the group studies contrasted with the student and full-time working populations in which weekly marihuana use is more common. For this reason, the intermittent users studied appeared to be similar to, rather than different from, the moderate and heavy users studied. Both groups had used marihuana for an average of five years.

Under the study's confined conditions, participants tended to smoke more marihuana than they did "on the outside." The intermittent users, who by our definition averaged eight times a month under outside conditions, averaged three cigarettes a day during the study. The range was from one-half to six cigarettes daily.

The moderate and heavy users, who "on the outside" averaged 33

times a month, now averaged six-and-a-half cigarettes a day. The range was three-and-a-half to eight cigarettes. In discussing the Boston study, we will call this group "daily" users.

Smoking usually occurred at night, sometimes during the afternoon and only occasionally upon awakening. The intermittent and heavy users usually smoked one cigarette a session. The daily users were more likely to smoke more than one a session. A few individuals in the daily group could have been considered constantly intoxicated on a few occasions during the 21-day period.

The mean age of the subjects studied was 23. Based on IQ testing, they were superior intellectually, although they had completed, on the average, only two-and-a-half years of college. Their job histories were rather erratic, characteristic of a pattern of itinerant living. The intermittent users were from a middle or upper class background, while the daily users generally shared a lower socioeconomic status. Broken homes and instances of alcohol or drug abuse were more common in the family backgrounds of the daily users.

Alcohol was rarely used by the subjects. Use of hallucinogens and amphetamines was significantly more widespread and had begun earlier in the daily user group. In contrast to the intermittent group, the daily users almost uniformly reported that marihuana smoking produced relaxation, noting also increased alteration in perception or psychedelic-like effects. Similarly, they reported an increased sense of well-being, friendliness, carefreeness and decreased hostility. Additionally, the daily users appeared to demonstrate a moderate psychological dependence on the marihuana experience while the intermittent users demonstrated little or no psychological dependence.

Analysis of social-behavioral aspects of daily users' marihuana smoking clearly demonstrated that it is a pivotal social activity around which conversation, other personal interactions, and much of the users' lives revolve. Smoking almost exclusively occurred in groups and was the focal activity around which these groups formed. The daily users exhibited a readiness to take part in but not to initiate a smoking session.

In contrast to the intermittent users, all the daily users in a group smoked when marihuana was made available. Marihuana smoking appeared to be a primary means of reinforcing group solidarity. Yet these users were more inclined to seek the personal effects of the drug rather than the socializing effects sought by the intermittent users.

The social adjustment of the daily users, when judged from a traditional psychiatric standpoint, was impaired. Individuals tended to be more withdrawn and to interact less with each other than the intermittent users, regardless of the type of activity or state of intoxication. However, the daily users did appear to accommodate themselves better than the intermittent users to the effects of the intoxication on social interaction.

Despite a relatively high level of scholastic attainment and superior intelligence, many of the subjects were performing well below their intellectual capability, usually working at menial, mechanical or artisan tasks. They were not oriented toward achieving the traditional goals of the larger society.

Nonetheless, during the period of the Boston study, the subjects could not be characterized as displaying a general lassitude and indifference, carelessness in personal hygiene or lack of productive activity, all supposed to be characteristic of very heavy use. Even during the periods of heaviest marihuana smoking, they maintained a high level of interest and participation in a variety of personal activities, such as writing, reading, keeping up on current world events, and participating in athletic and aesthetic endeavors.

Additionally, all of the subjects maintained a desire to complete all aspects of the research study. Although they could be labeled "underachievers" in terms of the traditional standards of the larger society, these individuals were motivated to pursue actively the interests and activities of their own subculture.

Generally, most studies which have been undertaken indicate that individuals who are heavy marihuana users cannot find a place for themselves in conventional society. Their heavy marihuana use may reflect and perhaps perpetuate their unconventionality while providing social acceptance in one of the non-conventional subcultures.

Very Heavy Users

The Commission's analysis of frequency, quantity and duration of marihuana use suggest that the United States is at the present time in a fortunate position. All of the studies available to the Commission have indicated that only a minute number of Americans can be designated as very heavy marihuana users. These studies uniformly indicate that chronic, constant intoxication with very potent cannabis preparations is exceedingly rare in this country.

The Commission believes that important distinctions must be made between the daily (moderate and heavy) American marihuana user and the very heavy hashish or charas user in other parts of the world where cannabis is widely cultivated and its use deeply ingrained. Many of the North African and Asian users do not employ the drug only as an intoxicant in the western sense. Instead, it is frequently used in "folk medical practice," in religious rites and as a work adjunct particularly in those occupations which are physically demanding, monotonous, unintellectual, and offer little possibility of advancement.

In these countries, very heavy use is typically associated with young males from a lower socioeconomic background. Nonetheless, use is more widespread among all ages and elderly chronic users are not uncommon.

Generally, these very heavy users consume high amounts of very potent preparations continually throughout the day so that they are rarely drug-free. These individuals evidence strong psychological dependence on the drug, requiring compulsive drug-taking. Clear-cut behavioral changes occur in these extreme cases. The very heavy user tends to lose interest in all activities other than drug use. A common element of the behavioral pattern is lethargy and social deterioration. Not surprisingly, these users have been held in low esteem and very heavy use has been subject to societal disapproval in almost all countries.

BECOMING A MARIHUANA USER

Our attempt to classify marihuana users is primarily for descriptive purposes. It does not imply that all individuals who resemble any of the categories are necessarily marihuana users. Nor is it implied that all marihuana users fit neatly or precisely into these slots. There is no "typical" marihuana user, just as their is no typical American. The most notable statement that can be made about the vast majority of marihuana users—experimenters and intermittent users—is that they are essentially indistinguishable from their non-marihuana using peers by any fundamental criterion other than their marihuana use.

But if most users and non-users of marihuana essentially are indistinguishable, why have some people chosen to use the drug and others not, and why have some people continued to use it and others not? An important part of the explanation is that use of marihuana, like all human behavior, occurs within specific social and cultural settings. The individual's biological characteristics and personality probably play an important role in determining the pattern his use will take. However, the cultural and social setting play a larger role in determining whether he will use it at all.

Numerous studies have demonstrated that the young person who chooses to use marihuana differs in some important sociological respects from his peer who does not choose to do so. These differences relate to his willingness to experiment with a drug, especially a forbidden one. In short, the process of becoming a marihuana user is not a "seduction of the innocent" as is often portrayed. Based on interrelated familial, social and cultural factors, persons, especially young persons, who may choose to use marihuana can be predicted statistically.

Parental Influence

The decision to use marihuana is related to parental life style. Parents provide the most important example of acceptable drug-taking

behavior for their children. That marihuana users frequently have medicine-taking, cigarette-smoking, or liquor-drinking parents has been demonstrated. In a series of Canadian studies, grade and high school students who said their mothers took tranquilizers daily were three times more likely to try marihuana than the students who did not so report.

Beyond the influence of a drug-taking example, parents have the primary influence on their childrens' acquisition of skills, values and attitudes necessary to be mature and responsible adults. Many parents have oriented their children toward becoming independent, competent, educated, and adaptive adults.

Simultaneously, many young people observe in their parents' lives the trend toward shorter work periods, earlier retirement and increased emphasis on leisure time activities. It appears that the incidence of adolescent marihuana use is strongly correlated with this trend toward increased leisure time.

Situational Factors and Behavioral Correlates

All studies of the ever user, including the Commission-sponsored National Survey, have established that marihuana smoking is significantly correlated with a number of demographic variables. Males, college students, and residents of metropolitan areas, especially in the Northeast and West, are generally over-represented in proportion to their percentage of the total population.

Among the behaviors statistically correlated with marihuana use are radical politics, visits to psychiatrists, sexual freedom, and separate residences from parents. The most significant behavior seems to be use of legal drugs, especially alcohol and tobacco. Young people who choose to experiment with marihuana are fundamentally the same people, socially and psychologically, as those who use alcohol and tobacco. For example, in a study of high school youngsters, only 3% of all the non-smokers in the sample had ever tried marihuana, compared with 50% of all the current cigarette smokers. Similarly, for alcohol drinking outside the family setting, only 2% of all the non-drinkers had tried marihuana, as compared to 27% of the drinkers. The National Survey tends to confirm the close association between marihuana use and cigarette smoking and alcohol use. Among all the adults sampled in the Survey, 71% had smoked cigarettes and 39% are current smokers. Similarly, of adult non-marihuana users, 70% have smoked cigarettes and 38% are current smokers. These percentages increase somewhat for marihuana users: 87% have smoked cigarettes and 54% are current cigarette smokers.

In regard to alcohol consumption, 40% of all the adults sampled indicated that they had not consumed beer or hard liquor in the 30 days prior to the survey. Marihuana users tended to have consumed alcohol more often than non-marihuana users (Table 2).

Table 2.—LIQUOR CONSUMPTION DURING 30-DAY PERIOD

	0 days	1–4 days	5–10 days	11 or more days	No answer
Percent of nonmarihuana users..	45	19	6	7	21
Percent of marihuana users.....	26	30	12	8	24

Social Group Factors

One of the most influential factors in determining behavior in contemporary America among adolescents and young adults is peer group influence. Knowing other people who use marihuana predisposes the individual to use marihuana, and having marihuana-using friends provides the social opportunity for the curious. The individual who is already part of a social group which uses marihuana indicates by this choice that his attitudes and values are already to some degree compatible with illicit drug use.

Social peer groups are especially influential upon individuals who have not yet become "successful" adults, such as adolescents, college students and young adults, who spend a great deal of time and effort competing for status in situations where status opportunities are minimal. The social peer group provides an opportunity for achieving status among equals by demonstrating competence and autonomy. Outstanding performance in athletics, organizations or academics demonstrates competence but not autonomy because these activities are adult-oriented and controlled. Additionally, only a relative few are able to excel.

Opportunity to prove oneself is more readily available in the peer group. Often, adolescents participate in forms of delinquent behavior, termed symbolic infractions, in order to demonstrate autonomy and competence to their peers. These include joy-riding, vandalism, sexual promiscuity, underage drinking, violation of rules of decorum and dress, and purposeless confrontation with authority.

Marihuana use has recently been added to the list of infractions and offers several advantages for adolescents and young adults. Most important, it provides a shared group experience which offers the shy, lonely, socially awkward neophyte a means of entrance to the group, complete with its own ceremonial initiation. Repetition of the behavior serves to increase closeness and commitment to the group. Usually the experience is pleasurable and the individual is able to control his level of intoxication. This delinquency is viewed as relatively harmless to

oneself and others, although its symbolic impact on parents and authority is often greater than that of other common infractions.

Therefore, a subtle process of acquiring attitudes favorable to drug use, of having friends and acquaintances who define the marihuana experience in acceptable and pleasurable terms, and of having a social belief system which prepares one to accept the conversion process to begin with, are all powerful complementary factors which direct a young person toward marihuana use. At this point, the use of marihuana provides further opportunities for acquiring new marihuana-using friends and entering the social milieu of marihuana users.

The Dynamics of Persistent Use

The cultural and social factors sketched above, in combination with the individual's somatic and psychic characteristics, determine the pattern of his drug behavior once he has chosen to experiment with it. The majority of individuals who reach this point progress no further and often discontinue marihuana use. The most common explanation for discontinuing use is loss of interest; the effect lost its novelty and became boring. Other less common reasons are fear of legal hazards, social pressure, and concerns over physical and mental drug effects. Among the infrequently noted reasons are: interference with other activities; replacement by alcohol; unavailability; cost; unpleasant experiences; fear of moral transgression; or progression to other forms of non-drug interests such as yoga, transcendental meditation, agrarian communes, esoteric religion and restrictive diets.

For those who continue use, psychosocial factors are important determinants of the use patterns. Many marihuana users are strongly committed to traditional society in which they desire to rise socially. They have chosen to participate fully in the traditional adult-oriented activities and the formal achievement-reward system. Their peer groups consist primarily of similarly oriented individuals. The infrequent use of marihuana by these persons is a social activity for fun and satisfies curiosity.

Those individuals who continue to use marihuana more frequently appear to be different types of people and oriented toward a different part of the social system. Most of them maintain stable career orientations and continue to function within the broader society. But they feel more burdened by the traditional system of social controls and more removed from contemporary society's institutions. These individuals tend to turn away from more traditional adult-oriented reward systems and intensify their peer-group orientation. Their interests and activities emphasize an informal "in-crowd," out-of-school or work orientation. The meaning of marihuana use by this peer group emphasizes the ideological character of usage. In contrast to the infrequent type of user, these individuals seem to build their self-identity around the marihuana-using peer group.

BECOMING A MULTIDRUG USER

The more one smokes marihuana, the more involved his interpersonal relationships are likely to become with his peers who share the experience with him. As he spends more time with this group, he begins to sever his contacts with conventional individuals and conventional routines. He may eventually view himself as a drug user and be willing to experiment with other drugs which are approved by his peer group. Only a small portion of the marihuana users who reach this stage are likely to become persistent, frequent users of these other drugs. The majority appear to experiment only.

Epidemiologic Studies

The Commission's studies have confirmed the association between marihuana usage and the consumption of other drugs for curiosity and pleasure. This association holds for all drugs, including over-the-counter and prescription pain relievers, tension relievers, sleeping pills, and stimulants as well as hashish, methamphetamines, cocaine, LSD and mescaline, and heroin. The National Survey showed that current marihuana users are about twice as likely to have used any illicit drugs than are those who have ceased using marihuana (Table 3).

Table 3.—ILLICIT DRUG USE BY ADULTS

Substance	Never used marihuana	Have used but no longer use marihuana (percent)	Currently using marihuana (percent)
Hashish	Less than 0.5 percent	28	63
LSD or mescaline	Less than 0.5 percent	11	28
Methamphetamine	Less than 0.5 percent	10	23
Cocaine	Less than 0.5 percent	4	10
Heroin	Less than 0.5 percent	1	4

The Commission additionally has contracted a study of 105 selected, middle class, young, working adults from California who are marihuana smokers. Of this sample, 11% were daily marihuana users and 47% used it several times a week; 33% used it several times a month; 6% used it once to several times a year; and 3% had used it but were not currently using marihuana. The study indicates that while most of the subjects were frequent marihuana users, the incidence of other drug use was relatively low (Table 4).

Table 4.—FREQUENCY OF OTHER DRUG USE BY MARIHUANA USERS

Substance	Percent who never used marihuana	Percent who use marihuana			
		Once to several times a year	Several times a month	Several times a week	Daily
Hashish	42	31	21	5	0
LSD	96	4	0	0	0
Mescaline	79	19	0	0	2
Psilocybin	96	4	0	0	0
STP, DMT	100	0	0	0	0
Heroin	98	2	0	0	0
Codeine	87	11	0	0	2
Amphetamines	89	7	0	4	0
Barbiturates	86	10	4	0	0
Cocaine	75	19	2	4	0
Glue	100	0	0	0	0

With the exception of marihuana and hashish, no drug was used by more than 25% of this population and this use was almost exclusively experimental. Interestingly, the more exotic drugs, mescaline and cocaine were more frequently used (21% and 25% of this sample respectively) than the common dangerous drugs: LSD (4%), heroin (2%), codeine (11%), barbiturates (14%), and amphetamines (11%).

Among high school students, marihuana is normally the first illicit drug used, although several recent studies have suggested that a significant number of students initiate illicit use with other drugs. Of the marihuana users, a majority have used no other illicit drug, and they tend to be experimental or intermittent users of marihuana.

The more frequently the adolescent uses marihuana, the more likely he is to experiment with other drugs. For example, in one recent study of San Diego high school students of predominantly white middle socioeconomic background, 80% of the students who used marihuana weekly or more often had used other drugs, and 50% of this group had used LSD. In contrast, 33% of the less than weekly users had used other drugs.

Profiles and Dynamics

The personality profile of the heavy marihuana user discussed earlier includes elements propelling him toward heavy involvement in the multiple-drug-using-subculture. Heavy drug use by these individuals may reflect and aggravate a total alienation and disaffiliation from American society and its institutions. This group hopes to find in drug use more than simple fun or relief from boredom. The heavy use of drugs represents a shift into the drug subculture and an adoption of a totally new life style. Some observers feel that this shift provides a new identity which allows the individual to counteract his apathy and search for meaning in a society he views as unloving, lonely, and meaningless. He seeks to become involved with what he describes as the exciting, relevant, "real" experience of life. Additionally, he believes drug use provides new feelings and awareness needed to overcome barriers between himself, others, and the natural world.

The drug culture as a community also helps to meet the needs of the individual. It provides a ready supply of drugs, unites common experiences and secrets that enhance the drug experience, and protects the individual against undesired experiences and against "the outside world." Most important, the culture instills self-confidence by reassuring the individual that he has been wise in choosing this new identity.

Frequently, these are individuals who express feelings of loneliness, isolation and over-protection from their home and family. One frequent pattern involves an intimate, dominating mother and a distant, unemotional father. In some cases, the drug-use ritual and the sense of community closeness offered by the drug subculture appear to satisfy certain personal needs. Additionally, joining the subculture provides a release from sheltered life, a test of competence, an opportunity to participate, and a chance to express anger. When the anger is turned inward instead of directed at society and family, drug use becomes a form of passive self-destructiveness.

Sociocultural Factors

After the individual views himself as a drug user and has become immersed in the drug-using subculture, the drugs he chooses to experiment with and his pattern of use are determined primarily by non-drug factors well beyond the simple properties of the psychoactive chemical. These factors are predominantly socioeconomic and sociocultural, although psychic and somatic factors also play a role in determining who will continue and how intensively.

The availability of a distribution system which stocks the other drugs is essential. Most often, contact with this distribution system is increased by having friends or acquaintances who use or sell other drugs. However, much of the marihuana selling takes place at the customer level between friends, and involves little profit and relatively small quantities of the drug. The marihuana user who *only buys* has little contact with the professional multidrug dealing system. However, the *user-buyer-seller* of marihuana is more involved with the multidrug system, uses more himself and has more friends who use and sell other drugs. This factor of being a seller rather than only a buyer-user

is influential in determining the degree of an individual's involvement with and commitment to the use of other drugs.

Marihuana use does not itself determine which drugs the heavily-involved user will choose to use. Generally, the selection of other drugs is influenced by the social group. For example, blacks and whites have roughly equal rates of trying and using marihuana, but their choice of other drugs and the styles of drug use are quite different and distinctive, due to their frequently different sociocultural backgrounds. Additionally, one recent study of white high school and college students revealed different patterns of further drug use among males and females. Men and women used marihuana in equal numbers, but the men who used other drugs tended to use hallucinogens while the women tended to use amphetamines.

An extensive survey of drug use among 3,500 liberal arts undergraduates attending 14 campuses in the New York area demonstrated the racial character of drug use among this population (Table 5).

Table 5.—RACIAL CHARACTER OF DRUG USE

Percentage tried drugs	Heroin	Cocaine	Meth-amphet-amine	Amphet-amine	Hallu-cinogens
Blacks	9	16	5	9	13
Whites	4	7	11	19	21

According to recent studies, heroin usage is not common among white marihuana users. Heroin is most strongly linked to marihuana use in black and Spanish-speaking ghettos where many feel they have little chance of personal advancement and self-fulfillment. In such communities, a segment of the population constructs new illegitimate but accessible avenues for social coping. For some this involves the hustle (non-violent stealing) and the excitement of obtaining and using heroin and cocaine. They regard marihuana as a "cool" drug and use it for its social and calming effects.

In contrast, studies have demonstrated that the psychedelics are more often used by the white, middle to upper middle class, college-educated populations. The typical use of these drugs in high school college and working populations is episodic and experimental, and is usually discontinued rather rapidly in contrast with marihuana use, which for many persons is of long duration. In many instances, psychedelic drug use begins almost simultaneously with marihuana.

For a few, drug use becomes an ideologic focus, reflecting disillusionment with society and rejection of the "establishment." These and other motives, including mere pleasure-seeking, lead to continued use of LSD and other hallucinogens. Marihuana is viewed as a dilute LSD

and is often used to enhance or prolong the effects of that drug. Sometimes it is encountered after first LSD use.

Methamphetamine, or "speed," use is more characteristic of those lower socioeconomic white youth who are not school or work oriented. Living for the moment is the characteristic attitude of the speed scene. The speed user views marihuana as he does alcohol and uses it for fun or for its calming effects.

For these three groups of illicit drug users, marihuana use has different meanings and is secondary in importance to the use of the other drugs. Whether or not marihuana leads to other drug use depends on the individual, on the social and cultural setting in which the drug use takes places, and on the nature of the drug market. Its use, however, is neither inevitable nor necessary.

The Effects of Marihuana on the User

The previous section has attempted to paint a broad picture of the marihuana user. This section will deal with the drug and its effects on these individuals.

The meaning of *drug* often varies with the context in which it is used. The physician would define a drug as any substance used as a medicine in the treatment of physical or mental disease. Today, due to the influence of many factors, the layman may focus on the negative connotations of drugs, such as the stupefying, poisoning, habit-forming misuse of the opiate drugs. The considerably wider and more scientific definition of a drug which will be used in this section is: any chemical substance which has an action on living tissues.

A psychoactive drug is any substance capable of modifying mental performance and individual behavior by inducing functional or pathological changes in the central nervous system.

As defined, psychoactive drugs exert their major effect on the state of the mind including emotions, feelings, sensibility, consciousness and thinking. The definition implies neither positive nor negative meanings. Chemical substances are not inherently good or bad. All substances, including medicines and foods, which man has chosen to consume have certain desired effects (whether therapeutically beneficial or pleasurable) and undesired effects (whether detrimental or unpleasant). For example, eating food is certainly a necessary and pleasurable activity. However, obesity plays an important role in many diseases, including diabetes, high blood pressure and heart attacks, and tends to limit physical activities.

The classification of any drug effect as either beneficial or harmful often greatly depends on the values the classifier places on the ex-

pected effects. This is especially relevant with respect to the psychoactive drugs such as tranquilizers, stimulants, coffee, cigarettes, alcohol, marihuana and other licit or illicit drugs. For all of these drugs, the weights of benefit and harm are difficult to determine when viewed merely in terms of their stated effects.

BOTANY AND CHEMISTRY

Marihuana refers to a preparation derived from a plant, cannabis sativa L. The preparation contains varying quantities of the flowers and their resinous secretions, leaves, small stems and seeds. These plant parts contain many chemical substances. The chemical substance which produces the major drug effects is tetrahydrocannabinol (THC). According to current information, the amount of THC present determines the potency of the preparation. Hereinafter, any reference to drug content or drug effect of marihuana will, for all practical purposes, mean that of tetrahydrocannabinol.

The drug content of the plant parts is variable, generally decreasing in the following sequence: resin, flowers, leaves. Practically no drug is found in the stems, roots or seeds. The potency and resulting drug effect of marihuana fluctuates, depending on the relative proportions of these plant parts in the marihuana mixture.

Most marihuana available in this country comes from Mexico and has a THC content of less than 1%. Marihuana of American origin often contains less than two-tenths of 1% THC. Marihuana originating in Jamaica and Southeast Asia often has a 2% to 4% THC content.

Marihuana is the least potent preparation of the plant. Jamaican ganja, containing primarily the flower tops and the small leaves or bracts, has a THC content of about 4% to 8% depending on the mixture. Indian ganja is less potent. The most potent preparation is hashish (charas) which is composed of only the drug-rich resinous secretions of the flowers. Generally, the THC content of hashish is 5% to 12%.

FACTORS INFLUENCING DRUG EFFECT

A number of variable factors exert an important influence on the psychopharmacologic effects of marihuana in man, as is true for all drugs. Failure to take these factors into consideration probably accounts for a large part of the inconsistency and controversy surrounding the description of the drug effect.

Dosage

The dosage or quantity of the drug (tetrahydrocannabinol) consumed is the most important variable. As with most drugs, the larger the dose taken, the greater the physical and mental effect will be and

the longer the effect will last. The effect of a high dose of marihuana on an individual would be quite different from the effect of a low, usual "social" dose.

Method of Use

The method of use has a bearing upon the drug effect. The method is directly related to both dosage and time lapse before the drug effect is felt. Injection directly into a vein delivers the total dose immediately, producing a rapid, maximal response of minimal duration. Smoking and inhalation cause rapid but less efficient delivery of the dose; variable quantity of the drug is destroyed during burning or escapes into the air and does not reach the lungs. Oral ingestion produces different effects, according to the system in which the drug is dispersed. Generally, oral ingestion diminishes the drug effect, but prolongs it.

Metabolism

Another factor which influences the effect of the drug is metabolism. During the metabolic process, the body cells, principally in the liver and lungs, chemically alter drug substances, changing their activity and providing for their elimination from the body. Increasing evidence indicates that marihuana is first changed by the body in a way that activates or enhances the drug effect and is subsequently altered in a way that inactivates the drug prior to its removal from the body.

The rate and direction of these metabolic steps can significantly influence the effect of marihuana. For instance, individuals with extensive exposure to marihuana or other drugs metabolize more rapidly, and perhaps differently, from those individuals with no drug exposure.

Set and Setting

An important variable in discussing the effect of marihuana on the user is the social and emotional environment; that is, the individual's "set" and "setting."

"Set" refers to a combination of factors that create the "internal environment" of the individual, including personality, life style, and philosophy, past drug experiences, personal expectations of drug effect, and mood at the time of the drug experience.

"Setting" refers to the external environment and social context in which the individual takes the drug. These factors are most influential when drugs are taken at low dosages and, like marihuana, produce minimal physical and subtle subjective mental effects. The effect of marihuana generally will be quite different for an intermittent social adult smoker from that of a youth deeply involved in the youthful drug subculture. These factors partially account for the belief of a marihuana user that he is experiencing a "high" in certain ex-

periments even when he is given a non-marihuana substance (placebo) but is told it is marihuana.

Tolerance

Another important factor that determines the immediate effect of any drug is tolerance. Tolerance has two different connotations. The first, initial tolerance, is a measure of the amount of a drug which a subject must receive on first exposure to produce a designated degree of effect. A variety of innate and environmental factors contributes to initial tolerance among individuals. Different individuals require varying amounts of the drug to attain the same physical and mental effect.

The second connotation, which shall be referred to when we use the word tolerance, is that of an acquired change in tolerance. That is, within the same individual, as a result of repeated exposure to the drug, the same dose of the drug may produce a diminishing effect so that an increased amount of the drug is required to produce the same specified degree of effect.

Tolerance develops at differential rates to given effects of the same drug. If tolerance has developed to one specific effect, it has not necessarily developed to other specific effects.

By definition, the development of tolerance is neither beneficial nor detrimental. If tolerance develops rapidly to the desired mental effect of a "high" but slowly to the behavioral or physical effects, rapid increase in dose would be necessary in order to have the desired effect, and progressive behavioral and physical disruption would be seen. This is the pattern for amphetamines.

However, if tolerance develops slowly or not at all to the desired mental effects but more rapidly to the behaviorally or physically disruptive effects, no dosage increase or only a slight one would be necessary and the unpleasant and undesired effects would progressively diminish.

With regard to marihuana, present indications are that tolerance does develop to the behaviorally and physcially disruptive effects, in both animals and man, especially at high frequent doses for prolonged time periods. Studies in foreign countries indicate that very heavy prolonged use of very large quantities of hashish leads to the development of tolerance to the mental effects, requiring an increase in intake to reach the original level of satisfaction. However, for the intermittent use pattern and even the moderate use pattern, little evidence exists to indicate the development of tolerance to the desired "high," although the high may persist for a shorter time period. During the Boston free-access study, no change was apparent in the level of the high produced by a relatively large dose of the drug over a 21-day period of moderate to heavy smoking.

The fact that some individuals smoke more of the drug than others may merely reflect a desire for a different level of "high." There is a tendency to develop a tolerance to the physical effects and behaviorally disruptive effects, especially the depressant effects, in heavy daily users. The development of such behavioral tolerance of this nature may explain the fact that experienced marihuana smokers describe a lower occurrence rate of undesirable drug effects. The development of tolerance may also explain why these smokers exhibit normal behavior and competent performance of ordinary tasks, while not appearing intoxicated to others even though they are at their usual level of intoxication.

Reverse Tolerance

Repeated exposure to marihuana has been said to cause an individual to need lesser amounts of the drug to achieve the same degree of intoxication. This "reverse tolerance" may be related to one's learning to get high or to the recognition of the subtle intoxication at low doses. Or perhaps, such tolerance reflects an increase in the body's ablity to change the drug to an active chemical. To date, the existence of "reverse tolerance" has not been substantiated in an experimental setting.

Duration of Use

Tolerance development is only one of a variety of occurrences which possibly are related to repetitive use of marihuana. Any discussion of drug effect must also take into account the time period over which the drug use occurs. Immediate effects of a single drug experience must be contrasted with effects of short-term use and the effects of long-term use in order to detect any cumulative effects or more subtle, gradually occurring changes.

This issue of an individual's change over a period of years is quite complex; a multitude of factors other than marihuana use may affect his life. As previously defined, *short-term* refers to periods of less than two years, *long-term* to periods of two to 10 years, and *very long-term* to periods greater than 10 years. Most of the American experience involves short-term and long-term use, with low doses of weak preparations of the drug.

Patterns of Use

The drug effect of marihuana can be realistically discussed only within the context of who the user is, how long he has used marihuana, how much and how frequently he uses it, and the social setting of his use.

In general, for virtually any drug, the heavier the pattern of use, the greater the risk of either direct or indirect damage. For purposes of this discussion, the patterns of use developed in the first section of this chapter will be utilized. Because frequency of use is presently the primary determinant of use patterns in this country, we employ similar designations:

(1) The *experimenter* who uses marihuana at most a few times over a short term and then generally ceases to use it, or uses once a month or less;
(2) The *intermittent user* who uses marihuana infrequently, that is more than once monthly but less than several times a week;
(3) The *moderate user* who uses it from several times a week to once daily, generally over a long term;
(4) The *heavy user* who uses it several times a day over a long term and;
(5) The *very heavy user* who is constantly intoxicated with high tetrahydrocannabinol content preparations, usually hashish, over a very long term.

Again, these classifications are not intended to be rigid but are designed to facilitate a discussion of the many usage patterns.

Definition of Dependence

Before describing the effect of marihuana on the user, two additional definitions are required. They concern the concept of *dependence* which has so clouded public and professional consideration of psychoactive drugs. Throughout the remainder of this report, we refer separately to psychological and physical dependence, defined as follows:

Psychological dependence is the repeated use of psychoactive drugs leading to a conditioned pattern of drug-seeking behavior. The intensity of dependence varies with the nature of the drug, the method, frequency, and duration of administration, the mental and physical attributes of the individual, and the characteristics of the physical and social environment. Its intensity is at its peak when drug-seeking becomes a compulsive and undeviating pattern of behavior.

Physical dependence is the state of latent hyper-excitability which develops in the central nervous system of higher mammals following frequent and prolonged administration of the morphine-like analgesics, alcohol, barbiturates, and other depressants. Such dependence is not manifest subjectively or objectively during drug administration. Specific symptoms and signs, the abstinence syndrome, occur upon abrupt termination of drug administration; or with morphine-like agonists by administering the specific antagonists.

EFFECTS RELATED TO PATTERN USE

Set out below is a brief summary of effects of marihuana related to frequency and duration of use. The remainder of the Chapter discusses the effects of immediate, short-term, long-term and very long-term use of the drug.

Experimenters and intermittent users	Little or no psychological dependence. Influence on behavior related largely to conditioning to drug use and its social value to the user. No organ injury demonstrable.
Moderate users	Moderate psychological dependence increasing with duration of use. Behavioral effects minimal in stable personalities, greater in those with emotional instability. Probably little if any organ injury. Duration of use increases probability of escalation of all effects including shift from moderate to heavy use.
Heavy users	American "pot head." Strong psychological dependence. Detectable behavior changes. Possible organ injury (chronic diminution of pulmonary function). Effects more easily demonstrable with long-term use.
Very heavy users	Users in countries where the use of cannabis has been indigenous for centuries. Very strong psychological dependence to point of compulsive drug seeking and use. Clear-cut behavioral changes. Greater incidence of associated organ injury.

IMMEDIATE DRUG EFFECTS

The immediate effects are those which occur during the drug intoxication or shortly following it. The user is aware of some of these effects, for they often cause him to use the drug. At the same time, many changes may occur in his body which can be measured by others but are not obvious to him.

Subjective Effects

A description of an individual's feelings and state of consciousness as affected by low doses of marihuana is difficult; the condition is not similar to usual waking states and is the result of a highly individual experience. Perhaps the closest analogies are the experience of day dreaming or the moments just prior to falling asleep. The effect is not constant and a cyclical waxing and waning of the intensity of the intoxication occurs periodically.

At low, usual "social" doses, the intoxicated individual may experience an increased sense of well-being; initial restlessness and hilarity followed by a dreamy, carefree state of relaxation; alteration of sensory perceptions including expansion of space and time; and a more vivid sense of touch, sight, smell, taste, and sound; a feeling of hunger, especially a craving for sweets; and subtle changes in thought formation and expression. To an unknowing observer, an individual in this state of consciousness would not appear noticeably different from his normal state.

At higher, moderate doses, these same reactions are intensified but the changes in the individual would still be scarcely noticeable to an observer. The individual may experience rapidly changing emotions, changing sensory imagery, dulling of attention, more altered thought formation and expression such as fragmented thought, flight of ideas, impaired immediate memory, disturbed associations, altered sense of self-identity and, to some, a perceived feeling of enhanced insight.

At very high doses, psychotomimetic phenomena may be experienced. These include distortions of body image, loss of personal identity, sensory and mental illusions, fantasies and hallucinations.

Nearly all persons who continue to use marihuana describe these usual effects in largely pleasurable terms. However, others might call some of these same effects unpleasant or undesirable.

As discussed earlier, a wide range of extra-drug factors also influences marihuana's effects. The more the individual uses marihuana and the longer he has been using it, the more likely the experiences will be predominantly pleasurable, and the less likely the effects will be unpleasant. An increasing sensitization to those effects viewed as pleasant occurs as the user has more experience with the drug.

Persons subject to unpleasant reactions may eliminate themselves from the using group although the occasional experience of an unpleasant effect does not always discourage use.

Body Function

A large amount of research has been performed in man and animals regarding the immediate effect of marihuana on bodily processes. No conclusive evidence exists of any physical damage, disturbances of bodily processes or proven human fatalities attributable solely to even very high doses of marihuana. Recently, animal studies demonstrated a relatively large margin of safety between the psychoactive dose and the physical and behavioral toxic and lethal dose. Such studies seemed to indicate that safe human study could be undertaken over a wide dose range.

Low to moderate doses of the drug produce minimal measurable transient changes in body functions. Generally, pulse rate increases, recumbent blood pressure increases slightly, and upright blood pressure decreases. The eyes redden, tear secretion is decreased, the pupils become slightly smaller, the fluid pressure within the eye lessens and one study reports that the eyeball rapidly oscillates (nystagmus).

A minimal decrement in maximum muscle strength, the presence of a fine hand tremor, and a decrease in hand and body steadiness have also been noted. Decreased sensitivity to pain and overestimation of elapsed time may occur.

The effects of marihuana on brain waves are still unclear and inconsistent. Generally, the intoxication produces minimal, transient changes of rapid onset and short duration. Sleep time appears to increase as does dreaming.

Investigation of the effects of marihuana on a wide variety of other bodily function indices has revealed few consistently observed changes.

These few consistently observed transient effects on bodily function seem to suggest that marihuana is a rather unexciting compound of negligible immediate toxicity at the doses usually consumed in this country. The substance is predominantly a psychoactive drug. The feelings and state of consciousness described by the intoxicated seem to be far more interesting than the objective state noted by an observer.

Mental Function

Marihuana, like other psychoactive substances, predominantly affects mental processes and responses (cognitive tasks) and thus the motor responses directed by mental processes (psychomotor tasks). Generally, the degree of impairment of cognitive and psychomotor performance is dose-related, with minimal effect at low doses. The impairment varies during the period of intoxication, with the maximal effect at the peak intoxication. Performance of simple or familiar tasks is at most minimally impaired, while poor performance is demonstrated on complex, unfamiliar tasks. Experienced marihuana users commonly demonstrate significantly less decrement in performance than drug-naive individuals.

The greater his past marihuana experience, the better the intoxicated individual is able to compensate for drug effect on ordinary performance at usual doses. Furthermore, marked individual variation in

performance is noted when all else is held constant. The effect of marihuana on cognitive and psychomotor performance is therefore highly individualized and not easily predictable. Effects on emotional reactions and on volition are equally variable and are difficult to measure under laboratory conditions, but can be significant.

The Intoxicated State

Studies of intoxicated persons have suggested possible explanations for the subtle effects on mental processes produced by marihuana. Generally, a temporary episodic impairment of short-term memory occurs. These memory voids may be filled with thoughts and perceptions extraneous to organized mental processes. Past and future may become obscured as the individual focuses on filling the present momentary memory lapse. His sense of self-identity may seem altered if he cannot place himself in his usual time frame.

This altered state of mind may be regarded by the individual as pleasant or unpleasant. The important factors of dosage and set and setting play a most important role in this determination. When the nature of the drug-taking situation and the characteristics of the individual are optimal, the user is apt to describe his experience as one of relaxation, sensitivity, friendliness, carefreeness, thoughtfulness, happiness, peacefulness, and fun. For most marihuana users who continue to use the drug, the experience is overwhelmingly pleasurable.

Unpleasant Reactions

However, when these circumstances are not optimal, the experience may be unpleasant and an undesirable reaction to the marihuana intoxication occurs. In these instances, anxiety, depression, fatigue or cognitive loss are experienced as a generalized feeling of ill-being and discomfort. A heavy sluggish feeling, mentally and physically, is common in inexperienced marihuana smokers who overshoot the desired high or in persons who might orally ingest too large a dose. Dizziness, nausea, incoordination, and palpitations often accompany the "too stoned" feeling.

Anxiety States

"Novice anxiety reactions" or feelings of panic account for a majority of unpleasant reactions to marihuana. When the distortion of self-image and time is recognized by the individual as drug-induced and temporary, the experience is viewed as pleasurable. Anxiety and panic result when these changes cause the individual to fear that the loss of his identity and self-control may not end, and that he is dying or

"losing his mind." These anxiety and panic reactions are transient and usually disappear over a few hours as the drug's effects wear off, or more quickly with gentle friendly reassurance.

The large majority of these anxiety reactions occur in individuals who are experimenting with marihuana. Most often these individuals have an intense underlying anxiety surrounding marihuana use, such as fears of arrest, disruption of family and occupational relations, and possible bodily or mental harm. Often they are older and have relatively rigid personalities with less desire for new and different experiences.

The incidence of these anxiety reactions may have decreased as marihuana use has become acceptable to wider populations, as the fears of its effects have lessened and as users have developed experience in management of these reactions.

Psychosis

Rare cases of full-blown psychotic episodes have been precipitated by marihuana. Generally, the individuals had previous mental disorders or had poorly developed personalities and were marginally adjusted to their life situation. Often the episode occurred at times of excessive stress. These episodes are characteristically temporary. Psychotherapy and sometimes medications are useful in prompt control and treatment of this psychological reaction. In addition, rare nonspecific toxic psychoses have occurred after extremely high doses. This state of nonspecific drug intoxication or acute brain syndrome is self-limited and clears spontaneously as the drug is eliminated from the body.

Conclusions

In summary, the immediate effect of marihuana on normal mental processes is a subtle alteration in state of consciousness probably related to a change in short-term memory, mood, emotion and volition. This effect on the mind produces a varying influence on cognitive and psychomotor task performance which is highly individualized, as well as related to dosage, time, complexity of the task and experience of the user. The effect on personal, social and vocational functions is difficult to predict. In most instances, the marihuana intoxication is pleasurable. In rare cases, the experience may lead to unpleasant anxiety and panic, and in a predisposed few, to psychosis.

SHORT-TERM EFFECTS

The effect of an enormous daily oral dose of the drug (up to about one hundred thousand times the minimal behaviorally effective human dose) was recently studied in rats and monkeys for three months. A

severe, generalized nervous system depression was evident the first few days. Evidence of cumulative toxicity was observed at these doses. Severe central nervous system depression produced fatalities in some rats in the first few days until tolerance developed. Later, extreme hyperactivity developed.

The monkeys experienced severe central nervous system depression and one group showed mild hyperactivity, but all rapidly returned to normal behavior after the development of tolerance to these effects. Minimal dose-related toxic effects on bodily organs were noted at autopsy at the conclusion of the experiment. These non-specific findings of unknown meaning included hypocellularity of the bone marrow and spleen and hypertrophy of the adrenal cortex.

A 28-day study employing intravenous administration of from one to ten thousand times the minimal effective human dose to monkeys produced similar findings clinically. In the high dose groups delayed deaths from acute hemorrhagic pneumonia were possibly caused by accumulation of clumps of THC in the lung producing irritation similar to that seen at the injection sites. No other organ pathology was noted. These animal studies illustrated that the margin of safety between active dose and toxic dose was enormous.

A few studies have recently been carried out to observe the effect of a few weeks of daily marihuana smoking in man. The amount smoked was a relatively large American dose. Frequency of use was once to several times daily.

During the 21-day Boston free-access study, no harmful effects were observed on general bodily functions, motor functions, mental functions, personal or social behavior or work performance. Total sleep time and periods of sleep were increased. Weight gain was uniformly noted.

No evidence of physical dependence or signs of withdrawal were noted. In the heaviest smokers, moderate psychological dependence was suggested by an increased negative mood after cessation of smoking.

Tolerance appeared to develop to the immediate effects of the drug on general bodily functions (pulse rate) and psychomotor-cognitive performance (time estimation, short-term memory, and shooting-gallery skill) but not to the "high." Marihuana intoxication did not significantly inhibit the ability of the subjects to improve with practice through time on these psychological-motor tasks.

Neither immediate nor short-term (21 day) high-dose marihuana intoxication decreased motivation to engage in a variety of social and goal-directed behaviors. No consistent alteration that could be related to marihuana smoking over this period of time was observed in work performance of a simple task, participation in aspects of the research study, or interest and participation in a variety of personal activities,

such as writing, reading, interest and knowledge of current world events, or participation in athletic or aesthetic activities.

Marihuana smoking appeared to affect patterns of social interactions. Although use of the drug was found to be a group social activity around which conversation and other types of social behavior were centered, it was not uncommon for some or all of the smokers to withdraw from the social interaction and concentrate on the subjective drug experience.

During the first part of the smoking period, both intermittent and daily users demonstrated a marked decrement in total interaction. Total interaction continued to diminish among intermittent users but increased above presmoking levels among the daily users during the later parts of the smoking period. The quality of the interaction was more convivial and less task-oriented when marihuana was available to the group.

Additionally, an assessment of the effect of marihuana on risk-taking behavior revealed that daily users tended to become more conservative when engaging in decision-making under conditions of risk.

LONG-TERM EFFECTS

Our knowledge about marihuana is incomplete, but certain behavior characteristics appear to be emerging in regard to long-term American marihuana use which, for the most part, is significantly less than 10 years. These impressions were confirmed in the Boston free-access study. The group of American young adults studied averaged five years (range 2–17 years) of intermittent or daily use of marihuana.

No significant physical, biochemical, or mental abnormalities could be attributed solely to their marihuana smoking. Some abnormality of pulmonary function was demonstrated in many of the subjects which could not be correlated with quantity, frequency or duration of smoking marihuana and/or tobacco cigarettes. (One other investigation recently completed uncovered no abnormalities in lung or heart functioning of a group of non-cigarette smoking heavy marihuana users). Many of the subjects were in fair to poor physical condition, as judged by exercise tolerance.

The performance of one-fifth of the subjects on a battery of tests sensitive to brain function was poorer on at least one index than would have been predicted on the basis of their IQ scores and education. But a definite relationship between the poor test scores and prior marihuana or hallucinogen use could not be proven.

In the past few years, observers have noted various social, psychological and behavioral changes among young high school and college-age Americans including many who have used marihuana heavily for

a number of years. These changes are reflected by a loss of volitional goal direction. These individuals drop out and relinquish traditional adult roles and values. They become present rather than future oriented, appear alienated from broadly accepted social and occupational activity, and experience reduced concern for personal hygiene and nutrition.

Several psychiatrists believe they have detected clinically that some heavy marihuana-using individuals appear to undergo subtle changes in personality and modes of thinking, with a resulting change in life style. In adopting this new life style, a troubled youth may turn toward a subculture where drug use and untraditional behavior are acceptable.

This youthful population resembles in many respects the marihuana smoker described in the Boston study. No evidence exists to date to demonstrate that marihuana use alone caused these behavioral changes either directly or indirectly. Many individuals reach the same point without prior marihuana use or only intermittent or moderate use; and many more individuals use marihuana as heavily but do not evidence these changes. For some of these young people, the drop out state is only a temporary phase, preceding a personal reorganization and return to a more conventional life style.

If heavy, long-term marihuana use is linked to the formation of this complex of social, psychological and behavioral changes in young people, then it is only one of many contributing factors.

VERY LONG-TERM EFFECTS OF HEAVY AND VERY HEAVY USE

Knowledge of the effects of very heavy, very long-term use of marihuana by man is still incomplete. The Commission has extensively reviewed the world literature as well as ongoing studies in Jamaica and Greece, and carefully observed very heavy, very long-term using populations in countries in other parts of the world, such as Afghanistan and India. These populations smoke and often drink much stronger drug preparations, hashish and ganja, than are commonly used in America. From these investigations, some observable consequences are becoming much clearer.

Tolerance and Dependence

Some tolerance does occur with prolonged heavy usage; large drug doses are necessary for the desired effects. Abrupt withdrawal does not lead to a specific or reproducible abstinence syndrome and physical dependence has not been demonstrated in man or in animals. The very heavy users studied did evidence strong psychological dependence, but were able to cease use for short periods of time. In these users,

withdrawal does induce symptoms characteristic of psychological dependence. The anxiety, restlessness, insomnia, and other non-specific symptoms of withdrawal are very similar in kind and intensity to those experienced by compulsive cigarette smokers.

Although the distress of withdrawal exerts a very strong psychogenic drive to continue use, fear of withdrawal is, in most cases, not adequate to inspire immediate criminal acts to obtain the drug.

General Body Function

In the Jamaican study, no significant physical or mental abnormalities could be attributed to marihuana use, according to an evaluation of medical history, complete physical examination, chest x-ray, electrocardiogram, blood cell and chemistry tests, lung, liver or kidney function tests, selected hormone evaluation, brain waves, psychiatric evaluation, and psychological testing. There was no evidence to indicate that the drug as commonly used was responsible for producing birth defects in offspring of users. This aspect is also being studied further.

Heavy smoking, no matter if the substance was tobacco or ganja, was shown to contribute to pulmonary functions lower than those found among persons who smoked neither substance. All the ganja smokers studied also smoked tobacco. In Jamaica, ganja is always smoked in a mixture with tobacco; and many of the subjects were heavy cigarette smokers, as well.

In a study of a Greek hashish-using population preliminary findings revealed poor dentition, enlarged livers, and chronic bronchitis. Further study is required to clarify the relationship of these to hashish use, alcohol or tobacco use, or general life style of this user population.

Social Functioning

Similarly, the Jamaican and Greek subjects did not evidence any deterioration of mental or social functioning which could be attributed solely to heavy very long-term cannabis use.

These individuals appear to have used the drug without noticeable behavioral or mental deviation from their lower socioeconomic group norms, as detected by observation in their communities and by extensive sociological interviews, psychological tests and psychiatric examination.

Overall life style was not different from non-users in their lower socioeconomic community. They were alert and realistic, with average intelligence based on their education. Most functioned normally in their communities with stable families, homes, jobs, and friends. These individuals seem to have survived heavy long-term cannabis use without major physical or behavioral defects.

Mental Functioning

The incidence of psychiatric hospitalizations for acute psychoses and of use of drugs other than alcohol is not significantly higher than among the non-using population. The existence of a specific long-lasting, cannabis-related psychosis is poorly defined. If heavy cannabis use produces a specific psychosis, it must be quite rare or else exceedingly difficult to distinguish from other acute or chronic psychoses.

Recent studies suggest that the occurrence of any form of psychosis in heavy cannabis users is no higher than in the general population. Although such use is often quite prevalent in hospitalized mental patients, the drug could only be considered a causal factor in a few cases. Most of these were short-term reactions or toxic overdoses. In addition, a concurrent use of alcohol often played a role in the episode causing hospitalization.

Tnese findings are somewhat surprising in view of the widespread belief that cannabis attracts the mentally unstable, vulnerable individual. Experience in the United States has not involved a level of heavy marihuana use comparable to these foreign countries. Consequently, such long-lasting psychic disturbances possibly caused by heavy cannabis use have not been observed in this country.

Motivation and Behavioral Change

Another controversial form of social-mental deterioration allegedly related to very long-term very heavy cannabis use is the "amotivational syndrome." It supposedly affects the very heavy using population and is described world-wide as a loss of interest in virtually all activities other than cannabis use, with resultant lethargy, amorality, instability and social and personal deterioration. The reasons for the occurrence of this syndrome are varied and hypothetical; drug use is only one of many components in the socioeconomic and psychocultural backgrounds of the individuals.

Intensive studies of the Greek and Jamaican populations of heavy long-term cannabis users appear to dispute the sole causality of cannabis in this syndrome. The heavy ganja and hashish using individuals were from lower socioeconomic groups, and possessed average intelligence but had little education and small chance of vocational advancement. Most were married and maintained families and households. They were all employed, most often as laborers or small businessmen, at a level which corresponded with their education and opportunity.

In general, their life styles were dictated by socioeconomic factors and did not appear to deteriorate as a result of cannabis use. The Jamaicans were working strenuously and regularly at generally uninteresting jobs. In their culture, cannabis serves as a work adjunct. The users believe the drug provides energy for laborious work and helps them to endure their routine tasks.

In contrast, others have described Asian and African populations where heavy to very heavy hashish or charas smoking for a very long time is associated with clear-cut behavioral changes. In these societies, the smokers are mostly jobless, illiterate persons of the lowest socioeconomic backgrounds. They generally begin to use the drug in their early teens and continue its use up to their 60's.

The users prefer to smoke in groups of two to 20, generally in a quiet place out of the reach of non-smokers. Weakness, malnutrition and sexual difficulties, usually impotence, are common. Some of them report sleep disturbances.

Most users who have used the drug for 20 to 30 years are lazy and less practical in most of their daily acts and reluctant to make decisions. However, their ability to perform non-complicated tasks is as good as non-smokers.

Although the smokers think they become faster in their daily work, a general slowness in all their activities is noticed by others. This user population is typically uncreative. They make little if any significant contribution to the social, medical or economic improvement of their community.

SUMMARY

Once existing marihuana policy was cast into the realm of public debate, partisans on both sides of the issue over-simplified the question of the effects of use of the drug on the individual. Proponents of the prohibitory legal system contended that marihuana was a dangerous drug, while opponents insisted that it was a harmless drug or was less harmful than alcohol or tobacco.

Any psychoactive drug is potentially harmful to the individual, depending on the intensity, frequency and duration of use. Marihuana is no exception. Because the particular hazards of use differ for different drugs, it makes no sense to compare the harmfulness of different drugs. One may compare, insofar as the individual is concerned, only the harmfulness of specific *effects*. Is heroin less harmful than alcohol because, unlike alcohol, it directly causes no physical injury? Or is heroin more harmful than alcohol because at normal doses its use is more incapacitating in a behavioral sense?

Assessment of the relative dangers of particular drugs is meaningful only in a wider context which weighs the possible benefits of the drugs, the comparative scope of their use, and their relative impact on society at large. We consider these questions in the next Chapter, particularly in connection with the impact on public health.

Looking only at the effects on the individual, there is little proven danger of physical or psychological harm from the experimental or intermittent use of the natural preparations of cannabis, including the resinous mixtures commonly used in this country. The risk of harm

lies instead in the heavy, long-term use of the drug, particularly of the most potent preparations.

The experimenter and the intermittent users develop little or no psychological dependence on the drug. No organ injury is demonstrable.

Some moderate users evidence a degree of psychological dependence which increases in intensity with prolonged duration of use. Behavioral effects are lesser in stable personalities but greater in those with emotional instability. Prolonged duration of use does increase the probability of some behavioral and organic consequences including the possible shift to a heavy use pattern.

The heavy user shows strong psychological dependence on marihuana and often hashish. Organ injury, especially diminuation of pulmonary function, is possible. Specific behavioral changes are detectable. All of these effects are more apparent with long-term and very long-term heavy use than with short-term heavy use.

The very heavy users, found in countries where the use of cannabis has been indigenous for centuries, have a compulsive psychological dependence on the drug, most commonly used in the form of hashish. Clear-cut behavioral changes and a greater incidence of associated biological injury occur as duration of use increases. At present, the Commission is unaware of any similar pattern in this country.

III
social impact of marihuana use

"Man is a creature who lives not
upon bread alone but principally by catchwords."
—Robert Louis Stevenson,
Virginia Puerisque (1881)

Implicit in existing social and legal policy toward marihuana is the view that society suffers in some way from use of the drug. When the widespread practice of marihuana smoking appeared in the United States in the early decades of the 20th century, the medical, law enforcement, newspaper, and legislative communities immediately indicted the drug. They assumed that the drug posed serious dangers to individual health; but more importantly, they viewed it as a menace to the public order. Crime, insanity and idleness were thought to be the inevitable consequences of its use.

That some of these original fears were unfounded and that others were exaggerated have been clear for many years. Yet, many of these early beliefs continue to affect contemporary public attitudes and concerns. Consequently, one of the Commission's most important tasks is to evaluate carefully all data relevant to the social impact of marihuana use. We must determine whether and in what respects social concern is justified. What is myth and what is reality?

The literature pertaining to the presumed effects and consequences of marihuana use still reveals a wide diversity of opinion about social impact. Careful scrutiny is inhibited by the prevalence of hearsay,

rhetoric and undocumented assertions about the effects and consequences of marihuana use. Nonetheless, evidence is mounting and a number of significant trends have recently emerged. In the previous Chapter we explored the evidence regarding the nature and scope of contemporary marihuana use, and the effects of the drug on the individual user. Now we must consider the impact on society of behavior resulting from use of marihuana.

In dealing with the behavioral consequences of marihuana use, the Commission has made a concerted effort to review and evaluate the enormous body of existing popular and scientific literature, and has itself initiated new empirical research, including national surveys, retrospective studies and controlled laboratory experiments.

Awareness of the difficulties involved in investigating an inherently complex social phenomenon and applying its research findings to policy decisions has fostered particular sensitivity to the quality of previous and Commission-sponsored research. As such, considerable attention was given to such basic research questions as:

- What behavioral effects are most relevant in assessing the consequences of marihuana use?
- What measures produce the most valid data concerning given effects?
- What reliance should be placed on various research techniques, such as self-reporting, controlled experiments, clinical observations and statistical relationships?
- What generalizations can be made from particular populations studied?
- What are the limits of given data in terms of inference, interpretation and attribution of cause?

With respect to the Commission's own research program, the process of selection and allocation of resources was indeed difficult, and some areas of inquiry have undoubtedly been either neglected or shortchanged. Nonetheless, we believe that the studies undertaken and information gathered will add significantly to our understanding of the conditions and circumstances under which marihuana use is likely to affect adversely the public safety, public health and welfare, and dominant social order.

Marihuana and Public Safety

The belief that marihuana is causally linked to crime and other antisocial conduct first assumed prominence during the 1930's as the result of a concerted effort by governmental agencies and the press to alert the American populace to the dangers of marihuana use. Newspapers all over the country began to publish lurid accounts of "marihuana atrocities." In the absence of adequate understanding of the

effects of the drug, these largely unsubstantiated stories profoundly influenced public opinion and gave birth to the stereotype of the marihuana user as physically aggressive, lacking in self-control, irresponsible, mentally ill and, perhaps most alarming, criminally inclined and dangerous. The combination of the purported effects of the drug itself plus the belief that it was used by unstable individuals seemed to constitute a significant danger to public safety.

Now, more than 30 years later, many observers are skeptical about the existence of a cause-effect relationship between marihuana use and antisocial conduct.

MARIHUANA AND CRIME

Over the years, there have been several hypotheses about the relationship between marihuana and antisocial conduct. The earliest view was that marihuana *causes* or leads to the commission of aggressive and violent criminal acts such as murder, rape and assault. These acts are committed, it has been argued, because marihuana allegedly produces a relaxation of ordinary inhibitions, a weakening of impulse control and a concomitant increase in aggressive tendencies while the user is under its influence.

Marihuana's alleged criminogenic role is not always limited to violent or aggressive behavior. Some commentators also postulate that marihuana leads to or causes non-violent forms of criminal or delinquent conduct, ranging from sexual promiscuity to grand larceny. Underlying this second causal hypothesis are the assumptions that marihuana frequently impairs judgment, distorts reality and diminishes, at least temporarily, the user's sense of personal and social responsibility. Regular or heavy use over an extended period of time is felt to interfere, perhaps irreversibly, with the orderly development of psychosocial and moral maturity.

As indicated above, however, a growing uncertainty prevails about the existence of a causal link between marihuana use and antisocial conduct. In fact, recent surveys, including several sponsored by the Commission, suggest that large segments of the professional public, particularly the law enforcement and criminal justice communities, are no longer willing to assert a cause-effect relationship but observe, instead, the existence of a statistical association.

The Issue of Cause and Effect

The controversy over the cause-effect relationship between marihuana use and criminal, violent or delinquent behavior poses a number of serious problems for the investigator. Proponents and opponents of the causal view tend to rely on different kinds of evidence and to call upon different types of experts, thereby differing sub-

stantially in the kinds of information they accept as relevant, reliable or valid.

Practitioners, such as police and probation officers for example, frequently cite case examples in which apprehended offenders are found to be in possession of marihuana at the time of arrest. The mere presence of the drug or the fact that an offender is a known user of marihuana is sometimes deemed sufficient to establish a causal link between the marihuana and the offense.*

Empiricists, on the other hand, would deny that the simple presence of the drug constitutes a satisfactory demonstration of a causal relationship between marihuana use and the crime in question. They would defer, instead, to the results of empirical studies designed explicitly to test the assertion. Essentially, they emphasize that even if some offenders do use marihuana, an equal or larger number of offenders do not, and there are certainly large numbers of marihuana users in the population-at-large who never engage in the kinds of antisocial conduct deemed to be related to or caused by the use of the drug.

Proving any positive and direct relationship, be it causal or otherwise, between two inherently complex social phenomena is fraught with enormous difficulties. The relationship of marihuana use to crime, violence, aggression or juvenile delinquency presents no exception. Before examining the evidence with respect to the existence of a causal connection, certain basic considerations deserve at least brief mention here.

To prove the existence of a positive and direct relationship, one would be required to demonstrate that the alleged offender was, indeed, a marihuana user; that he was under the influence of the drug at the time he committed the offense; and that the crime was directly attributable to the effects of the marihuana. The kinds of evidence necessary to establish these facts are not easy to obtain.

First, evidence of the use of marihuana by the accused is generally dependent upon either direct admission of use, hearsay evidence, or inferences derived from knowledge of possession (that is, the offender was found to have marihuana on his person or in his possession at the time of arrest).

Second, because no chemical tests presently exist outside the laboratory to identify the presence of marihuana in the body of the accused, it is difficult if not impossible to prove that the offender was definitely under the influence of marihuana when he committed the offense.

Third, in order to prove that the marihuana represented *the* significant contributory or precipitating variable, all other factors possibly related to the offense would have to be examined and excluded.

The problems of validation are further compounded by additional variations in behavior attributable to: (a) the pharmacological potency of the drug; (b) possible adulteration of the marihuana; (c) the interaction of marihuana with other drugs simultaneously ingested; (d) differing individual response to similar dosage levels; (e) the time-action function; (f) the cumulative effect of marihuana use; and (g) various social, psychological and situational variables such as set and setting, individual expectations, personal predispositions or preexisting impulse disorders.

Despite the inherent complexities of the issue and the difficulties in securing reliable and valid evidence, a relatively large body of research is now available pertaining to the criminogenic effects of marihuana upon the individual and the nature and extent to which the drug constitutes a danger to public safety. In the following section, we present the available evidence and assess the strength and direction of the alleged relationships between marihuana use and violent or aggressive behavior and also non-violent forms of criminal and delinquent behavior.

Marihuana and Violent Crime

As indicated earlier, the belief that marihuana causes or leads to the commission of violent or aggressive acts first emerged during the 1930's and became deeply embedded in the public mind. Until recently, however, these beliefs were generally based on the anecdotal case examples of law enforcement authorities, a few clinical observations and several quasi-experimental studies of selected populations comprised of military offenders, convicted or institutionalized criminals or delinquents and small groups of college students. Few efforts were made to compare the incidence of violent or aggressive behavior in representative samples of both user and non-user populations.

Even in these early observations and investigations, however, no substantial evidence existed of a causal connection between the use of marihuana and the commission of violent or aggressive acts. Indeed, if any relationship was indicated, it was not a positive and direct causal connection but an inverse or negative statistical correlation.

Rather than inducing violent or aggressive behavior through its purported effects of lowering inhibitions, weakening impulse control and heightening aggressive tendencies, marihuana was usually found to inhibit the expression of aggressive impulses by pacifying

*In the widely publicized Licata case of the 1930's, for example, a 16-year-old cannabis user was charged with the ax murder of his family and the offense was directly attributed to the effects of marihuana. There was, however, no precise information available regarding the use of marihuana in relation to the crime. Nor, in the various accounts of the case, was there generally any reference to the fact that several of the boy's relatives had previously been committed to mental institutions; that the police had, about one year prior to the offense (and presumably before the youth's alleged use of marihuana) attempted to commit him for his bizarre behavior; or that shortly after the crime, the boy began to exhibit the symptoms of paranoid schizophrenia.

the user, interfering with muscular coordination, reducing psychomotor activities and generally producing states of drowsiness, lethargy, timidity and passivity.

In fact, only a small proportion of the marihuana users among any group of criminals or delinquents known to the authorities and appearing in study samples had ever been arrested or convicted for such violent crimes as murder, forcible rape, aggravated assault or armed robbery. When these marihuana-using offenders were compared with offenders who did not use marihuana, the former were generally found to have committed less aggressive behavior than the latter.

In an effort to accumulate data on the relationship between marihuana use and aggressive or violent criminal behavior, the Commission sponsored several studies designed to assess the purported causal relationship.

First, the Commission wanted to tap the unique experience of the law enforcement and criminal justice communities. Representative samples of prosecuting attorneys, judges, probation officers and court clinicians were asked their opinions about the relationship between marihuana use and the commission of aggressive or violent criminal acts. When asked to evaluate the statement that "most aggressive acts or crimes of violence committed by persons who are known users of marihuana occur when the offender is under the influence of marihuana," three-quarters of the judges, probation officers and clinicians indicated either that the statement was probably untrue or that they were unsure of its accuracy. Of these three groups, a greater proportion of clinicians (76.5%) thought the statement false than did the probation officers (60%) and judges (44.2%).

In a separate mail survey of the chief prosecuting attorneys in the 50 states—the group which has often supported the causal hypothesis—52% of the respondents stated that they either did not believe or were uncertain of the truth of the proposition that use of marihuana leads to aggressive behavior.

We have already noted that only a small fraction of the offender populations in past studies were found to have been arrested for crimes of violence. Similarly, in a Commission-sponsored study of 1,776 16-to-21-year-olds arrested in five New York counties for marihuana law violations between 1965 and 1969, only a small percentage had either previously or subsequently come to the attention of authorities for such offenses as assault or robbery. In fact, less than 1% of the offenders in this sample had been arrested for these offenses prior to their first marihuana arrest, and less than 3% were known to the Federal Bureau of Investigation for these offenses subsequent to their marihuana violation.

Perhaps more important than professional opinion or the incidence of violent offenses in an offender population, however, is the determination of the extent to which marihuana use is related to violent or aggressive behavior in the general population.

In a Commission-sponsored survey, face-to-face interviews were conducted with a representative sample of 559 West Philadelphia residents in order to ascertain the extent of marihuana use in this heterogeneous population and the relative involvement of marihuana users and non-users in violent criminal behavior. In corroboration of the earlier findings, the researchers found no significant differences in the proportions of users and non-users who stated that they had committed any of the aggressive or violent crimes enumerated.

Further, no findings indicated that marihuana was generally or frequently used immediately prior to the commission of offenses in the very small number of instances in which these offenses did occur. In contrast, however, the aggressive and violent offenders in this sample did report with significantly greater frequency the use of alcohol within 24 hours of the offense in question.

These findings should be considered in light of an earlier West Coast study of disadvantaged minority-group youthful marihuana users, many of whom were raised in a combative and aggressive social milieu similar to that found in several of the West Philadelphia sampled neighborhoods. The data show that marihuana users were much less likely to commit aggressive or violent acts than were those who preferred amphetamines or alcohol. They also show that most marihuana users were able to condition themselves to avoid aggressive behavior even in the face of provocation. In fact, marihuana was found to play a significant role in youth's transition from a "rowdy" to a "cool," non-violent style.

The Commission is aware of the claim that a few emotionally unstable or impulsive individuals have become particularly aggressive or impulsive under the influence of marihuana. As we have noted, some newspaper accounts have attributed sensational homicides or sexual assaults to marihuana-induced transitory psychotic states on the part of the user. No evidence exists, however, to indicate that marihuana was responsible for generating or creating excessive aggressiveness or impulsivity in individuals having no prior history of impulse or personality disorder. The most that can be said is that in these rare instances, marihuana may have aggravated a preexisting condition.

In sum, the weight of the evidence is that marihuana does not cause violent or aggressive behavior; if anything, marihuana generally serves to inhibit the expression of such behavior. Marihuana-induced relaxation of inhibitions is not ordinarily accompanied by an exaggeration of aggressive tendencies.

No evidence exists that marihuana use will cause or lead to the commission of violent or aggressive behavior by the large majority of psychologically and socially mature individuals in the general population.

Marihuana and Non-Violent Crime

A second hypothesis reflecting the statements of significant numbers of government officials is that marihuana plays a major role in the commission of other, essentially non-violent, forms of criminal and delinquent behavior.

In general, those espousing this more general cause-effect relationship assume that the drug frequently produces, in addition to the lowering of inhibitions, impairment of judgment, distortion of reality and at least temporary reduction of a sense of personal and social responsibility. Indeed, the earlier stereotype of the marihuana user was that of an immoral, physically debilitated, psychologically unstable and criminally marginal man whose state of severely and irreversibly underdeveloped psychosocial and moral maturity was said to derive directly from his continued use of marihuana.

As indicated earlier, neither the inherent complexities of the issue nor the previously inconclusive empirical evidence has deterred the formulation and expression of strong opinions about the relationship of marihuana use to crime and delinquency. Opinion in this area, quite apart from the empirical evidence, has long assumed critical importance in the development of social policy.

The Commission has addressed the issue in three different ways. One was to assess the state of current public and professional opinion relative to the general proposition that marihuana causes or leads to the commission of criminal or delinquent acts. A second approach was to review the professional literature addressed to the issue, and a third was to initiate empirical investigations of our own.

The opinion surveys found that substantial numbers of persons raised serious questions about the existence of a causal relationship between marihuana use and criminal or delinquent behavior. Confusion and uncertainty about the existence of such a relationship have been expressed by both youth and adults, including practicing professionals in the criminal justice system.

Recent data suggest that some of this confusion may be the result of a fairly widespread misconception about the addiction potential of marihuana. To the extent that persons believe marihuana users are physically dependent on the drug, they may assume that, like the heroin user, the marihuana user commits his offenses in order to support what is perceived as a drug habit; and that, like the heroin model, offenses are committed more often in the desperate attempt to obtain the drug rather than under its influence following use. There is no evidence that this is the case, even for those who use the drug heavily.

In the Commission-sponsored National Survey, the respondents were asked whether they agreed or disagreed with the statement that "many crimes are committed by persons who are under the influence of

marihuana." Fifty-six percent of the adult population and 41% of the youth indicated agreement. As in the Survey generally, there was a significant difference of opinion according to age in the adult population. While 69% of the over-50 age group agreed with this statement, only about one-third of the 18-to-25 age group and the 14-to-17-year-olds agreed. One of every four youth respondents and 18% of the adults said they were "not sure" of the existence of such a relationship between marihuana use and crime.

Much greater consensus exists, even between generations, regarding the association of alcohol and crime. While 56% of all adults expressed their belief that many crimes are committed by persons under the influence of marihuana, 69% of these same adults believed that alcohol was related in the same way. Only 7% felt unsure about the alcohol-crime relationship, in contrast to 18% who expressed uncertainty about the relationship between crime and marihuana.

The Commission also surveyed opinion within the criminal justice community. A sample of 781 judges, probation officers and court clinicians replied to a questionnaire which asked respondents to indicate whether or not their professeional experience led them to believe that "use of marihuana causes or leads to antisocial behavior in the sense that it leads one to commit other criminal or delinquent acts." Of all respondents, 27% believed this to be the case. Within each professional group, 34% of the judges, 18% of the probation officers and 2% of the clinicians indicated their agreement.

On the assumption that some proportion, however small, of marihuana users might ultimately be arrested for non-drug offenses, these officials were also asked to assess the relative truth of the statement that "most non-drug offenses committed by persons who are known users of marihuana or are found to have marihuana on their person or in their possession occur when the offender is under the influence of marihuana." Seventy-one percent of the responding judges, 75% of the probation officers and 85% of the court clinicians either thought the statement false or were unsure of its accuracy.

Respondents likewise rejected, however, the proposition that these crimes perpetrated by marihuana users occur when the offender is attempting to obtain the drug rather than while under its influence; 65.6% of the judges, 64.6% of the probation officers and 78.3% of the court clinicians either denied or were unsure of the truth of this proposition.

In short, marihuana is not generally viewed by participants in the criminal justice community as a major contributing influence in the commission of delinquent or criminal acts.

This increasing professional skepticism is buttressed by the weight of research findings. A comprehensive review of the literature revealed that in the various offender populations studied for this purpose, only a small percentage were marihuana users. In only a handful of cases

did researchers report that criminal conduct followed the use of marihuana. Generally, the rate of self-reported, non-drug crime did not significantly differ between users and non-users.

Both of the Commission-sponsored studies (the New York and Philadelphia studies referred to earlier) corroborated this research consensus. In the Philadelphia study, for example, less than 10% of the sample were known to the police, and there were no significant differences among marihuana users and non-users in the sample who reported the commission of major criminal acts when statistical controls were applied. Further, most of the first offenses committed by users occurred prior to their use of marihuana, and only in rare instances did the offenses immediately follow (within 24 hours) upon the use of marihuana (five cases out of 741 first offenses and 19 cases out of 516 most recent offenses).

Likewise, the New York study revealed that about one-fifth of the marihuana law violators arrested between 1965 and 1969 were found to have previous arrest records. Of those with previous arrests, the great majority of offenses (86%) involved traffic violations and minor violations of the vagrancy statutes. In but 10% of the cases the previous arrests were for assault, robbery, burglary or larceny.

In essence, neither informed current professional opinion nor empirical research, ranging from the 1930's to the present, has produced systematic evidence to support the thesis that marihuana use, by itself, either invariably or generally leads to or causes crime, including acts of violence, juvenile delinquency or aggressive behavior. Instead the evidence suggests that sociolegal and cultural variables account for the apparent statistical correlation between marihuana use and crime or delinquency.

A Sociocultural Explanation

The persistent belief that some relationship exists between marihuana use and crime is not without statistical support. Undoubtedly, the marihuana user of the 1920's and 1930's was overrepresented in the nation's jails and penitentiaries and in the general crime and delinquency statistics. Especially during the late 1920's and early 1930's when the nation was preoccupied with lawlessness, the translation of this statistical correlation into a causal hypothesis is not surprising.

The increasing incidence of use in the mid-sixties by white, affluent, middle class, high school youth, college students and adults has occasioned a reevaluation of the marihuana user and a reexamination of the crime issue. The overwhelming majority of the new marihuana offenders have had no previous arrests, and come from the normally low risk, middle and upper socioeconomic population groups.

Recent public opinion surveys suggest that considerable social disapproval is attached to the "hippie" life style, unconventional mode of dress and apparent disregard for the law displayed by many of these individuals. Nonetheless, fewer persons are now willing to classify as criminal those marihuana users whose only contact with the law has been as a result of their marihuana use. Perceptions have undergone a change as a result of the increased usage of marihuana among youth of the dominant social class. Nonetheless, a statistical association remains.

First, the majority of both marihuana users and offenders other than actual marihuana law violators fall into the 14-to-25-year age group. Second, the majority of those arrested for marihuana law violations as well as other delinquent or criminal acts were, and to a much lesser degree, still are, drawn from the same "high risk" populations, such as minority groups, socially and economically disadvantaged, young, male, inner-city residents.

Third, various offender populations subjected to study often included a number of marihuana users, although it was not the marihuana violations *per se* but other, more serious criminal conduct that originally brought most of them to the attention of the authorities. Finally, during the past five years, marihuana law violators have increasingly swelled the crime and delinquency statistics; in most cases, their only contact with the law has been for these marihuana-specific offenses.

The Philadelphia study corroborated this continuing statistical association. The simple relationship between using marihuana and committing offenses was positive and statistically significant, and there was also a high correlation between frequency of smoking marihuana and committing offenses. These direct associations were reduced to insignificance, however, upon further analysis of the data, and other explanations for the coincidence of marihuana use and crime became evident. These included: race, education, age, the use of other drugs, and having drug-using friends.

We conclude that some users commit crimes more frequently than non-users not because they use marihuana but because they happen to be the kinds of people who would be expected to have a higher crime rate, wholly apart from the use of marihuana. In most cases, the differences in crime rate between users and non-users are dependent not on marihuana use *per se* but on these other factors.

In summary, although the available evidence suggests that marihuana use may be statistically correlated with the incidence of crime and delinquency, when examined in isolation from the other variables, no valid evidence was found to support the thesis that marihuana, by itself, either inevitably, generally or even frequently causes or precipitates the commission of crime, including acts of violence, or juvenile delinquency.

Within this framework, neither the marihuana user nor the drug itself can be said to constitute a danger to public safety. For, as two researchers have so cogently stated for the Commission, "Whatever an individual is, in all of his cultural, social and psychological complexity, is not going to vanish in a puff of marihuana smoke."

MARIHUANA AND DRIVING

Within the context of public safety another issue which merits attention is the extent to which drivers under the influence of marihuana constitute a hazard on the nation's streets and highways. Although in recent years increasing attention has been given to this issue, at present little empirical evidence exists to inform discussion.

To assess the actual and potential impact of marihuana on traffic safety, a number of basic research questions must be answered.

- the extent to which marihuana users actually drive while under the influence of the drug
- the extent to which marihuana users driving while "high" commit traffic violations and are involved in traffic accidents
- the amounts of marihuana consumed immediately prior to the commission of traffic violations or the involvement in traffic accidents and the drug's role in these events
- the nature and extent to which marihuana actually impairs psychomotor skills, judgment and driving performance

To date, the generalizations made concerning the effects of marihuana on driving behavior have generally been based on statistical studies of traffic violations and accidents and inferences drawn from more general studies of the physiological and psychological consequences of marihuana use, such as changes in pulse rate, reaction time, neuromuscular coordination, time estimation and spatial perceptions.

Such studies pose serious limitations in the nature, reliability and validity of the data. The basic problems derive from difficulties in identifying and attributing cause. A major obstacle in such retrospective analysis is the inability to separate the effects of marihuana from those possibly engendered by the use of other drugs, such as alcohol, tranquilizers and amphetamines. Finally, conclusive analysis is impossible until a reliable technique is developed for measuring the level of marihuana present in the body of the driver at the time of his violation or accident.

Prospective experimental studies of actual reactions to road conditions and traffic emergency situations would undoubtedly provide the most reliable and valid data, but such studies would themselves endanger the public and have not been undertaken. Researchers have relied, therefore, on controlled laboratory simulator studies and direct interviews with those who have admitted to driving while under the influence of marihuana.

With respect to the simulator studies, the available evidence suggests that while, in some cases, marihuana has produced interference with certain motor or mental abilities which affect driving behavior, these effects were generally believed to be readily overcome by the exercise of extreme caution by the driver and a significant reduction in speed.

The few driving simulator tests completed to date have generally revealed no significant correlations between marihuana use and driving disabilities. Comparison of the simulator scores of users and non-users, however, did reveal small but non-significant differences in the number of speedometer errors made.

These simulator studies also examined the comparative effects of alcohol and marihuana on driving scores. The findings of one study, though controversial, suggested that intoxication resulting from low doses of marihuana was less detrimental to driving performance than was the presence of alcohol at the legally prohibited blood level of .10%.

The methodological limitations of the study raise serious questions about the reliability and validity of the findings. As one critic has noted, "It does not follow automatically that lack of effect of a drug on the simulated task will correlate with lack of effect on the actual task." Further, the use of dissimilar doses of alcohol and marihuana has led another critic to assert that "finding that a heavy dose of alcohol caused more impairment than a mild dose of marihuana is neither surprising nor helpful in assessing the relative effects of the two drugs in the relative doses in which they are normally used."

Recent research has not yet proven that marihuana use significantly impairs driving ability or performance. The Commission believes, nonetheless, that driving while under the influence of any psychoactive drug is a serious risk to public safety; the acute effects of marihuana intoxication, spatial and time distortion and slowed reflexes may impair driving performance. That the risk of injury may be greater for alcohol than for marihuana matters little.

Obviously, much more research needs to be undertaken in this area. Hopefully, recent studies sponsored by the National Institute of Mental Health and other agencies will soon provide the concrete information that is needed.

Marihuana, Public Health and Welfare

As the feared threat to public safety through violent crime has diminished in recent years, policy-makers and the public have begun increasingly to view marihuana and other illicit drug use as a public health concern. The National Survey indicates that American adults regard drug abuse as the third most pressing problem of the day,

closely following the economy and Vietnam. However, public attitudes reflect considerable confusion about the facts concerning marihuana and drugs in general.

This confusion has resulted from too little understanding of the motives for drug use as well as inadequate knowledge of the classification of drugs according to their main effects. Legal penalties have frequently mirrored this confusion, and the resulting inconsistencies cause many young people to lose confidence in adult authority. Even in the medical profession, much uncertainty is evident, and for most of the general public there is no clear authority to whom they can turn for guidance.

A PUBLIC HEALTH APPROACH

The Commission broadly defines public health concerns as all health problems which affect people *en masse* and are thereby difficult to treat on a traditional physician-to-patient basis. This category would include social and economic dependence and incapacity. A health problem which spreads to other susceptible members of the society cannot be controlled by the individual physician. This view coincides with the concept of preventive medicine, recognizing that all public health problems must be dealt with on both an individual and societal level.

To illustrate, the increasing incidence of deaths due to lung cancer subsequent to chronic, heavy tobacco usage is a major public health concern. In this instance, prevention of smoking and ascertaining the cause of the malignancies, rather than the individual treatment of each case by a physician, define the public health dimension. A major concern exists because the population at risk is large and growing, and the risk of harm is great.

In addition to the risk of large numbers of the populace being affected, the issue of contagion must also be examined. Unlike infectious diseases such as influenza and smallpox, where the person affected "catches" the ailment unintentionally, those individuals who use marihuana choose to come into contact with it. The contagion model is relevant only insofar as social pressure from proselytizing friends and social contacts play a role in spreading the use of the drug. This dimension exists with marihuana, as well as alcohol and tobacco.

After assessing the potential harm to the individual and society, the size of the population at risk and the contagion aspect, society must determine the nature of the control mechanism used to deal with the problem, and how much of its health resources, manpower and facilities will be allocated to meet the perceived threat to the public health. Therefore, an analysis of the relative risk of marihuana use must be undertaken. We must examine not only the effects of the drug on the individual but also determine which groups are at risk and why.

Practically all substances consumed by man are potentially dangerous to the physical or mental health of the individual if used irresponsibly or by particularly sensitive persons. Certain substances are sufficiently complex in their effects that societal control is necessary to reduce risk, for example, fluorides added to the water supply, prescription drugs, and food additives. The degree of concern and control varies, depending on relative public health dangers.

The Population At Risk

Before the dangers can be assessed, the population at risk must be defined. Viewing the public health picture on a large scale, the United States in 1972 may still be considered fortunate with regard to marihuana usage. While it is the third most popular recreational drug, behind alcohol and tobacco, it has not been institutionalized and commercialized.

Most of the Americans who have used marihuana have been merely experimenting with it. As noted in Chapter I, there are 24 million Americans who have tried marihuana at one time or another, with 8.3 million still using it. Of those who have quit, most say they have simply lost interest in it. The same Survey shows that experience with marihuana peaks in the 18-to-25-year-old group and falls off sharply thereafter. A fact of some significance is that at least 71% of all adults (18-years and older) and 80% of youth (12-to-17-years) have never used marihuana at all.*

The Survey also indicates that the majority of those youth and adults who continue to use marihuana do so intermittently, that is, between one and 10 times a month. These individuals are classified as intermittent marihuana smokers who use the drug for its socializing effects. They are, for the most part, ordinary Americans who are either in school or are employed.

About 2% of those who have ever used marihuana, or 500,000 people, now use the drug heavily. They use the drug several times a day. These individuals use marihuana for its personal drug effects in addition to its socializing effects. Generally, their life styles, values, attitudes, behaviors and activities are unconventional. Marihuana plays an im-

*In the self-administered instrument, several separate questions were utilized to elicit the respondent's experience with marihuana. This technique permitted an analysis of consistency of responses, and also minimized the possibility of non-response. Nevertheless, 14% of the adults and 6% of the youth did not respond to enough of these questions to ascertain whether they had ever tried marihuana or not.

Percentage who—	*Adult*	*Youth*
Ever used	15	14
Never used	71	80
No response	14	6

portant role in their lives. Because the risk of psychological, and perhaps physical, harm from marihuana increases with the frequency, quantity and duration of its use, these heavy marihuana users constitute the greatest at-risk population in the United States today.

The heavy marihuana user presents the greatest potential concern to the public health. It is the Commission's opinion that these heavy marihuana users constitute a source of contagion within American society. They actively proselytize others into a drug-oriented way of life. The effectiveness of peer group pressure has been described earlier in Chapter II.

We anticipate that this at-risk population would increase in number should a policy of institutionalized availability be adopted toward marihuana. Although marihuana is readily available illicitly in the United States today, a policy permitting its legal distribution could be expected to bring about an increase in users, with some percentage of them becoming heavy users. It is the availability of the drug, coupled with a governmental policy of approval or neutrality, that could escalate this group into a public health and welfare concern. While this is speculative, it is a concern which cannot be dismissed. The experience with the rise in the use of tobacco and alcohol makes clear the probable consequences of commercial exploitation.

Another concern of the Commission is the experience of other countries which have large heavy user populations. While the pattern of behavior in one country is not automatically similar to a pattern of behavior in another country, the existence of heavy user populations constitutes a serious public health concern which must be avoided in this country. The availability of the drug alone does not seem to determine increased usage; supply and governmental inaction appear to tip the balance toward increased use. The proportion of our population susceptible to this pattern of use is conjectural but good preventive public health requires limiting the number to an irreducible minimum.

Confusion and Fact

One of the primary sources of confusion surrounding the use of marihuana and other psychoactive drugs is the ambiguity of the term "drug abuse." In many quarters the excessive use of any drug is considered drug abuse, regardless of the effect of the drug on the individual or his behavior. In order to clarify this issue the Commission defines psychoactive drug abuse as follows:

Drug abuse is the use of psychoactive drugs in a way likely to induce mental dysfunction and disordered behavior.

It should be emphasized that demonstrable pathology of organ systems, including the brain, is not a necessary characteristic of psychoactive drug abuse. There are numerous non-psychoactive drugs which can induce extensive organ pathology but do not modify behavior; such drugs leave their imprint primarily on the individual, not on society. The Commission believes that many of the perplexing issues relating to psychoactive drugs, including marihuana, can be clarified if *drug abuse* refers *only* to the impact of drug-induced behavior on society.

Three types of such drug-induced behavior are considered unacceptable in most organized societies: (1) aggressiveness leading to violence; (2) loss of psychomotor control; (3) mental or physical disorder leading to social and economic incapacity or dependency.

This is not to say that society is unconcerned about the harmful effects of psychoactive drugs on the individual, or that such effects do not merit the attention of public health officials. Cigarette smoking, although affecting primarily the individual, is surely a matter of public health concern. We believe, however, that the term drug abuse, with its attendant societal disapprobation, should be reserved for drug-taking which has a more direct effect on society through disordered behavior.

Beyond the confusion surrounding the term drug abuse, a rational evaluation of the public health impact of marihuana use is also inhibited by extensive misinformation about the drug. Recently, a great deal of research has increased significantly our knowledge about marihuana. Further research data are necessary before a conclusive statement about marihuana and public health can be made. However, enough is known today to discuss some of the public perceptions in detail. And sufficient data are presently available to allow for rational decision-making.

ASSESSMENT OF PERCEIVED RISKS

The Commission believes that marihuana is perceived by the American public to present the following risks to the public health:

- lethality
- potential for genetic damage or teratogenicity
- immediate adverse physical or mental effects
- long-term physical or mental effects including psychosis and "amotivation" syndrome
- "addiction" potential
- progression to other stronger drugs, especially heroin

Lethality

The Commission's National Survey revealed that 48% of adults believe that some people have died from marihuana use. A careful search of the literature and testimony of the nation's health officials has not revealed a single human fatality in the United States proven to have resulted solely from ingestion of marihuana. Experiments

with the drug in monkeys demonstrated that the dose required for overdose death was enormous and for all practical purposes unachievable by humans smoking marihuana. This is in marked contrast to other substances in common use, most notably alcohol and barbiturate sleeping pills.

Of comparative note, 89% of all adults in the same Survey believe that some people have died from using alcohol. This indicates that public opinion regarding alcohol and its potential lethality is more accurate than it is for marihuana. At the same time, factual knowledge regarding the inherent danger in using a substance, for example alcohol, seemingly does not deter many persons from using it irresponsibly.

Potential For Genetic Damage

The thalidomide tragedies of the 1950's have taught us to ponder carefully the possibility of genetic damage subsequent to any drug use. The much publicized controversy regarding LSD and subsequent genetic damage has led investigators to study marihuana and its possible genetic effects. Although a number of studies have been performed, at present no reliable evidence exists indicating that marihuana causes genetic defects in man.

Early findings from studies of chronic (up to 41 years), heavy (several ounces per day) cannabis users in Greece and Jamaica also failed to find such evidence. In all its studies, the Commission found no evidence of chromosome damage or teratogenic or mutagenic effects due to cannabis at doses commonly used by man. However, since fetal damage cannot be ruled out, the use of marihuana like that of many other drugs, is not advisable during pregnancy.

Immediate Effects

The intoxicant effects of marihuana on the mental function of the user does have potential health significance both for the individual and others with whom he may come in contact. Because marihuana is a psychoactive drug, it is important to examine the acute toxic effects which may occur in certain predisposed individuals and which increase with the potency of the preparation.

The Commission has reviewed numerous clinical studies describing acute panic reactions and transient psychotic-like episodes which occur as acute effects of the drug intoxication. In addition, a predisposed individual might experience aggravation of a latent psychotic state or other underlying instability. Although severe abnormal psychological states are rare when compared to the total number of marihuana users, lesser problems are not rare, and they may endanger both the individual and those around him at the time of their occurrence. The individual contemplating use is not capable of predicting whether

he is predisposed by his particular circumstances to an undesirable mental reaction. The undesirable consequences occurring while an individual is involved in complex tasks such as driving or operating machinery or tasks requiring fine psychomotor precision and judgment are all too imaginable.

From a public health point of view, the immediate effects of marihuana intoxication on the individual's organs or bodily functions are of little significance. By and large these effects, which have been carefully outlined in Chapter II of the Report, are transient and have little or no permanent effect upon the individual.

Effects Of Long-Term, Heavy Use

To determine the long-term chronic effects of heavy marihuana use, the Commission has carefully reviewed the world literature and contemporary studies of heavy, chronic (up to 41 years) cannabis users in the world. In addition, lower socioeconomic populations in Afghanistan, Greece, and Jamaica have been examined.

Effects On The Body

These recent studies in Greece and Jamaica report minimal physical abnormalities in the cannabis users as compared with their non-using peers.

Minimal abnormalities in pulmonary function have been observed in some cases of heavy and very heavy smokers of potent marihuana preparations (ganja or hashish). However, one study concluded the cause was smoking in general, no matter what the substance. The other study could not express any conclusion because of the absence of a control population. Such decrements in normal pulmonary capacity may represent early warning signals in the development of chronic lung disease. They must be considered in any program of early prevention of disease and future disability.

No objective evidence of specific pathology of brain tissue has been documented. This fact contrasts sharply with the well-established brain damage of chronic alcoholism.

Effects On The Mind

No outstanding abnormalities in psychological tests, psychiatric interviews or coping patterns have been conclusively documented in studies of cannabis users in other countries of the world. Further research in this important area is necessary before definite conclusions can be drawn relating or linking marihuana to mental dysfunction because available psychological tests do not measure certain higher mental functions very accurately.

Cannabis use has long been known to precipitate short-term phychotic-like episodes in predisposed individuals or those who take excessive doses. Some observers report that the prevalence of short-term psychoses as well as the psychotic episodes of longer duration in heavy cannabis users are compatible with the prevalence rate of psychosis in the general population and, therefore, may not be attributable to cannabis use. In fact, some believe that in populations under stress where marihuana is widely used, occurrence of the acute psychotic-like episodes occur less often than one would expect in such a population. Other researchers have disagreed with these conclusions, and the matter is still controversial.

Effects On Motivation

The Commission is deeply concerned about another group of behavioral effects that have been described in other nations as being associated with the heavy, long-term use of cannabis. This behavioral condition has been termed the "amotivational syndrome." An extreme form has been reported in populations of lower socioeconomic males in several developing nations. These reports describe lethargy, instability, social deterioration, a loss of interest in virtually all activities other than drug use. This state of social and economic disability also results in precipitation and aggravation of psychiatric disorders (overt psychotic behavior) and possible somatic complications among very heavy, very long-term users of high potency cannabis products. However, in the populations so far observed in Jamaica, Greece, and Afghanistan, physical and psychosocial deterioration was not reported. The life styles of these populations appeared to be conditioned by cultural and socioeconomic factors. Some researchers believe cannabis may serve to keep these individuals stratified at this lower socioeconomic level.

The occurrence of a similar, though less intense, syndrome has been identified recently with heavy marihuana use among young persons in the Western world, including the United States. Some clinicians have described the existence of a complex of subtle social, psychological and behavioral changes related to a loss of volitional goal direction in certain individuals, including some long-term heavy users of marihuana. Such persons appear to orient only to the present. They appear alienated from generally accepted social and occupational activities, and they tend to show a reduced concern for personal hygiene and nutrition.

Some clinicians believe that this picture is directly caused by the action of marihuana. However, other behavioral scientists believe that among impressionable adolescents, marihuana-induced suggestibility may facilitate the rapid adoption of new values and behavior patterns,

particularly when the drug is taken in a socially alienated subculture that advocates and strongly reinforces such changes.

Whichever interpretation one accepts, the fact is apparent that the chronic, heavy use of marihuana may jeopardize social and economic adjustments of the adolescent. We believe this is one concern which merits further research and evaluation. On the basis of past studies, the chronic, heavy use of marihuana seems to constitute a high-risk behavior, particularly among predisposed adolescents. This consideration is especially critical when we consider the adolescent who is in the throes of a normally turbulent emotional process. The Commission has reviewed numerous reported studies and heard the testimony of several clinicians dealing with heavy users of marihuana who exhibit this particular behavior pattern. Although the United States does not, at the present time, have a large number of such persons within its population, the incidence is too frequent to ignore. Expanded epidemiologic studies are imperative to obtain a better understanding of this complex behavior.

Addiction Potential

Unfortunately, fact and fancy have become irrationally mixed regarding marihuana's physiological and psychological properties. Marihuana clearly is not in the same chemical category as heroin insofar as its physiologic and psychological effects are concerned. In a word, cannabis does not lead to physical dependence. No torturous withdrawal syndrome follows the sudden cessation of chronic, heavy use of marihuana. Although evidence indicates that heavy, long-term cannabis users may develop psychological dependence, even then the level of psychological dependence is no different from the syndrome of anxiety and restlessness seen when an American stops smoking tobacco cigarettes.

Progression To Other Drugs

As noted in Chapter II, to say marihuana leads to any other drug avoids the real issue and reduces a complex set of variables to an oversimplified premise of cause and effect. If any one statement can characterize why persons in the United States escalate their drug use patterns and become polydrug users, it is peer pressure. Indeed, if any drug is associated with the use of other drugs, including marihuana, it is tobacco, followed closely by alcohol. Study after study which the Commission reviewed invariably reported an association between the use of tobacco, and, to a lesser extent, of alcohol with the use of marihuana and other drugs.

The fact should be emphasized that the overwhelming majority of marihuana users do not progress to other drugs. They either remain

with marihuana or foresake its use in favor of alcohol. In addition, the largest number of marihuana users in the United States today are experimenters or intermittent users, and 2% of those who have ever used it are presently heavy users. Only moderate and heavy use of marihuana is significantly associated with persistent use of other drugs.

Some persons in our society are interested in experimenting with a series of drugs, and there is no uniformity regarding which drug these multidrug users take first. In some cases, the drug used is a matter of preference; in others, a matter of availability; and in further instances, a matter of group choice.

Citizens concerned with health issues must consider the possibility of marihuana use leading to use of heroin, other opiates, cocaine or hallucinogens. This so-called stepping-stone theory first received widespread acceptance in 1951 as a result of testimony at Congressional hearings. At that time, studies of various addict populations repeatedly described most heroin users as marihuana users also. The implication of these descriptions was that a causal relationship existed between marihuana and subsequent heroin use. When the voluminous testimony given at these hearings is seriously examined, no verification is found of a causal relationship between marihuana use and subsequent heroin use.

Again, we must avoid polarity on this issue. To assume that marihuana use is unrelated to the use of other drugs would be inaccurate. As mentioned earlier, the heavy or very heavy marihuana users are frequently users of other drugs. The stepping-stone theory holds that the adolescent begins the use of illicit drugs with marihuana, and later proceeds to heroin in the search for greater thrills. The opposing viewpoint holds that the large majority of marihuana users never become heroin addicts and denies the validity of a causal relationship.

In the National Survey, among the adult respondents, 70% thought that marihuana makes people want to try stronger drugs such as heroin; 56% of the youth in the 12-to-17-year-old category agreed with the same statement. These perceptions contrast with another finding in the same Survey which revealed that 4% of current marihuana users have tried heroin. On the other hand, very few respondents perceived alcohol and tobacco to be precipitants of other drug use.

Studies of the escalation process demonstrate that the rates of progression vary from one group to another and from one segment of the population to another. There is no set proportion of marihuana users who "escalate" to the use of other drugs. The other drugs which some marihuana smokers use vary according to the social characteristics of the population in question. Within some groups, heroin may be the choice; in other groups, it may be LSD.

Marihuana use *per se* does not dictate whether other drugs will be

used; nor does it determine the rate of progression, if and when it occurs, or which drugs might be used. As discussed in Chapter II, the user's social group seems to have the strongest influence on whether other drugs will be used; and if so, which drugs will be used.

PREVENTIVE PUBLIC HEALTH CONCERNS

The hallmark of a good health care delivery system is preventing as much illness as possible. This objective is achieved by means of immunizations, regular routine check-ups, and educational programs.

Education programs regarding marihuana have been notably ineffective, partly due to an exaggeration of the effects of using the drug and partly because the effects of the opiates and marihuana have been compared inaccurately. As a result, many persons have developed a conscious or unconscious denial of nearly all dangers associated with marihuana use. Some educators believe that drug programs merely sharpen the curiosity of children and tempt them to use drugs which they otherwise would not use. Others believe that the responsibility should not be lodged with the schools but rather with the home or the community.

Because of the uncertainty about the efficacy of these programs, education programs dealing with drug usage simply do not exist in the school systems of a number of major cities; in others, token programs are offered in response to the demand that something be done. Health educators have the responsibility to help this vulnerable group of Americans become aware of all options so that they are able to make enlightened choices.

The educational role of physicians and other clinical health personnel should not be underestimated. The National Survey shows that the public believes young people should receive information concerning marihuana first from schools and second from family physicians. The health professional has a unique position as both teacher and confidant to an individual struggling with a "drug abuse" problem. Honest, sincere, and confidential guidance from a physician may prevent later difficulties to both the individual and the society. The Commission believes that action must be taken to inform and support the physician in his role as confidant and counsellor to those seeking assistance.

Considering the current patterns of marihuana use in the United States, the need for treatment and/or rehabilitation does not appear necessary for the vast majority of persons who are experimenting with the drug or using it intermittently. Rather, these persons need to be realistically educated regarding the potential hazards they face. To this end, a comparison of the personal and public health risks of marihuana and those of heroin, cocaine, amphetamines, and other drugs would be useful.

A concern for public health also requires thoughtful consideration of the consequences of any change in public policy. We have objectively appraised the present scope of public health concern, concluding that the most serious risk lies with the population of heavy users, which is, at this time, quite small in this country.

Now, we must soberly consider the likely effect of adoption of a social policy of neutrality or approval toward marihuana use. Any legal policy which institutionalizes availability of the drug carries with it a likely increase in the at-risk population. This factor is not necessarily conclusive in itself, but it does weigh heavily for the policymaker. Even though the proportion of heavy users in the total using population might not increase if such a social or legal policy were adopted, the absolute number of heavy users would probably increase. Thus, we would have an increase in the at-risk segment of the populace. A greater stress would thereby be placed on the general health care delivery system in all the areas of health concern described earlier.

Regardless of emerging social policy, greater emphasis must be placed on educating our youth regarding the prospective dangers inherent in expanded marihuana use. This anticipatory guidance can serve to defuse or at least forestall a potentially serious social phenomenon.

Summary

From what is now known about the effects of marihuana, its use at the present level does not constitute a major threat to public health. However, this statement should not lead to complacency. Marihuana is not an innocuous drug. The clinical findings of impaired psychological function, carefully documented by medical specialists, legitimately arouse concern. These studies identify marihuana-related problems which must be taken into account in the development of public policy. Unfortunately, these marihuana-related problems, which occur only in heavy, long-term users, have been overgeneralized and overdramatized.

Two percent of those Americans who have ever used marihuana are now heavy users and constitute the highest risk group. Strong evidence indicates that certain emotional changes have taken place among predisposed individuals as a result of prolonged, heavy marihuana use. The clinical reports in the literature describing transient psychoses, other psychiatric difficulties, and impairment of cognitive function subsequent to use of marihuana and of other drugs do not prove causality but cannot be ignored.

The causes of these emotional difficulties are much too complex to justify general conclusions by the public or the press. The mass media have frequently promoted such clinical reports to appear as far-

reaching events affecting the entire population. The clinician sees only the troubled population of any group. In evaluating a public health concern, the essential element is the proportion of affected persons in the general group. The people responsible for evaluating public health problems must concern themselves with the proportion of people out of the total population who are affected by any specific condition. The highest risk groups should be identified as the source of primary concern. A recognition that a majority of marihuana users are not now a matter of public health concern must be made so that public health officials may concentrate their attention where it will have maximum impact.

The concept of relative risk is crucial to an evaluation of the impact of marihuana on public health. We believe that experimental or intermittent use of this drug carries minimal risk to the public health, and should not be given overzealous attention in terms of a public health response. We are concerned that social influences might cause those who would not otherwise use the drug to be exposed to this minimal risk and the potential escalation of drug-using patterns. For this group, we must deglorify, demythologize, and deemphasize the use of marihuana and other drugs.

The Commission reemphasizes its concern about the small minority of heavy, long-term marihuana users who are exposed to a much greater relative risk of impaired general functioning in contemporary America. Public health officials should concentrate their efforts on this group. Fortunately, the group has to date not grown sufficently in size to warrant its being considered a major public health concern.

We retiterate, too, the public health implications of an increase in the at-risk population. We suspect that such an increase is most likely if a sudden shift in social policy significantly increased availability of the drug. One of the factors we consider in Chapter V when evaluating the various social policy options and legal implementations is the effect of each policy on incidence and patterns of use. Regardless of how heavy this particular variable will weigh in that process, we must state that a significant increase in the at-risk population could convert what is now a minor public health concern in this country to one of major proportions.

Marihuana And The Dominant Social Order

For more than 30 years it has been widely assumed that the marihuana user constitutes a threat to the well-being of the community and the nation. Originally, the users were considered to be "outsiders" or marginal citizens. Included were such people as hustlers, prostitutes, itinerant workers, merchant seamen, miners and ranchhands,

water-front day laborers and drifters, many of whom were drawn from the lower socioeconomic segments of the population.

Concerns about marihuana use expressed in the 1930's related primarily to a perceived inconsistency between the life styles and values of these individuals and the social and moral order. Their potential influence on the young was especially worrisome. When marihuana was first prohibited, a recurrent fear was that use might spread among the youth. And in the late 1930's and 1940's, the attraction of young people to jazz music was thought to be in part related to marihuana use by this "outsider" population.

Throughout this early period, American society, in reaction to its fear of the unfamiliar, translated rumor about the criminality and immorality of the marihuana user into "unquestioned fact" which, in turn, was translated into social policy.

From the mid-thirties to the present, however, social perceptions have undergone significant change in response to the emergence of new and challenging social problems. As marihuana use has spread to include the affluent, middle class, white high school and college-age youth as well as minority group members of lower socioeconomic circumstances in urban core areas, the concept of marginality has become blurred.

Also, as the use of marihuana has increased, those individuals formerly labeled as marginal and threatening have been replaced by a more middle class, white, educated and younger population of marihuana smokers. A stereotyped user no longer exists, and therefore, the question now properly focuses on who poses a threat to the dominant order.

The Adult Marihuana User

Despite the fact that substantial numbers of adults use marihuana, society does not appear to feel greatly threatened by this group, probably because included in the group are a considerable number of middle class individuals who are regularly employed and whose occupational and social status appear to be similar to those of peers and colleagues who do not use marihuana.

In the course of its fact-finding effort, the Commission has met with several groups of socially and economically "successful" marihuana users in the professions of law, medicine, banking, education and business. In most cases, these persons, in their external appearances, seemed to be mature and responsible adults whose social attitudes and behavior did not mark them as radical ideologues or essentially irresponsible individuals.

For the most part, use of marihuana by adults has been found to be more directly related to the facilitation of social interaction (much like the adult use of alcohol in social gatherings) than to any other

factor. Although their marihuana smoking behavior is illegal, most adult users are not ordinarily considered by their peers to be criminal nor is their use generally likely to result in arrest.

Because the adult user generally maintains low visibility, is primarily a recreational user, is not usually involved in radical political activity and maintains a life style largely indistinguishable from his non-using neighbors, he is not ordinarily viewed as a threat to the dominant social order. In short, aside from his use of marihuana, the adult recreational user is not generally viewed as a significant social problem.

The Young Marihuana User

The widespread use of marihuana by millions of young people of college and high school age has been viewed by many as a direct threat to the stability and future of the social order.

Many parents, adults in general, and government officials have expressed concern that young people who use marihuana often reject the essential values and traditions upon which the society is founded. Some have suggested that youthful marihuana use is, in itself, an indication of the rejection of responsibility and a sign of reckless hedonism which may well interfere with an orderly maturation process. Others see youthful marihuana use as part of a pattern of conduct which produces dropping out, underachievement and dependency.

In short, the mass character of youthful marihuana use has been frequently interpreted as a rejection of the institutionalized principles of law and a lack of concern for individual social responsibility, which threatens the social and political institutions.

Implicit in this view is the assumption that a young person who uses marihuana in spite of the law cannot be expected to assume an individually and socially responsible adult role. The strength of this fear is drawn largely from the vocal and visible "counterculture" to which marihuana is often tied. Not surprisingly, the concerns posed by an alternate youthful life style are extended to the drug itself.

Threats to the social order are often seen, for example, in the character of youthful leisure time activities, such as attendance at rock concerts, occasioned by the high mobility and affluence of today's youth. They are also seen in the new modes of speech and dress and in the seemingly casual manner of their day-to-day living. Equally troublesome for many, however, is the idea of intentional intoxication for purposes of recreation.

Such conduct and the more casual attitude toward sexual relationships as well as participation in radical politics have provoked increasing concern throughout the adult society. The National Survey illustrates the extent to which the older adult perceives youthful marihuana use as part of a much larger pattern of behavior which bodes ill for the future of the nation.

First, the older the adult respondent, the more likely he was to picture the marihuana user as leading an abnormal life. Only 9% of the over-50 generation agreed with the statement that "most people who use marihuana lead a normal life." Nineteen percent of the 35-to-49 age group and 29% of the 26-to-34-year-olds were of the same belief. Conversely, half of the young adults (18-to-25) considered most marihuana users normal. This fact is not surprising since many of their contemporaries are marihuana users.

Second, the marihuana user, as envisioned by adults, is typically a youthful dropout from society. He doesn't like to be with other people, is uninterested in the world around him, is usually lazy and has an above-average number of personal problems.

Third, the less optimistic the adult respondent was about the nation's youth, the more likely he was to oppose alteration of the marihuana laws and to envision major social dislocations if the laws were changed. Fifty-seven percent of the adult population in general agreed with the statement, "if marihuana were legal, it would lead to teenagers becoming irresponsible and wild." Among those adults who most disapproved of youthful behavior in general, 74% agreed with the quoted statement. Similarly, 84% of the non-approving adults favored stricter laws on marihuana.

As we discussed in Chapter I, marihuana's symbolic role in a perceived generational conflict has brought marihuana use into the category of a social problem. Today's youthful marihuana user is seen as a greater threat to the social order than either the marginal user of earlier times or the adult user of the present. Since the concerns about marihuana today relate mostly to youth, the remainder of this section will focus on these youth-related issues.

THE WORLD OF YOUTH

Youth of today are better fed, better housed, more mobile, more affluent, more schooled and probably more bored with their lives than any generation which has preceded them.

Adults have difficulty understanding why such privileged young people should wish to offend by their language and appearance and spend so much effort trying to discredit those institutions of society which have made possible the privileges which those youth enjoy. Many adults perceive the present level of youthful discontent to be of a greater intensity than has been true of past generations.

Marihuana has become both a focus and a symbol of the generation gap and for many young people its use has become an expedient means of protest against adult values.

Adults in positions of authority, parents, teachers, policy officials, judges, and others often view marihuana use as the sign of youth's

rejection of moral and social values and of the system of government under which they live. The problem is that both youth and adults tend to make pronouncements and are frequently unable to reason together in logical fashion. Instead they overstate their positions in such a way that effective resolution of their differences becomes very difficult.

In effect, each group takes the rhetoric of the other at face value. For youth, however, marihuana use plays many roles, only one of which is a symbolic assault on adult authority and values.

Marihuana use, for many young people, has become a part of a ritual. It takes on the aspect of participating in a shared experience which, for some if not all, is enjoyable in itself. For many, it becomes an even more interesting experience because it is forbidden.

Some of the rituals concerned with the purchase, storage, preparation, and use of marihuana take on a mystique similar to the time of Prohibition when people went through certain rituals necessary to get a drink in a speak-easy. The three knocks and "Joe sent me" cues have been replaced by the not-so-secret handshakes, the new vocabulary of youth and other exclusionary devices to delineate the "in" group.

The use of marihuana is attractive to many young people for the sense of group unity and participation which develops around the common use of the drug. This sense tends to be intensified by a sense of "common cause" in those circumstances where users are regarded as social or legal outcasts.

They know, too, that many of their peers who share the marihuana experience and also share the designation of lawbreaker are, in reality, productive and generally affirmative individuals who are interested neither in promoting the downfall of the nation nor in engaging in acts which would harm the general well-being of the community.

In short, many youth have found marihuana use to be a pleasurable and socially rewarding experience. They have found that the continuance of this behavior has brought them more pleasure than discomfort, more reward than punishment.

Youth have increasingly come to see law enforcement activity directed at marihuana use as an unreasonable and unjustifiable rejection of their generation. Most of these youth have grown up with a positive image of the police as protectors of society. Now, many are confronted with the possibility of police intrusion into their private lives and the threat of a criminal record. The unfortunate result, in many instances, has been a blanket rejection and distrust of both the agents and institutions of government.

In part, marihuana use as a social behavior is an unintended by-product of the formal and informal educational process. Some persons even suggest that youthful drug usage is a "success" in terms of the educational and socialization process. Our society values independence of thought, experimentation, and the empirical method, often rein-

forcing this attitude by such advertising cliches as "make up your own mind," "be your own man," "judge for yourself."

Although experimentation with regard to drugs should not be considered a "success," the Commission does believe that the educational efforts necessary to discourage this curiosity, which may be valuable in other matters, have not succeeded. We understand why teenagers and young adults encouraged over the years to make up their own minds have not been restrained by exaggerated accounts of marihuana's harmful effects, or by the more recent assertions that a true evaluation of marihuana uses requires more research. The Scottish verdict of "not proven" does little to restrain youthful curiosity.

In the previous Chapter, we emphasized the difference between the vast majority of experimenters and intermittent users and the small group of moderate and heavy users who generally use drugs other than marihuana as well. The former do not differ significantly from non-users on many indices of social integration. Various studies indicate that they maintain normal patterns of living and social interaction, and are employed, competent citizens.

On the other hand, there undoubtedly are a number of persons who have used marihuana and have exercised poor judgment, performed inadequately, or behaved irresponsibly while under the drug's influence, thus jeopardizing themselves or others. The fact remains, however, that a certain number of these persons were immature and irresponsible individuals even prior to marihuana use, who would be expected to have poor or impaired judgment *whether or not* marihuana was involved.

The marihuana user is not, for the most part, a social isolationist or a severely disturbed individual in need of treatment or confinement. Most users, young or old, demonstrate an average or above-average degree of social functioning, academic achievement and job performance. Their general image of themselves and their society is not radically different from that of their non-marihuana-using peers. The majority of both groups tends to demonstrate equal interest in corporate concerns.

Based upon present evidence, it is unlikely that marihuana users will become less socially responsible as a result of their marihuana use or that their patterns of behavior and values will change significantly.

WHY SOCIETY FEELS THREATENED

Society appears to be concerned about marihuana use primarily because of its perceived relationship to other social problems. We noted in the discussion of marihuana and public health that the focus of social concern should be the heavy users and the possibility that their numbers will increase. Here we consider the perceived impact

of marihuana use upon the institutions and proclaimed goals of the society.

Dropping Out

Many parents have a genuine fear that marihuana use leads to idleness and "dropping out." During the 1960's, marihuana use, as well as the use of other psychoactive drugs, became equated with unconventional youth life styles. When a number of young people adopted unconventional life styles, many adults tended to view long hair, unkempt appearance and drugs as symbols of counterculture.

They concluded that anyone who allowed his hair to grow or gave little attention to his clothing or appearance was probably a drug user with little or no motivation to achieve and no interest in conventional goals.

A number of researchers and clinicians have observed the use of marihuana or hashish in other societies, particularly among poor, lower class males. Some have observed that many of these individuals are generally unmotivated and ordinarily appear to show little aspiration or motivation to improve their way of life, regardless of whether they are judged by the standards of the more prosperous members of their own society or by middle class standards of contemporary American society.

One of the problems with this type of analysis is that it fails to perceive the social and cultural realities in which the phenomenon takes place. In the Middle East and in Asia where hashish is used, the societies, in all instances, are highly stratified with people in the lower classes having virtually no social or economic mobility. Poverty, deprivation and disease were the conditions into which these people were born and in which they remain, regardless of whether they use cannabis. In this context, a person's resignation to his status in life is not likely to be caused or greatly influenced by the effects of cannabis. Any society will always have a certain number of persons who, for various reasons, are not motivated to strive for personal achievement or participate fully in the life of the community. Therefore, the determination is difficult to make whether cannabis use influences a person to drop out and, if it does, to what extent.

Some individuals possess particular personality as well as psychosocial characteristics which in specified instances could produce amotivation or dropping out. However, little likelihood exists that the introduction of a single element such as marihuana use would significantly change the basic personality and character structure of the individual to any degree. An individual is more likely to drop out when a number of circumstances have joined at a given point in his lifetime, producing pressures with which he has difficulty in coping. These pressures often coincide with situations involving pain-

ful or difficult judgments resulting from a need to adjust to the pressures of the social environment.

Many young people, particularly in the college population, are shielded in their earlier years from experiences which might be emotionally stressful or unpleasant. Some young people, so sheltered, are neither equipped to make mature and independent judgments nor prepared to enjoy the new-found freedom of the university or college in a mature and responsible way. Some of these students are often unable to cope with social or academic adversity. After being sheltered for so long, some of these young people may be easily attracted to experiences which promise new excitement and to fall under the influence of a peer group whose values and living patterns may be inimical to a productive, healthy and continuous process of personal growth and maturity. In these instances, marihuana serves as the medium by which these individuals encounter social and psychological experiences with which they are ill-equipped to cope.

Certain numbers of these young people have demonstrated what is described as amotivation long before the smoking of marihuana became fashionable. Adolescence is often a particularly difficult period of searching in many directions at the same time. In addition to seeking a concept of "self" the adolescent is, at the same time, attempting to comprehend the nature of the world around him and to identify his status and role in society.

Different individuals, with different backgrounds, socialization patterns, belief systems and levels of emotional maturity cope with the period of transition from childhood to adulthood in different ways. For a small number, dropping out might be one of these coping mechanisms *whether or not* they use marihuana. For others, the response to the difficult adjustments of adolescence takes other forms, some of which are more acceptable, "normal" and easier for adults to understand.

The young person who does not find it possible to cope with the pressures of his adolescent developmental period in ways convenient to the understanding of adult society should not be rejected, stigmatized or labeled. He requires both support and understanding and the opportunity to participate in roles which have meaning for him and in ways in which he feels comfortable. For a certain number of young people, marihuana and the mystique of the experience eases this passage by helping them share their feelings, doubts, inadequacies and aspirations with peers with whom they feel safe and comfortable.

Dropping Down

Apart from the concern over youthful dropping out and idleness, there is also widespread concern about "dropping down" or underachieving.

Parents frequently express fear that marihuana will undermine or interfere with academic and vocational career development and achievement by focusing youthful interests on the drug and those associated with the drug subculture. Some parents make considerable sacrifices for their children to go to school, and the fears that marihuana might undermine the academic, emotional and vocational development of their young are quite understandable.

The Commission reviewed a number of studies related to marihuana use by high school and college youth. No conclusive evidence was found demonstrating that marihuana *by itself* is responsible for academic or vocational failure or "dropping down," although it could be one of many contributory reasons. Many studies reported that the majority of young people who have used marihuana received average or above-average grades in school.

In part, underachievement is related to a view of what one individual judges to be the achievement capacity of another. This judgment is often made without concern for what the individual himself feels about his potential, his interests and his goals. Perceptions about achievement also frequently fail to take into consideration the individual feelings about the goals of his peers and the values of the larger society, including the relative prestige and status attached to various academic programs, occupations and professions.

Youth and Radical Politics

Aside from the issue of unconventional life styles and the concerns evoked by them, the other major concern of the sixties which related to youth and drugs was radical politics.

During the latter half of the decade, youthful anti-war groups were organized on many of the nation's college campuses and high schools. These groups could be divided into two segments. The largest segment consisted of concerned, sometimes confused, frustrated and well-meaning petition signers and demonstrators. Within this large group there was a small coterie of individuals who constantly sought to turn the demonstration into a confrontation and to protest for peace by means of violence. The second segment consisted of organizations of individuals whose stated purpose was to undermine the social and political stability of the society through violent means.

What must be clearly understood, however, is that among the young people, and some not so young, who protested against the war in Vietnam, only a minority were bent on violence and manipulated and corrupted these otherwise peaceful demonstrations for their own purposes.

At the various gatherings, a number of the young people protesting in these mass groups did smoke marihuana. We will never know how many were initiated to marihuana use during the course of these peace

demonstrations. The fact remains, however, that in the large campins, such as those in Washington, marihuana was involved in two ways. First, there was the "normal" use in which the smoking was part of the social experience. Individuals came together and smoked, in part, to acknowledge and strengthen group solidarity. Second, another quite different aspect of the marihuana use at these gatherings said, in effect, "we know it's illegal but go and arrest all of us for doing it. . . ." This aspect can perhaps best be characterized as a symbolic challenge to authority.

Unfortunately, however, the media, particularly television and some of the news magazines, sometimes portrayed the image of a group of young people plotting the overthrow of the nation by violent means while under the influence of marihuana. In those relatively few instances where explosives and other violent means were employed, the evidence points to a cold and calculated plan which was neither conceived nor executed under the influence of marihuana.

As a result of these protests and demonstrations, therefore, radical politics has been seen by many as a mechanism through which large numbers of young people would be introduced to marihuana as well as to other drugs. Radical political activity or mass political protest is viewed by some as a threat to the welfare of the nation and is assumed to be aided and encouraged by our enemies.

The involvement of large numbers of youth in political activism and the concomitant public concern about drug use have beclouded the issue of marihuana use and have led to a broadening of the concerns about marihuana on the part of adults.

Some of the radical movement's leaders abetted this tendency by pointing out the alleged irrationality and unfairness of the marihuana laws to recruit members to their ranks. Not surprising is the fact that 45% of the adult respondents in the National Survey felt that marihuana is often promoted by people who are enemies of the United States. Nor is it surprising that this belief is a function of age. While 22% of all young people (12-to-17 years of age) and 26% of young adults (18-to-25 years) identified marihuana with national enemies, more than one-half (58%) of those persons 50 years and older did so.

Youth and the Work Ethic

Of the many issues related to youth and the use of marihuana, one that greatly troubles many adults, is youthful attitudes toward work. The work ethic in our society is based on a belief that work is a good and necessary activity in and of itself.

The traditional view holds that work is not only a right and moral act but that it keeps people from mischief and from wasting time on harmful recreational pleasures. The rationale for this thesis is that

work in American society has served as the primary means by which persons acquired the treasured symbols of society.

In fact, throughout much of our history, with the exception of the small number who inherited or married wealth, no ethical alternative to work existed. In recent years, the increased emphasis placed upon leisure time activities has resulted in shorter work weeks, longer vacation periods and more paid holidays.

Among the concerns of the adults about today's youthful attitudes toward work and leisure are that young people seem to enjoy their recreational pursuits so much that they forget that to a considerable degree their enjoyment is paid for by the labor of others.

Many young people do not express the same level of concern as their parents did about preparing themselves for a career and "getting ahead in the world." In part, this attitude is attributable to the fact that increasingly, the results of this labor are not tangible, material goods. Service occupations generally do not produce such tangible products, and even in manufacturing industries the individual worker is usually too remote from the product to feel any pride or interest in it. In both instances, the traditional symbol of the "manhood" of work, a tangible product, is no longer present.

In sum, society has become increasingly disturbed by certain attitudes of today's youth which seem to stress pleasure, fun, and enjoyment without a counterbalancing concern for a disciplined and sustained work effort. Nevertheless, the number of young people who view work as unimportant is small when compared to the total number of young people. The Commission has found no evidence to suggest that the majority of youth are unwilling or incapable of productive and disciplined work performance. In fact, the great majority of young people are performing their tasks in industry, the professions and education quite effectively.

Although many young people delay entry into the work force to enjoy the fruits of our prosperous society, this delay does not mean they will not one day contribute their best efforts to the continued growth and advancement of the nation.

The Changing Social Scene

The present confusion about the effects of youthful marihuana use upon the dominant social order is caused by a variety of interrelated social concerns, many of them emotionally charged issues, including anti-war demonstrations, campus riots, hippie life styles, the rising incidence of crime and delinquency and the increased usage of all illicit drugs. The focus of concern about marihuana is aggravated by the data overload mentioned in Chapter I, by the outpouring of incidental information about the drug and its effects in a form and volume far beyond the capacity of the readers or listeners to assimi-

late or interpret. Rather than informing the public, much of the data disseminated has produced frustration and misinterpretation of the information presented.

Adult society, including parents and policy-makers, finds it difficult to comprehend and account for many of the attitudes and behavior of the young, including the use of marihuana. In many cases the adults are still influenced by the myths of an earlier period which overstated the dangers of the drug. At a time of great social change and turbulence, the tendency to depend on the "traditional wisdom," and its moral justification, is a strong one.

Just as youth must try to understand and appreciate the strengths of the institutions of our society, adults must try to understand the times through the eyes of their children. Where marihuana is concerned, society must try to understand its role in the lives of those who use it. The key to such understanding lies in the changes which have taken place in society within recent years and the effects these changes have had on succeeding generations of youth. The increased use of marihuana is only one of these effects.

One focal point in discussion between generations is the contrast between the use of marihuana and the use of alcohol. Many young people perceive that marihuana is less dangerous than alcohol in terms of its addiction potential and long-term physical and psychological consequences. Many believe also that marihuana and other psychoactive drugs make it possible to expand their perceptions and see this as a perfectly legitimate objective.

Viewed against the background of the profound changes of recent years in the fields of economics, politics, religion, family life, housing patterns, civil rights, employment and recreation, the use of marihuana by the nation's youth must be seen as a relatively minor change in social patterns of conduct and as more of a consequence of than a contributor to these major changes.

When the issue of marihuana use is placed in this context of society's larger concerns, marihuana does not emerge as a major issue or threat to the social order. Rather, it is most appropriately viewed as a part of the whole of society's concerns about the growth and development of its young people.

In view of the magnitude and nature of change which our society has experienced during the past 25 years, the thoughtful observer is not likely to attribute any of the major social problems resulting from this change to marihuana use. Similarly, it is unlikely that marihuana will affect the future strength, stability or vitality of our social and political institutions. The fundamental principles and values upon which the society rests are far too enduring to go up in the smoke of a marihuana cigarette.

IV
social response to marihuana use

"I find the great thing in this world is
not so much where we stand, as in what
direction we are moving: To reach the port of heaven,
we must sail sometimes with the wind
and sometimes against it—but we must sail and
not drift, nor lie at anchor."
Oliver Wendell Holmes,
The Autocrat of the Breakfast Table (1858)

A general interpretation of the National Survey indicates that roughly one-quarter of the American public is convinced that criminal sanctions should be withdrawn entirely from marihuana use. Another fourth of the public is equally convinced that existing social and legal policy is appropriate, and would ordinarily jail possessors, with the exception of young first offenders. Approximately half of the citizenry is confused about what marihuana means and ambivalent about what society ought to do about its use. This half of the population is unenthusiastic about classifying the marihuana user as a criminal, but is reluctant to relinquish formal control over him.

In considering social and legal policy alternatives, the Commission has analyzed the pattern of social response to marihuana use.

The Initial Social Response

As we noted in Chapter I, the initial social reaction to marihuana use was shaped by the narcotics policy adopted by the Federal Government. In the early legislation, marihuana was officially character-

ized as a narcotic on the basis of the widely shared assumption that it was a habit-forming drug, leading inevitably to a form of dependence. Although the medical community was aware that marihuana was distinguishable from the opiates in that it did not produce physical dependence, no functional distinction was drawn; it was assumed that most users were psychologically compelled to continue using the drug. As one psychiatrist noted in 1934, the marihuana "user wants to recapture over and over again the ecstatic, elated state into which the drug lifts him . . . The addiction to cannabis is a sensual addiction: it is in the services of the hedonistic elements of the personality."

The notion of psychological dependence is still ill-defined, and was understood even less in the early days of American marihuana use. The Commission has concluded that the automatic classification of marihuana as "addictive" was derived primarily from an underlying social perception of the substrata of society which used the drug: aliens, prostitutes, and persons at the bottom of the socioeconomic ladder.

Additional characteristics of the opiates were also transferred to marihuana. Particularly important in this regard was the association of marihuana with aggressive behavior and violent crime. One district attorney in New Orleans, where marihuana use was particularly common, wrote in 1931:

> It is an ideal drug to cut off inhibitions quickly . . . At the present time the underworld has been quick to realize the value of this drug in subjugating the will of human derelicts to that of a master mind. Its use sweeps away all restraint, and to its influence may be attributed many of our present day crimes. It has been the experience of the Police and Prosecuting Officials in the South that immediately before the commission of many crimes the use of marihuana cigarettes has been indulged in by criminals so as to relieve themselves from the natural restraint which might deter them from the commission of criminal acts, and to give them the false courage necessary to commit the contemplated crime.

By 1931, those states in which marihuana use was at all common had formally responded with a total eliminationist policy. They generally amended the preexisting narcotics legislation to include marihuana. Meanwhile, in 1929, the Federal Government already had classified marihuana officially as a "habit-forming drug," along with the opiates and cocaine, in the legislation which established two federal "farms" for treating narcotics addicts in Fort Worth, Texas, and Lexington, Kentucky.

During the 1930's, the remaining states criminalized marihuana use by adopting the Uniform Narcotic Drug Act, in which the drug was included (optionally) in the definition of narcotic drugs. Then, in

1937, Congress adopted the Marihuana Tax Act, completing the initial period of official response to marihuana use.

A difference of opinion among historians still exists as to why policymakers thought national legislation was necessary at that time. Whatever the reason, however, Congress responded swiftly, without much attempt to learn the facts about the drug and its use. The assumptions underlying that legislation were summarized in the Report of the House Ways and Means Committee:

> Under the influence of this drug the will is destroyed and all power of directing and controlling thought is lost. Inhibitions are released. As a result of these effects, it appeared from testimony produced at the hearings that many violent crimes have been and are being committed by persons under the influence of this drug. Not only is marihuana used by the hardened criminals to steel them to commit violent crimes, but it is also being placed in the hands of high-school children in the form of marihuana cigarettes by unscrupulous peddlers. Cases were cited at the hearings of school children who have been driven to crime and insanity through the use of this drug. Its continued use results many times in impotency and insanity.

When Congress escalated penalties for narcotics offenses in 1951 and again in 1956, marihuana was included, with the following effects:

	Possession Minimum sentence
First offense	2 years
Second offense	5 years
Third and subsequent offnese	10 years
Fine	$20,000

	Sale Minimum sentence
First offense	5 years
Second and subsequent offense	10 years
Sale to minor by adult	10 years

Parole or probation were made unavailable to all except first offenders in the possession category.

The perceptions of 1937 were perpetuated in the comments of Senator Price M. Daniel, Chairman of the Senate subcommittee considering the 1956 Act, although by now an important new factor had been added:

> Marihuana is a drug which starts most addicts in the use of drugs. Marihuana, in itself a dangerous drug, can lead to some of the worst crimes committed by those who are addicted to the habit. Evidently, its use leads to the heroin habit and then to the final destruction of the persons addicted.

The Change

With the adoption of marihuana use by middle and upper class college youth in the mid-60's, the exaggerated notion of the drug's dangers and the social tension so widespread during this period combined to reopen the question of the impact of marihuana use. But governmental policy held to the appropriateness of existing law.

Arrests, prosecutions, convictions and sentences of imprisonment all increased at both the federal and state levels. Marihuana arrests by the U.S. Bureau of Customs increased approximately 362% from fiscal year 1965 to 1970. Arrests by the Bureau of Narcotics and Dangerous Drugs, an agency which concerns itself primarily with sale, rose 80% from 1965 to 1968. Because major responsibility for enforcing the possession laws lies at the state level, state arrests rose dramatically (1,000%) during the five years from 1965 to 1970. Although the data compiled by the Federal Bureau of Investigation are not comprehensive, the FBI sample tracks the continuing increase of state arrests (Table 6).

Table 6.—STATE MARIHUANA ARRESTS

Year	Arrests	Percentage increase
1965	18,815	.....
1966	31,119	65.39
1967	61,843	98.73
1968	95,870	55.02
1969	118,903	24.02
1970	188,682	58.68

In the wake of this upsurge in marihuana arrests, the criminal justice system faced a far from usual "criminal" population. Nonetheless, judging from federal figures, the number of people prosecuted, convicted, and incarcerated did rise substantially as prosecutors and judges attempted to carry out the law.

Beginning in 1966, however, the proportion of defendants ultimately convicted declined gradually, as did the percentage of defendants who were incarcerated, and the average length of their sentences. This response reflected an attempt to mitigate the harshness of the law as applied to this new user population. By 1968, the trend toward leniency seemed to have temporarily leveled off, before it accelerated again in 1969 (Table 7).

Paralleling the vigorous law enforcement effort between 1965 and 1968 was a punitive reaction in the schools and large numbers of students using marihuana were suspended, expelled or referred to

the police. Similarly, the military's first reaction to the surge of marihuana use took the form of court-martial, administrative punishment, or discharge from the service.

Table 7.—DISPOSITION OF FEDERAL MARIHUANA ARRESTS

Year	Total defendants	Percent convicted	Percent incarcerated	Average length of sentence (in months)
1964	.....	85	49	.....
1965	523	90	52	58.2
1966	746	87	45	53.7
1967	941	80	38.5	51.0
1968	1,433	79	39.4	51.2
1969	2,189	76	34.3	52.6
1970	2,082	73	27.4	46.7
1971	3,323	60	28.5	39.9

The family, however, suffered the most from the sudden conflict between accepted norms and this expression of youthful independence. The use of drugs, particularly marihuana, became a significant barrier between parent and child. Many young people adopted marihuana as a symbol of their uneasiness with society's prevailing norms.

As noted in Chapter I, the sudden increase in marihuana use precipitated extensive research by the medical and scientific communities. By 1969, a consensus emerged holding that many of the earlier beliefs about the effects of marihuana were erroneous. Available U.S. data seemed to indicate that dependence on the drug was rare, as was the incidence of psychosis among marihuana users. Particularly important was the recognition that there was little, if any, convincing proof that marihuana caused aggressive behavior or crime. As such findings accumulated, public attention was drawn increasingly to the consequences of existing policy: soaring arrests, convictions and in some states, lengthy sentences.

Policy-makers, in social institutions and government, as well as the public began to believe that the harshness of the criminal penalties was far out of proportion to the dangers posed by the drug. As users were incarcerated, newspapers and television stations often brought the matter to public attention, particularly when the arrested youngster came from a prominent family.

Official response to this development was twofold: a trend toward leniency in marihuana cases within the legal system, and a recognition by policy-makers of widespread uncertainty regarding the effects of marihuana.

Reflecting the first response, the courts, prosecutors and police applied existing law more leniently, and the law-makers in most states

and at the federal level changed the letter of the law, reducing the penalties for possession of marihuana, generally to a misdemeanor (up to a year in jail). In the process, they repealed the mandatory minimums which had been of major concern to the judiciary.

By June 1970, 24 states and the District of Columbia had reduced the penalties, although 34 states and the District still classified marihuana as a narcotic. Meanwhile, on the federal level, Congress had been considering the Nixon Administration's comprehensive proposal to overhaul the national government's patchwork of drug legislation.

Since the passage of the Harrison Narcotics Act in 1914, federal drug laws had taken the form of tax measures, an approach compelled for constitutional reasons. The Marihuana Tax Act of 1937 followed the same format. The result, however, was a complex set of offenses involving order forms and registrations. When the Supreme Court declared certain aspects of the Tax Act unconstitutional in 1969, revision of the law became essential. Taking up the challenge, the Administration proposed a major piece of legislation which tightened control over pharmaceutical distributions and also reappraised the penalty structure for narcotics and dangerous drug offenses.

Possession of all drugs, including marihuana, was reduced to a misdemeanor. Special treatment for first offenders was provided, allowing expungement of the record upon satisfactory completion of a probationary period. Casual transfers of marihuana were treated in the same manner as possession. After a series of wide-ranging hearings, Congress passed the Comprehensive Drug Abuse Prevention and Control Act, and on October 27, 1970, the President signed it into law.

After passage of the new federal drug law, the Conference of Commissioners on Uniform State Laws adopted a Uniform Controlled Substances Act, conforming in structure and emphasis to the federal law. Although the Uniform Act specifies no penalties, the Commissioners recommended that possession of all drugs be a misdemeanor.

At this writing, 42 of the states and the District of Columbia classify possession as a misdemeanor or have adopted special provisions so classifying possession of small amounts of marihuana. In half of the remaining eight jurisdictions, the courts have discretion to sentence possessors as misdemeanants.

In 11 jurisdictions, casual transfers are treated in the same manner as possession, and in 27 jurisdictions, conditional discharge is available to certain classes of offenders.

The second characteristic of the 1969–70 official response was its acknowledgment of uncertainty. No longer perceived as a major threat to public safety, marihuana use had now become primarily an issue of private and public health. Scientific researchers were asked to

define the nature and scope of the health concern. In a sense, lawmakers took the minimum official action dictated by social and scientific realities, but were uncertain where to go from there. The need to know more about the effects of the drug, particularly its chronic, long-term effects, became the core of official response.

Many states appointed special task forces and commissions to report on marihuana and drug abuse in general. Congress directed the Department of Health, Education and Welfare to file annual Reports on Marihuana and Health and, in the Comprehensive Drug Abuse Prevention and Control Act of 1970, established this Commission.

The Current Response

In addition to an objective appraisal of the effects of marihuana use, this Commission was directed to evaluate the efficacy of existing law. The marihuana laws were and still are the focus of much public debate. We have recognized from the outset that a meaningful evaluation of the law is dependent upon an understanding of objectives and the social context in which the law operates. Particularly important in this connection are the attitudes and practices of society's non-legal institutions and the general direction of public opinion.

In order to comprehend the entire range of contemporary social response, the Commission launched a threefold inquiry. First, we designed a series of projects designed to ascertain opinion and behavior within the criminal justice system. Included were an analysis of all marihuana arrests during the last six months of 1970 in six metropolitan jurisdictions, a similar study of all federal marihuana arrests during 1970, an opinion survey of all local prosecuting attorneys, and a similar survey of attitudes among a representative sample of judges, probation officers, and court clinicians.

We next focused on the practice and opinion of the medical, clerical, educational, and business communities. To this end, we solicited written responses from representative groups, invited various spokesmen to testify before us, made numerous field visits to secondary schools, colleges and universities and surveyed opinion in free clinics and university health services. We also launched a study of drug use and abuse in industry which will be covered in our second Report on drug abuse.

Finally, we commissioned the National Survey of public opinion about marihuana to which we have previously referred.

THE CRIMINAL JUSTICE SYSTEM

How does the criminal justice system respond when an enormous increase in an illegal conduct, of a primarily private nature, makes full enforcement of the law impossible, and when there is widespread doubt about the rationale for making the conduct illegal? This ques-

tion guided our analysis of the responses and opinions from members of the criminal justice system.

Law Enforcement Behavior

On the basis of a detailed study of all federal marihuana arrests during 1970 and of a sample of state arrests during the last half of 1970 in Cook County, Illinois; Dallas, Texas; Omaha, Nebraska; Tucson, Arizona; San Mateo County, California; and the Washington, D.C. Metropolitan Area, we present the following findings.

Federal

The federal authorities make little or no effort to seek out violators of laws proscribing possession of marihuana. The Federal Government ceded primary responsibility for enforcement of possession laws to the states several years ago. However, in the course of general enforcement activity, the federal authorities do make possession arrests. If a person is arrested at the federal level for possession or casual transfer of small or moderate amounts of marihuana, the case generally is either dropped or turned over to the states for prosecution.

The Bureau of Narcotics and Dangerous Drugs does not concentrate much of its energy on marihuana. By its own estimate, approximately 6% of its investigative efforts are directed at marihuana offenses. Most BNDD marihuana arrests occur as a result of the agency's general investigation into the commercial distribution of all drugs.

The overwhelming majority of all federal marihuana arrests occur at or near the borders, as the Bureau of Customs, sometimes in cooperation with the Border Patrol of the Immigration and Naturalization Service, attempts to interdict the importation of the drug.

State

At the state level, where enforcement of the possession laws is focused, about 93% of the arrests in our sample were for this offense. Yet, there was little formal investigative effort to seek out violators of the possession laws. Instead, 69% of all marihuana arrests arose from spontaneous or accidental situations where there had been no investigation at all. Well over half of these spontaneous arrests occurred when police stopped an automobile and saw or smelled marihuana. The remaining spontaneous arrests occurred when police stopped persons on the street or in a park and discovered marihuana.

In an additional 16% of the cases, the marihuana arrest resulted from police follow-up of a phoned tip or similar lead. In less than 11% of all the cases was there any significant police involvement. (Scope of investigation was unknown in about 4% of the cases).

Because of this enforcement pattern, arrests were concentrated among the young. Typically the arrestee was a white male, in school or employed in a blue collar job, without a prior record. Of those arrested at the state level:

- 58% were under 21; 30% were between 21 and 26; 10% were over 26 (2% unknown)
- 85% were male; 15% were female
- 77% were white; 21% were black; 2% were Spanish speaking
- 27% were students, 2% were military; 28% were employed in blue collar jobs; 15% were employed in white collar jobs; 11% were unemployed (16% unknown)
- 44% had not been arrested previously; 31% had been arrested previously (in 25% of the cases, the extent of prior contact was unknown); only 6% of the arrestees had been previously incarcerated

Such arrestees generally possessed only small amounts of marihuana. Of our entire sample of 3,071 arrests:

- 67% were for possession of less than one ounce (18% were for less than one gram; 23% were for between one and 5 grams; 26% were for between 5 and 30 grams)
- 7% were for possession of between one ounce and 4 ounces
- 8% were for possession of over 4 ounces
- 13% were for possession of unknown quantities
- 3% were for transfer of less than one ounce
- 3% were for transfer of over one ounce*

Offenders at the state level were generally arrested in groups.

- 29% were arrested alone
- 24% were arrested with one other person
- 43% were arrested with two or more other persons (4% unknown)

Faced with this population of offenders, the criminal justice system responded often by dismissing or diverting to a non-criminal institution the young first-offense possessor of small amounts.

Adult Cases

At least 48% of the cases were terminated in the defendant's favor:

- The police themselves disposed of 10% of the cases, refraining from filing charges, or diverting the case to some other institution.
- The prosecution declined to file complaints in an additional 7% of the cases.
- An additional 28% of the cases were dismissed in the course of pretrial judicial proceedings.
- In 3% of the cases, the defendant was acquitted at trial.

*Because the figures have been rounded off, the total is not always 100%.

Juvenile Cases

At least 70% of the cases were terminated in the youth's favor:

- The police themselves disposed of 21% of the cases, refraining from referring the youth to juvenile authorities or diverting the case to some other agency.
- An additional 48% of the cases were dismissed either because the juvenile officer responsible for filing a delinquency petition refused to do so, or because the judge dismissed the case prior to trial.
- In 1% of the cases, the juvenile was found innocent.

Of the entire sample of arrests, both adult and juvenile, 33% of those apprehended were ultimately sentenced, after pleading guilty or being found guilty. (Since 11% of the 3,071 cases were still pending at the time of our study, and disposition was unknown in 2% of the cases, the figure may be as high as 40% of all arrests).

Of those convicted for possession of marihuana, 24% were incarcerated, usually for a year or less. Most of the remaining persons were put on probation, although some were fined only. By comparison, of those convicted of sale (5% of the convicted individuals), 65% were incarcerated, usually for over a year.

In short, in the 2,610 cases where disposition was final and was available to us, 6% of those apprehended were ultimately incarcerated.

From this analysis of enforcement behavior, it appears that the law enforcement community has adopted a policy of containment. Although effort is sometimes expended to seek out private marihuana use, the trend is undoubtedly to invoke the marihuana possession laws only when the behavior (possession) comes out in the open. We were told by police officials in some cities, for example, that arrests are made only when marihuana use is flaunted in public.

The salient feature of the present law has become the threat of arrest for indiscretion. The high percentage of cases which, after arrest, are disposed of by dismissal or informal diversion attests to the ambivalence of police officials, prosecutors and judges about the appropriateness of existing law. Anyone processed through the entire system does run a risk of incarceration, especially when the individual had a prior record and the offense was sale or possession of a significant amount.

Law Enforcement Opinion

Prosecutorial opinion toward the existing system suggests both a containment objective and a flexible response. As to prosecution policy:

- 31% of the prosecutors state that they would not prosecute anyone arrested at a private social gathering of marihuana users who are passing a cigarette

- Large numbers of prosecutors admit that they consider factors other than strength of the evidence in deciding whether or not to prosecute a possession case; 41% cite age, 38% cite lack of prior record, 36% consider the amount of marihuana seized and 26% take into account the family situation of the accused; 31% thought one or another of these non-legal factors was *most* important in his decision
- 29% of the prosecutors acknowledge that they use informal probation in lieu of prosecution in some cases

As to the efficacy of existing law, a majority of the prosecutors agree that the marihuana laws do not deter, or deter only minimally:

- Persons under 30 from initiating use (53%)
- Users from using regularly (56%)
- Users from transferring small amounts for little or no remuneration (55%)

From the studies made by the Commission of enforcement practices, we consider this to be a realistic assessment.

Conversely, however, the prosecutors agree that the laws have a significant effect in deterring users from smoking marihuana openly (62%) and persons over 30 from initiating use (44%).

We also asked the district attorneys for their views on an appropriate legal policy concerning marihuana use. Their opinions tend to fall in three groups. One group, representing about 25% of the prosecutors, favors the status quo, and does not want any further reduction in penalties. A fifth of the prosecutors conclude, on the basis of their experience, that possession of marihuana, and perhaps sale of the drug, should be removed entirely from the criminal justice system.

The remaining prosecutors, a majority, is willing to consider mitigation of the harshness of the law either by legislation or by benign exercise of discretion, but is reluctant to relinquish formal, criminal control. These prosecutors doubt the deterrent value of the law and are willing to be lenient in appropriate cases, but they believe some use of the legal system is necessary to prevent an increase in marihuana use.

Underlying these opinions are diverse attitudes about marihuana use and the efficacy of existing law. For example, prosecutors who doubt the efficacy of existing law and reject the "escalation" and "aggressive behavior" hypotheses, are generally willing to modify the laws by their enforcement policies and by legislative reform (Table 8).

The same general pattern of practice and opinion emerges at the judicial and dispositional level. Only 13% of the responding judges would jail an adult for possession of marihuana and only 4% said they would incarcerate a minor. Lesser proportions of probation officers and clinicians would imprison adults (8% and 1%) and minors (2% and

1%). Conversely, 11% of the judges, 15.5% of the probation officers and 63.5% of the clinicians noted that they would assess *no penalty* for possession by adults. For minors, the proportions are 3%, 5%, and 33% respectively.

Table 8.—DISTRICT ATTORNEYS' OPINIONS

Change favored	Percent who believe marihuana leads to hard drug use	Percent who believe marihuana leads to aggressive behavior	Percent who believe the marihuana laws do not deter persons under 30 from initiating use	Percent who utilize informal probation
None	87.1	47	51.3	28.5
Reduction of possession penalties	68.8	35.1	63.2	34.3
Preclusion of incarceration	64.7	33	59	33.2
Decriminalization of possession of small amounts	41.5	21.9	67.2	37.4
Legalization of marihuana	32.2	11.1	69	37.8

How to read table: 87.1% of the prosecutors who favor no change in existing law believe that marihuana leads to the use of hard drugs; in contrast, 32.2% of the prosecutors who favor legalization believe that marihuana leads to the use of hard drugs.

With regard to appropriate legal policy, the judges exhibit the same inclination as the prosecutors to look for alternatives within a formal control system which would avoid the use of criminal penalties. We asked essentially the same question in two ways and received similar responses (Table 9).

The judges, as a group, are less enthusiastic about criminal control than the prosecutors, but are equally unwilling to relinquish formal control. By contrast, the probation officers and clinicians, who have more personal contact with these offenders and are perhaps more intensively aware of the control potential of the criminal justice system, are highly skeptical about formal control (Tables 10, and 11).

In conclusion, as one proceeds through the criminal justice system, from district attorneys to court clinicians, the people responsible for the functioning of that system seem to be decreasingly enthusiastic about the appropriateness of criminal control and decreasingly insistent on any technique for formal control.

Table 9.*—JUDGES' OPINIONS

Types of control	Means of control for adult users	Percent who favored	Statutory schemes for possession	Percent who favored
Informal control	Personal choice	11	Control outside criminal justice system	24. 3
	Informal social control	22		
Non-criminal formal control	Required treatment	21	Expungement of criminal record	57. 9
	Other	11		
Criminal control	Criminal law	25	Control within criminal justice system	11. 5

*Because of a small percentage of non-responses, figures do not always total 100%.

How to read table: When asked to identify the appropriate means of control for adult users, 33% of the judges opted for informal control (11% would rely on personal choice and 22% would rely on informal social control). Similarly, when asked about the appropriate statutory scheme for possession, 24.3% of the judges preferred control outside the criminal justice system, a functional equivalent of "informal control."

Table 10.*—PROBATION OFFICERS' OPINIONS

Types of control	Means of control for adult users	Percent who favored	Statutory schemes for possession	Percent who favored
Informal control	Personal choice	21	Control outside criminal justice system	35.5
	Informal social control	32.7		
Non-criminal formal control	Required treatment	11.8	Expungement of criminal record	54.5
	Other	10		
Criminal control	Criminal law	15.5	Control within criminal justice system	9

*Because of a small number of non-responses, the figures do not always total 100%.

To supplement our survey of behavior and opinion within the criminal justice system, we also solicited the views of the American Bar Association. The President of the ABA in turn urged the respective Committees of the Association to submit their views to us. The two Committees directly concerned with the drug area, the Committee on Alcoholism and Drug Reform of the Section on Individual Rights

Table 11.*—CLINICIANS' OPINIONS

Types of control	Means of control for adult users	Percent who favored	Statutory schemes for possession	Percent who favored
Informal control	Personal choice Informal social control	61.7 21	Control outside criminal justice system	74
Non-criminal formal control	Required treatment Other	1 10	Expungement of criminal record	22.6
Criminal control	Criminal law	3.5	Control within criminal justice system	0

*Because of a small number of non-responses, the figures do not always total 100%.

and Responsibilities, and the Committee on Drug Abuse of the Section on Criminal Law, were in essential agreement regarding the appropriate course of action.

Both Committees expressed doubt about the wisdom and legitimacy of existing policy and about the capacity of the criminal justice system to deal with marihuana use. They both urged the Commission to recommend the removal of criminal penalties from possession of the drug for personal use and casual non-profit transfers. Both Committees suggested that a regulatory approach to distribution of the drug be given serious consideration.

THE NON-LEGAL INSTITUTIONS

Law enforcement authorities, given available and prospective resources, cannot possibly enforce the existing marihuana laws fully. The best they can do is keep marihuana use contained and out of sight. In addition, many officials within the criminal justice system are reluctant to enforce the marihuana laws, being either uncommitted to the usefulness of this particular law or opposed to the law itself. The net result is for the legal system to leave much of the responsibility for social control to other social institutions such as family, schools, churches, and the medical profession. Since these other institutions themselves have relied heavily on the legal system for control, caution and confusion now dominate the social response to marihuana use.

The diminishing severity of the law enforcement response may not have occurred if the other institutions of society had continued to regard the marihuana user as a criminal. However, many of these institutions have come to view the marihuana user primarily in social

or medical terms, and to recommend a form of social control in accord with their respective self-interests or orientations. In many cases, the attitudes of these other institutions mirror that of the criminal justice system: uncertainty about the proper role of formal legal control.

The Family

The most important institution for instilling social norms is the family. Parental attitudes generally parallel public opinion, and specific responses in our National Survey suggest an inclination among parents and non-parents to deal with youthful marihuana users through discussion and persuasion rather than harsh or punitive measures. When asked what action they would take upon discovering that one of their teenage children was smoking marihuana with friends, 47% of the adults responded that they would use persuasion and reason. Twenty-three percent favored a punitive approach. Interestingly, 9% of the latter group felt so strongly about the matter that they were willing to report their own child to the police. A considerable number, 35%, indicated that they were uncertain about what to do, or failed to respond to this multiple response question.

The non-punitive trend was also apparent when the adults were asked what they would do if their teenage child was arrested for a marihuana offense. A substantial number (58%) indicated they would attempt to extricate their child from the situation, many not wishing their child to have a police record, while 34% expressed the sentiment that the child's arrest would help him learn a lesson.

The Schools

Marihuana use continues to increase among high school and college students. The National Survey reveals that 30% of the high school juniors and seniors have used marihuana. The National Survey also reveals that 44% of those currently attending college at the graduate or undergraduate levels have used it, while other surveys indicate this figure is significantly higher in some major universities.

Not surprisingly, there has been, during the last two years, an appreciable change in the attitudes of school administrators, faculty and even of the boards of education and trustees toward marihuana use. Administrators at the secondary and college levels are generally more relaxed and tolerant toward marihuana use than they were during the mid-1960's, when support for a punitive response was common. After the initial shock of widespread use dissipated, many school officials came to believe that strong disciplinary action, including suspension and arrest, was counterproductive. In addition, as the evidence accumulated that marihuana was not as dangerous as had once been thought, parental and community pressures were sometimes

brought to bear on school administrators to be less punitive and more understanding of marihuana use.

At the secondary level, the policies very somewhat from state to state and even within states. Nevertheless, school boards generally seem to have become less enthusiastic about suspension and arrest as an appropriate response to marihuana use. One school administrator in Philadelphia noted sarcastically that if all users were suspended or arrested, the high schools would become empty cells, with their entire clientele turned out onto the streets.

A West Coast official emphasized that student alcohol use was a much more serious problem than marihuana use; he even suggested that legalization of marihuana might reduce alcohol use among the young. The Commission ascertained that no suspensions for marihuana use had occurred during 1971 in the entire school system of a southern metropolitan area. Although security officers in that system did make 20 arrests, they were all for selling marihuana and other drugs.

At the secondary level, then, increased reliance is being placed on persuasion rather than discipline, as a means of discouraging marihuana use. Drug education programs, now being instituted in almost every school system, often include information about alcohol and tobacco. We will explore the various pedagogical techniques employed in such programs and will attempt to evaluate them in our next Report.

At the college level, the response is even more lenient. In many cases official neutrality or even protection against police intervention substitutes for the restraint common at the secondary level. Under formal or informal arrangements with local law enforcement officials, many schools bar on-campus arrests for marihuana use. Apparently they have concluded that enforcement of the marihuana laws causes more harm than does use of the drug. In some cases, college authorities have substituted their own policy for society's official policy. The Commission learned at one of its hearings in Chicago, for example, that a major Midwestern university explicitly declared that students would be subject to university disciplinary action if they were found in possession of more than one week's supply of marihuana.

Control at the college level is usually considered a medical concern and is handled either through the university health centers or free clinics. The trend toward leniency is also apparent in the policy responses of the representative sample of university health service and free clinic physicians, whose profession presumably brings them into contact with the population most at risk from marihuana. Among personnel of the free clinics, 62% of the respondents favor legalization; 5% would continue the present policy, and the remainder would either reduce penalties (11%) or await further research (22%).

Even among the "establishment-oriented" health service personnel, similar attitudes prevail. Nineteen percent would continue the present policy, and 16% would legalize. Of the remaining 55% (10% did not respond), 38% would reduce penalties and 17% would await further research. This pattern of views bears a striking resemblance to that of the prosecuting attorneys, and indeed of the public at large. The large majority indicates uneasiness with the present system and opposition to legalization, but is uncertain about exactly what to do.

The Churches

The nation's churches play a major role in the process by which society's norms and values are transmitted to the young. Moral education, through individual and family counseling by church personnel, is influential in the process of social control, particularly for adolescents. Consequently, the Commission sought to learn the attitudes, responses and recommendations of the clergy.

The larger societal uncertainty about the social and moral implications of marihuana use is also reflected in the attitudes of religious institutions. For example, Dr. Thomas E. Price, speaking for the National Council of Churches of Christ in the U.S.A. before the Commission, referred to marihuana as a "tightly drawn moral knot." This uncertainty has led many religious groups to minimize a punitive and repressive response to marihuana use in their offical statements and formal programs. Instead, they have concentrated on educational and rehabilitative programs.

Many church spokesmen have urged a reconsideration of social and legal policy. The range of their suggestions for change reflects, once again, widespread uncertainty. Some ask for some form of "adequate" punishment or supervision so as to discourage marihuana use. Others say "reform or elimination" of penalties for possession would be appropriate. And there are those who suggest legalization with some government regulation. Some church spokesmen have defended existing policy, recommending only that the law be more strictly and uniformly enforced.

The Medical Community

In contrast to the mixed opinions of other segments of society, the medical profession has a rather broad consensus at the present time. In a series of responses from various medical societies, associations and committees, we found certain recurrent themes. Every medical group emphasized the need for more research into the effects of marihuana. There was uniform emphasis on how marihuana, as a "drug," affects heart, head, blood, brain and so on, but not on how it affects society as a behavior. The consensus was that marihuana, the drug,

poses some danger for the individual, physically or psychologically. The only major disagreement is about the degree of such danger.

The second recurrent theme was that marihuana should definitely not be legalized. Legalization would imply sanction, medical groups said, with a probable increase in use as a result. One doctor compared legalization with the failure of Prohibition: "The fact [that] Prohibition was a failure doesn't make alcoholism a good thing and the six million or so (alcoholics) we have are no bargain. Therefore, since there is no legitimate use for marihuana it seems rather silly to legalize its use to initiate a second headache." Another reason commonly given by physicians for opposing legalization is that such a step should be taken if and when it is proven that marihuana is *not* dangerous.

The third common theme of medical opinion was a call for a more lenient approach toward users, again a position reflected in almost every quarter of society. One officer of a public health association told a convention: "(Our committee) deplores the strong punitive measures suggested by some because we feel that a jail sentence for the offense of smoking marihuana is not likely to solve the problem of eliminating marihuana use. On the contrary, a prison sentence is likely to do great damage to a young person's personality as well as to his future career." Another group called for prosecutors to use discretionary powers in handling youthful first offenders.

When discussing penalties, the medical community begins to take a look at marihuana use as a form of social behavior rather than simply a drug which produces certain physical and psychological effects. One doctor wrote: "Because marihuana in present patterns of use is, by and large, a relatively innocuous drug and because its use has many motivations from simple curiosity to symbolism of hostility to the 'establishment', the legal penalties in many jurisdictions throughout the United States are excessively punitive."

Summary

Social institutional spokesmen now commonly recognize that control of marihuana is only partially a law enforcement problem. Opinions cluster around the propositions that society should not be punitive on the one hand, but should not make the drug available, at least for now. Beyond these points, however, uncertainty prevails. There is no common vision of an appropriate social control policy.

Each institution is going about the business of control in its own way. Parents emphasize mutual communication. The secondary schools emphasize health education. The colleges recognize personal freedom so long as it does not jeopardize the educational enterprise. Churches emphasize uncertainty about the moral implications of marihuana use. The medical fraternity stresses the need for further research into

the health consequences of marihuana use. Uncertainly is the common denominator.

THE PUBLIC RESPONSE

For most Americans marihuana use is not an abstract phenomenon. Fifteen percent of the adult population, the National Survey revealed, has tried the drug and 44% of the non-trying adults personally know someone who has used the drug. Fourteen percent of the youth have tried the drug and 58% of the non-triers personally know someone who has used the drug. Indeed, six percent of the non-trying youth indicated that half or more of their friends used marihuana.

The public is also aware of the consequences of the existing system and concerned about its impact. Ninety-seven percent of the adults know that selling marihuana is against the law. Only a few less, 94%, know that possession is against the law. In fact, one fourth of the adults know someone who has been arrested on a possession charge. Ninety-two percent of the youth know that sale is prohibited, and four out of five know that possession is against the law. Fifty-three percent of the 16- and 17-year-olds actually know someone who has been arrested for possession.

Acutely aware of the legal consequences of use, the public is also cognizant of the difficulties encountered by the criminal justice system in its attempt to enforce a widely-violated law, Adults were asked whether they mostly agreed or mostly disagreed with a series of 12 selected propositions regarding the desirability of maintaining or altering the present system of marihuana control. The two propositions which received the most support relate to problems inherent in the existing laws.

Eighty-three percent of the adults mostly agreed with the statement that "because of marihuana a lot of young people who are not criminals are getting police records and being put in jail." And 76% agreed that "laws against marihuana are very hard to enforce because most people use it in private."

Marihuana use is more personal than most public issues, but it is also more confusing. Bombarded in recent years with contradictory "findings" and statistics about the effects of marihuana, and with conflicting arguments about public policy, the public tends to believe everything, whether pro or con. Particularly important in this regard is the widespread acceptance of beliefs which have little basis in fact.

Approximately half of the adult public believes that "many crimes are committed by persons who are under the influence of marihuana," and that "some people have died from using it." Seven of every 10 adults believe that "marihuana makes people want to try stronger things like heroin." Although the probability that a person believes

these statements increases with age, a significant percentage of all groups are represented.

The underlying confusion is strongly indicated in the contradictory attitudes toward various reasons for maintaining or changing the law. For example, 43% of the adults thought, in the context of an argument for making marihuana legal, that "it should be up to each person to decide for himself, like with alcohol or tobacco." Yet 75% of the adults agreed, in the context of an argument for keeping the laws the way they are, that "there are already too many ways for people to escape their responsibilities. We don't need another one."

Youth tend to be less convinced than adults that marihuana use may be fatal to the user, or cause him to commit crime or lead him to use other drugs; but young people as a group also are noticeably more uncertain about these matters. One of every four young people indicated that they were unsure whether marihuana caused death or crime, and one of every six expressed uncertainty regarding the progression to other drugs. Similarly, young people were more than twice as likely as adults to have "no opinion" about the various propositions regarding the need for legal change.

Public attitudes toward marihuana exhibit both doubt and tension. On the one hand, we note an acute awareness of the legal consequences of marihuana use and an appreciation of the adverse impact of processing users through the criminal justice system. On the other hand, we note some misconceptions about the dangers of marihuana and confusion about the consequences of changing or maintaining the present system.

Public responses on the basic questions of social and legal policy reflect the underlying ambivalence. The overwhelming majority of the public does not want to treat the marihuana user harshly. This attitude appeared repeatedly through the entire Survey. When asked "For the good of the country, which of the following courses of action would be the best thing to do about [marihuana use]?" the public responded in the following manner:

	Percentage	
	*Adults**	*Youth 12–17*
Handle the problem mostly through the police and courts: the process of arrest, conviction, punishment	37	20
Handle the problem mostly through medical clinics: the process of diagnosis, treatment, care	51	48
Don't worry about the use of marihuana, but spend time and money on preventing and solving other crimes	11	11
No opinion	5	20

*Some adults gave more than one answer.

Adults and youth were also asked to look at marihuana use from the perspective of the system, and to identify the appropriate penalty for possession of marihuana. Both groups were reluctant to put users in jail, especially for a first offense. Eighty-three percent of the adults and 64% of the youth would not incarcerate a youthful first offender; 54% of the adults and 41% of the youth would not even give the young offender a police record (Table 12).

Table 12.—ADULTS' VIEWS ON POSSESSION PENALTIES

Penalty	If defendant is teenager				If defendant is adult			
	First offense (percent)		Previous conviction (percent)		First offense (percent)		Previous conviction (percent)	
No penalty	20	Total	6	Total	13	Total	7	Total
Fine (no police record)	34	83	11	37	28	64	6	24
Probation	29		20		23		11	
Jail sentence								
Up to a week	8	Total	20	Total	11	Total	14	Total
Up to a year	3	13	24	56	12	32	24	70
More than a year	2		12		9		32	
No opinion	4		7		4		6	

YOUNG PEOPLES' (age 12–17) VIEWS ON POSSESSION PENALTIES

Penalty	If defendant is teenager				If defendant is adult			
	First offense (percent)		Previous conviction (percent)		First offense (percent)		Previous conviction (percent)	
No penalty	13	Total	6	Total	11	Total	7	Total
Fine (no police record)	28	64	9	35	21	50	7	27
Probation	23		20		18		13	
Jail sentence								
Up to a week	8	Total	13	Total	16	Total	12	Total
Up to a year	6	19	21	51	11	36	18	59
More than a year	5		17		9		29	
No opinion	17		14		14		14	

Interestingly, the youth population as a whole was less lenient than the adult population as a whole. Within each group, however, the older teenagers and young adults were the most tolerant in all respects.

These statistics suggest that the public generally prefers leniency when responding to questions specifically directed to marihuana use. But when asked about "control" or "the law" in general, the response often appears quite harsh. For example, when asked to consider a range of five alternative control schemes, most adults tended to resist change.

Thirty-one percent of the adults thought that making marihuana legally available through regulated channels (like alcohol) was acceptable; but 67% thought it was unacceptable. Although 23% thought the removal of criminal sanctions from possession was acceptable, 74% thought this approach was unacceptable. On the other hand, 56% of the adults thought that the existing laws were acceptable; yet 41% found the present law unacceptable. Finally, 72% thought "stricter laws" would be acceptable, while only 26% thought such a change would be unacceptable. Indeed 43% thought stricter laws were the "ideal solution" and 62% thought this was the best of the alternatives.

These responses seem to be contradictory. We are puzzled about what the respondents thought they meant when they expressed a preference for stricter laws.

They probably did not mean stricter penalties for possession. Such an interpretation would be entirely inconsistent with responses to questions aimed directly at appropriate policy toward users. Under existing law some states still treat first offenders as felons and most states treat multiple offenders as felons. But, only a third of the adult respondents would put an adult multiple offender in jail for more than a year.

The preference for stricter laws might be interpreted to mean heavier penalties for sale, or better enforcement of existing proscriptions against trafficking. Two-thirds of the adults did indicate that they preferred heavier penalties for sale than for possession. But penalties for selling for profit are already quite heavy in every jurisdiction.

We suspect that a majority of the public, including many of those favoring "stricter laws," is actually disturbed about the increase in marihuana use and would like a system which would work better than the existing system to discourage use. A majority of the adult public seeks a better system of control, albeit one which is not punitive toward the user. Apparently uneasy about the individual and social consequences of the present system, the large center of public opinion is nonetheless reluctant to relinquish formal control.

This insistence on maintenance of formal controls over the user rests upon two interrelated factors: respect for law and faith in the efficacy of legal control. First, the public does not believe the legal order should wither away simply because many people choose to violate the laws against marihuana use. Obedience of the law is highly valued in our society.

This factor is illustrated clearly by the widespread public disagreement with the following arguments for changing the law: 76% of the adults disagreed with the statement that "young people would have more respect for the law if marihuana were made legal;" and four out of five adults disagreed with the statement that "so many people are using marihuana that it should be made legal."

Second, most adults believe that legal remedies, even though not punitive, are necessary to discourage use of the drug. This belief is tied largely to their understanding of the effects of the drug and is reflected in the response to the question about "the best way" to handle the use of marihuana. As we noted earlier, 51% of the public thought that marihuana use ought to be handled as a medical problem.

Also, the substantial majority of people who are reluctant to incarcerate possessors do prefer the imposition of fines without a police record or probation. Both of these alternatives retain formal control over the user and indicate faith in the deterrent value of the law. The public responses in this respect bear a striking resemblance to those of the judges and probation officers, who repeatedly indicated a preference for non-punitive formal control.

This interpretation of dominant opinion was drawn from ostensibly inconsistent responses to a long series of questions on appropriate social and legal policy. A substantial minority of the public, however, exhibited a consistent pattern of response to all questions. About a quarter of the public is convinced that the criminal sanction should be withdrawn entirely from marihuana use. Another quarter of the public prefers the criminal approach, even for the user.

In sum, the existing system is not supported by the consensus of public opinion that once existed. There is a consensus that punitive measures are generally inappropriate. There is also a predominant opinion that the legal system should not abandon formal control.

V
marihuana and social policy

"The difficulty in life is the choice."
George Moore (1900)

A constant tension exists in our society between individual liberties and the need for reasonable societal restraints. It is easy to go too far in either direction, and this tendency is particularly evident where drugs are concerned.

We have guided our decision-making by the belief that the state is obliged to justfy restraints on individual behavior. Too often individual freedoms are submerged in the passions of the moment, and when that happens, the public policy may be determined more by rhetoric than by reason. Our effort has been to minimize the emotional and emphasize the rational in this Report.

Drugs In a Free Society

A free society seeks to provide conditions in which each of its members may develop his or her potentialities to the fullest extent. A premium is placed on individual choice in seeking self-fulfillment. This priority depends upon the capacity of free citizens not to abuse their freedom, and upon their willingness to act responsibly toward others

and toward the society as a whole. Responsible behavior, through individual choice, is both the guarantor and the objective of a free society.

DRUGS AND SOCIAL RESPONSIBILITY

The use of drugs is not in itself an irresponsible act. Medical and scientific uses serve important individual and social needs and are often essential to our physical and mental well-being. Further, the use of drugs for pleasure or other non-medical purposes is not inherently irresponsible; alcohol is widely used as an acceptable part of social activities.

We do think the use of drugs is clearly irresponsible when it impedes the individual's integration into the economic and social system. A preference for individual productivity and contribution to social progress in a general sense still undergirds the American value structure, and we emphasize the policy-maker's duty to support this preference in a public policy judgment.

At the same time, in light of the emerging leisure ethic and the search for individual meaning and fulfillment noted in Chapter I, we cannot divorce social policy from the questions raised by the recreational use of drugs. Productivity and recreation both have a place in the American ethical system. They are not inconsistent unless the individual's use of leisure time inhibits his productive role in society.

Drugs should be servants, not masters. They become masters when they dominate an individual's existence or impair his faculties. To the extent that any drug, including alcohol, carries with it risks to the well-being of the user and seriously undermines his effectiveness in the society, that drug becomes a matter of concern for public policy.

An essential step in the process of policy-formation is a determination of the circumstances under which use of any given drug poses such risks. For some drugs, the risks may be so great that all permissible measures should be taken to eliminate use. For other drugs, such risks may be present only under certain specific circumstances, in which case society may defer to responsible individual choice on the matter of recreational use but take appropriate steps to minimize the incidence and consequences of dysfunctional use. In our Report next year, for which studies are already underway, we will consider from this perspective the whole range of drugs now used for non-medical purposes.

A Social Control Policy for Marihuana

In formulating a marihuana policy, our strongest concern is with irresponsible use, whether it be too often, too much, indiscriminate, or under improper circumstances. The excessive or indiscriminate use of any drug is a serious social concern; and this is particularly true of marihuana since we still know very little about the effects of long-term, heavy use. We have little doubt that the substantial majority of users, under any social control policy, including the existing system, do not and would not engage in irresponsible behavior.

In identifying the appropriate social control policy for marihuana, we have found it helpful to consider the following policy options:

I Approval of Use.
II Elimination of Use.
III Discouragement of Use.
IV Neutrality Toward Use.

APPROVAL OF USE

Society should not approve or encourage the recreational use of *any* drug, in public or private. Any semblance of encouragement enhances the possibility of abuse and removes, from a psychological standpoint, an effective support of individual restraint.

For example, so long as this society (not only the government, but other institutions and mass advertising as well) in effect approved of the use of tobacco, the growing medical consensus about the dangers of excessive use did not make a significant impression on individual judgment. With the Surgeon General's Report on Tobacco in 1964, *Smoking and Health*, a very real change has occurred in the way society now thinks about cigarettes.

The institutions of society definitely add their influences to the variety of social pressures which persuade individuals to use any kind of drugs. Rational social policy should seek to minimize such social pressures, whether they come from peers, from the media, from social custom, or from the user's sense of inadequacy. Official approval would inevitably encourage some people to use the drug who would not otherwise do so, and would also increase the incidence of heavy or otherwise irresponsible use and its complications. On this basis we reject policy option number one, approval of use.

ELIMINATION OF USE

For a half-century, official social policy has been not only to discourage use but to eliminate it (option number two). With the principal responsibility for this policy assigned to law enforcement, its implementation reached its zenith in the late 1950's and early 1960's when marihuana-related offenses were punishable by long periods of incarceration. This policy grew out of a distorted and greatly exaggerated concept of the drug's ordinary effects upon the individual and the society. On the basis of information then available, marihuana

was not adequately distinguished from other problem drugs and was assumed to be as harmful as the others.

The increased incidence of use, intensive scientific reevaluation, and the spread of use to the middle and upper socioeconomic groups have brought about the informal adoption of a modified social policy. On the basis of our opinion surveys and our empirical studies of law enforcement behavior, we are convinced that officialdom and the public are no longer as punitive toward marihuana use as they once were.

Now there exists a more realistic estimate of the actual social impact of marihuana use. School and university administrators are seldom able to prevent the use of marihuana by their students and personnel and are increasingly reluctant to take disciplinary action against users. Within the criminal justice system, there has been a marked decline in the severity of the response to offenders charged with possession of marihuana.

In our survey of state enforcement activities, only 11% of all marihuana arrests resulted from active investigative activity, and most of those were in sale situations. For the most part, marihuana enforcement is a haphazard process; arrests occur on the street, in a park, in a car, or as a result of a phone call. Among those arrested, approximately 50% of the adults and 70% of the juveniles are not processed through the system; their cases are dismissed by the police, by the prosecutors or by the courts. Ultimately less than 6% of all those apprehended are incarcerated, and very few of these sentences are for possession of small amounts for personal use.

In the law enforcement community, the major concern is no longer marihuana but the tendency of some users to engage in other irresponsible activity, particularly the use of more dangerous drugs. Official sentiment now seems to be a desire to contain use of the drug as well as the drug subculture, and to minimize its spread to the rest of the youth population. Law enforcement policy, both at the Federal and State levels, implicitly recognizes that elimination is impossible at this time.

The active attempt to suppress all marihuana use has been replaced by an effort to keep it within reasonable bounds. Yet because this policy still reflects a view that marihuana smoking is itself destructive enough to justify punitive action against the user, we believe it is an inappropriate social response.

Marihuana's relative potential for harm to the vast majority of individual users and its actual impact on society does not justify a social policy designed to seek out and firmly punish those who use it. This judgment is based on prevalent use patterns, on behavior exhibited by the vast majority of users and on our interpretations of existing medical and scientific data. This position also is consistent with the estimate by law enforcement personnel that the elimination of use is unattainable.

In the case of experimental or intermittent use of marihuana, there is room for individual judgment. Some members of our society believe the decision to use marihuana is an immoral decision. However, even during Prohibition, when many people were concerned about the evils associated with excessive use of alcohol, possession for personal use was never outlawed federally and was made illegal in only five States.

Indeed, we suspect that the moral contempt in which some of our citizens hold the marihuana user is related to other behavior or other attitudes assumed to be associated with use of the drug. All of our data suggest that the moral views of the overwhelming majority of marihuana users are in general accord with those of the larger society.

Having previously rejected the approval policy (option number one), we now reject the eliminationist policy (option number two). This policy, if taken seriously, would require a great increase in manpower and resources in order to eliminate the use of a drug which simply does not warrant that kind of attention.

DISCOURAGEMENT OR NEUTRALITY

The unresolved question is whether society should try to dissuade its members from using marihuana or should defer entirely to individual judgment in the matter, remaining benignly neutral. We must choose between policies of discouragement (number three) and neutrality (number four). This choice is a difficult one and forces us to consider the limitations of our knowledge and the dynamics of social change. A number of considerations, none of which is conclusive by itself, point at the present time toward a discouragement policy. We will discuss each one of them separately.

1. User Preference Is Still Ambiguous

Alcohol and tobacco have long been desired by large numbers within our society and their use is deeply ingrained in the American culture. Marihuana, on the other hand, has only recently achieved a significant foothold in the American experience, and it is still essentially used more by young people. Again, the unknown factor here is whether the sudden attraction to marihuana derives from its psychoactive virtues or from its symbolic status.

Throughout this Commission's deliberations there was a recurring awareness of the posibility that marihuana use may be a fad which, if not institutionalized, will recede substantially in time. Present data suggest that this is the case, and we do not hesitate to say that we would prefer that outcome. To the extent that conditions permit, society is well advised to minimize the number of drugs which may cause significant problems. By focusing our attention on fewer rather than more drugs, we may be better able to foster responsible use and diminish the consequences of irresponsible use.

The more prudent course seems to be to retain a social policy opposed to use, attempting to discourage use while at the same time seeking to deemphasize the issue. Such a policy leaves us with more options available when more definitive knowledge of the consequences of heavy and prolonged marihuana use becomes available.

2. Continuing Scientific Uncertainty Precludes Finality

In 1933 when Prohibition was repealed, society was cognizant of the effects of alcohol as a drug and the adverse consequences of abuse. But, because so many people wished to use the drug, policy-makers chose to run the risk of individual indiscretion and decided to abandon the abstentionist policy. There are many today who feel that if the social impact of alcohol use had then been more fully understood, a policy of discouragement rather than neutrality would have been adopted to minimize the negative aspects of alcohol use.

Misunderstanding also played an important part when the national government adopted an eliminationist marihuana policy in 1937. The policy-makers knew very little about the effects or social impact of the drug; many of their hypotheses were speculative and, in large measure, incorrect.

Nevertheless, the argument that misinformation in 1937 automatically compels complete reversal of the action taken at that time is neither reasonable nor logical. While continuing concern about the effects of heavy, chronic use is not sufficient reason to maintain an overly harsh public policy, it is still a significant argument for choosing official discouragement in preference to official neutrality.

3. Society's Value System Is In a State of Transition

As discussed in Chapter I, two central influences in contemporary American life are the individual search for meaning within the context of an increasingly depersonalized society, and the collective search for enduring American values. In Chapter IV, we noted that society's present ambivalent response to marihuana use reflects these uncertainties.

For the reasons discussed in the previous Chapters, a sudden abandonment of an official policy of elimination in favor of one of neutrality toward marihuana would have a profound reverberating impact on social attitudes far beyond the one issue of marihuana use. We believe that society must have time to consider its image of the future. We believe that adoption of a discouragement policy toward marihuana at this time would facilitate such a reappraisal while official neutrality, under present circumstances, would impede it.

4. Public Opinion Presently Opposes Marihuana Use

For whatever reasons, a substantial majority of the American public opposes the use of marihuana, and would prefer that their fellow citizens abstain from using it. In the National Survey, 64% of the adult public agreed with the statement that "using marihuana is morally offensive" (40% felt the same way about alcohol).

Although this majority opinion is not by any means conclusive, it cannot be ignored. We are well aware of the skepticism with which marihuana user, and those sympathetic to their wishes, view the policy-making process; and we are particularly concerned about the indifference to or disrespect for law manifested by many citizens and particularly the youth.

However, we are also apprehensive about the impact of a major change in social policy on that larger segment of our population which supports the implications of the existing social policy. They, too, might lose respect for a policy-making establishment which appeared to bend so easily to the wishes of a "lawless" and highly vocal minority.

This concern for minimizing cultural dislocation must, of course, be weighed against the relative importance of contrary arguments. For example, in the case of desegregation in the South, and now in the North, culture shock had to be accepted in the light of the fundamental precept at issue. In the case of marihuana, there is no fundamental principle supporting the use of the drug, and society is not compelled to approve or be neutral toward it. The opinion of the majority is entitled to greater weight.

Looking again to the experience with Prohibition, when an abstentionist policy for alcohol was adopted on the national level in 1918, its proponents were not blind to the vociferous opposition of a substantial minority of the people. By the late 1920's and early 1930's, the ambivalence of public opinion toward alcohol use and the unwillingness of large numbers of people to comply with the new social policy compelled reversal of that policy. Even many of its former supporters acknowledged its futility.

With marihuana, however, the prevailing policy of eliminating use had never been opposed to any significant degree until the mid-1960's. Unlike the prohibition of alcohol, which had been the subject of public debate off and on for 60 years before it was adopted, present marihuana policy has not until now engaged the public opinion process, some 50 years after it first began to be used. Majority sentiment does not appear to be as flexible as it was with alcohol.

5. Neutrality Is Not Philosophically Compelled

Much of what was stated above bespeaks an acute awareness by the Commission of the subtleties of the collective consciousness of the American people, as shown in the National Survey. There is a legitimate concern about what the majority of the non-using population thinks about marihuana use and what the drug represents in the public mind. The question is appropriately asked if we are suggesting that

the majority in a free society may impose its will on an unwilling minority even though, as it is claimed, uncertainty, speculation, and a large degree of misinformation form the basis of the predominant opinion. If we have nothing more substantial than this, the argument goes, society should remain neutral.

To deal with this contention, one must distinguish between ends and means. Policy-makers must choose their objectives with a sensitivity toward the entire social fabric and a vision of the good society. In such a decision, the general public attitude is a significant consideration. The preferred outcome in a democratic society cannot be that of the policy-makers alone; it must be that of an informed public. Accordingly, the policy-maker must consider the dynamic relationship between perception and reality in the public mind. Is the public consensus based on a real awareness of the facts? Does the public really understand what is at stake? Given the best evidence available, would the public consensus remain the same?

Assuming that dominant opinion opposes marihuana use, the philosophical issue is raised not by the goal but by how it is implemented. At this point, the interests of the unwilling become important. For example, the family unit and the institution of marriage are preferred means of group-living and child-rearing in our society. As a society, we are not neutral. We officially encourage matrimony by giving married couples favorable tax treatment; but we do not compel people to get married. If it should become public policy to try to reduce the birth rate, it is unlikely that there will be laws to punish those who exceed the preferred family size, although we may again utilize disincentives through the tax system. Similarly, this Commission believes society should continue actively to discourage people from using marihuana, and any philosophical limitation is relevant to the means employed, not to the goal itself.

FOR THESE REASONS, WE RECOMMEND TO THE PUBLIC AND ITS POLICY-MAKERS A SOCIAL CONTROL POLICY SEEKING TO DISCOURAGE MARIHUANA USE, WHILE CONCENTRATING PRIMARILY ON THE PREVENTION OF HEAVY AND VERY HEAVY USE.

We emphasize that this is a policy for today and the immediate future; we do not presume to suggest that this policy embodies eternal truth. Accordingly, we strongly recommend that our successor policy planners, at an appropriate time in the future, review the following factors to determine whether an altered social policy is in order: the state of public opinion, the extent to which members of the society continue to use the drug, the developing scientific knowledge about

the effects and social impact of use of the drug, and the evolving social attitude toward the place of recreation and leisure in a work-oriented society. In our second Report next year, we will carefully review our findings to see if our perceptions have changed or if society has changed at that time.

Implementing The Discouragement Policy

Choice of this social control policy does not automatically dictate any particular legal implementation. As we noted in Chapter I, there is a disturbing tendency among participants in the marihuana debate to assume that a given statement of the drug's effects, its number of users or its social impact compels a particular statutory scheme.

Law does not operate in a social vacuum, and it is only *one* of the institutional mechanisms which society can utilize to implement its policies. Consequently, the evaluation of alternative legal approaches demands not only logic but also a delicate assessment of the mutual relationship between the law and other institutions of social control, such as the church, the family and the school.

THE ROLE OF LAW IN EFFECTIVE SOCIAL CONTROL

Social control is most effectively guaranteed by the exercise of individual self-discipline. Elementary social psychology teaches us that restraint generated within is infinitely more effective and tenacious than restraint imposed from without.

One of the participants at our "Central Influences" Seminar observed:

> When people grow up into a society, the principal aim is to internalize drives—that is, I assume they come up with certain drives which can be satisfied in many ways and you're trying to internalize ways of satisfying those drives which will be compatible with life in a community and also satisfying to the individual. The external restraints can only complement this, they cannot possibly substitute for it.

The supplemental effect of external restraints, particularly legal restraints, must also be weighed against the nature of the control sought. It was put this way at our Seminar:

> Think of the social welfare function as a mountain—the hill of the Lords really. Large parts of it are something of a plateau; that is you can be all sorts of places on it and be safe. You don't have to maximize. This is an economist's fallacy. You can have all sorts of

variations, you can be Socialists, Capitalists, Mormons, Adventists and get away with it—even Liberals. But there are cliffs, and you can fall off of them. This is what we are worrying about today. We are nervous about these cliffs.

The "no-no's"—as the kids call them—are the fences on these cliffs. That is, we have set up taboos and say there's a cliff there. Now one of the problems socially is that we set up "no-no's" where there are no cliffs. There are no cliffs and people jump over these [fences] and they say, "No cliffs! See no cliffs!" [Then, over other fences—and] chop-chop-chop-crash! See, it's just as dangerous to set up fences without any cliffs as not have fences where there are cliffs.

To this functional consideration of external restraint, we must also add the philosophical faith in the responsible exercise of individual judgment which is the essence of a free society. To illustrate, a preference for individual productivity underlies this society's opposition to indiscriminate drug use; the fact that so few of the 24 million Americans who have tried marihuana use it, or have used it, irresponsibly, testifies to the extent to which they have internalized that value.

The hypothesis that widespread irresponsibility would attend freer availability of marihuana suggests not that a restrictive policy is in order but rather that a basic premise of our free society is in doubt. We note that the escalation thesis, used as an argument *against* marihuana rather than as a tool for understanding individual behavior, is really a manifestation of skepticism about individual vulnerabilities. For example, one-half of the public agreed with the statement that "if marihuana were made legal, it would make drug addicts out of ordinary people."

At the same time, we do feel that the threat of excessive use is most potent with the young. In fact, we think *all* drug use should continue to be discouraged among the young, because of possible adverse effects on psychological development and because of the lesser ability of this part of the population to discriminate between limited and excessive use.

Social policy implementation in this regard is extraordinarily difficult. For example, although existing social policies toward tobacco, alcohol and marihuana alike oppose their use by the young, those policies are far from being fully effective. For example:

Tobacco

The National Survey (1971) indicates that of young people age 12-to-17,

- 50% have smoked at one time or another;
- 15%smoke now; and
- At least 8% smoke at least a half a pack a day.

In a 1970 sample of smoking habits in the 12-to-18 population conducted for the National Clearinghouse for Smoking and Health, it was found that:

- 18.5% of the boys and 11.9% of the girls were regular smokers; and
- About 8% of the boys and 5% of the girls smoked more than a half a pack a day.

Alcohol

The National Survey also ascertained the drinking pattern during the previous month of young people aged 12-to-17, finding that:

- At least 23% had used beer during that month, at least 14% had used wine and at least 12% had used hard liquor; and
- 6% had used beer five or more days during the month, 3% had used wine five or more days, and 3% had used hard liquor five or more days.

Marihuana

Of the 12-to-17 population, the Survey found that:

- 15% of this population had tried marihuana;
- At least 6% still use it; and
- Less than 1% use it once a day or more

The inclination of so many young people to experiment with drugs is a reflection of a so-called successful socialization process on one hand, and of society's ambivalence to the use of drugs on the other. This entire matter will occupy much of our attention in the coming year, but it is essential that we make a few anticipatory comments now.

This nation tries very had to instill in its children independence, curosity and a healthy self-assurance. These qualities guarantee a dynamic, progressive society. Where drugs are concerned, however, we have relied generally on authoritarianism and on obedience. Drug education has generally been characterized by overemphasis of scare tactics. Some segments of the population have been reluctant to inform for fear of arousing curiosity in young minds. Where drugs are concerned, young people are simply supposed to nod and obey.

This society has always been and continues to be ambivalent about the non-medical (in the strict sense) use of drugs. And this ambivalence does not escape our children. If we can come to grips with this issue, we might convince our youth that the curiosity that is encouraged in other aspects of our culture is undesirable where drugs are concerned.

The law is at best a highly imperfect reflection of drug policy. The laws proscribing sale of tobacco to minors are largely ignored. Prohibitions of sale of alcohol to minors are enforced sporadically. As to marihuana, there are areas throughout this nation where possession laws are not enforced at all. In other sections, such proscriptions are strictly enforced, with no apparent decrease in marihuana use.

As a guiding doctrine for parents and children, the law is certainly confusing when it imposes widely varying punishments in different states, and even in different courts of the same state, all for use of the same substance, marihuana. That marihuana use can be treated as a petty offense in one state and a felony in another is illogical and confusing to even the most sincere of parents.

The law is simply too blunt an instrument to manifest the subtle distinctions we draw between the motivations and the circumstances of use. At the same time, legal status carries a certain weight of its own, and other institutions must take account of the law in performing their functions.

In legally implementing our recommended social policy, we seek to maximize the ability of our schools, churches and families to be open and honest in discussing all drugs, including marihuana. The law must assist, not impede. In this respect, we note with concern the counterproductive tendency in our society to seek simple solutions to complex problems. Since the statutory law is a simple tool, the tendency in our society to look to the law for social control is particularly strong.

We have discussed the four basic social policy objectives of elimination, discouragement, neutrality and approval of marihuana use and have selected discouragement of use, with emphasis on prevention of heavy and very heavy use, as our generalized aim. We have considered three legal responses, each with a wide range of alternatives:

1. Total Prohibition.
2. Partial Prohibition.
3. Regulation.

TOTAL PROHIBITION

The distinctive feature of a total prohibition scheme is that all marihuana-related behavior is prohibited by law. Under the total prohibition response now in force in every state and at the federal level, cultivation, importation, sale, gift or other transfer, and possession are all prohibited acts. In 11 states and the District of Columbia, simply being present knowingly in a place where marihuana is present is also prohibited; and many states prohibit the possession of pipes or other smoking paraphernalia. For our purposes, the key feature of the total prohibition approach is that even possession of a small amount in the home for personal use is prohibited by criminal law.

From the very inception of marihuana control legislation, this nation has utilized a policy of a total prohibition, far more comprehensive than the restrictions established during the prohibition of alcohol.

Until recent years, society was operating under an eliminationist policy. The exaggerated beliefs about the drug's effects, social impact, and user population virtually dictated this legal approach. During this entire period, total prohibition was sought through the use of

heavier and heavier penalties until even first-time possession was a felony in every jurisdiction, and second possession offenses generally received a mandatory minimum sentence without parole or probation. Yet the last few years have seen society little by little abandoning the eliminationist policy in favor of a containment policy.

Under the total prohibition umbrella, this containment policy has been implemented by a unique patchwork of legislation, informal prosecutorial policy and judicial practice. Possession is now almost everywhere a misdemeanor. Although some term of incarceration remains as a penalty for possessors, it is generally not meted out to young first offenders or to possessors of small amounts. Instead, most such offenders are dismissed or informally diverted to agencies outside the criminal system by those within the system who are trying to help them avoid the stigma of a criminal record.

Offenders who are processed within the criminal justice system generally receive fines and/or probation. In many jurisdictions, enforcement officials make little or no effort to enforce possession proscriptions, concentrating instead on major trafficking. Possessors are generally arrested only when they are indiscreet or when marihuana is found incident to questioning or apprehension resulting from some other violation. From our surveys, state and federal, we have found that only minimal effort is made to investigate marihuana possession cases.

Such a tendency is a reflection of the adoption of a containment policy. By acting only when marihuana appears above ground, enforcement officials are helping to keep its use underground. The shift away from the elimination policy has been matched by a similar shift in legal implementation, but the distinctive feature of the total prohibition scheme still remains: all marihuana-related behavior, including possession for personal use within the home, is prohibited by criminal law.

Is such a response an appropriate technique for achieving the social control policy we outlined above? The key question for our purposes is whether total criminal prohibition is the most suitable or effective way to discourage use and whether it facilitates or inhibits a concentration on the reduction and treatment of irresponsible use. We are convinced that total prohibition frustrates both of these objectives for the following reasons.

1. Application of the Criminal Law to Private Possession Is Philosophically Inappropriate

With possession and use of marihuana, we are dealing with a form of behavior which occurs generally in private where a person possesses the drug for his own use. The social impact of this conduct is indirect, arising primarily in cases of heavy or otherwise irresponsible use and

from the drug's symbolic aspects. We do not take the absolutist position that society is philosophically forbidden from criminalizing any kind of "private" behavior. The phrase "victimless crimes," like "public health hazard," has become a rhetorical excuse for avoiding basic social policy issues. We have chosen a discouragement policy on the basis of our evaluation of the actual and potential individual and social impact of marihuana use. Only now that we have done so can we accord appropriate weight to the nation's philosophical preference for individual privacy.

On the basis of this evaluation we believe that the criminal law is too harsh a tool to apply to personal possession even in the effort to discourage use. It implies an overwhelming indictment of the behavior which we believe is not appropriate. The actual and potential harm of use of the drug is not great enough to justify intrusion by the criminal law into private behavior, a step which our society takes only with the greatest reluctance.

2. *Application of the Criminal Law Is Constitutionally Suspect*

The preference for individual privacy reflected in the debate over the philosophical limitations on the criminal law is also manifested in our constitutional jurisprudence. Although no court, to our knowledge, has held that government may not prohibit private possession of marihuana, two overlapping constitutional traditions do have important public policy implications in this area.

The first revolves around the concept that in a free society, the legislature may act only for public purposes. The "police powers" of the states extend only to the "public health, safety and morals." In the period of our history when the people most feared interference with their rights by the government, it was generally accepted that this broad power had an inherent limitation. For example, early prohibitions of alcohol possession were declared unconstitutional on the basis of reasoning such as that employed by the Supreme Court of Kentucky in 1915 in the case of *Commonwealth v. Campbell:*

> It is not within the competency of government to invade the privacy of the citizen's life and to regulate his conduct in matters in which he alone is concerned, or to prohibit him any liberty the exercise of which will not directly injure society.

Noting that the defendant was "not charged with having the liquor in his possession for the purpose of selling it, or even giving it to another," and that "ownership and possession cannot be denied when that ownership and possession is not in itself injurious to the public," the Kentucky court concluded that:

> The right to use liquor for one's own comfort, if they use it without direct injury to the public, is one of the citizen's natural and inalienable rights. . . . We hold that the police power—vague and wide and undefined as it is—has limits. . . .

Even the perceived dangers of opium were not enough to convince some members of the judiciary that the government could prohibit possession. It is historically instructive to consider these words, penned in 1890, by Judge Scott in *Ah Lim v Territory:*

> I make no question but that the habit of smoking opium may be repulsive and degrading. That its effect would be to shatter the nerves and destroy the intellect; and that it may tend to the increase of the pauperism and crime. But there is a vast difference between the commission of a single act, and a confirmed habit. There is a distinction to be recognized between the use and abuse of any article or substance. . . . If this act must be held valid it is hard to conceive of any legislative action affecting the personal conduct, or privileges of the individual citizen, that must not be upheld. . . . The prohibited act cannot affect the public in any way except through the primary personal injury to the individual, if it occasions him any injury. It looks like a new and extreme step under our government in the field of legislation, if it really was passed for any of the purposes upon which that character of legislation can be sustained, if at all.

As a matter of constitutional history, a second tradition, the application of specific provisions in the Bill of Rights, has generally replaced the notion of "inherent" limitations. The ultimate effect is virtually the same, however. The Fourth Amendment's proscription of "unreasonable searches and seizures" reflects a constitutional commitment to the value of individual privacy. The importance of the Fourth Amendment to the entire constitutional scheme was eloquently described by Justice Brandeis in 1928 in the case of *Olmstead v U.S.:*

> The makers of our Constitution undertook to secure conditions favorable to the pursuit of happiness. They recognized the significance of man's spiritual nature, of his feelings and his intellect. They knew that only a part of the pain, pleasure and satisfaction of life are to be found in material things. They sought to protect Americans in their beliefs, their thoughts, their emotions and their sensations. They conferred, as against the Government, the right to be let alone—the most comprehensive of rights and the right most valued by civilized men.

Although the Fourth Amendment is itself a procedural protection, the value of privacy which it crystallizes is often read in conjunction with other important values to set substantive limits on legislative power. The Supreme Court, in the case of *Griswold v. Connecticut*, held in 1965 that Connecticut could not constitutionally prohibit the

use of birth control devices by married persons. Although the Justices did not agree completely on the reasons for their decision, Justice Douglas stated in the opinion of the Court:

> The present case, then, concerns a relationship lying within the zone of privacy created by several fundamental constitutional guarantees. And it concerns a law which, in forbidding the use of contraceptives rather than regulating their manufacture or sale, seeks to achieve its goals by means of having a maximum destructive impact upon that relationship. Such a law cannot stand in light of the familiar principle, so often applied by this Court, that a "governmental purpose to control or prevent activities constitutionally subject to state regulation may not be achieved by means which sweep unnecessarily broadly and thereby invade the area of protected freedom." (citation omitted) Would we allow the police to search the sacred precincts of marital bedrooms for telltale signs of the use of contraceptives? The very idea is repulsive to the notions of privacy surrounding the marriage relationship.

Four years later, the Supreme Court, in *Stanley v. Georgia*, held that even though obscenity is not "speech" protected by the First Amendment, a state cannot constitutionally make private possession of obscene material a crime. The Court's reasoning is revealed in the following language:

> [The] right to receive information and ideas, regardless of their social worth, (citation omitted), is fundamental to our free society. Moreover, in the context of this case—a prosecution for mere possession of printed or filmed matter in the privacy of a person's own home—that right takes on an added dimension. For also fundamental is the right to be free, except in very limited circumstances, from unwanted governmental intrusions into one's privacy . . .

While the judiciary is the governmental institution most directly concerned with the protection of individual liberties, all policy-makers have a responsbility to consider our constitutional heritage when framing public policy. Regardless of whether or not the courts would overturn a prohibition of possession of marihuana for personal use in the home, we are necessarily influenced by the high place traditionally occupied by the value of privacy in our constitutional scheme.

Accordingly, we believe that government must show a compelling reason to justify invasion of the home in order to prevent personal use of marihuana. We find little in marihuana's effects or in its social impact to support such a determination. Legislators enacting Prohibition did not find such a compelling reason 40 years ago; and we do not find the situation any more compelling for marihuana today.

3. Total Prohibition Is Functionally Inappropriate

Apart from the philosophical and constitutional constraints outlined above, a total prohibition scheme carries with it significant institutional costs. Yet it contributes very little to the achievement of our social policy. In some ways it actually inhibits the success of that policy.

The primary goals of a prudent marihuana social control policy include preventing irresponsible use of the drug, attending to the consequences of such use, and deemphasizing use in general. Yet an absolute prohibition of possession and use inhibits the ability of other institutions to contribute actively to these objectives. For example, the possibility of criminal prosecution deters users who are experiencing medical problems from seeking assistance for fear of bring attention to themselves. In addition, the illegality of possession and use creates difficulties in achieving an open, honest educational program, both in the schools and in the home.

In terms of the social policy objective of discouraging use of the drug, the legal system can assist that objective in three ways: first, by deterring people from use; second, by symbolizing social opposition to use; and finally, by cutting off supply of the drug.

The present illegal status of possession has not discouraged an estimated 24 million people from trying marihuana or an estimated eight million from continuing to use it. Our survey of the country's state prosecuting attorneys shows that 53% of them do not believe that the law has more than a minimal deterrent effect in this regard. Moreover, if the present trend toward passive enforcement of the marihuana law continues, the law ultimately will deter only indiscreet use, a result achieved as well by a partial prohibition scheme and with a great deal more honesty and fairness.

A major attraction of the law has been its symbolic value. Yet, society can symbolize its desire to discourage marihuana use in many other, less restrictive ways. The warning labels on cigarette packages serve this purpose, illustrating that even a regulatory scheme could serve a discouragement policy. During Prohibition, the chosen statutory implementation symbolized society's opposition to the use of intoxicating beverages; yet, most jurisdictions did not think it necessary to superimpose a proscription of possession for personal use in the home.

Finally, prohibiting possession for personal use has no substantive relation to interdicting supply. A possession penalty may make enforcement of proscriptions against sale a little easier, but we believe this benefit is of minimal importance in light of its costs.

The law enforcement goal repeatedly stated at both the federal and state levels has been the elimination of supply and the interdiction of trafficking. These avowed aims of law enforcement make sense,

since they are the most profitable means of employing its manpower and resources in this area.

Indeed, the time consumed in arresting possessors is inefficiently used when contrasted with an equal amount of time invested in apprehending major dealers. Although a credible effort to eliminate supply requires prohibitions of importation, sale and possession-with-intent-to-sell, the enforcement of a proscription of possession for personal use is minimally productive.

As noted, most law enforcement officials, district attorneys and judges recognize the ineffectiveness of the possession penalty as a deterrent. Its perpetuation results in the making of what is commonly referred to as "cheap" cases that have little or no impact on deterring sale.

The marihuana supply system can be viewed as a pyramid with the major bulk of marihuana entering the system at the top of the pyramid and then descending to the base which represents the user population. Common sense dictates where law enforcement should devote its efforts. To remove the profit from the traffic requires arresting sellers, not users. The oft-heard argument that the police need possession penalties to compel users to reveal their sources is not convincing. "Turning informants" at the base of the pyramid is of marginal value and limited utility in reaching upwards toward the apex. Further, the National Survey showed that 60% of the users don't "buy" marihuana but get it from a friend. The volume of traffic in the drug at these levels is at best minimal.

In short, personal possession arrests and even casual sales, which now account for more than 95% of the marihuana arrests at the state and local level, occur too low in the chain of distribution to diminish the supply very effectively.

In addition to the misallocation of enforcement resources, another consequence of prohibition against possession for personal use is the social cost of criminalizing large numbers of users. Our empirical study of enforcement of state and federal marihuana laws indicates that almost all of those arrested are between the ages of 18 and 25, most have jobs or are in school, and most have had no prior contact with the criminal justice system. The high social cost of stigmatizing such persons as criminals is now generally acknowledged by the public at large as well as by those in the criminal justice system.

According to the National Survey, 53% of the public was unwilling to give young users a criminal record and 87% objected to putting them in jail. The nation's judges expressed an overwhelming disinclination to sentence and convict users for marihuana possession. Of these judges only 13% thought it was appropriate to incarcerate an adult for possession and only 4% would jail a juvenile for marihuana possession. This disinclination is reflected in the low percentage of

arrested users who are convicted, and the even lower percentage who are jailed.

Even among the nation's prosecutors, a substantial majority favor the present trend toward avoiding incarceration for first offenders. Most jurisdictions have devised informal procedures for disposing of cases in lieu of prosecution. Our empirical study shows that 48% of the adult cases, and 70% of the juvenile cases, were dropped from the system at some point between arrest and conviction. The picture displayed is one of a large expenditure of police manpower to enforce a law most participants further along the line are not anxious to apply.

Other disturbing consequences of laws proscribing possession for personal use are the techniques required to enforce them. Possession of marihuana is generally a private behavior; in order to find it, the police many times must operate on the edge of constitutional limitations. Arrests without probable cause, illegal searches and selective enforcement occur often enough to arouse concern about the integrity of the criminal process.

Yet another consequence of marihuana possession laws is the clogging of judicial calendars. President Nixon has noted that one of the major impediments to our nation's efforts to combat serious crimes is the fact that the judicial machinery moves so slowly. Swift arrests, prosecution, trial and sentence would significantly improve the deterrent effect of law. Yet the judicial system is overloaded with petty cases, with public drunkenness accounting for about 50% of all non-traffic offenses.

In his March 1971 address to the National Conference on the Judiciary, President Nixon said:

> What can be done to break the logjam of justice today, to ensure the right to a speedy trial—and to enhance respect for law? We have to find ways to clear the courts of the endless stream of "victimless crimes" that get in the way of serious consideration of serious crimes. There are more important matters for highly skilled judges and prosecutors than minor traffic offenses, loitering and drunkenness.

To this list we would add marihuana possession, which accounts for a rising percentage of judicial caseloads. In Chicago alone, during the last half of 1970, there were more than 4,000 possession arrests.

A final cost of the possession laws is the disrespect which the laws and their enforcement engender in the young. Our youth cannot understand why society chooses to criminalize a behavior with so little visible ill-effect or adverse social impact, particularly when so many members of the law enforcement community also question the same laws. These young people have jumped the fence and found no cliff. And the disrespect for the possession laws fosters a disrespect for all law and the system in general.

On top of all this is the distinct impression among the youth that some police may use the marihuana laws to arrest people they don't like for other reasons, whether it be their politics, their hair style or their ethnic background. Whether or not such selectivity actually exists, it is perceived to exist.

For all these reasons, we believe that the possession offense is of little functional benefit to the discouragement policy and carries heavy social costs, not the least of which is disrespect and cynicism among some of the young. Accordingly, even under our policy of discouraging marihuana use, the better method is persuasion rather than prosecution. Additionally, with the sale and use of more hazardous drugs on the increase, and crimes of violence escalating, we do not believe that the criminal justice system can afford the time and the costs of implementing the marihuana possession laws. Since these laws are not mandatory in terms of achieving the discouragement policy, law enforcement should be allowed to do the job it is best able to do: handling supply and distribution.

A criminal fine or similar penalty for possession has been suggested as a means of alleviating some of the more glaring costs of a total prohibitory approach yet still retaining the symbolic disapproval of the criminal law. However, most of the objections raised above would still pertain: the possibilities of invasion of personal privacy and selective enforcement of the law would continue; possessors would still be stigmatized as criminals, incurring the economic and social consequences of involvement with the criminal law; the symbolic status of marihuana smoking as an anti-establishment act would be perpetuated.

On the other hand, a fine most likely would deter use no more than does the present possibility of incarceration. It would continue to impede treatment for heavy and very heavy use and would persist in directing law enforcement away from the policy's essential aim which is to halt illegal traffic in the drug.

For all these reasons, we reject the total prohibition approach and its variations.

REGULATION

Another general technique for implementing the recommended social policy is regulation. The distinguishing feature of this technique is that it institutionalizes the availability of the drug. By establishing a legitimate channel of supply and distribution, society can theoretically control the quality and potency of the product. The major alternatives within this approach lie in the variety of restraints which can be imposed on consumption of the drug and on the informational requirements to which its distribution can be subject.

We have given serious consideration to this set of alternatives; however, we are unanimously of the opinion that such a scheme, no

matter how tightly it might restrict consumption, is presently unacceptable.

1. Adoption of a Regulatory Scheme at this Time Would Inevitably Signify Approval of Use

In rejecting the total prohibition approach, we emphasized the symbolic aspects. In essence, we do not believe prohibition of possession for personal use is necessary to symbolize a social policy disapproving the use. Theoretically, a tightly controlled regulatory scheme, with limited distribution outlets, significant restraints on consumption, prohibition of advertising and compulsory labeling, could possibly symbolize such disapproval. Our regulatory policy toward tobacco is beginning slowly to reflect a disapproval policy toward cigarette smoking. Nonetheless, given the social and historical context of such a major shift in legal policy toward marihuana, we are certain that such a change would instead symbolize approval of use, or at least a position of neutrality.

The Commission is concerned that even neutrality toward use as a matter of policy could invest an otherwise transient phenomenon with the status of an accepted behavior. If marihuana smoking were an already ingrained part of our culture, this objection would be dispelled. However, we do not believe that this is the case. We are inclined to believe, instead, that the present interest in marihuana is transient and will diminish in time of its own accord once the major symbolic aspects of use are deemphasized, leaving among our population only a relatively small coterie of users. With this possibility in mind, we are hesitant to adopt either a policy of neutrality or a regulatory implementation of our discouragement policy. The law would inevitably lose its discouragement character and would become even more ambiguous in its rationale and its enforcement.

The effect of changing a social policy direction may be seen with tobacco policy. In recent years, society has ostensibly adopted a policy of discouraging cigarette smoking. This new policy has been implemented primarily in the information area through prohibition of some forms of advertising and through compulsory labeling. Yet, the volume of cigarettes used increased last year. We believe that the failure of the new policy results from the fact that it supplants one that formerly approved use. This set of circumstances argues against any policy which would be regarded as approval of use, including a regulatory scheme. It is always extremely difficult to transform a previously acceptable behavior into a disapproved behavior.

2. Adoption of a Regulatory Scheme Might Generate a Significant Public Health Problem

We noted above that institutionalizing availability of the drug would inevitably increase the incidence of use, even though that in-

cidence might otherwise decrease. Of greater concern is the prospect that a larger incidence of use would result in a larger incidence of long-term heavy and very heavy use of potent preparations.

There are now approximately 500,000 heavy users of less potent preparations in this country, representing about 2% of those who ever tried the drug. Even if the prevalence of heavy use remained the same in relation to those who ever used, this at-risk population would inevitably increase under a regulatory scheme. If the emotional disturbances found in very heavy hashish users in other countries were to occur in this country, the adverse social impact of marihuana use, now slight, would increase substantially.

We have acknowledged that society, nonetheless, chose to run such a risk in 1933, when Prohibition was repealed. But alcohol use was already well-established in this society, and no alternative remained other than a regulatory approach. In light of our suspicion that interest in marihuana is largely transient, it would be imprudent to run that risk for marihuana today.

3. Adoption of a Regulatory Scheme Would Exacerbate Social Conflict and Frustrate a Deemphasis Policy

A significant segment of the public on both sides of the issue views marihuana and its "legalization" in a highly symbolic way. Any attempt to adopt a regulatory approach now would be counterproductive in this respect. The collision of values resulting from such a dramatic shift of policy would maintain the debate at a highly emotional level and would perpetuate the tendency to perceive marihuana use as a symbol of the struggle between two conflicting philosophies.

4. Not Enough Is Known About Regulatory Models In This Area

Advocates of legalization of marihuana are often inclined to propose a licensing scheme or an "alcohol model" without offering a specific program of regulation taking all the variables into account. Responsible policy planning cannot be so cursory. Consequently, we have given serious study to the many issues presented by such a scheme and to the nation's experience with other drug licensing schemes. On the basis of our inquiry, we are convinced that such a step should not be taken unless a realistic assessment of the efficacy of existing schemes and their potential application to marihuana indicates it would be successful. Such an assessment raises a number of disturbing questions.

The regulatory approaches which this nation has used in the cases of alcohol and tobacco have failed to accomplish two of their most important objectives: the minimization of excessive use and the limitation of accessibility to the young. Despite the warning and restraints on distribution and consumption, more than 50 million

Americans smoke cigarettes regularly, and more than nine million Americans are "problem" drinkers. We have previously cited data indicating how many of our children begin habits which have been legally forbidden to them. Since the young user and the chronic user of marihuana are of primary concern to our public health officials, the lack of success with alcohol and tobacco discourages an assumption that the regulation of supply would minimize use by the younger generation.

Another important purpose of a regulatory scheme is to channel the product through a controlled system of supply and distribution. In that way the quality and quantity of the substance can be regulated. The efficacy of such a scheme as applied to marihuana is questionable.

Cannabis can be grown easily almost anywhere in the United States with little or no human assistance. Even if a legitimate source of supply were established, it is likely that many persons would choose to ignore the legitimate source and grow their own, the purity of which would not be in question. If such a practice were illegal, the necessity for a concerted governmental eradication program is raised, which would involve a monumental law enforcement effort. According to the U.S. Department of Agriculture, there are presently an estimated five million acres of wild marihuana growing in this country and an undetermined number of acres under cultivation.

Yet, if such a practice were not forbidden, the revenue-raising, product-control and consumption-restriction features of a regulatory scheme would be threatened. Instructive to note is the fact that intensive regulation of alcoholic beverage production has not eliminated illicit production. During 1970, in fact, 5,228 illegal stills were destroyed by the Alcohol, Tobacco and Firearms Division of the U.S. Treasury and 5,279 persons were arrested. In 1971, 3,327 illegal stills were destroyed and 5,512 persons were arrested.

Another disturbing question is raised by the issue of potency regulation. Most advocates of legalization stipulate potency limitations as one feature of their scheme. Presumably they would limit the THC content of the regulated product. This is not an easy undertaking. Especially when cannabis is so easily grown and a black market is so easily created, we are dubious about the success of a regulatory scheme distributing only a product with low THC content. Again, attention must be paid the prospect of increased hashish use under a regulatory scheme; merely stipulating potency control is not sufficient. As we noted in Chapter II, the heavy, long-term use of hashish is a source of major concern to the Commission from both private and public health standpoints.

These are a few of the problems confronting the policy-maker if he seeks to devise an effective regulatory system of distribution for what is, in fact, a universally common plant. Our doubts about the efficacy

of existing regulatory schemes, together with an uncertainty about the permanence of social interest in marihuana and the approval inevitably implied by adoption of such a scheme, all impel us to reject the regulatory approach as an appropriate implementation of a discouragement policy at the present time.

Future policy planners might well come to a different conclusion if further study of existing schemes suggests a feasible model; if responsible use of the drug does indeed take root in our society; if continuing scientific and medical research uncovers no long-term ill-effects; if potency control appears feasible; and if the passage of time and the adoption of a rational social policy sufficiently desymbolizes marihuana so that availability is not equated in the public mind with approval.

PARTIAL PROHIBITION

The total prohibition scheme was rejected primarily because no sufficiently compelling social reason, predicated on existing knowledge, justifies intrusion by the criminal justice system into the private lives of individuals who use marihuana. The Commission is of the unanimous opinion that marihuana use is not such a grave problem that individuals who smoke marihuana, and possess it for that purpose, should be subject to criminal procedures. On the other hand, we have also rejected the regulatory or legalization scheme because it would institutionalize availability of a drug which has uncertain long-term effects and which may be of transient social interest.

Instead we recommend a partial prohibition scheme which we feel has the following benefits:

- Symbolizing a continuing societal discouragement of use;
- Facilitating the deemphasis of marihuana essential to answering dispassionately so many of the unanswered questions;
- Permitting a simultaneous medical, educational, religious, and parental effort to concentrate on reducing irresponsible use and remedying its consequences;
- Removing the criminal stigma and the threat of incarceration from a widespread behavior (possession for personal use) which does not warrant such treatment;
- Relieving the law enforcement community of the responsibility for enforcing a law of questionable utility, and one which they cannot fully enforce, thereby allowing concentration on drug trafficking and crimes against persons and property;
- Relieving the judicial calendar of a large volume of marihuana possession cases which delay the processing of more serious cases; and
- Maximizing the flexibility of future public responses as new information comes to light.

No major change is required in existing law to achieve all of these benefits. In general, we recommend only a decriminalization of possession of marihuana for personal use on both the state and federal levels. The major features of the recommended scheme are that: production and distribution of the drug would remain criminal activities as would possession with intent to distribute commercially; marihuana would be contraband subject to confiscation in public places; and criminal sanctions would be withdrawn from private use and possession incident to such use, but, at the state level, fines would be imposed for use in public.*

Specifically, we recommend the following statutory schemes.

RECOMMENDATIONS FOR FEDERAL LAW

Under the Comprehensive Drug Abuse Prevention and Control Act of 1970, Congress provided the following scheme with respect to marihuana, by which was meant only the natural plant and its various parts, not the synthetic tetrahydrocannabinol (THC):

- Cultivation, importation and exportation, and sale or distribution for profit of marihuana are all felonies punishable by imprisonment for up to five years for a first offense and by up to 10 years for a second offense (the available penalty is doubled for sale to a minor).
- Possession of marihuana with intent to distribute is a felony punishable by imprisonment for up to five years for the first offense and by up to 10 years for a second offense.
- Possession of marihuana for personal use is a misdemeanor punishable by up to one year in jail and a $1,000 fine for first offense and by up to two years in jail and a $2,000 fine for second offense (expungement of criminal record is available for first offenders).

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*Commissioners Rogers, Congressman from Florida, and Carter, Congressman from Kentucky, agree with the Commission's selection of a discouragement policy and also agree that criminalization and incarceration of individuals for possessing marihuana for their own use is neither necessary nor desirable as a means of implementing that policy.

At the same time, both Commissioners feel that the contraband concept is not a sufficiently strong expression of social disapprobation and would recommend in addition a civil fine for possession of any amount of marihuana in private or in public.

Both Commissioners feel that the civil fine clearly symbolizes societal disapproval and is a simple mechanism for law enforcement authorities to carry out. If a person is found by a law enforcement officer to be in possession of marihuana, the officer would issue such person a summons to appear in court on a fixed day. Although a warrant would not issue for search of a private residence unless there were probable cause to believe a *criminal* offense was being committed, a police officer legitimately present for other reasons could issue a civil summons for violation of the "possession" proscription.

- Transfer of a small amount of marihuana for no remuneration is a misdemeanor punishable by up to one year in jail and a $1,000 fine for first offense and by up to two years in jail and a $2,000 fine for second offense (Congress singled out marihuana in this way to allow misdemeanor treatment of casual transfers and permitted first offender treatment, as allowed for possession for personal use).

The Commission recommends *only* the following changes in federal law:

- POSSESSION OF MARIHUANA FOR PERSONAL USE WOULD NO LONGER BE AN OFFENSE, BUT MARIHUANA POSSESSED IN PUBLIC WOULD REMAIN CONTRABAND SUBJECT TO SUMMARY SEIZURE AND FORFEITURE.
- CASUAL DISTRIBUTION OF SMALL AMOUNTS OF MARIHUANA FOR NO REMUNERATION, OR INSIGNIFICANT REMUNERATION NOT INVOLVING PROFIT WOULD NO LONGER BE AN OFFENSE.

The Commission further recommends that federal law be supplemented to provide:

- A PLEA OF MARIHUANA INTOXICATION SHALL NOT BE A DEFENSE TO ANY CRIMINAL ACT COMMITTED UNDER ITS INFLUENCE, NOR SHALL PROOF OF SUCH INTOXICATION CONSTITUTE A NEGATION OF SPECIFIC INTENT.

Commissioners Rogers and Carter believe that the legal system must be utilized directly to discourage *the person* from using marihuana rather than being utilized only indirectly as in the case of contraband.

This civil fine would not be reflected in a police record, nor would it be considered a criminal act for purposes of future job consideration, either in the private sector or for government service.

Agreeing with the other Commissioners that the casual transfers of marihuana for no profit should be treated in the same manner as possession for one's own use, Congressmen Rogers and Carter do not agree that it should extend to transfers involving remuneration. They prefer the limiting language of the Comprehensive Drug Abuse Prevention and Control Act of 1970 which does not include the term "or insignificant remuneration not involving a profit."

Apart from the addition of the civil fine to the contraband recommendation in the respects set out above, Congressmen Carter and Rogers are in complete agreement with the statutory recommendations set out in the Report.

Commissioner Ware concurs completely with the statements made by Congressmen Rogers and Carter but wishes to reemphasize that the social policy and legal scheme adopted is applicable only to marihuana and should not be construed to embrace other psychoactive drugs. The policy set forth in this Report, subject to the already noted comments of the two Congressional Commissioners, makes sense for marihuana on the basis of what is known about the drug and in the absence of any conclusive showing which would verify

RECOMMENDATIONS FOR STATE LAW

Under existing state marihuana laws, cultivation, distribution and possession with intent to distribute are generally felonies and in most states possession for personal use is a misdemeanor. The Commission strongly recommends uniformity of state laws and, in this regard, endorses the basic premise of the Uniform Controlled Substances Act, drafted by the National Conference of Commissioners on Uniform State Laws. The following are our recommendations for a uniform statutory scheme for marihuana, by which we mean, as under existing federal law, only the natural cannabis plant and its various parts, not the synthetic tetrahydrocannabinol (THC):

Existing Law

- CULTIVATION, SALE OR DISTRIBUTION FOR PROFIT AND POSSESSION WITH INTENT TO SELL WOULD REMAIN FELONIES (ALTHOUGH WE DO RECOMMEND UNIFORM PENALTIES).

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some of the anecdotal law enforcement testimony heard by the Commission regarding criminal behavior exhibited while under the influence of marihuana.

Commissioner Ware feels that some penalty short of criminalizing the user, such as a civil fine or some type of intensive drug education, will act as a positive deterrent toward minimizing the incidence of marihuana use especially among the young. Further, he is opposed to the use of *any* drug for the express purpose of getting intoxicated, and includes alcohol within this category. The Commissioner feels that what is needed is an internalizing of discipline among our citizenry, with the legal system assisting this process through the use of disincentives.

Commissioners Hughes, Senator from Iowa, and Javits, Senator from New York, feel that the Commission has taken a major, highly laudable step in recommending that the private use of marihuana be taken out of the criminal justice system. They concur in its threshold judgment that overall social policy regarding this drug should seek to discourage use, while concentrating primarily on the prevention of irresponsible use. They disagree, however, with three specific recommendations relating to the implementation of this discouragement policy.

First, they would eliminate entirely the contraband provision from the partial prohibitory model adopted by the Commission. They want it eliminated first because its legal implications are confusing and the subject of disagreement even among lawyers. Whether or not possession of a given substance is criminal, possession of material designated as contraband makes that possession *unlawful*. Also, marihuana designated as contraband would be subject to government search and seizure, even though the underlying possession is no longer criminal. The provision—which does not apply to marihuana held for personal use within the home—is considered by both Commissioners to be an unnecessary "symbol" of the discouragement policy. It will not foster elimination of the misunderstanding and mistrust which is a hallmark of our current marihuana policy.

Commissioner Hughes and Javits seek to eliminate it also because as a practical matter it serves no useful law enforcement purpose within the overall partial prohibitory model. If marihuana held for personal use within the home is not contraband, why should marihauna held for personal use within one's

Private Activities

- POSSESSION IN PRIVATE OF MARIHUANA FOR PERSONAL USE WOULD NO LONGER BE AN OFFENSE.
- DISTRIBUTION IN PRIVATE OF SMALL AMOUNTS OF MARIHUANA FOR NO REMUNERATION OR INSIGNIFICANT REMUNERATION NOT INVOLVING A PROFIT WOULD NO LONGER BE AN OFFENSE.

Public Activities

- POSSESSION IN PUBLIC OF ONE OUNCE OR UNDER OF MARIHUANA WOULD NOT BE AN OFFENSE, BUT THE MARIHUANA WOULD BE CONTRABAND SUBJECT TO SUMMARY SEIZURE AND FORFEITURE.
- POSSESSION IN PUBLIC OF MORE THAN ONE OUNCE OF MARIHUANA WOULD BE A CRIMINAL OFFENSE PUNISHABLE BY A FINE OF $100.
- DISTRIBUTION IN PUBLIC OF SMALL AMOUNTS OF MARIHUANA FOR NO REMUNERATION OR INSIGNIFICANT REMUNERATION NOT INVOLVING A PROFIT WOULD BE A CRIMINAL OFFENSE PUNISHABLE BY A FINE OF $100.
- PUBLIC USE OF MARIHUANA WOULD BE A CRIMINAL OFFENSE PUNISHABLE BY A FINE OF $100.
- DISORDERLY CONDUCT ASSOCIATED WITH PUBLIC USE OF OR INTOXICATION BY MARIHUANA WOULD BE A MISDEMEANOR PUNISHABLE BY UP TO 60 DAYS IN JAIL, A FINE OF $100, OR BOTH.

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automobile be contraband? The area of operation of the contraband provision is extremely narrow. If one possesses *more* than one ounce of marihuana in public, it may be seized without regard to the contraband doctrine since such possession is a criminal violation.

Since the contraband provision does not apply to marihuana possession and use in private, the only effective area covered by the contraband provision is the area of possession in public of *less* than one ounce. The Commission has chosen to remove the stigma of the criminal sanction in this kind of case. To impose instead a contraband provision, which it is argued is in the nature of a civil "in rem" seizure which does not operate against the person, is to cloud the issue and to weaken the force of the basic decriminalization. A persuasive justification simply has not been made.

Both Commissioners seek to eliminate it also because they believe that the voice of the Commission should be loud and clear that the preservation of the right of privacy is of paramount importance and cannot be casually jeopardized in the pursuit of some vague public or law enforcement interest which has not been defined and justified with clarity and precision.

The second area of disagreement with the Commission's recommendations concerns the casual distribution of marihuana and the not-for-profit sale. As understood:

- OPERATING A VEHICLE OR DANGEROUS INSTRUMENT WHILE UNDER THE INFLUENCE OF MARIHUANA WOULD BE A MISDEMEANOR PUNISHABLE BY UP TO ONE YEAR IN JAIL, A FINE OF UP TO $1,000, OR BOTH, AND SUSPENSION OF A PERMIT TO OPERATE SUCH A VEHICLE OR INSTRUMENT FOR UP TO 180 DAYS.
- A PLEA OF MARIHUANA INTOXICATION SHALL NOT BE A DEFENSE TO ANY CRIMINAL ACT COMMITTED UNDER ITS INFLUENCE NOR SHALL PROOF OF SUCH INTOXICATION CONSTITUTE A NEGATION OF SPECIFIC INTENT.
- A PERSON WOULD BE ABSOLUTELY LIABLE IN CIVIL COURT FOR ANY DAMAGE TO PERSON OR PROPERTY WHICH HE CAUSED WHILE UNDER THE INFLUENCE OF THE DRUG.

DISCUSSION OF FEDERAL RECOMMENDATIONS

The recommended federal approach is really a restatement of existing federal policy. From official testimony and record evaluation, we know that the federal law enforcement authorities, principally the Federal Bureau of Narcotics and Dangerous Drugs and the Bureau of Customs, do not concentrate their efforts on personal possession cases. The avowed purpose of both Bureaus is to eliminate major traffickers and sources of supply. For the most part, the federal

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(1) The totally donative transfer is not subject to criminal penalty, regardless of where it takes place.

(2) The transfer of *small* amounts for *insignificant* remuneration *not involving a profit* is not subject to criminal penalty (except if it is accomplished in public, in which case it is subject to criminal sanction), but

(3) The transfer of *"large* amounts" for *"significant"* remuneration not involving a profit is subject to criminal penalty.

Footnote 4 on page 158 of the Report, the Commission refers to a Report of The Senate Judiciary Committee on the Comprehensive Drug Abuse Prevention and Control Act of 1970. In substance, it implies that within the meaning of the Act, transfers of more than one or two marihuana cigarettes in return for 50 cents or one dollar to cover cost are not intended to be covered as casual transfers, but rather are to be treated as unlawful sales.

Commissioners Hughes and Javits feel that the Commission has failed to set forth a clear standard which will adequately inform the public of their obligations under the law. The recommendation and its discussion in the Report are confusing and fail to provide the individual with sufficient guidance to allow him to act without having to dodge in and out of illegality. It also undermines a basic, stated objective of the Commission i.e., to concentrate the weight of the criminal sanction upon significant supply and distribution activities, rather than upon casual consumption.

Moreover, proscribing even the most casual not-for-profit transfers when they occur in public is, in their opinion, wrong. Such transfers are necessarily inci-

agencies have left possession enforcement to the states. Underlying this approach is a need to maximize the use of enforcement resources for major priorities and allow the states, in exercising their "police powers," to assume the responsibility for local activities, including possession for personal use.

By withdrawing the criminal sanction from possession for personal use we are, in effect, codifying official policy. In addition, such a scheme follows the model chosen for alcohol in the Volstead Act, and also revives the approach taken by Congress in the Drug Abuse Control Amendments (DACA) of 1965. We are in agreement with the original thrust of DACA, when Congress brought previously uncontrolled drugs, LSD, barbiturates and amphetamines, under control but did not assess criminal penalties for possession for personal use.

Instead, Congress placed on the prosecution the burden of proof that the possession was for purposes of sale. Regardless of whether or not Congress was wise in imposing a penalty in 1968 for possession for personal use, a subject we will consider in our next Report, we think the original DACA concept is enlightened where marihuana is concerned.

At the same time, present federal law classifies marihuana as contraband, and this feature should be maintained. The contraband

dent to private possession and use. To hold that they should be subject to criminal sanction is logically inconsistent with the Commission's rationale and recommendation on decriminalization of such private activities.

Instead, both Commissioners recommend that all not-for-profit sales be excluded from the criminal sanction. It is fundamental that there be a clear separation between the serious, commercial, profit-making-seller, or "pusher" as he is known, and the individual who merely splits the cost of a reasonable supply of the drug with his friends or acquaintances.

Thirdly, exception is taken to the retention of the criminal sanction on public possession of more than one ounce. The individual who buys an ounce and a half would be a criminal when he buys on the corner, when he puts it in his pocket, when he gets in his car and drives home, when he is on his doorstep, but not when he crosses the threshold of his home. Commission policy should direct the attention of the law enforcement community to the person who sells the drug for profit, and not to the person who uses the drug privately.

If an individual has more than a few ounces in his possession, and there is probable cause to believe that he intends to sell it for profit, that activity is already covered under the Commission's recommendation that possession with intent to sell is illegal. Therefore, there is no need to further proscribe simple public possession.

All the component parts of the recommended policy of the Commission should be consistent with its objective of non-interference with casual transfers and possession and use which is essentially and fundamentally private and personal.

The contraband device, the not-for-profit sale, and public possession of some reasonable amount which should be presumed to be necessarily incident to private use should all be removed from the ambit of legal sanction. To do so would be to strike down "symbols" of a public policy which had never been adequately justified in the first instance. Such steps would in no way jeopardize the firm determination of the Commission that the use of marihuana ought to be discouraged.

concept serves the discouragement policy in two ways: it assists the removal of supply from the market and it symbolizes a continuing societal opposition to use. Accordingly, if a person is found in possession of marihuana in public and the government is unable to prove any intent to sell, it may nevertheless seize the marihuana and confiscate it is contraband.

The contraband provision would apply only to possession in public and would not extend to possession for personal use in the home. During Prohibition, the Federal Government and most of the states employed a similar statutory limitation. For example, the Volstead Act provided that a private dwelling could not be searched "unless it is being used for the unlawful sale of intoxicating liquor. . . ." [1]

The impact of this contraband concept is that marihuana possessed or found in public can be summarily seized by law enforcement officials and forfeited to the state for subsequent destruction.[2] The criminal justice system is not involved in the process. The individual receives no record of any kind; he simply loses the economic value of the marihuana.[3]

With regard to the casual distribution of small amounts of marihuana for no remuneration or insignificant remuneration not involving a profit we are following the approach taken in the Comprehensive Drug Abuse Prevention and Control Act of 1970 which in essence treats such casual transfers as the functional equivalent of possession. In doing so, Congress recognized that marihuana is generally

[1] § 39. *Unlawful possession of liquor or property designed for manufacture thereof; search warrants.* It shall be unlawful to have or possess any liquor or property designed for the manufacture of liquor intended for use in violating this chapter or which has been so used, and no property rights shall exist in any such liquor or property. A search warrant may issue as provided in [sections 611 to 631 and 633 of Title 18] and such liquor, the containers thereof, and such property so seized shall be subject to such disposition as the court may make thereof. If it is found that such liquor or property was so unlawfully held or possessed, or had been so unlawfully used, the liquor, and all property designed for the unlawful manufacture of liquor, shall be destroyed, unless the court shall otherwise order. No search warrant shall issue to search any private dwelling occupied as such unless it is being used for unlawful sale of intoxicating liquor, or unless it is in part used for some business purpose such as a store, shop, saloon, restaurant, hotel, or boarding house. The term "private dwelling" shall be construed to include the room or rooms used and occupied not transiently but solely as a residence in an apartment house, hotel or boarding house. The property seized on any such warrant shall not be taken from the officer seizing the same on any writ of replevin or other like process. (Oct. 28, 1919, c. 85, Title II, § 25 41 Stat. 315)

[2] The federal and state provisions presently in force regarding the seizure and forfeiture of an automobile transporting marihuana would no longer be applicable. They would still remain in force for other controlled drugs classified as contraband.

[3] See the views of Commissioners Rogers, Carter, Ware, Hughes and Javits expressed in the footnote on pages 151–156.

shared among friends and that not all people who distribute marihuana are "pushers."*

The accuracy of Congress' appraisal is underscored by the National Survey. When people who had used marihuana were asked how they first obtained the drug, 61% of the adults and 76% of the youth responded that it had been given to them. Only 4% of the adults and 8% of the youth said that they had bought it. When asked who their source had been, 67% of the adults and 85% of the youth responded that it had been a friend, acquaintance or family member.

The close association between the concepts of casual transfer and personal possession is also underscored by the fact that 56% of the prosecutors in our survey thought that the present law did not deter casual transfer at all or deterred it only minimally.

With regard to importation and exportation, we recommend no change in existing law and make the following observations. First, the United States must maintain its international standing and, as a member of the community of nations, this country should do everything in its power to restrict the exportation of marihuana to other countries and to penalize such international traffic.

As to importation of marihuana, the most effective way to discourage use is to cut off supply at the top of the pyramid. Recognizing that most of the marihuana consumed in the United States comes from abroad, we feel that the Bureau of Customs at the borders should have all necessary authority to halt and interdict supplies intended for consumption in this country. There has been a long-standing practice of excepting ports and borders from procedural rules applying within the United States. One example is that Customs officials are allowed to search without the showing of probable cause, even though such a

*In considering this relationship, the Senate, in the Report of the Committee on the Judiciary of the United States Senate regarding S. 3246 (a precursor bill to the new Federal law) stated:

> The language "distributes a small amount of marihuana for no remuneration or insignificant remuneration not involving a profit" as contained in section 501(c)(4) is intended to cover the type of situation where a college student makes a quasi-donative transfer of one or two marihuana cigarettes and receives 50 cents or a dollar in exchange to cover the cost of the marihuana. Transfers of larger quantities in exchange for larger amounts of money, or transfers for profit, are not intended to be covered by this section, but rather are to be covered by section 501(c)(2) which deals with unlawful distribution.

This language sketches a prototype situation which the Committee had in mind; however, the wording of the Federal Act and of our recommendations is not intended to establish inflexible rules. The objective in both provisions is to distinguish between commercial sellers and casual distributors. Ultimately the courts will have the responsibility of drawing this distinction according to the evidence in individual cases. The recommended provision intentionally establishes a loose standard not tied to specific amounts of marihuana or money.

See also the views of Commissioners Rogers, Carter, Ware, Hughes and Javits expressed in the footnote on pages 151–156.

showing is mandatory for searches conducted within the United States. We can see a legitimate reason for continuing this policy.

DISCUSSION OF STATE RECOMMENDATIONS

The states have primary responsibility for enforcing the existing proscriptions against possession for personal use. Their present efforts are designed mainly to keep marihuana use contained and in private. Such an enforcement policy is consistent with our social policy approach, and is an appropriate exercise of the states' obligations to maintain public order. So while we see no need for criminal sanctions against possession for personal use or against casual transfers, we recommend a number of provisions for confining marihuana use to the home.

The first point is that even marihuana possessed for personal use is subject to summary seizure and forfeiture if it is found in public. This concept is now applicable under federal law which we commend also to the states. In our view, the contraband feature symbolizes the discouragement policy and will exert a major force in keeping use private.

Another means of symbolizing the discouragement policy which has been suggested is the imposition of a civil fine on those possessing marihuana outside the home for personal use.* Under such an approach, a fine would be levied and processed outside the criminal justice system. Essentially, possession of marihuana would be the equivalent of a traffic offense in those jurisdictions where such an offense is not criminal.

Such a scheme would accomplish little more than that achieved under a partial prohibition scheme. Warrants would presumably not be issued for searches of private residences, and possession offenses would be detected only by accident or if the offender uses the drug in public. The more direct way to confront such behavior is a penalty against public use.

A further problem with the civil fine approach lies in the area of non-payment of the fine. With traffic tickets, or with civil fines levied against industrial polluters, society can compel compliance by withdrawing its permission to engage in regulated activity. For example, it can revoke the motorists' license to drive or the polluters' license to do business within the state. In short, the state has remedies beyond the criminal law to achieve its policy goal. The same would not be true for the marihuana user and enforceability of the statute would ultimately require court action.

*See the views of Commissioners Rogers, Carter and Ware expressed in the footnote on pages 151–153.

As we have suggested, a central feature of our statutory approach at the state level would be a vigorously enforced prohibition of public use. No intoxicant should be used in public, both because it may offend others and because the user is risking irresponsible behavior if he should be under its influence in public. Moreover, where marihuana is concerned, continuing societal disapproval requires that the behavior occur only in private if at all. Public use, under the proposed scheme, would therefore be punishable by a fine of $100.

We also recognize the need for some prophylactic measure for anticipating distribution, even though there may be no intent to sell for profit. To this end, and in order to deter public use, possession and transfer, we have drawn a line at one ounce of marihuana. Possession in public of more than this amount would be punishable by a fine of $100.

For these same reasons, we believe the states should prohibit all transfers outside the home, whether or not for remuneration. A transfer for profit would be a felony, as under present law. A casual transfer of a small amount would be punishable by a fine of $100.

Taken together, the contraband feature, the proscriptions of public use and public possession of more than an ounce (even if for personal use) and the prohibition of public transfers will reflect the discouragement policy underlying the entire scheme.

The remaining set of recommendations aims at irresponsible behavior under the influence of marihuana. Whatever the precise legal scheme employed, these provisions should be included.

First, the "drunk and disorderly" statutes presently in force in the states are useful tools for maintaining public order. We would suggest similar statutes in the case of marihuana, punishing offenders by up to 60 days in jail, a fine of $100, or both. Law enforcement authorities must have a means to halt antisocial behavior exhibited incidental to marihuana use.

The second aspect of irresponsible behavior is the operation of automobiles, other vehicles, or any potentially dangerous instrument while under the influence of marihuana. Such behavior is gross negligence in itself, risking harm to others unnecessarily. In addition to penalizing a person who "drives under the influence" as a serious misdemeanant, we would impose absolute civil liability on anyone who harms the person or property of another while under the influence of marihuana.

Finally, no one should be able to limit his criminal accountability by alleging that he was under the influence of marihuana at the time of the crime. Under both federal and state law, the defendant should not be able to negate the mental element of "specific intent," which some offenses carry, by pleading that he was under the influence of marihuana and was therefore unable to have formed such an intent. Unlike many users of heroin, the user of marihuana is not physically dependent on the drug. The use of the drug is usually a matter of choice. Although we believe on the basis of available evidence that there is no causal connection between marihauna use and crime, we would under no circumstances allow a person to escape the consequences of his actions by hiding behind the cloak of marihuana use.

DISCUSSION OF POTENTIAL OBJECTIONS

Having discussed our recommended scheme at the federal and state levels, we think it useful to answer some objections we anticipate will be raised. Possible objections are:

1. Partial prohibition is not a sufficient reflection of the discouragement policy.
2. Partial prohibition is logically inconsistent.
3. A possession penalty is necessary for effective enforcement of sale proscriptions.
4. Partial prohibition won't "work" for marihuana any more than it did for alcohol.
5. A possession offense is essential as a device for detecting problem users.
6. Retention of a possession offense is required by our international obligations.
7. A firm distinction should be drawn between less potent and more potent preparations.

1. The Partial Prohibition Approach Is a Sufficient Reflection of the Discouragement Policy

To those who would argue that a criminal sanction against use is a necessary implementation of an abstentionist policy, we need only respond that this country has not generally operated on that assumption. We would be astounded if any person who lived during the 1920's was not aware of a definite governmental policy opposed to the use of alcohol. Yet, *only five states prohibited possession for personal use during Prohibition.* The failure of the 18th Amendment, the Volstead Act and 43 state prohibition acts to criminalize private possession certainly did not signify official approval of or neutrality toward alcohol use.

As we pointed out in Chapter I, our nation has not generally seen fit to criminalize private drug-related behavior; only in the narcotics area was possession made a crime and marihuana was brought within the narcotics framework because of unfounded assumptions about its ill effects. We think it is time to correct that mistaken departure from tradition with respect to marihuana. As during Prohibition, the drug will remain contraband, and its distribution will be prohibited.

Even as late as 1965, an abstentionist drug policy was not thought to require prohibition for personal use. At that time, Congress enacted the Drug Abuse Control Amendments, bringing LSD, amphetamines and barbiturates under federal control. National policy was clearly opposed to use of the hallucinogens and the non-prescription use of amphetamines and barbiturates, yet Congress did not impose a penalty for possession. Whether or not Congress' subsequent decision in 1968, to impose such a penalty was appropriate is an issue we will cover in our next Report after analyzing the individual drugs controlled. The important point now is that such a penalty is not a necessary feature of a discouragement policy for marihuana, regardless of its propriety for other drugs.

2. The Partial Prohibition Approach Is Not Logically Inconsistent

It will be argued that a law which permits a person to acquire and use marihuana but does not permit anyone to sell it to him for profit is logically unsound. We do not agree. If we had recommended a social policy of approval or neutrality toward use, partial prohibition would indeed have been illogical. However, under a discouragement policy, such a scheme is perfectly consistent.

Under partial prohibition, use is discouraged in three main ways. First, law enforcement authorities will make a concerted effort to reduce the supply of the drug. If a person wishes to use marihuana, he will have to seek out a person to sell it to him; and if his seller is in the business of distributing marihuana for profit, the seller is violating the law.

Second, the user will have to confine his disapproved behavior to the home. If he uses the drug in public, he has committed an offense; if he possesses it in public, it may be summarily seized as contraband.

Third, continuing efforts will be made by educators, public health officials, and official government spokesmen to discourage use. Realizing that educational efforts are not always successful, we would hope for a sound program. In any event, the law should be an ancillary rather than a focal consideration.

There is nothing theoretically inconsistent about a scheme which merely withdraws the criminal sanction from a behavior which is not immoral but which is disapproved. The individual is being allowed to make his own choice. Hopefully, he will choose not to use marihuana. If he chooses to do so, however, he will have to do so discreetly and in private. Apart from its ultimate possession by the user, however, all marihuana-related activity is prohibited. The drug is contraband from its initial growth, through its harvest and distribution. It ceases to be contraband only when possessed and used in the home.

3. Prohibition of All Possession Is Not Essential to Prohibition of Sale

The other side of the "inconsistency" objection is the argument by law enforcement officials that they cannot adequately enforce proscriptions against sale without a possession penalty. We disagree. We have already explained that enforcement of a possession offense to some extent *impedes* the effort to reduce supply. Possession cases are generally regarded in the law enforcement community and by judges and prosecutors as "cheap" cases. Few seriously contend that prosecution of possessors reduces supply.

Some persons argue in response that the law should remain on the books as a tool not against the possessor but against the seller. They say that a possession offense is helpful in three ways. First, a prosecution can be used as a bargaining tool to encourage the possessor to reveal his source; this is called "turning an informant." Second, the police may know that a person is a seller, but may not be able to prove either sale or intent to sell, so they can at least charge such suspected sellers with simple possession.

Third, a corollary of the second argument is that the possession offense provides a useful tool in the "plea bargaining" process. That is, a seller may plead guilty to the lesser offense of possession, now generally a misdemeanor, instead of running the risk of trial and conviction of the more serious offense of sale, generally a felony. The prosecution may accept such a "bargain' if it is uncertain of the strength of the case, to avoid delay in sentencing, to reduce judicial backlog or in return for information from the defendant.

From an institutional standpoint, we do not find these arguments persuasive. First, if a possession offense is on the books, possession is a criminal activity. We oppose criminalizing conduct when its purpose and intent is directed not toward that conduct but toward another behavior.

In answer to the informant argument, the marihuana user (and this may not be true of other drugs) is simply too low in the distributional chain to help very much. As indicated earlier, the National Survey shows most users receive their marihuana from their friends or acquaintances either as a gift or at cost. Rarely is the time spent on him or on his "source" a fruitful allocation of the law enforcement official's time. Also, it is institutionally improper to hold the criminal sanction over a person to force him to talk, when we otherwise would be unwilling to use that sanction.

As to the "lack of proof" and "plea bargaining" arguments, we believe they challenge a fundamental tenet of our criminal justice system. That is, under our law, a person is not guilty just because the police think he is guilty; his offense must be proven beyond a reasonable doubt to a judge or jury. If a possession offense were not

on the books, the police would have to gather enough evidence to convict the seller of sale or of possession with intent to sell, and the prosecution would have to convince the judge beyond a reasonable doubt. The defendant, suspected seller or not, is entitled to due process of law.

The "lack of proof" argument is nothing more than a plea for an "easy out" when the police do not have enough evidence. This simply represents an admission that law enforcement officials want a possession offense which they can apply selectively, to people whom they think, but cannot prove, are sellers. Such a notion is inconsistent with the basic premise of our system of equal treatment under the law. If "simple" possession is not an offense for some, it is not an offense for all. A "known seller" is entitled to the same rights as anyone else: criminal conduct must be proved beyond a reasonable doubt. We do not favor coddling criminals. We do insist, as did the framers of the Constitution, that suspected criminal behavior be proved.

4. That Partial Prohibition Did Not "Work" For Alcohol Doesn't Mean It Won't For Marihuana

Prohibition failed to achieve its avowed purpose of eliminating the use of intoxicating liquors from American life. Risking an oversimplification, we think two reasons were essentially responsible for this failure: the unwillingness of a substantial minority, and probably a majority, of the American public to discard a habit deeply ingrained in their lives; and the inability of the law enforcement community to eliminate the bootlegging traffic which catered to this continuing demand.

As we have repeatedly noted, one of the reasons for adoption of a partial prohibition approach is uncertainty about the extent to which marihuana use is ingrained in American culture. Indeed, adoption of partial prohibition is the best way to find out for sure. If the social interest turns out to be only transient, this policy will prove particularly appropriate.

Similarly, an increase in marihuana use may be prevented by a concerted effort to eliminate major trafficking, the scope of which is presently only a small fraction of Prohibition bootlegging. We do not pretend that supply of a plant so easily grown can be eliminated. However, an intensive effort to eliminate commercial criminal enterprise should have some impact on the extent of use.

5. The Possession Offense Is Not Required as a Detection Device

In addition to their deterrent and symbolic functions, the drug possession laws serve a third function not shared by most other criminal laws. Like laws against public drunkenness, they facilitate societal detection of drug-dependent persons. Ideally, such persons, although

apprehended by law enforcement authorities, may be detained for purposes of treatment and rehabilitation.

Whatever the merits of such an argument for the opiates and alcohol, such an argument does not apply to marihuana. Only a very small percentage of marihuana users are drug-dependent or are in need of treatment. Their dependence is generally upon multiple drug use, not on marihuana. In any event, the existence of such a small population does not justify retention of the possession offense as a detection device.

6. International Obligations Do Not Require Maintenance of a Possession Penalty

Some have raised the possibility that removal of simple possession criminal penalties would contravene this country's obligations under the Single Convention on Narcotic Drugs (1961), to which it became a signatory in March, 1967. We do not believe the provisions of that Convention compel the criminalization of possession for personal use.

Nowhere in the Convention are its Parties expressly required to impose criminal sanctions on possession for personal use. Article 4 requires Parties to "take such legislative and administrative measures as may be necessary . . . . to limit exclusively to medical and scientific purposes the production, manufacture, export, import, distribution of, trade in, use and possession of drugs." Penal sanctions are not necessarily included in this formulation.

Article 36, which deals specifically with penal provisions, requires each party to adopt "such measures as will ensure" that the listed activities, including possession, "shall be punishable offenses." Some have argued that this provision requires prohibition of personal use.

However, from a comprehensive study of the history of the Convention, the Commission has concluded that the word "possession" in Article 36 refers not to possession for personal use, but to possession as a link in illicit trafficking. This interpretation is bolstered also by the failure to include "use" in Article 36 even though it has been included in Article 4.

Finally, we must consider Article 33, which provides that "the Parties shall not permit the possession of drugs except under legal authority." This Article also does not require the imposition of any sanctions on possession for personal use. Experts consulted by the Commission have indicated that this Article may, nevertheless, require that the Parties to limit possession and use to medical and scientific purposes. To affirmatively allow drugs to remain in the possession of persons for non-medical use would in this view contravene Articles 4 and 33 to read together. From this perspective our international obligations may require the classification of marihuana as contraband. For this reason, together with a desire to symbolize our dis-

couragement policy in a clear way, we have included the contraband feature in our legal implementation scheme.

In conclusion, our reading of the Convention is that a Party may legitimately decide to deal with non-medical use and possession of marihuana through an educational program and similar approaches designed to discourage use.

7. No Potency Distinction is Necessary at the Present Time

Following the approach taken in the Comprehensive Drug Abuse Prevention and Control Act of 1970, we have drawn a line between the natural cannabis plant and the synthetic tetrahydrocannabinols. "Marihuana" is defined as any and all parts of the natural plant. That we choose this approach for purposes of statutory implementation does not mean that we are unaware of the difference between the less potent and more potent preparations of the natural plant.

As noted in Chapters II and III, the highest risk of cannabis use to the individual and society arises from the very long-term, very heavy use of potent preparations commonly called hashish. No such pattern of use is known to exist in the United States today.

The predominant pattern of use in the United States is experimental or intermittent use of less potent preparations of the drug. Even when hashish is used, the predominant pattern remains the same. In addition, whatever the potency of the drug used, individuals tend to smoke only the amount necessary to achieve the desired drug effect.

Given the prevailing patterns of use, the Commission does not believe it is essential to distinguish by statute between less potent and more potent forms of the natural plant. Reinforcing this judgment are the procedural and practical problems attending an effort to do so.

If the criminal liability of an individual user is dependent on the THC content of the substance, neither he nor the arresting officer will know whether he has committed a crime until an accurate scientific determination is made. Even if such accurate determinations were feasible on a large scale, which is not now the case, such after-the-fact liability is foreign to our criminal laws.

Under present circumstances, then, a statutory line based on potency is neither necessary nor feasible. We emphasize also that any legal distinction is an artificial reflection of the Commission's major concern: the heavy use of the drug over a long term. The most emphatic element of official policy should be to discourage such use, especially of the more potent preparations. Unfortunately precise legislative formulations regarding the amount of the drug presumed to be for personal use do not assist this effort at all. Whether it is lawful to possess one ounce of hashish or a proportionate amount based on potency (for example, one-fourth ounce), an individual prone to use the drug heavily will do so. Society's resources should be committed to the

task of reducing supply of the drug and persuading our citizens not to use it. Expenditure of police time and financial resources in an attempt to ascertain the THC content of every seized substance would make little, if any, contribution to this effort.

A Final Comment

In this Chapter, we have carefully considered the spectrum of social and legal policy alternatives. On the basis of our findings, discussed in previous Chapters, we have concluded that society should seek to discourage use, while concentrating its attention on the prevention and treatment of heavy and very heavy use. The Commission feels that the criminalization of possession of marihuana for personal use is socially self-defeating as a means of achieving this objective. We have attempted to balance individual freedom on one hand and the obligation of the state to consider the wider social good on the other. We believe our recommended scheme will permit society to exercise its control and influence in ways most useful and efficient, meanwhile reserving to the individual American his sense of privacy, his sense of individuality, and, within the context of an interacting and interdependent society, his options to select his own life style, values, goals and opportunities.

The Commission sincerely hopes that the tone of cautious restraint sounded in this Report will be perpetuated in the debate which will follow it. For those who feel we have not proceeded far enough, we are reminded of Thomas Jefferson's advice to George Washington that "Delay is preferable to error." For those who argue we have gone too far, we note Roscoe Pound's statement, "The law must be stable, but it must not stand still."

We have carefully analyzed the interrelationship between marihuana the drug, marihuana use as a behavior, and marihuana as a social problem. Recognizing the extensive degree of misinformation about marihuana as a drug, we have tried to *demythologize* it. Viewing the use of marihuana in its wider social context, we have tried to *desymbolize* it.

Considering the range of social concerns in contemporary America, marihuana does not, in our considered judgment, rank very high. We would *deemphasize* marihuana as a problem.

The existing social and legal policy is out of proportion to the individual and social harm engendered by the use of the drug. To replace it, we have attempted to design a suitable social policy, which we believe is fair, cautious and attuned to the social realities of our time.

addendum

The previous Chapter recommended a social policy oriented toward the discouragement of marihuana use and presented a set of proposals for the legal implementation of that policy. In addition to these legal recommendations for federal and state action, the Commission believes certain other recommendations should be presented for action.

Ancillary Recommendations

These recommendations are presented in three categories: (1) legal and law enforcement, (2) medical, and (3) other. Some of these recommendations apply to other drugs as well and will be discussed further in our second Report. However, we consider it useful to make recommendations now so that policy planners can be informed of the implications of what has been studied to date.

Foremost among the Commission's conclusions is a need for consistency between federal and state laws affecting marihuana distribution and use, and uniformity of marihuana laws among the states. The administration of all marihuana laws must be mutally reenforcing so that *total* governmental response to marihuana is both equitable and understandable.

muda, Montreal, Nassau, Toronto, Vancouver, Winnipeg and the Virgin Islands. Other locations are petitioning for the same privilege.

An inherent weakness in the preclearance procedure is that Customs personnel stationed outside the United States have no authority for search, seizure and arrest. This fact is well-known to the professional smuggler who uses it to his advantage. Since we have been informed that preclearance creates a gap in Customs' interdiction process, reason dictates that the procedure be eliminated in the interest of tighter control.

II. State

RECOMMENDATION: ALL STATES SHOULD ADOPT THE UNIFORM CONTROLLED SUBSTANCES ACT TO ACHIEVE UNIFORMITY WITH REGARD TO MARIHUANA AND OTHER DRUG LAWS, WITH THE EXCEPTION THAT THE LEGAL RESPONSE TO POSSESSION FOR ONE'S OWN USE BE UNIFORMLY ADOPTED IN ACCORDANCE WITH OUR RECOMMENDATION IN CHAPTER V OF THIS REPORT.

As noted earlier, one of the greatest needs in the entire drug area is uniformity of state laws with regard to structure and penalties. While this recommendation applies to all drugs and not just marihuana, we feel it essential to make this recommendation now to help deemphasize the marihuana problem. Significant differences in penalties among the states constitute a valid source of irritation and conflict among various segments of our population. In an age of high mobility, it is unconscionable that penalties should vary so greatly in response to the same behavior.

RECOMMENDATION: EACH STATE SHOULD ESTABLISH A CENTRALIZED COMPULSORY REPORTING AND RECORD-KEEPING AUTHORITY SO THAT ADEQUATE AND ACCURATE STATISTICS OF ARRESTS, SENTENCES AND CONVICTIONS ON A STATEWIDE BASIS ARE AVAILABLE.

Several states have systems for maintaining records of drug arrests on a statewide basis. Accurate reporting and compilation of these cases permit the state to assess accurately the impact of law enforcement on drug offenders. The Law Enforcement Assistance Administration of the Department of Justice should assist the states to establish compulsory statistical reporting centers so that individual state needs are met and a clearer picture of the national trends can be ascertained. Efficient state record-keeping will have an additional benefit of increasing the reliability of the Uniform Crime Reports compiled by the Federal Bureau of Investigation.

RECOMMENDATION: THOSE STATES REQUIRING PHYSICIANS TO REPORT DRUG USERS SEEKING MEDICAL ASSISTANCE SHOULD CHANGE SUCH REQUIREMENTS TO INSURE THE CONFIDENTIALITY OF THE DRUG USER'S IDENTITY, SO THAT PERSONS NEEDING MEDICAL HELP WILL FEEL FREE TO SEEK IT.

Seventeen states* currently require physicians to report to a government agency information on those persons treated by them who are dependent on, or are habitual users of drugs. No common pattern emerges among these states.

After reviewing these statutes, the Commission believes that the disadvantages of maintaining such reporting systems outweigh the benefits to society or the individual. Fear of disclosure to the police discourages many persons from seeking needed medical help. Furthermore, the requirement makes the physician an informant and an agent of law enforcement.

While a need exists for reliable statistics regarding the number and nature of those persons being treated, the Commission does not feel that identification of the individual user is necessary. We again emphasize that society should encourage persons in need of medical attention to seek out authorized practitioners without having to fear legal repercussions for such action.

III. International

RECOMMENDATION: IF THE UNITED STATES SHOULD BECOME A SIGNATORY OF THE PROPOSED PSYCHOTROPIC CONVENTION, WE RECOMMEND THAT CANNABIS BE REMOVED FROM THE EXISTING SINGLE CONVENTION AND CONSIDERATION BE GIVEN TO LISTING IT IN THE PSYCHOTROPIC CONVENTION AMONG DRUGS WHICH HAVE SIMILAR EFFECTS.

Under the Single Convention on Narcotic Drugs, 1961, of which the United States became a signatory in 1967, cannabis, with the exception of its leaves and stems, is included with narcotic drugs and cocaine. While that categorization had some justification in 1961 when knowledge about marihuana was more limited, this justification no longer exists. More importantly, tetrahydrocannabinol (THC), the psychoactive ingredient in cannabis, is not included in the Single Convention and is proposed for inclusion in the Psychotropic Convention.

The Commission sees little sense in having the potent psychoactive ingredient in cannabis covered in one Convention and the natural

*California, Connecticut, Hawaii, Idaho, Iowa, Massachusetts, Michigan, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, Pennsylvania, Vermont, Virginia, Washington.

product in another. Logic dictates combining the active ingredient with the plant form under one international control scheme. The Commission concludes that cannabis is more appropriately included in an international agreement which would control the hallucinogens, stimulants, depressants, and other drugs rather than in the Single Convention, which includes the narcotics and cocaine.

Medical Recommendations

I. Research Coordination and Emphasis

RECOMMENDATION: FULLER COORDINATION OF THE MARIHUANA RESARCH CONDUCTED BY GOVERNMENTAL AND PRIVATE AGENCIES IS NEEDED TO REDUCE THE DUPLICATION OF EFFORT, ASSURE A DIVERSITY OF NEW APPROACHES AND NEW OBJECTIVES, AND TO PROVIDE EFFICIENT INTEGRATION OF FINDINGS INTO THE AVAILABLE BODY OF KNOWLEDGE.

The Commission recognizes the need for studies of chronic, heavy users of marihuana in this country. Among the required areas of information are the user's sociologic background (family dynamics, social stresses, impact of socioeconomic status), and medical status (documentation of physiological and psychological parameters, including pulse rate, blood pressure, electro-cardiogram, electroencephalogram, mental status examination, psychological tests). Epidemiological studies are also needed. Such studies should be directed toward understanding the life histories of chronic, heavy users, and identifying the effects of marihuana on the life patterns of these individuals.

The Commission recommends that intensive research be conducted on the carcinogenic properties of the components of marihuana smoke, in both animals and man. Further work should be conducted to analyze the effect of marihuana smoking on pulmonary function. The Commission-sponsored study in Boston and the study of heavy long-term users in Jamaica both indicated there was some decrement in measurable lung function capacity.

In addition to these physiological studies, investigations on the effects of marihuana-smoking on the bronchial epithelium and mucous membranes of the mouth, throat and lips should be undertaken. The relationship of marihuana smoking to cardiac diseases, particularly coronary artery disease, should be studied. Although such studies have been conducted in connection with tobacco use, they have not been performed on a significant scale with regard to marihuana use.

Some clinical investigators have voiced concern regarding the effect of marihuana-smoking on the peripheral vascular system. In order to accomplish the initial phase of this investigation, the Commission recommends that thermographic studies be carried out on extremities of chronic, heavy marihuana users.

There are many unanswered questions about the effects of marihuana upon the brain. These include reported alterations upon the neuronal systems which produce effects resembling those of both psychedelic drugs and alcohol. Studies of the biogenic amines which appear to be neurotransmitters in the emotional areas of the brain are needed.

The Commission in the course of its work has encouraged cooperation among various federal agencies concerned with marihuana. Continuing and formalized informational exchange among federal agencies and the state, local and private agencies which have a professional concern with marihuana can be helpful to all of them. We recommend that an appropriate federal agency, such as the Special Action Office for Drug Abuse Prevention in the White House, serve as the catalyst in developing a permanent program for assembling and exchanging marihuana-related information.

II. Detection of Marihuana in the Human Body

RECOMMENDATION: RESEARCH EFFORTS TO DEVELOP AN INEXPENSIVE, EASY METHOD FOR DETECTING AND QUANTIFYING THE PRESENCE OF MARIHUANA IN THE BLOOD, BREATH OR URINE OF A PERSON SUSPECTED OF BEING INTOXICATED SHOULD BE ACCELERATED.

In keeping with the necessity to detect and punish persons who are operating vehicles and other dangerous equipment under the influence of marihuana, it is important for law enforcement officials to have a swift, easy-to-use mechanism that will determine with a high degree of certainty whether the person is acting under the influence of marihuana. The Commission understands that the Department of Transportation and other federal agencies are working toward this goal and we strongly recommend that this research be continued as a priority item.

III. International Cooperation

RECOMMENDATION: AN ACCELERATED PROGRAM FOR FUNDING FOREIGN RESEARCH SHOULD BE UNDERTAKEN IMMEDIATELY.

For the purposes of definitive research on the effects of heavy and very heavy marihuana use, the Commission has found that the United States fortunately does not have significant numbers of people who have been exposed over a long period of time to such use. The National Institute of Mental Health has cooperated with the Commission in

supplying data from its major foreign studies of chronic cannabis users in Jamaica and Greece. For medical research purposes, an analysis of data derived from populations in other countries with 10, 20 or 30 years of experience with heavy marihuana use will provide useful information about probable consequences if the incidence of marihuana use in the United States were to continue and increase, and if more people engaged in heavy, long-term use.

IV. Therapeutic Uses

RECOMMENDATION: INCREASED SUPPORT OF STUDIES WHICH EVALUATE THE EFFICACY OF MARIHUANA IN THE TREATMENT OF PHYSICAL IMPAIRMENTS AND DISEASE IS RECOMMENDED.

Historical references have been noted throughout the literature referring to the use of cannabis products as therapeutically useful agents. Of particular significance for current research with controlled quality, quantity and therapeutic settings, would be investigations into the treatment of glaucoma, migraine, alcoholism and terminal cancer. The NIMH-FDA Psychotomimetic Advisory Committee's authorization of studies designed to explore the therapeutic uses of marihuana is commended.

V. Community-Based Treatment

RECOMMENDATION: COMMUNITY-BASED TREATMENT FACILITIES SHOULD BE PROMOTED IN CARING FOR PROBLEM DRUG USERS UTILIZING EXISTING HEALTH CENTERS WHEN POSSIBLE AND APPROPRIATE.

In studying marihuana, the Commission has obtained information about a number of treatment centers and services. The wide range of agencies and the variety of goals and techniques present a confusing array of services available to drug users, varying widely in their effectiveness. Uniform criteria for evaluating the "success" of these programs is urgently needed.

The medical members of the Commission believe that some of the techniques being used may pose as much potential harm as good. Many young people who are experiencing profound difficulties resulting from the use of drugs may suppose they are being treated and helped, when in reality they are not. In some cases, the short-term benefit may be disruptive to the long-term welfare of the individual. In the rush to provide treatment facilities, many programs have been given impressive credientials without meeting minimal medical standards. It is essential that treatment facilities have, as their primary orientation, the well-being of the individual under treatment.

VI. Training Programs

RECOMMENDATION: PUBLIC HEALTH COURSES ON THE SOCIAL ASPECTS OF DRUG USE SHOULD BE INCLUDED IN THE CURRICULA OF THE SCHOOLS OF THE HEALTH PROFESSIONS.

The Commission recommends that schools of the health professions include in their curricula courses on the social, public health and therapeutic aspects of drug use as appropriate to the educational purpose of the individual school. The National Survey indicated that the public views the family physician as an important source of information about drugs. Next to school personnel, physicians were mentioned most often in this connection. Persons involved in the health professions must be provided with information about non-medical as well as the medical aspects of drug use.

Other Recommendations

I. Reclassification of Cannabis

RECOMMENDATION: THE COMMISSION RECOGNIZES THAT SEVERAL STATE LEGISLATURES HAVE IMPROPERLY CLASSIFIED MARIHUANA AS A NARCOTIC, AND RECOMMENDS THAT THEY NOW REDEFINE MARIHUANA ACCORDING TO THE STANDARDS OF THE RECENTLY ADOPTED UNIFORM CONTROLLED SUBSTANCES LAW.

Scientific evidence has clearly demonstrated that marihuana is not a narcotic drug, and the law should properly reflect this fact. Congress so recognized in the Comprehensive Drug Abuse Prevention and Control Act of 1970, as did The Conference of Commissioners on Uniform State Laws in the Uniform Controlled Substances Law.

In those states where the Uniform Controlled Substances Law has not yet been adopted, twelve of which continue to classify marihuana as a "narcotic", the Commission recommends that the legislatures distinguish marihuana from the opiates and list it in a separate category. The consequence of inappropriate definition is that the public continues to associate marihuana with the narcotics, such as heroin. The confusion resulting from this improper classification helps to perpetuate prejudices and misinformation about marihuana.

II. Information

RECOMMENDATION: A SINGLE FEDERAL AGENCY SOURCE SHOULD DISSEMINATE INFORMATION AND

MATERIALS RELATING TO MARIHUANA AND OTHER DRUGS. THE NATIONAL CLEARINGHOUSE FOR DRUG ABUSE INFORMATION SHOULD BE CHARGED WITH THIS RESPONSIBILITY.

A great proliferation of drug information materials has occurred in recent years. These materials are currently distributed by a number of federal agencies. Some of these materials conflict with each other. The result is a confusion and uncertainty on the part of the public about the accuracy of all these statements. The public should have one federal source from which to obtain drug information. The National Clearinghouse for Drug Abuse Information appears best suited to perform this task.

III. Education

RECOMMENDATION: THE SPECIAL ACTION OFFICE FOR DRUG ABUSE PREVENTION IN THE WHITE HOUSE SHOULD BE RESPONSIBLE FOR THE COORDINATION, DEVELOPMENT AND CONTENT REVIEW OF ALL FEDERALLY-SUPPORTED DRUG EDUCATIONAL MATERIALS AND SHOULD ISSUE A REPORT AS SOON AS POSSIBLE, EVALUATING EXISTING DRUG EDUCATION MATERIALS.

The Commission has studied many programs of drug education throughout the country. Some are irrelevant, others are poorly designed, still others are misleading, and a good many of them are of questionable value. A few are excellent. The Federal Government must provide assistance to the states and school districts in this matter, and should provide the leadership in developing sample programs in cooperation with educational systems. An evaluation of existing programs by The Special Action Office for Drug Abuse Prevention of the White House could be very helpful in improving the standards of drug education.

IV. Voluntary Sector Participation

RECOMMENDATION: THE COMMISSION NOTES THE SIGNIFICANT ROLE PLAYED BY THE VOLUNTARY SECTOR OF THE AMERICAN COMMUNITY IN INFLUENCING THE SOCIAL, RELIGIOUS AND MORAL ATTITUDES OF OUR NATION'S CITIZENS AND RECOMMENDS THAT THE VOLUNTARY SECTOR BE ENCOURAGED TO TAKE AN ACTIVE ROLE IN SUPPORT OF OUR RECOMMENDED POLICY OF DISCOURAGING THE USE OF MARIHUANA.

Already very active in drug education and prevention activities, the social agencies, service clubs, church groups, and other non-governmental bodies have been extremely helpful in attending to the difficult problems of drug abuse. The local and personal nature of such organizations gives them an advantage over state and federal governments in the development of attitudes by our citizens.

The policy which we here recommend, indeed *any* policy which might be recommended, will inevitably encounter widespread and earnest objections. The fullest efforts of all citizens of good will will be required to attend to the massive problem of drug abuse in a calm, just, responsible and effective manner. The help of the voluntary agencies in working toward this end is earnestly invited and urgently needed.

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EXHIBIT H

DUTCH DRUG POLICY:

SOME FACTS AND FIGURES

October 1992 version

Alcohol, Drugs and Tobacco Policy Division
Ministry of Welfare, Health and Cultural Affairs
P.O. Box 3008
2280 MK Rijswijk
The Netherlands

Main aim of drug misuse policy in the Netherlands

'To contribute to the prevention of, and to deal with, the risks that the use of mind-altering drugs present to individuals themselves, their immediate environment, and society as a whole'

---

established by Govt. white paper to Parliament, 1975, and unchanged to date

Important basic documents used in the development of NL-policies

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U.S.: 1st and 2nd Reports of the National Commission on Marihuana and Drug Abuse (Shafer Commission), Washington, 1972 and 1973

Canada: Final Report of the Commission of Inquiry into the Non-Medical Use of Drugs, Ottawa, 1973

U.K.: Report by the Advisory Committee on Drug Dependence, London, 1968

WHO: 20th Report of the WHO Expert Committee on Drug Dependence, TRS 551, Geneva, 1974

Dutch drug policy has two facets:

- enforcement of the Opium Act
- policy on prevention and treatment

Coordination of policy by the Ministry of Welfare, Health and Cultural Affairs, in cooperation with the Ministry of Justice

OPIUM ACT

- distinction between drugs presenting unacceptable risks and traditional hemp products

- distinction between drug users and traffickers

PROSECUTION POLICY

Expediency principle: the Public Prosecutions Department is empowered to refrain from instituting criminal procedures if there are weighty public interests to be considered

Guidelines for detection and prosecution: highest priority for trafficking etc. of drugs presenting unacceptable risks, lowest priority for possession of up to 30 grams of hemp products for personal use (misdemeanor)

Policy aims to maintain a separation between the markets for drugs presenting unacceptable risks and the market for hemp products, so that people who use the latter can do so openly and not slide into the fringes of society

Opium Law: Schedule I Substances maximum sanctions

offence	prison yrs	fine Dfl
- possession of small quantities for personal use:	1	100,000
- wilful possession, public promotion counterfeiting prescriptions:	4	100,000
- preparatory activities:	6	100,000
- manufacture, transport, delivery, sale etc.:	8	100,000
- transport across NL-border:	12	100,000

Note: if value of proceeds or means used exceeds 1/4 of max. fine, max. fine is increased to next higher category e.g.: transport across border – Dfl 1 million; if the offence has been committed more than once, the max. prison term may be increased by one-third, e.g. transport across border – 16 years.

Opium Law: Schedule II Substances maximum sanctions

offence	prison yrs	fine Dfl
- possession of up to 30 grams	1 month	5,000
- wilful possession, manufacture, etc.	2	100,000
- transport across NL-border:	4	25,000

Note: if value of proceeds or means used exceeds 1/4 of max. fine, max. fine is increased to next higher category; if the offence has been committed more than once, the max. prison term may be increased by one third.

CURRENT SITUATION

Estimate of total number of drug misusers/addicts

Netherlands: ± 21,000 drug misusers/addicts

Source: 1) assessments of municipalities; 2) recent research on all methadone programmes in the Netherlands (Bureau Driessen, 1991)

Amsterdam: 5,000 - 7,000 addicts

Source: capture/recapture method based on several data systems: Municipal Health Service, Municipal Police, local studies (1990)

The extent of the overall problem appears to be stabilising and is even decreasing in some cities

Prevalence of cannabis and cocaine use

Current cannabis and cocaine use is low. The average last month prevalence of cannabis in a national sample of school children (10 - 18 years) was 2.7 %; cocaine 0.2 %.

Source: Plomp, N. et al., 1990

POLICY ON TREATMENT AND PREVENTION

Principles:

1. A multi-functional network of medical and social services should be built up at local or regional level;

2. Treatment and care must be easily accessible;

3. Social rehabilitation of present and former addicts must be promoted;

4. Fullest use should be made of general services and facilities, such as general practitioners and youth welfare services;

5. Instead of publicity campaigns, preference should be given to a general health education approach for young people (of which information on drug abuse is a part).

GENERAL ORGANISATION OF SERVICES

1. Consultation Bureaus for Alcohol and Drug Problems (CAD's).

   Outpatient mental health care, oriented towards social work. 16 Main branches, 44 subsidiary branches and 45 consulting addresses. Staff: ± 900.

2. Municipal methadone programmes.

   6 Programmes. Methadone is being supplied to 7,000 addicts on an average day in some 60 municipalities (CAD's also supply methadone).

3. Social welfare projects.

   Part of a broad range of youth projects, aimed at risk reduction or prevention. 36 Main branches, with some 90 projects in 45 municipalities. Staff: ± 550.

4. Specialised residential treatment.

   Independent clinics, therapeutic communities and special units in general psychiatric hospitals. In a total of 20 facilities, 1,060 beds are available for both drug addicts and alcoholics.

In addition: self-help groups, of which Alcoholics Anonymous is the largest (more than 100 groups).

CAD-functions and methods

---

* Mental health care, non-residential
  - psychotherapy
  - group therapy
  - family therapy
  - individual client/parent/partner counseling
  - crisis intervention

* Prevention
  - advising teachers, general health care and social workers

* Client counseling in police stations and prisons

* Probation services

* Methadone programmes (reduction, maintenance)

CAD coverage estimate

target groups			coverage
- problem drinkers	-	ca. 300.000	ca. 8%
- drug users	-	ca. 21.000	ca. 70-80%

CAD-caseload, 1991 (1)

- 52,432 registered clients
- 451,996 client contacts (methadone excluded)

of these:

- alcohol 49%
- drugs 40%
- other 11%

CAD-caseload, 1991 (2)

Use of methadone

programme	maintenance	reduction	ind.pro.
% clients	74	22	4
% contacts	74	22	4

no. clients	8,083
no. contacts	725,415

Cannabis use and cannabis problems

About 550.000 - 600.000 Dutch citizens of 12 years and older use cannabis on a regular basis.

Source:
Plomp, H.N. et al, 1991; Netherlands Institute on Alcohol and Drugs, 1990; estimate based on last month prevalence data.

Newly registered CAD-clients with cannabis problems

		percentage of total population of regular cannabis users
1989:	121	0.02 %
1990:	225	0.04 %
1991:	261	0.04 %

Total number of CAD-clients with cannabis problems

		percentage of total population of regular cannabis users
1989:	688	0.11 %
1990:	913	0.15 %
1991:	1174	0.20 %

Groups at risk for cannabis problems

- persons with a strong tendency towards escaping reality

- persons with serious premorbidity and/or psychosocial problems

- people with a tendency towards psychosis

Source: Noorlander, E.A., 1992

Drug and alcohol - related expenditure

(Central and local govt. health budget/social health insurance)

1991 estimates	Dfl/million
- CAD's and youth projects	± 116
- research, experiments, other	± 12
- specialised residential treatment	± 80
- municipal methadone programmes	± 7
- CAD probation (Dept. of Justice)	± 20
- Total	± 235

Estimated number of drug users in Amsterdam based on 'capture-recapture' method *

	1983	1984	1985	1986	1987	1988	1989	1990
Dutch	2378	2790	3063	2552	2701	2767	2440	2049
ethnic	1623	1935	1342	1445	1516	1553	1436	1453
foreign	3077	3806	3060	3293	3991	4483	3560	2765
total	7078	8531	7465	7290	8208	8803	7436	6267

* In this method, the population seen at police stations is multiplied with the population seen in the methadone programmes. Subsequently, the resulting number is divided by the number of clients that are seen at both locations (the 'overlap'). The outcome of this formula is the estimated number of drug users.

$$\frac{\text{clients in methadone progr. x clients at police stations}}{\text{overlap}} = \text{estimate}$$

Source: Buning, E.C., 1990, 1992

Average age addicts in Amsterdam

1981	26.8
1982	27.4
1983	27.8
1984	28.2
1985	28.9
1986	29.5
1987	30.1
1988	30.8
1989	31.6
1990	32.3
1991	33.1

Source: GG & GD Amsterdam - 1992

Percentage addicts under 22 years in Amsterdam

1981	14.4%
1982	9.9%
1983	9.4%
1984	7.3%
1985	6.2%
1986	5.1%
1987	4.8%
1988	3.4%
1989	4.8%
1990	2.5%
1991	2.3%

Source: GG & GD Amsterdam - 1992

Number of clients in municipal methadone programme in Amsterdam

1981	1378
1982	2838
1983	3357
1984	3834
1985	3770
1986	3345
1987	3495
1988	3336
1989	2928
1990	2762
1991	2608

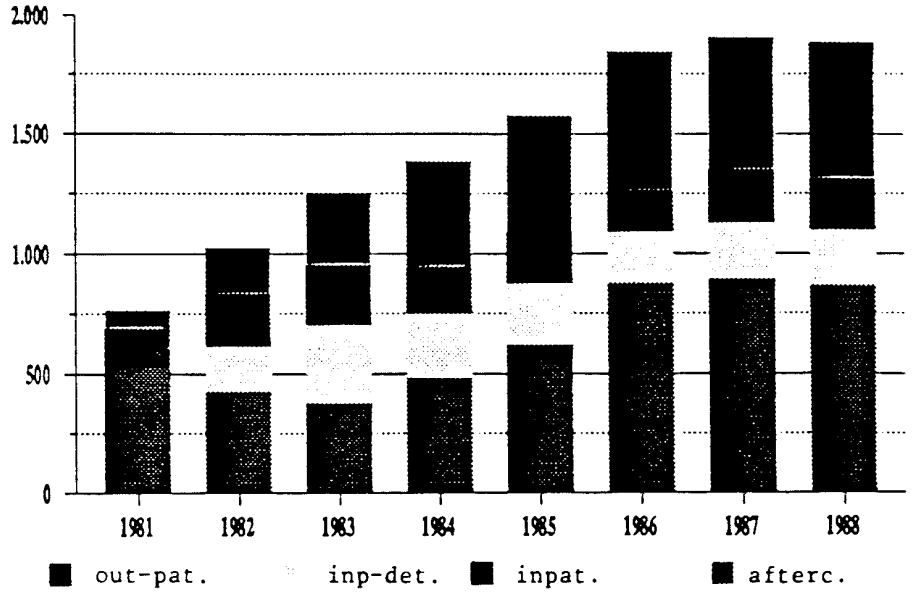
Source: GG & GD Amsterdam - 1992

Number of drug users receiving methadone in Amsterdam police stations

1977	653
1978	1091
1979	1053
1980	1243
1981	1549
1982	1656
1983	1787
1984	2456
1985	2046
1986	1981
1987	2117
1988	2274
1989	1704
1990	1544
1991	1598

Source: GG & GD Amsterdam - 1992

Patient-load drugfree treatment in Amsterdam (*)



(*) : no data available after 1988

Source: GG & GD Amsterdam - 1990

Death by overdose in Amsterdam

(nationality)

	Dutch	Other	Total
1976	3	20	23
1977	6	6	12
1978	9	9	18
1979	9	10	19
1980	14	30	44
1981	16	18	34
1982	11	20	31
1983	21	32	53
1984	20	53	73
1985	19	23	42
1986	16	44	60
1987	17	44	61
1988	15	25	40
1989	11	31	42
1990	13	26	39
1991	20	22	42

Source: GG & GD Amsterdam - 1992

Number of deaths due to accidental and other poisoning by opiates and related narcotics (*), excluding murder

1979	42
1980	72
1981	72
1982	46
1983	71
1984	62
1985	42
1986	64
1987	44
1988	42
1989	52
1990	56

Based on WHO-International Classification of Diseases (9th revision, 1975); combining E85.0, E965.0, E950.0, E980.0, excluding E962.0.

(*): Pertains to Dutch residents only.

Source: National Bureau for Statistics, 1992

Cumulative number of Aids cases among drug users in the Netherlands

January 1986	2
January 1987	9
January 1988	30
January 1989	56
January 1990	89
January 1991	135
January 1992	157
October 1992	200

At present, 8.5 % of all Aids patients are intravenous drug users *

* With exclusion of the small category of homosexual IV drug users (n=25)

Source: Chief Medical Inspectorate of Public Health

Number of needles distributed in Amsterdam needle exchange

1984	25.000
1985	100.000
1986	400.000
1987	700.000
1988	700.000
1989	820.000
1990	1.000.000
1991	1.000.000

Source: GG & GD Amsterdam - 1992

DRUG SEIZURES 1987-1991

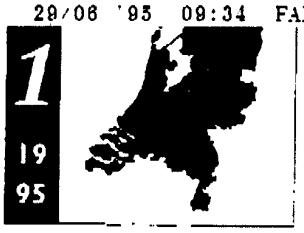
	1987 kgs	1988 kgs	1989 kgs	1990 kgs	1991 kgs
HEROIN (total) *	471	510	492	532	406
- South East Asia	149	112	167	85	49
- South West Asia/ Turkey	242	263	242	220	270
- South West Asia/ Pakistan	80	135	46	193	38
COCAINE	406	517	1425	4288	2488
AMPHETAMINES	124	53	65	47	128
LSD (in dosages)	13250	468	8075	5146	1630
LSD (in grs)				64	
MDMA (in kgs)			0.750	0.322	0.700
MDMA (in tablets)			930000	48	
CANNABIS (total)	48617	68238	42315	109762	84292
- Hashish	31998	46221	14071	90010	73962
- Marihuana	16619	22017	28234	19752	22330
- Dutch grown Marihuana plants (in number of plants)					60000

* *The difference between the total quantity of heroin and the sum of SE Asia and SW Asia heroin relates to seized heroin of which the origin could not be established.*

Source: National Criminal Intelligence Service

EXHIBIT I

Joey Tranchina, M.A., IDUN/APAN/SASE ☎ 415.369.0331



Netherlands Alcohol and Drug Report

Fact Sheet

Cannabis Policy

Dutch Drug Policy and Cannabis

The primary objective of Dutch drug policy has always been health protection. In addition, problems such as nuisance and criminality caused by addicts and illicit drug trafficking have been a major concern. Responsibility for the Drugs Policy rests with both the Minister of Health, Welfare and Sports (HWS) and the Minister of Justice. Prevention policies and aid programs are the first responsibility of the Minister of HWS, with the exception of administrative prevention. This is one of the tasks of the Ministry of Internal Affairs. The Minister of Justice is responsible for the enforcement of the Opium Act. The Minister of HWS carries the responsibility for the co-ordination of the Government's drug policy. The strategy of the policy has primarily been directed towards reduction of the risks for the individual drug users, their immediate environment as well as society in general.

Legislation in the Netherlands with regard to drugs is important. Although the harm done to society is taken into consideration, a great effort is made by the administration to prevent criminal prosecution from being more damaging to the individual drug user than the relevant drug itself. Dutch drug policy aims to maintain a separation between the market for soft drugs (cannabis products such as hashish and marijuana) and the market for harder substances (such as heroin and cocaine). This is effectuated by allowing some limited freedom of movement for the retail-trade and the possession of small quantities of soft drugs for individual consumption, and by trying to combat the hard drug trade in every possible way. Furthermore the policy has the intention to prevent drug users from ending up in the illegal circuit.

International Treaties

The main international drugs treaty ratified by the Netherlands is the 1961 (amended in 1972) Single Convention on Narcotic Drugs of the United Nations (UN). Primary aim is mondial co-operation to combat drug abuse and drug trade other than for medical and scientific purposes. In 1993 the Netherlands also ratified the 1971 UN Convention on Psychotropic Substances (illegal drugs as well as tranquillizers and barbiturates) and the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic substances.

The Schengen Treaty of 1985 constitutes an agreement between all EC-member states, with the exception of Denmark, the UK and Ireland, on the opening of their borders. The Treaty includes agreements with regard to a better co-operation in the war against crime and the harmonization of drug legislation. In 1990 the Treaty was amended.

The Opium Act

The Opium Act of 1919 (amended in 1928 and 1976) provides regulations regarding production, distribution and consumption of 'psychoactive' substances. Since 1976 a distinction has been made between soft and hard drugs. This distinction was established as a result of a 1972 report from the *Working Group on Narcotic Drugs* (the Baan Committee). With the help of a 'risk scale', based on medical, pharmacological, socio-scientific and psychological data a distinction was made between unacceptable risk drugs ('hard drugs' such as heroin, cocaine, LSD and amphetamine) and cannabis products ('soft drugs' such as hashish and marijuana). Hard drugs were listed on schedule I and soft drugs were listed on schedule II (sub b) of the Opium Act. Since July 2, 1993 barbiturates and tranquillizers have been listed on schedule II (sub a) because of the fact that the Netherlands have ratified the Psychotropic Substances Treaty.

Possession, commercial distribution, production, advertising, import and export of all drugs, except for medicinal or scientific purposes, is illegal and punishable by law. Since 1985 activities preparatory to trafficking in hard drugs have also been included. The Opium Act also provides for the strict supervision of the production and medicinal use of soft and hard drugs. In these cases the Minister of HWS has to provide a license.

Penal provisions for soft drug delicts are considerably milder than those for hard drugs. Moreover, a distinction is made between drug users and traffic-

Expediency principle

The principle of expediency has been included in the Dutch Penal Code. This empowers the Public Prosecutor to refrain from prosecution of criminal offences if public interests are involved. Regulations for investigation and prosecution of Opium Act delicts have been established in 1976. These regulations provide priorities regarding investigation and prosecution of Opium Act delicts. Penal offences involving hard drugs other than for individual use take the highest priority, followed by penal offences involving soft drugs other than for individual use. Investigation and prosecution of possession of hard drugs for individual consumption (normally 0.5 gram) and soft drugs to a maximum of 30 grams carry the lowest priority. In practice possession and selling of a maximum of 30 grams of hashish and marijuana will not be investigated and are usually not prosecuted. The police usually confiscate all drugs discovered.

Stepping-stone hypothesis

The assumption that cannabis consumers run a higher risk of switching to hard drugs, especially heroin, is known as 'the stepping-stone hypothesis'. This idea was first put forward in the forties in the U.S.A. and has since greatly influenced public opinion as well as American and international drug policies. Opinions differ as to whether or not the hypothesis is correct. As for a possible switch from cannabis to hard drugs, it is clear that the pharmacological properties of cannabis are irrelevant in this respect. There is no physically determined tendency towards switching from soft to harder substances. Social factors, however, appear to play a role. The more a consumer integrates into an environment where, apart from cannabis, hard drugs can also be obtained, the greater the chance that he may switch to hard drugs. Separation of the drug markets is therefore essential and forms the basis of today's Dutch cannabis policy.

Regulations

Coffee shops must adhere to the so-called AHJO-G criteria: no Advertising (commercials), no Hard drug sale, no Nuisance, no selling of soft drugs to Young persons (under 18) and no Great quantities (more than 30 grams) per transaction. There are no criteria with regard to the amount of trade stock allowed. Depending on specifically local problems some local authorities have tightened the AHOJ-G criteria in a covenant ('no parking in front of entrance', 'closing-time at 22.30 at night' etc.). In 1991 the Public Prosecution Department has proclaimed the AHOJ-G criteria to be a nationwide criminal prosecution policy. In October 1994 regulations were established concerning investigation policies with regard to coffee shops. Adherence to the 5 criteria will be strictly investigated aiming at restriction of the number of coffee shops and reduction of nuisance. Local policy with regard to coffee shops is a matter of the local authorities. The Public Prosecutor, the Mayor and the Chief of Police confer on these policies (the 'triangle committee').

kers. The (border-crossing) drug trade has a high priority and great efforts are made to keep users out of the illegal circuit. Possession of soft drugs and hard drugs for commercial purposes is therefore considered a more serious offence than possession for individual consumption.
The following illustrates the penal differentiation: for soft drugs the maximum penalty varies from 1 month detention (and/or a fl. 5000,- fine) for possession, selling or production of 30 grams at most to 4 years imprisonment (and/or a fl 100.000,- fine) for import and export.
The maximum penalty for hard drugs varies from 1 year imprisonment (and/or a fl 10.000,- fine) for the possession of 'consumer amounts' to 12 years imprisonment (and/or a fl 100.000,- fine) for import or export. The maximum penalties may be increased by one third if the crime has been committed more than once.
Directives for the investigation and prosecution of Opium Act delicts have been provided for (see Expediency Principle).

Coffee Shops

Over the years the above mentioned legislation has led to the establishment of the so-called coffee shops where trading in soft drugs on certain conditions is not prosecuted. Trade in hard drugs, however, is strictly prohibited. Thus the cannabis consumer is not dependent on multi-drug markets which reduces the risk of switching to harder substances (see Stepping-Stone Hypothesis).

According to police estimates the number of coffee shops in the Netherlands was 1200 to 1500 in 1991. Other points of sale of cannabis are so-called home dealers (estimated number between 700 and 2200), community centers (between 500 and 1000) and further outlets (approximately 60). In the bigger cities, however, most of the cannabis products are obtained in coffee shops. These are mainly small, café-like enterprises catering for a diverse public from various social backgrounds. Just like regular local cafés and restaurants, coffee shops often have a socio-cultural function in their neighbourhood. Most coffee shops offer a wide range of hashish and marijuana products from various countries and of varying quality. Prices vary from 10 to 15 Dutch guilders per gram. According to recent estimates the turnover of cannabis products in coffee shops amounts to approximately 2 billion Dutch guilders per year.

The majority of the coffee shops adheres to nation-wide criteria (see regulations). The closing down of a number of coffee shops and a more rigid police control in recent years have shown that these criteria are strictly maintained. Immediate causes for police activity are usually related to trouble in the neighbourhoods, suspected hard drug traffic or possible criminality. Other specific problems are an increase in the number of coffee shops, particularly near undesirable locations (such as schools), and the attraction of drug tourism, especially in the border towns.

In order to deal with these specific problems police control and public prosecution with regard to adherence to the regulations have been more rigidly enforced. Furthermore, more and more often administrative measures are being taken on a local level for the prevention and the combat of nuisance related to the coffee shops. General bye-laws, nuisance regulations, environmental regulations, zoning-plans and building regulations offer possibilities in this respect.

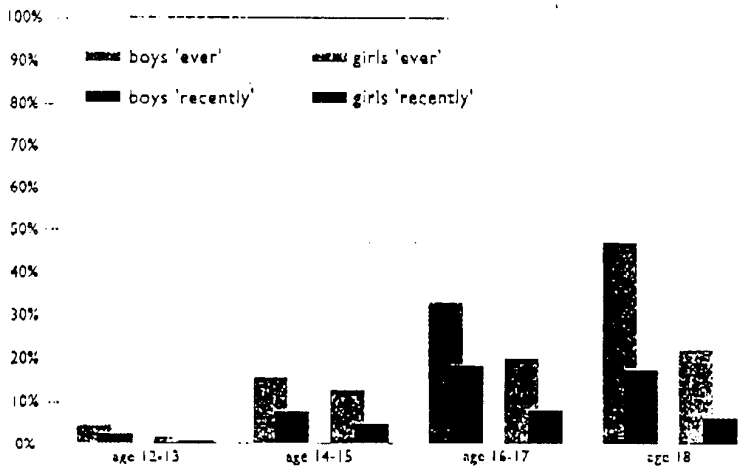
Data on cannabis use

In the Netherlands an estimated 600.000 people regularly use cannabis. This is about 4.6% of the population of 12 years and older. There are no reliable data, however, on the use of cannabis with regard to the total population in general.

According to a 1990 drug use survey in Amsterdam, 24.1% of the population of 12 years and older had ever used cannabis; 6% had done so recently (during the month preceding the survey). 1.3% scored frequent use, i.e. more than 20 days in the previous month. As compared to 1987, cannabis use among the population of Amsterdam had remained stable (reference: *Licit and illicit drug use in Amsterdam*, Sandwijk et al., 1991).

Large-scale nationwide surveys among secondary school students (age 12 - 18 years) have shown that in this group the use of cannabis has increased recently. In 1984 4.8% had ever used cannabis and 2.3% had used cannabis recently (during the previous month). In 1988 these percentages were 8.0% and 3.1% and in 1992 13.6% and 6.5%, respectively. From the difference between ever and recent use it appears that in more than half of the cases experimental behaviour is indicated. Boys score a significantly higher percentage than girls with regard to cannabis use and the group of 16 - 17 years scores highest in recent use (see figure).

Cannabis use (%) among young people according to age and sex (1992)



Reference: Jeugd en riskant gedrag (Youth and risky behaviour). Kuipers et al., 1993)

The use of hard drugs among schoolgoing young people has remained limited. In 1988 only 0.4% had used cocaine recently and 0.3% had recently used heroin; in 1992 these percentages were 0.4% and 0.2% respectively. As compared to cannabis use the consumption of alcohol appears to be considerably higher. In 1992 66% of the students between 12 - 18 years had ever used alcohol; 42% had done so recently.
International drug survey data, if available at all, are often difficult to compare because of methodological differences. However, it has been established that cannabis use, especially among young people, has also shown a slight increase in a number of other European countries such as Norway, the UK and Denmark. In the U.S.A. cannabis use has been on the increase as well in the past few years.

Cannabis confiscations

Police and public prosecutor closely co-operate in the investigation and combat of the drug trade. International co-operation is considered of primary importance.
Confiscated imported hashish (see table) comes from North Africa and Southwest Azia. Marijuana comes mainly from Africa and is imported via Rotterdam. A large amount is destined for the transit trade to Poland, the UK and Switzerland.
In 1993 134 tons of hashish and 28 tons of marijuana, presumably with destination the Netherlands were confiscated abroad.

Confiscated hasj and marijuana (kg) and Nederweed (plants)

	1991	1992	1993
Hasj	74.000	75.300	26.200
Marihuana	22.300	19.300	110.100
Nederweed	72.000	313.200	194.400

reference: Dutch Criminal Investigation Information Service

The Dutch cannabis market has increasingly been supplied (around 50%) by indiginous marijuana (Nederweed) production which is estimated between 20 and 40 tons.
The hemp culture is only permitted for agricultural activities and for windbreak purposes. In future an official license will probably have to be obtained. Consequently it will be less difficult for police and Public Prosecution to produce evidence and to take more effective action against illegal cultivation.

Nederweed

In the past few years the yield and quality of Nederweed have been greatly improved thanks to more sophisticated agricultural techniques such as climate control, crop improvement, cross-breeding and cloning of female plants containing the highest percentage of active substance (tetra-hydro-cannabinol or THC). Various studies have shown that the percentages of THC in Nederweed vary from 1.5% to 13% with peaks up to 27%.
Similar to many kinds of import cannabis some variations of Nederweed ('Skunk') may contain high concentrations of THC but this is not standard.

Risks of cannabis use

In the Netherlands cannabis is mainly smoked as hashish (resin mixed with parts of the hemp plant) or marijuana (dried tops of the hemp plant). Eating (space-cake) and smoking of cannabis with a waterpipe also occur. The main consequence of smoking for the human body is a possible harmful effect on the lungs. There is no conclusive scientific evidance of brain damage, harmful effects on blood circulation, immune system or reproduction. However, a decrease in reaction speed and ability to concentrate as well as a diminishing short-term memory have been observed. These may have negative consequences for productivity at school, job functioning and participation in traffic. For people with a certain predisposition frequent use of cannabis can lead to psychoses. Consumption of 'space-cake' sometimes leads to an overdose with passing attacks of panic. Furthermore, consumption of Nederweed with a high percentage of THC may occasionally cause overreactions.

Cannabis is by no means risk free but in comparison with alcohol and tobacco use it is certainly not more harmful.

Colofon

The fact sheet **Cannabis Policy** is number 1 of a series which is published by the Netherlands Institute for Alcohol and Drugs (NIAD). In this series a factsheet will be published 3 times a year.

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The fact sheets are part of the **Netherlands Alcohol and Drug Report**. On-line accessible data bases on alcohol, drugs & other substances and a bulletin board system (bbs) also contribute. For further information contact NIAD (see address above).

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The number of problematic cannabis users which came into contact with addiction assistance agencies in 1993 is small compared to the total number registered. Only 3% of all clients of the Consultation Bureaus for Alcohol and Drugs (outpatient services) were registered with cannabis use as primary problem.

Furthermore, the number of hospital admissions in relation to cannabis misuse and addiction in psychiatric hospitals and addiction clinics is relatively low (less than 1.5% of the total number). However, over the years the number of applications for professional help has been steadily increasing. Up to now there has been no clear indication as to what specific factors account for the increase. The fact that cannabis is more easily obtainable as well as an increase in de production of Nederweed may play a role. Little is known about the group of problem users and the much larger group of integrated cannabis users.

Prevention and education

Prevention, information and education are of primary concern in Dutch drug policy. In 1991 the project 'Healthy schools and stimulants' was launched, specifically aiming at secundary school students. The project is carried out in co-peration with the Netherlands Institute for Alcohol and Drugs, the local and provincial Public Health Services and the municipalities. The project provides information on subsequently tobacco, alcohol, cannabis and gambling for Secondary School students at an age when they generally have their first contacts with these items. For cannabis this is usually around 15 years. The project also provides standards for use (no substance use in schools), observation and guidance in accordance with the objectives of the project. By the middle of 1994 the project had already reached 30% of the secondary school students.

A specific consumer public is being advised about 'sensible use' by means of leaflets distributed in the various coffee shops. The leaflet 'Tips on Hash and Weed' warns against the harmful effects on concentration and reaction ability, the use of cannabis as a means to overcome problems, the consumption of space-cake, simultaneous use of alcohol or medication and taking hashish and weed out of the country.

Criticism and Praise

Dutch cannabis policy has met with national and international praise as well as criticism. As for the social acceptability, the current policy is regularly under discussion, especially with regard to drug related nuisance. There is also criticism from the 'Schengen' countries (mainly Belgium and France) which regard the Netherlands as being out of tune, particularly regarding the harmonisation of legislation on drug use. In this context, the Netherlands have tightened up the control of existing regulations. On the other hand Dutch cannabis policy has managed to create a (relative) separation of the soft and hard drugs markets. The fact that cannabis is relatively easy to obtain in the coffee shops has not resulted in a larger consumption increase than in other countries. Furthermore, the number of addicts has stabilised and drug deaths are few in comparison to other countries. In recent years other countries have come to realize that a certain decriminalisation of soft drug consumption should be considered with regard to public health, the prevention of social damage to users and the control of small but aggressive retail-trade in the streets. Next to Switzerland and Denmark, a trend towards decriminalisation of the soft drug consumption can be observed in Germany, the United Kingdom and Spain. Daily news in the newspapers indicates that such developments are in full swing on a national as well as an international level.

N — I — A — D

EXHIBIT J

UNITED STATES DEPARATMENT OF JUSTICE
Drug Enforcement Administration

In The Matter Of
MARIJUANA RESCHEDULING PETITION

Docket No. 86-22

OPINION & RECOMMENDED RULING, FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION OF ADMINISTRATIVE LAW JUDGE

Francis L. Young
Administrative Law Judge

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September 6, 1988

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In The Matter Of
MARIJUANA RESCHEDULING PETITION

Docket No. 86-22

OPINION & RECOMMENDED RULING, FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION OF ADMINISTRATIVE LAW JUDGE

I. INTRODUCTION

This is a rulemaking pursuant to the Administrative Procedure Act, 5 U.S.C. § 551, *et seq.*, to determine whether the marijuana plant (*Cannabis sativa L.*) considered as a whole may lawfully be transferred from Schedule I to Schedule II of the schedules established by the Controlled Substances Act (the Act). 21 U.S.C. 801, *et seq.* None of the parties is seeking to "legalize" marijuana generally or for recreational purposes. Placement in Schedule II would mean, essentially, that physicians in the United States would not violate Federal law by prescribing marijuana for their patients for legitimate therapeutic purposes. It is contrary to Federal law for physicians to do this as long as marijuana remains in Schedule I.

This proceeding had it origins on May 18, 1972 when the National Organization for the Reform of Marijuana Laws (NORML) and two other groups submitted a petition to the Bureau of Narcotics and Dangerous Drugs (BNDD)[1]

In September, 1972 the Director of BNDD announced his refusal to accept the petition for filing, stating that he was not authorized to institute proceedings for the action requested because of the provisions of the Single

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1 The powers and authority granted by the Act to the Attorney General were delegated to the Director of BNDD and subsequently to the Administrator of DEA. 28 C.F.R. § 0.100, *et seq.*, predecessor agency to the Drug Enforcement Administration (DEA or the Agency), asking that marijuana be removed from Schedule I and freed of all controls entirely, or be transferred from Schedule I to Schedule V where it would be subject to only minimal control. The Act by its terms had placed marijuana in Schedule I thereby declaring, as a matter of law, that it had no legitimate use in therapy in the United States and subjecting the substance to the strictest level of controls. The Act had been in effect for just over one year when NORML submitted its 1972 petition.

Convention on Narcotic Drugs, 1961. NORML appealed this action to the United States Court of Appeals for the District of Columbia Circuit. The court held that the Director had erred in rejecting the petition without "a reflective consideration and analysis," observing that the Director's refusal "was not the kind of agency action that promoted the kind of interchange and refinement of views that is the lifeblood of a sound administrative process." *NORML v. Ingersoll*, 162 U.S. App. D.C. 67, 497 F.2d 654, 659 (1974). The court remanded the matter in January 1974 for further proceedings not inconsistent with its opinion, "to be denominated a consideration on the merits." *Id.*

A three-day hearing was held at DEA[2] by Administrative Law Judge Lewis Parker in January 1975. The judge found in NORML's favor on several issues but the Acting Administrator of DEA entered a final order denying NORML's petition "in all respects." NORML again petitioned the court for review. Finding fault with DEA's final order the court again remanded for further proceedings not inconsistent with its opinion. *NORML v. DEA*, 182 U.S. App. D.C. 144, 559 F.2d 735 (1977). The Court directed the then-Acting Administrator of DEA to refer NORML's petition to the Secretary of the Department of Health, Education and Welfare (HEW) for findings and, thereafter, to comply with the rulemaking procedures outlined in the Act. 21 U.S.C. §811 (a) and (b).

On remand the Administrator of DEA referred NORML's petition to HEW for scientific and medical evaluation. On June 4, 1979 the Secretary of HEW advised the Administrator of the results of the HEW evaluation and recommended that marijuana remain in Schedule I. Without holding any further hearing the Administrator of DEA proceeded to issue a final order ten days later denying NORML's petition and declining to initiate proceedings to transfer marijuana from Schedule I. 44 *Fed. Reg.* 36123 (1979). NORML went back to the Court of Appeals.

When the case was called for oral argument there was discussion of the then-present status of the matter. DEA had moved for a partial remand. The court found that "reconsideration on all the issues in this case would be appropriate" and again remanded it to DEA, observing: "We regrettably find it necessary to remind respondents [DEA and HEW] of an agency's obligation on remand not to do anything which is contrary to either the letter or spirit of the mandate construed in the light of the opinion of [the] court deciding the case." (Citations omitted.) *NORML v. DEA, et al.*, No. 79-1660, United States Court of Appeals for the District of Columbia Circuit, unpublished order filed October 16, 1980. DEA was directed to refer all the substances at issue to the Department of Health and Human Services (HHS), successor agency to HEW, for scientific and medical findings and recommendations on scheduling. DEA did so and HHS has responded. In a letter dated April 1, 1986 the then-Acting Deputy Administrator of DEA requested this administrative law judge to commence hearing procedure as to the proposed rescheduling of marijuana and its components.

After the judge conferred with counsel for NORML and DEA, a notice was published in the *Federal Register* on June 24, 1986 announcing that hearings would be held on NORML's petition for the rescheduling of marijuana and its components commencing on August 21, 1986 and giving any interested person who desired to participate the opportunity to do so. 51 *Fed. Reg.* 22964 (1986).

Of the three original petitioning organizations in 1972 only NORML is a party to the present proceeding. In addition the following entities responded to the *Federal Register* notice and have become parties, participating to varying degrees: the Alliance for Cannabis Therapeutics (ACT), Cannabis Corporation of America (CCA) and Carl Eric Olsen, all seeking transfer of marijuana to Schedule II; the Agency, National Federation of Parents for Drug-Free Youth (NFP) and the International Association of Chiefs of Police (IACP), all contending that marijuana should remain in Schedule I.

Preliminary prehearing sessions were held on August 21 and December 5, 1986 and on February 20, 1987.[3] During the preliminary stages, on January 20, 1987, NORML filed an amended petition for rescheduling. The new petition abandoned NORML's previous requests for the complete descheduling of marijuana or rescheduling to Schedule V. It asks only that marijuana be placed in Schedule II.

At a prehearing conference on February 20, 1987 this amended petition was discussed.[4] All parties present stipulated, for the purpose of this proceeding, that marijuana has a high potential for abuse and that abuse

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2 DEA became the successor agency to BNDD in a reorganization carried out pursuant to Reorganization Plan No. 2 of 1973, eff. July 1, 1973. 38 *Fed. Reg.* 15932 (1973).

3 Transcripts of these three preliminary prehearing sessions are included in the record.

4 The transcript of this prehearing conference and of the subsequent hearing sessions comprise 15 volumes numbered as follows:

Vol. I	Prehearing Conference, October 16, 1987
Vol. II	Cross-Examination, November 19, 1987
Vol. III	Cross-Examination, December 8, 1987
Vol. IV	Cross-Examination, December 9, 1987
Vol. V	Cross-Examination, January 5, 1988
Vol. VI	Cross-Examination, January 6, 1988
Vol. VII	Cross-Examination, January 7, 1988
Vol. VIII	Cross-Examination, January 26, 1988
Vol. IX	Cross-Examination, January 27, 1988
Vol. X	Cross-Examination, January 28, 1988
Vol. XI	Cross-Examination, January 29, 1988
Vol. XII	Cross-Examination, February 2, 1988
Vol. XIII	Cross-Examination, February 4, 1988
Vol. XIV	Cross-Examination, February 5, 1988
Vol. XV	Oral Argument, June 10, 1988

Pages of the transcript are cited herein by volume and page, *e.g.* "Tr. V-96"; "G-" identifies an Agency exhibit.

of the marijuana plant may lead to severe psychological or physical dependence. They then agreed that the principal issue in this proceeding would be stated thus:

> Whether the marijuana plant, considered as a whole,[5] may lawfully be transferred from Schedule I to Schedule II of the schedules established by the Controlled Substances Act.

Two subsidiary issues were agreed on, as follows:

> 1. Whether the marijuana plant has a currently accepted medical use in treatment in the United States, or a currently accepted medical use with severe restrictions.
>
> 2. Whether there is a lack of accepted safety for use of the marijuana plant under medical supervision.

As stated above, the parties favoring transfer from Schedule I to Schedule II are NORML, ACT, CCA and Carl Eric Olsen. Those favoring retaining marijuana in Schedule I are the Agency, NFP and IACP.

During the Spring and Summer of 1987 the parties identified their witnesses and put the direct examination testimony of each witness in writing in affidavit form. Copies of these affidavits were exchanged. Similarly, the parties assembled their proposed exhibits and exchanged copies. Opportunity was provided for each party to submit objections to the direct examination testimony and exhibits proffered by the others. The objections submitted were considered by the administrative law judge and ruled on. The testimony and exhibits not excluded were admitted into the record. Thereafter hearing sessions were held at which witnesses were subjected to cross-examination. These sessions were held in New Orleans, Louisiana on November 18 and 19, 1987; in San Francisco, California on December 8 and 9, 1987; and in Washington, D.C. on January 5 through 8 and 26 through 29, and on February 2, 4 and 5, 1988. The parties have submitted proposed findings and conclusions and briefs. Oral arguments were heard by the judge on June 10, 1988 in Washington.

5 Throughout this opinion the term "marijuana" refers to "the marijuana plant, considered as a whole".

II. RECOMMENDED RULING

It is recommended that the proposed findings and conclusions submitted by the parties to the administrative law judge be rejected by the Administrator except to the extent they are included in those hereinafter set forth, for the reason that they are irrelevant or unduly repetitious or not supported by a preponderance of the evidence. 21 C.F.R. § 1316.65(a)(1).

III. ISSUES

As noted above, the agreed issues are as follows:

Principle issue:

> Whether the marijuana plant, considered as a whole, may lawfully be transferred from Schedule I to Schedule II of the schedules established by the Controlled Substances Act.

Subsidiary issues:

> 1. Whether the marijuana plant has a currently accepted medical use in treatment in the United States, or a currently accepted medical use with severe restrictions.
>
> 2. Whether there is a lack of accepted safety for use of the marijuana plant under medical supervision.

IV. STATUTORY REQUIREMENTS FOR SCHEDULING

The Act provides (21 U.S.C. § 812(b)) that a drug or other substance may not be placed in any schedule unless certain specified findings are made with respect to it. The findings required for Schedule I and Schedule II are as follows:

Schedule I.

> (A) The drug or other substances has a high potential for abuse.
>
> (B) The drug or other substance has no currently accepted medical use in treatment in the United States.
>
> (C) There is a lack of accepted safety for use of the drug or other substance under medical supervision.

Schedule II

(A) The drug or other substance has a high potential for abuse.

(B) The drug or other substance has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions.

(C) Abuse of the drug or other substances [sic] may lead to severe psychological or physical dependence.

As noted above the parties have stipulated, for the purposes of this proceeding, that marijuana has a high potential for abuse and that abuse of it may lead to severe psychological or physical dependence. Thus the dispute between the two sides in this proceeding is narrowed to whether or not marijuana has a currently accepted medical use in treatment in the United States, and whether or not there is a lack of accepted safety for use of marijuana under medical supervision.

The issues as framed here contemplate marijuana's being placed only in Schedule I or Schedule II. The criteria for placement in any of the other three schedules established by the Act are irrelevant to this proceeding.

V. ACCEPTED MEDICAL USE IN TREATMENT CHEMOTHERAPY

With respect to whether or not marijuana has a "currently accepted medical use in treatment in the United States" for chemotherapy patients, the record shows the following facts to be uncontroverted.

Findings of Fact

1. One of the most serious problems experienced by cancer patients undergoing chemotherapy for their cancer is severe nausea and vomiting caused by their reaction to the toxic (poisonous) chemicals administered to them in the course of this treatment. This nausea and vomiting at times becomes life threatening. The therapy itself creates a tremendous strain on the body. Some patients cannot tolerate the severe nausea and vomiting and discontinue treatment. Beginning in the 1970's there was considerable doctor-to-doctor communication in the United States concerning patients known by their doctors to be surreptitiously using marijuana with notable success to overcome or lessen their nausea and vomiting.

2. Young patients generally achieve better control over nausea and vomiting from smoking marijuana than do older patients, particularly when the older patient has not been provided with detailed information on how to smoke marijuana.

3. Marijuana cigarettes in many cases are superior to synthetic THC capsules in reducing chemotherapy-induced nausea and vomiting. Marijuana has an important, clear advantage over synthetic THC capsules in that the natural marijuana is inhaled and generally takes effect more quickly than the synthetic capsule which is ingested and must be processed through the digestive system before it takes effect.

4. Attempts to orally administer the synthetic THC capsule to a vomiting patient presents obvious problems — it is vomited right back up before it can have any effect.

5. Many physicians, some engaged in medical practice and some teaching in medical schools, have accepted smoking marijuana as effective in controlling or reducing the severe nausea and vomiting (emesis) experienced by some cancer patients undergoing chemotherapy for cancer.

6. Such physicians include board-certified internists, oncologists and psychiatrists. (Oncology is the treatment of cancer through the use of highly toxic chemicals, or chemotherapy.)

7. Doctors who have come to accept the usefulness of marijuana in controlling or reducing emesis resulting from chemotherapy have done so as the result of reading reports of studies and anecdotal reports in their professional literature, and as the result of observing patients and listening to reports directly from patients.

8. Some cancer patients who have acknowledged to doctors that they smoke marijuana for emesis control have indicated in their discussions that, although they may have first smoked marijuana recreationally, they accidentally found that doing so helped reduce the emesis resulting from their chemotherapy. They consistently indicated that they felt better and got symptomatic relief from the intense nausea and vomiting caused by the chemotherapy. These patients were no longer simply getting high, but were engaging in medically treating the illness, albeit with an illegal substance. Other chemotherapy patients began smoking marijuana to control their emesis only after hearing reports that the practice had proven helpful to others. Such patients had not smoked marijuana recreationally.

9. This successful use of marijuana has given many cancer chemotherapy patients a much more positive outlook on their overall treatment, once they were relieved of the debilitating, exhausting and extremely unpleasant nausea and vomiting previously resulting from their chemotherapy treatment.

10. In about December 1977 the previously underground patient practice of using marijuana to control emesis burst into the public media in New Mexico when a young cancer patient, Lynn Pearson, began publicly to discuss his use of marijuana. Mr. Pearson besought the New Mexico legislature to pass legislation making marijuana available legally to seriously ill patients whom it might help. As a result, professionals in the public health sector in New Mexico more closely examined how marijuana might be made legally available to assist in meeting what now openly appeared to be a widely recognized patient need.

11. In many cases doctors have found that, in addition to suppressing nausea and vomiting, smoking marijuana is a highly successful appetite stimulant. The importance of appetite stimulation in cancer therapy cannot be overstated. Patients receiving chemotherapy often lose tremendous amounts of weight. They endanger their lives because they lose interest in food and in eating. The resulting sharp reduction in weight may well affect their prognosis. Marijuana smoking induces some patients to eat. The benefits are obvious, doctors have found. There is no significant loss of weight. Some patients will gain weight. This allows them to retain strength and makes them better able to fight the cancer. Psychologically, patients who can continue to eat even while receiving chemotherapy maintain a balanced outlook and are better able to cope with their disease and its treatment, doctors have found.

12. Synthetic anti-emetic agents have been in existence and utilized for a number of years. Since about 1980 some new synthetic agents have been developed which appear to be more effective in controlling and reducing chemotherapy-induced nausea and vomiting than were some of those available in the 1970's. But marijuana still is found more effective for this purpose in some people than any of the synthetic agents, even the newer ones.

13. By the late 1970's in the Washington, D.C. area there was a growing recognition among health care professionals and the public that marijuana had therapeutic value in reducing the adverse effects of some chemotherapy treatments. With this increasing public awareness came increasing pressure from patients and doctors for information about marijuana and its therapeutic uses. Many patients moved into forms of unsupervised self-treatment. While such self-treatment often proved very effective, it has certain hazards, ranging from arrest for purchase or use of an illegal drug to possible serious medical complications from contaminated sources or adulterated materials. Yet, some patients are willing to run these risks to obtain relief from the debilitating nausea and vomiting caused by their chemotherapy treatments.

14. Every oncologist known to one Washington, D.C. practicing internist and board-certified oncologist has had patients who used marijuana with great success to prevent or diminish chemotherapy-induced nausea and vomiting. Chemotherapy patients reporting directly to that Washington doctor that they have smoked marijuana medically vomit less and eat better than patients who do not smoke it. By gaining control over their severe nausea and vomiting these patients undergo a change of mood and have a better mental outlook than patients who, using the standard anti-emetic drugs, are unable to gain such control.

15. The vomiting induced by chemotherapeutic drugs may last up to four days following the chemotherapy treatment. The vomiting can be intense, protracted and, in some instances, is unendurable. The nausea which follows such vomiting is also deep and prolonged. Nausea may prevent a patient from taking regular food or even much water for periods of weeks at a time.

16. Nausea and vomiting of this severity degrades the quality of life for these patients, weakening them physically, and destroying the will to fight the cancer. A desire to end the chemotherapy treatment in order to escape the emesis can supersede the will to live. Thus the emesis, itself, can truly be considered a life-threatening consequence of many cancer treatments. Doctors have known such cases to occur. Doctors have known other cases where marijuana smoking has enabled the patient to endure, and thus continue, chemotherapy treatment with the result that the cancer has gone into remission and the patient has returned to a full, active satisfying life.

17. In San Francisco chemotherapy patients were surreptitiously using marijuana to control emesis by the early 1970's. By 1976 virtually every young cancer patient receiving chemotherapy at the University of California in San Francisco was using marijuana to control emesis with great success. The use of marijuana for this purpose had become generally accepted by the patients and increasingly by their physicians as a valid and effective form of treatment. This was particularly true for younger cancer patients, somewhat less common for older ones. In 1979 about 25% to 30% of the patients seen by one San Francisco oncologist were using marijuana to control emesis, about 45 to 50 patients per year. Such percentages and numbers vary from city to city. A doctor in Kansas City who sees about 150 to 200 new cancer patients per year found that over the 15 years from 1972 to 1987 about 5% of the patients he saw, or a total of about 75, used marijuana medicinally.

18. By 1987 marijuana no longer generated the intense interest in the world of oncology that it had previously, but it remains a viable tool, commonly employed, in the medical treatment of chemotherapy patients. There has evolved an unwritten but accepted standard of treatment within the community of oncologists in the San Francisco, California area which readily accepts the use of marijuana.

19. As of the Spring of 1987 in the San Francisco area, patients receiving chemotherapy commonly smoked marijuana in hospitals during their treatments. This in-hospital use which takes place in rooms behind closed doors, does not bother staff, is expected by physicians and welcomed by nurses who, instead of having to run back and forth with containers of vomit, can treat patients whose emesis is better controlled than it would be without marijuana. Medical institutions in the Bay area where use of marijuana obtained on the streets is quite common, although discrete, include the University of California at San Francisco Hospital, the Mount Zion Hospital and the Franklin Hospital. In effect, marijuana is readily accepted throughout the oncologic community in the Bay area for its benefits in connection with chemotherapy. The same situation exists in other large metropolitan areas in the United States.

20. About 50% of the patients seen by one San Francisco oncologist during the year 1987 were smoking marijuana medicinally. This is about 90 to 95 individuals. This number is higher then during the previous ten years due to the nature of this physician's practice which includes patients from the "Tenderloin" area of San Francisco, many of whom are suffering from

AIDS-related lymphosarcoma. These patients smoke marijuana to control their nausea and vomiting, not to "get high." They self-titrate, *i.e.*, smoke the marijuana only as long as needed to overcome the nausea, to prevent vomiting.

21. The State of New Mexico set up a program in 1978 to make marijuana available to cancer patients pursuant to an act of the State legislature. The legislature had accepted marijuana as having medical use in treatment. It overwhelmingly passed this legislation so as to make marijuana available for use in therapy, not just for research. Marijuana and synthetic THC were given to patients, administered under medical supervision, to control or reduce emesis. The marijuana was in the form of cigarettes obtained from the Federal government. The program operated from 1979 until 1986, when funding for it was terminated by the State. During those seven years about 250 cancer patients in New Mexico received either marijuana cigarettes or THC. Twenty or 25 physicians in New Mexico sought and obtained marijuana cigarettes or THC for their cancer patients during that period. All of the oncologists in New Mexico accepted marijuana as effective for some of their patients. At least ten hospitals were involved in this program in New Mexico, in which cancer patients smoked their marijuana cigarettes. The hospitals accepted this medicinal marijuana smoking by patients. Voluminous reports filed by the participating physicians make it clear that marijuana is a highly effective anti-emetic substance. It was found in the New Mexico program to be far superior to the best available conventional anti-emetic drug, Compazine, and clearly superior to synthetic THC pills. More than 90% of the patients who received marijuana within the New Mexico program reported significant or total relief from nausea and vomiting. Before the program began cancer patients were surreptitiously smoking marijuana in New Mexico to lessen or control their emesis resulting from chemotherapy treatments. They reported to physicians that it was successful for this purpose. Physicians were aware that this was going on.

22. In 1978 the Louisiana legislature became one of the first State legislatures in the nation to recognize the efficacy of marijuana in controlling emesis by enacting legislation intended to make marijuana available by prescription for therapeutic use by chemotherapy patients. This enactment shows that there was widespread acceptance in Louisiana for the therapeutic value of marijuana. After a State Marijuana Prescription Review Board was established, pursuant to that legislature, it became apparent that, because of Federal restrictions, marijuana could be obtained legally only for use in cumbersome, formal research programs. Eventually a research program was entered into by the State, utilizing synthetic THC, but without much enthusiasm, since most professionals who had wanted to use marijuana clinically, to treat patients, had neither the time, resources nor inclination to get involved in this limited, formal study. The original purpose of the Louisiana legislation was frustrated by the Federal authorities. Some patients, who had hoped to obtain marijuana for medical use legally after enactment of the State legislation, went outside the law and obtained it illicitly. Some physicians in Louisiana accept marijuana as having a distinct medical value in the treatment of nausea and vomiting associated with certain types of chemotherapy treatments.

23. In 1980 the State of Georgia enacted legislation authorizing a therapeutic research program for the evaluation of marijuana as a medically recognized therapeutic substance. Its enactment was supported by letters from a number of Georgia oncologists and other Georgia physicians, including the Chief of Oncology at Grady Hospital and staff oncologists at Emory University Medical Clinic. Sponsors of the legislation originally intended the enactment of a law making marijuana available for clinical, therapeutic use by patients. The bill was referred to as the "Marijuana-as-Medicine" bill. The final legislation was crafted, however, of necessity, merely to set up a research program in order to obtain marijuana from the one legitimate source available — the Federal government, which would not make the substance available for any purpose other than conducting a research program. The Act was passed by an overwhelming majority in the lower house of the legislature and unanimously in the Senate. In January, 1983 an evaluation of the program, which by then had had 44 evaluable marijuana smoking, patient-participants, accepted marijuana smoking as being an effective anti-emetic agent.

24. In Boston, Massachusetts in 1977 a nurse in a hospital suggested to a chemotherapy patient, suffering greatly from the therapy and at the point of refusing further treatment, that smoking marijuana might help relieve his nausea and vomiting. The patient's doctor, when asked about it later, stated that many of his younger patients were smoking marijuana. Those who did so seemed to have less trouble with nausea and vomiting. The patient in question obtained some marijuana and smoked it, in the hospital, immediately before his next chemotherapy treatment. Doctors, nurses and orderlies coming into the room as he finished smoking realized what the patient had been doing. None of them made any comment. The marijuana was completely successful with this patient, who accepted it as effective in controlling his nausea and vomiting. Instead of being sick for weeks following chemotherapy, and having trouble going to work, as had been the case, the patient was ready to return to work 48 hours after that chemotherapy treatment. The patient thereafter always smoked marijuana, in the hospital, before chemotherapy. The doctors were aware of it, openly approved of it and encouraged him to continue. The patient resumed eating regular meals and regained lost weight, his mood improved markedly, he became more active and outgoing and began doing things together with his wife that he had not done since beginning chemotherapy.

25. During the remaining two years of this patient's life, before his cancer ended it, he came to know other cancer patients who were smoking marijuana to relieve the adverse effects of their chemotherapy. Most of these patients had learned about using marijuana medically from their doctors who, having accepted its effectiveness, subtly encouraged them to use it.

26. A Boston psychiatrist and professor, who travels about the country, has found a minor conspiracy to break the law among oncologists and nurses in every oncology center he has visited to let patients smoke

marijuana before and during cancer chemotherapy. He has talked with dozens of these health care oncologists who encourage their patients to do this and who regard this as an accepted medical usage of marijuana. He has known nurses who have obtained marijuana for patients unable to obtain it for themselves.

27. A cancer patient residing in Beaverton, Michigan smoked marijuana medically in the nearby hospital where he was undergoing chemotherapy from early 1979 until he died of his cancer in October of that year. He smoked it in his hospital room after his parents made arrangements with the hospital for him to do so. Smoking marijuana controlled his post-chemotherapy nausea and vomiting, enabled him to eat regular meals again with his family, and he became outgoing and talkative. His parents accepted his marijuana smoking as effective and helpful. Two clergymen, among others, brought marijuana to this patient's home. Many people at the hospital supported the patient's marijuana therapy, none doubted its helpfulness or discouraged it. This patient was asked for help by other patients. He taught some who lived nearby how to form the marijuana cigarettes and properly inhale the smoke to obtain relief from nausea and vomiting. When an article about this patient's smoking marijuana appeared in a local newspaper, he and his family heard from many other cancer patients who were doing the same. Most of them made an effort to inform their doctors. Most physicians who knew their patients smoked marijuana medicinally approved, accepting marijuana's therapeutic helpfulness in reducing nausea and vomiting.

28. In October 1979 the Michigan legislature enacted legislation whose underlying purpose was to make marijuana available therapeutically for cancer patients and others. The State Senate passed the bill 29-5, the House of Representatives 100-0. In March 1982 the Michigan legislature passed a resolution asking the Federal Congress to try to alter Federal policies which prevent physicians from prescribing marijuana for legitimate medical applications and prohibit its use in medical treatments.

29. In Denver, Colorado a teenage cancer patient has been smoking marijuana to control nausea and vomiting since 1986. He has done this in his hospital room both before and after chemotherapy. His doctor and hospital staff know he does this. The doctor has stated that he would prescribe marijuana for this patient if it were legal to do so. Other patients in the Denver area smoke marijuana for the same purpose. This patient's doctor, and nurses with whom he comes in contact, understand that cancer patients smoke marijuana to reduce or control emesis. They accept it.

30. In late 1980 a three year old boy was brought by his parents to a hospital in Spokane, Washington. The child was diagnosed as having cancer. Surgery was performed. Chemotherapy was begun. The child became extremely nauseated and vomited for days after each chemotherapy treatment. He could not eat regularly. He lost strength. He lost weight. His body's ability to ward off common infections, other life-threatening infections, significantly decreased. Chemotherapy's after-effects caused the child great suffering. They caused his watching parents great suffering. Several standard, available anti-emetic agents were tried by the child's doctors. None of them succeeded in controlling his nausea and vomiting. Learning of the existence of research studies with THC or marijuana the parents asked the child's doctor to arrange for their son to be the subject of such a study so that he might have access to marijuana. The doctor refused, citing the volume of paperwork and record-keeping detail required in such programs and his lack of administrative personnel to handle it.

31. The child's mother read an article about marijuana smoking helping chemotherapy patients. She obtained some marijuana from friends. She baked cookies for her child with marijuana in them. She made tea for him with marijuana in it. When the child ate these cookies or drank this tea in connection with his chemotherapy, he did not vomit. His strength returned. He regained lost weight. His spirits revived. The parents told the doctors and nurses at the hospital of their giving marijuana to their child. None objected. They all accepted smoking marijuana as effective in controlling chemotherapy induced nausea and vomiting. They were interested to see the results of the cookies.

32. Soon this child was riding a tricycle in the hallways of the Spokane hospital shortly after his chemotherapy treatments while other children there were still vomiting into pans, tied to intravenous bottles in an attempt to re-hydrate them, to replace the liquids they were vomiting up. Parents of some of the other patients asked the parents of this "lively" child how he seemed to tolerate his chemotherapy so well. They told of the marijuana use. Of those parents who began giving marijuana to their children, none ever reported back encountering any adverse side effects. In the vast majority of these cases, the other parents reported significant reduction in their children's vomiting and appetite stimulation as the result of marijuana. The staff, doctors and nurses at the hospital knew of this passing on of information about marijuana to other parents. They approved. They never told the first parents to hide their son's medicinal use of marijuana. They accepted the effectiveness of the cookies and the tea containing marijuana.

33. The first child's cancer went into remission. Then it returned and spread. Emotionally drained, the parents moved the family back to San Diego, California to be near their own parents. Their son was admitted to a hospital in San Diego. The parents informed the doctors, nurses and social workers there of their son's therapeutic use of marijuana. No one objected. The child's doctor in San Diego strongly supported the parent's giving marijuana to him. Here in California, as in Spokane, other parents noticed the striking difference between their children after chemotherapy and the first child. Other parents asked the parents of the first child about it, were told of the use of marijuana, tried it with their children, and saw dramatic improvement. They accepted its effectiveness. In the words of the mother of the first child: "...When your kid is riding a tricycle while his other hospital buddies are hooked up to IV needles, their heads hung over

vomiting buckets, you don't need a federal agency to tell you marijuana is effective. The evidence is in front of you, so stark it cannot be ignored."[6]

34. There is at least one hospital in Tucson, Arizona where medicinal use of marijuana by chemotherapy patients is encouraged by the nursing staff and some physicians.

35. In addition to the physicians mentioned in the Findings above, mostly oncologists and other practitioners, the following doctors and health care professionals, representing several different areas of expertise, accept marijuana as medically useful in controlling or reducing emesis and testified to that effect in these proceedings:

a. *George Goldstein, Ph.D.,* psychologist, Secretary of Health for the State of New Mexico from 1978 to 1983 and chief administrator in the implementation of the New Mexico program utilizing marijuana;

b. *Dr. Daniel Dansak,* psychiatrist and former head of the New Mexico program utilizing marijuana;

c. *Dr. Tod Mikuriya,* psychiatrist and editor of *Marijuana: Medical Papers,* a book presenting an historical perspective of marijuana's medical use;

d. *Dr. Normal Zinberg,* general psychiatrist and professor of Psychiatry at Harvard Medical School since 1951;

e. *Dr. John Morgan,* psychopharmacologist, Board-certified in Internal Medicine, Full Professor and Director of Pharmacology at the City University of New York;

f. *Dr. Philip Jobe,* Neuropsychopharmacologist with a practice in Illinois and former Professor of Pharmacology and Psychiatry at the Louisiana State University School of Medicine in Shreveport, Louisiana, from 1974 to 1984;

g. *Dr. Arthur Kaufman,* formerly a general practitioner in Maryland, currently Vice President of a private medical consulting group involved in the evaluation of the quality of care of all the U.S. military hospitals throughout the world, who has had extensive experience in drug abuse treatment and rehabilitation programs;

h. *Dr. J. Thomas Ungerleider,* a Full Profession of Psychiatry at the University of California in Los Angeles with extensive experience in research on the medical use of drugs;

i. *Dr. Andrew Weil,* Ethnopharmacologist, Associate Director of Social Perspectives in Medicine at the College of Medicine at the University of Arizona, with extensive research on medicinal plants; and

j. *Dr. Lester Grinspoon,* a practicing psychiatrist and Associate Professor at Harvard Medical School.

6 Affidavit of Janet Andrews, ACT rebuttal witness, par. 98.

36. Certain law enforcement authorities have been outspoken in their acceptance of marijuana as an antiemetic agent. Robert T. Stephan, Attorney General of the State of Kansas, and himself a former cancer patient, said of chemotherapy in his affidavit in this record, "The treatment becomes a terror." His cancer is now in remission. He came to know a number of health care professionals whose medical judgement he respected. They had accepted marijuana as having medical use in treatment. He was elected Vice President of the National Association of Attorneys General (NAAG) in 1983. He was instrumental in the adoption by that body in June 1983 of a resolution acknowledging the efficacy of marijuana for cancer and glaucoma patients. The resolution expressed the support of NAAG for legislation then pending in the Congress to make marijuana available on prescription to cancer and glaucoma patients. The resolution was adopted by an overwhelming margin. NAAG's President, the Attorney General of Montana, issued a statement that marijuana does have accepted medical uses and is improperly classified at present. The Chairman of NAAG's Criminal Law and Law Enforcement Committee, the Attorney General of Pennsylvania, issued a statement emphasizing that the proposed rescheduling of marijuana would in no way affect or impede existing efforts by law enforcement authorities to crack down on illegal drug trafficking.

37. At least one court has accepted marijuana as having medical use in treatment for chemotherapy patients. On January 23, 1978 the Superior Court of Imperial County, California issued orders authorizing a cancer patients to possess and use marijuana for therapeutic purposes under the direction of a physician. Another order authorized and directed the Sheriff of the county to release marijuana from supplies on hand and deliver it to that patient in such form as to be usable in the form of cigarettes.

38. During the period of 1978-1980 polls were taken to ascertain the degree of public acceptance of marijuana as effective in treating cancer and glaucoma patients. A poll in Nebraska brought slightly over 1,000 responses — 83% favored making marijuana available by prescription, 12% were opposed, 5% were undecided. A poll in Pennsylvania elicited 1,008 responses — 83.1% favored availability by prescription, 12.2% were opposed, 4.7% were undecided. These two surveys were conducted by professional polling companies. The *Detroit Free Press* conducted a telephone poll in which 85.4% of those responding favored access to marijuana by prescription. In the State of Washington the State Medical Association conducted a poll in which 80% of the doctors belonging to the Association favored controlled availability of marijuana for medical purposes.

Discussion

From the foregoing uncontroverted facts it is clear beyond any question that many people find marijuana to have, in the words of the Act, an "accepted medical use in treatment in the United States" in effecting relief for cancer patients. Oncologists, physicians treating cancer patients accept this. Other medical practitioners and researchers accept this. Medical faculty professors accept it. Nurses performing hands-on patient care accept it.

Patients accept it. As counsel for CCA perceptively pointed out at oral argument, acceptance by the patient is of vital importance. Doctors accept a therapeutic agent or process only if it "works" for the patient. If the patient does not accept, the doctor cannot administer the treatment. The patient's informed consent is vital. The doctor ascertains the patient's acceptance by observing and listening to the patient. Acceptance by the doctor depends on what he sees in the patient and hears from the patient. Unquestionably, patients in large numbers have accepted marijuana as useful in treating their emesis. They have found that it "works." Doctors, evaluating their patients, can have no basis more sound than that for their own acceptance.

Of relevance, also, is the acceptance of marijuana by state attorneys general, officials whose primary concern is law enforcement. A large number of them have no fear that placing marijuana in Schedule II, thus making it available for legitimate therapy, will in any way impede existing efforts of law enforcement authorities to crack down on illegal drug trafficking.

The Act does not specify by whom a drug or substance must be "accepted [for] medical use in treatment" in order to meet the Act's "accepted" requirement for placement in Schedule II. Department of Justice witnesses told the Congress during hearings in 1970 preceeding [sic] passage of the Act that "the medical profession" would make this determination, that the matter would be "determined by the medical community." The Deputy Chief Counsel of BNDD, whose office had written the bill with this language in it, told the House Subcommittee that "this basic determination ... is not made by any part of the federal government. It is made by the medical community as to whether or not the drug has medical use or doesn't."[7]

No one would seriously contend that these Justice Department witnesses meant that the entire medical community would have to be in agreement on the usefulness of a drug or substance. Seldom, if ever, do all lawyers agree on a point of law. Seldom, if ever, do all doctors agree on a medical question. How many are required here? A majority of 51%? It would be unrealistic to attempt a plebescite of all doctors in the country on such a question every time it arises, to obtain a majority vote.

In determining whether a medical procedure utilized by a doctor is actionable as malpractice the courts have adopted the rule that it is acceptable for a doctor to employ a method of treatment supported by a respectable minority of physicians.

In *Hood v. Phillips* 537 S.W. 2d 291 (1976) the Texas Court of Civil Appeals was dealing with a claim of medical malpractice resulting from a surgical procedure claimed to have been unnecessary. The court quoted from an Arizona court decision holding that;

> a method of treatment, as espoused and used by ... a respectable minority of physicians in the United States cannot be said to be an inappropriate method of treatment or to be malpractice as a matter of law even though it has not been accepted as a proper method of treatment by the medical profession generally. *Ibid.* at 294.

Noting that the Federal District court in the Arizona case found a "respectable minority" composed of sixty-five physicians throughout the United States, the Texas court adopted as "the better rule" to apply in its case, that

> a physician is not guilty of malpractice where the method of treatment used is supported by a respectable minority of physicians. *Ibid.*

In *Chumbler v. McClure*, 505 F.2d 489 (6th Cir. 1974) the Federal courts were dealing with a medical malpractice case under their diversity jurisdiction, applying Tennessee law. The Court of Appears said:

> ...The most favorable interpretation that may be placed on the testimony adduced at trial below is that there is a division of opinion in the medical profession regarding the use of Premarin in the Treatment [sic] of cerebral vascular insufficiency, and that Dr. McClure was alone among neurosurgeons in Nashville in using such therapy. The test for malpractice and for community standards is not to be determined solely by a plebiscite. Where two or more schools of thought exist among competent members of the medical profession concerning proper medical treatment for a given ailment, each of which is supported by responsible medical authority, it is not malpractice to be among the minority in a given city who follow one of the accepted schools. 505 F.2d at 492 (Emphasis added). See also, *Leech v. Bralliar*, 275 F. Supp. 897 (D. Ariz., 1967).

How do we ascertain whether there exists a school of thought supported by responsible medical authority, and thus "accepted"? We listen to the physicians.

> The court and jury must have a standard measure which they are to use in measuring the acts of a doctor to determine whether he exercised a reasonable degree of care and skill; they are not permitted to set up and use any arbitrary or artificial standard of measurement that the jury may wish to apply. The proper standard of measurement is to be established by testimony of physicians, for it is a medical question. *Hayes v. Brown*, 133 S.E. 2d. 102 (Ga., 1963) at 105.

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7 Drug Abuse Control Amendments - 1970: Hearings on H.R. 11701 and H.R. 13743 Before the Subcommittee on Public Health and Welfare of the House Committee on Interstate and Foreign Commerce, 91st Congress, 2d Sess. 678, 696, 718 (1970) (Statement of John E. Ingersoll, Director, BNDD).

As noted above, there is no question but that this record shows a great many physicians, and others, to have "accepted" marijuana as having a medical use in the treatment of cancer patients' emesis. True, all physicians have not "accepted" it. But to require universal, 100% acceptance would be unreasonable. Acceptance by "a respectable minority" of physicians is all that can reasonably be required. The record here establishes conclusively that at least "a respectable minority" of physicians has "accepted" marijuana as having a "medical use in treatment in the United States." That others may not makes no difference.

The administrative law judge recommended this same approach for determining whether a drug has an "accepted medical use in treatment" *In The Matter Of MDMA Scheduling*, Docket No. 84-48. The Administrator, in his first final rule in that proceeding, issued on October 8, 1986[8] declined to adopt this approach. He ruled, instead, that DEA's decision on whether or not a drug or other substance had an accepted medical use in treatment in the United States would be determined simply by ascertaining whether or not "the drug or other substance is lawfully marketed in the United States pursuant to the Federal Food, Drug and Cosmetic Act of 1938 ..."[9]

The United States Court of Appeals for the First Circuit held that the Administrator erred in so ruling.[10] That court vacated the final order of October 8, 1986 and remanded the matter of MDMA's scheduling for further consideration. The court directed that, on remand, the Administrator would not be permitted to treat the absence of interstate marketing approval by FDA as conclusive evidence on the question of accepted medical use under the Act.

In his third final rule[11] on the matter of the scheduling of MDMA the Administrator made a series of findings of fact as to MDMA, the drug there under consideration, with respect to the evidence in that record. On those findings he based his last final rule in the case.[12]

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8 51 *Fed. Reg.* 36552 (1986).

9 *Ibid.*, at 36558.

10 *Grinspoon v. Drug Enforcement Administration*, 828 F.2d 881 (1st Cit., 1987).

11 53 *Fed. Reg.* 5156 (1988). A second final rule had been issued on January 20, 1988. It merely removed MDMA from Schedule I pursuant to the mandate of the Court of Appeals which had voided the first final rule placing it there. Subsequently the third final rule was issued, without any further hearings, again placing MDMA in Schedule I. There was no further appeal.

12 In neither the first nor the third final rule in the MDMA case does the Administrator take any cognizance of the statements to the Congressional committee by predecessor Agency officials that the determination as to "accepted medical use in treatment" is to be made by the medical community and not by any part of the federal government. See page 27, above. It is curious that the Administrator makes no effort whatever to show how the BNDD representatives were mistaken or to explain why he now has abandoned their interpretation. They wrote that language into the original bill.

The third final rule dealing with MDMA is dealing with a synthetic, "simple", "single-action" drug. What might be appropriate criteria for a "simple" drug like MDMA may not be appropriate for a "complex" substance with a number of active components. The criteria applied to MDMA, a synthetic drug, are not appropriate for application to marijuana, which is a natural plant substance.

The First Circuit Court of Appeals in the MDMA case told the Administrator that he should not treat the absence of FDA interstate marketing approval as conclusive evidence of lack of currently accepted medical use. The court did not forbid the Administrator from considering the absence of FDA approval as a factor when determining the existence of accepted medical use. Yet, on remand, in his third final order, the Administrator adopted by reference 18 of the numbered findings he had made in the first final order. Each of these findings had to do with requirements imposed by FDA for approval of a new drug application (NDA) or of an investigational new drug exemption (IND). These requirements deal with data resulting from controlled studies and scientifically conducted investigations and tests.

Among those findings incorporated into the third final MDMA order from the first, and relied on by the Administrator, was the determination and recommendation of the FDA that the drug there in question was not "accepted." In relying on the FDA's action the Administrator apparently overlooked the fact that the FDA clearly stated that it was interpreting "accepted medical use" in the Act as being equivalent to receiving FDA approval for lawful marketing under the FDCA. Thus the Administrator accepted as a basis for his MDMA third final rule the FDA recommendation which was based upon a statutory interpretation which the Court of Appeals had condemned.

The Administrator in that third final rule made a series of further findings. Again, the central concern in these findings was the content of test results and the sufficiency or adequacy of studies and scientific reports. A careful reading of the criteria considered in the MDMA third final order reveals that the Administrator was really considering the question; Should the drug be accepted for medical use?; rather than the question; Has the drug been accepted for medical use? By considering little else but scientific test results and reports the Administrator was making a determination as to whether or not, in his opinion, MDMA ought to be accepted for medical use in treatment.

The Agency's arguments in the present case are to the same effect. In a word, they address the wrong question. It is not for this Agency to tell doctors whether they should or should not accept a drug or substance for medical use. The statute directs the Administrator merely to ascertain whether, in fact, doctors have done so.

The MDMA third final order mistakenly looks to FDA criteria for guidance in choosing criteria for DEA to apply. Under the Food, Drug and Cosmetic

Act the FDA is deciding — properly, under that statute — whether a new drug should be introduced into interstate commerce. Thus it is appropriate for the FDA to rely heavily on test results and scientific inquiry to ascertain whether a drug is effective and whether it is safe. The FDA must look at a drug and pass judgement on its intrinsic qualities. The DEA, on the other hand, is charged by 21 U.S.C. § 812(b)(1)(B) and (2)(B) with ascertaining what it is that other people have done with respect to a drug or substance: "Have they accepted it?:" not "Should they accept it?"

In the MDMA third final order DEA is actually making the decision that doctors have to make, rather than trying to ascertain the decision which doctors have made. Consciously or not, the Agency is undertaking to tell doctors what they should or should not accept. In so doing the Agency is acting beyond the authority granted in the Act.

It is entirely proper for the Administrator to consider the pharmacology of a drug and scientific test results in connection with determining abuse potential. But abuse potential is not in issue in this marijuana proceeding.

There is another reason why DEA should not be guided by FDA criteria in ascertaining whether or not marijuana has an accepted medical use in treatment. These criteria are applied by FDA pursuant to Section 505 of the Federal Food, Drug and Cosmetic Act (FDCA), as amended.[13] When the FDA is making an inquiry pursuant to that legislation it is looking at a synthetically formed new drug. The marijuana plant is anything but a new drug. Uncontroverted evidence in this record indicates that marijuana was being used therapeutically by mankind 2000 years before the Birth of Christ.[14]

Uncontroverted evidence further establishes that in this country today "new drugs" are developed by pharmaceutical companies possessing resources sufficient to bear the enormous expense of testing a new drug, obtaining FDA approval of its efficacy and safety and marketing it successfully. No company undertakes the investment required unless it has a patent on the drug, so it can recoup its development costs and make a profit. At oral argument Government counsel conceded that "the FDA system is constructed for pharmaceutical companies. I won't deny that."[15]

Since the substance being considered in this case is a natural plant rather than a synthetic new drug, it is unreasonable to make FDA-type criteria determinative of the issue in this case, particularly so when such criteria are irrelevant to the question posed by the Act: Does the substance have an accepted medical use in treatment?

13 21 U.S.C. § 355.

14 Alice M. O'Leary, direct, par.. 9.

15 Tr. XV-37.

Finally, the Agency in this proceeding relies in part on the FDA's recommendation that the Administrator retain marijuana in Schedule I. But, as in the MDMA case, that recommendation is based upon FDA's equating "accepted medical use" under the Act with being approved for marketing by FDA under the Food, Drug and Cosmetic Act, the interpretation condemned by the First Circuit in the MDMA case. See Attachment A, p. 24, to exhibit G-1 and exhibit G-2.

The overwhelming preponderance of the evidence in this record establishes that marijuana has a currently accepted medical use in treatment in the United States for nausea and vomiting resulting from chemotherapy treatments in some cancer patients. To conclude otherwise, on this record, would be unreasonable, arbitrary and capricious.

VI. ACCEPTED MEDICAL USE IN TREATMENT GLAUCOMA

Findings of Fact

The preponderance of the evidence establishes the following facts with respect to the accepted medical use of marijuana in the treatment of glaucoma.

1. Glaucoma is a disease of the eye characterized by the excessive accumulation of fluid causing increased intraocular pressure, distorted vision and, ultimately, blindness. In its early stages this pressure can sometimes be relieved by the administration of drugs. When such medical treatment fails adequately to reduce the intraocular pressure (IOP), surgery is generally resorted to. Although useful in many cases, there is a high incidence of failure with some types of surgery. Further, serious complications can occur as a result of invasive surgery. Newer, non-invasive procedures such as laser trabeculoplasty are thought by some to offer much greater efficacy with fewer complications. Unless the IOP is relieved and brought to a satisfactory level by one means or another, the patient will go blind.

2. Two highly qualified and experienced ophthalmologists in the United States have accepted marijuana as having a medical use in treatment for Glaucoma. They are John C. Merritt, M.D. and Richard D. North, M.D. Each of them is both a clinician, treating patients, and a researcher. Dr. Merritt is also a professor of ophthalmology. Dr. North has served as a medical officer in ophthalmology for the Department of Health, Education and Welfare and has worked with the Public Health Service and FDA.

3. Dr. Merritt's experience with glaucoma patients using marijuana medicinally includes one Robert Randall, and insofar as the evidence here establishes per petitioners' briefs, an unspecified number of other patients, something in excess of 40.

4. Dr. North has treated only one glaucoma patient using marijuana medicinally — the same Robert Randall mentioned immediately above. Dr. North had monitored Mr. Randall's medicinal use of marijuana for nine years as of May, 1987.

5. Dr. Merritt has accepted marijuana as having an important place in the treatment of "End Stage" glaucoma. "End Stage" glaucoma, essentially, defines a patient who has already lost substantial amounts of vision; available glaucoma control drugs are no longer able adequately to reduce the intraocular pressure (IOP) to prevent further, progressive sight loss; the patient, lacking additional IOP reductions, will go blind.

6. Robert S. Hepler, M.D., is a highly qualified and experienced ophthalmologist. He has done research with respect to the effect of smoking marijuana on glaucoma. In December 1975 he prescribed marijuana for the same Robert Randall mentioned above as a research subject. Dr. Hepler found that large dosages of smoked marijuana effectively reduced Robert Randall's IOP into the safe range over an entire test day. He concluded that the only known alternative to preserve Randall's sight which would avoid the significant risks of surgery is to include marijuana as part of Randall's prescribed medical regimen. He further concluded in 1977 that, if marijuana could have been legally prescribed, he would have prescribed it for Randall as part of Randall's regular glaucoma maintenance program had he been Randall's personal physician. Nonetheless, in 1987 Dr. Hepler was of the opinion that marijuana did not have a currently accepted medical use in the United States or the treatment of glaucoma.

7. Four glaucoma patients testified in these proceedings. Each has found marijuana to be of help in controlling IOP.

8. In 1984 the treatment of glaucoma with Cannabis was the subject of an Ophthalmology Grand Rounds at the University of California, San Francisco. A questionnaire was distributed which queried the ophthalmologists on cannabis therapy for glaucoma patients refractory to standard treatment. Many of them have glaucoma patients who have asked about marijuana. Most of the responding ophthalmologists believed that THC capsules or smoked marijuana need to be available for patients who have not benefitted significantly from standard treatment.

9. In about 1978 an unspecified number of persons in the public health service sector in New Mexico, including some physicians, accepted marijuana as having medical use in treating glaucoma.

10. A majority of an unspecified number of ophthalmologists known to Arthur Kaufman, M.D., who was formerly in general practice but now is employed as a medical program administrator, accept marijuana as having medical use in treatment of glaucoma.

11. In addition to the physicians identified and referred to in the findings above, the testimony of patients in this record establishes that no more than three or four other physicians consider marijuana to be medically useful in the treatment of glaucoma in the United States. One of those physicians actually wrote a prescription for marijuana for a patient, which of course, she was unable to have filled.

12. There are test results showing that smoking marijuana has reduced the IOP in some glaucoma patients. There is continuing research underway in the United States as to the therapeutic effect of marijuana on glaucoma.

Discussion

Petitioners' briefs fail to show that the preponderance of the evidence in the record with respect to marijuana and glaucoma establishes that a respectable minority of physicians accepts marijuana as being useful in the treatment of glaucoma in the United Stats.

This conclusion is not to be taken in any way as criticism of the opinions of the ophthalmologists who testified that they accept marijuana for this purpose. The failure lies with petitioners. In their briefs they do not point out hard, specific evidence in this record sufficient to establish that a respectable minority of physicians has accepted their position.

There is a great volume of evidence here, and much discussion in the briefs, about the protracted case of Robert Randall. But, when all is said and done, his experience presents but one case. The record contains sworn testimony of three ophthalmologists who have treated Mr. Randall. One of them tells us of a relatively small number of other glaucoma patients whom he has treated with marijuana and whom he knows to have responded favorably. Another of these three doctors has successfully treated only Randall with marijuana. The third testifies, despite his successful experience in treating Randall, that marijuana does not have an accepted use in such treatment.

In addition to Robert Randall, Petitioners point to the testimony of three other glaucoma patients. Their case histories are impressive, but they contribute little to the carrying of Petitioners' burden of showing that marijuana is accepted for medical treatment of glaucoma by a respectable minority of physicians. See pages 421-426 above.

Petitioners have placed in evidence copies of a number of newspaper clippings reporting statements by persons claiming that marijuana has helped their glaucoma. The administrative law judge is unable to give significant weight to this evidence. Had these persons testified so as to have been subject to cross examination, a different situation would be presented. But these newspaper reports of extra-judicial statements, neither tested by informed inquiry nor supported by a doctor's opinion, are not entitled to much weight. They are of little, if any, materiality.

Beyond the evidence referred to above there is little other "hard" evidence, pointed out by Petitioners, of physicians accepting marijuana for treatment of glaucoma. Such evidence as that concerning a survey of a group of San Francisco ophthalmologists is ambiguous, at best. The relevant document establishes merely that most of the doctors on the

grand rounds, who responded to an inquiry, believed that the THC capsule or marijuana ought to be available.

In sum, the evidence here tending to show that marijuana is accepted for treatment of glaucoma falls far, far short of the quantum of evidence tending to show that marijuana is accepted for treatment of emesis in cancer patients. The preponderance of the evidence here, identified by petitioners in their briefs, does not establish that a respectable minority of physicians has accepted marijuana for glaucoma treatment.

VII. ACCEPTED MEDICAL USE IN TREATMENT MULTIPLE SCLEROSIS, SPASTICITY AND HYPERPARATHYROIDISM

Findings of Fact

The preponderance of the evidence clearly establishes the following facts with respect to marijuana's use in connection with multiple sclerosis, spasticity and hyperparathyroidism.

1. MS is the major cause of neurological disability among young and middle-aged adults in the United States today. It is a life-long disease. It can be extremely debilitating to some of its victims but it does not shorten the life span of most of them. Its cause is yet to be determined. It attacks the myelin sheath, the coating or insulation surrounding the message-carrying nerve fibers in the brain and spinal cord. Once the myelin sheath is destroyed, it is replaced by plaques of hardened tissue know as sclerosis. During the initial stages of the disease nerve impulses are transmitted with only minor interruptions. As the disease progresses, the plaques may completely obstruct the impulses along certain nerve systems. These obstructions produce malfunctions. The effects are sporadic in most individuals and the effects often occur episodically, triggered either by malfunction of the nerve impulses or by external factors.

2. Over time many patients develop spasticity, the involuntary and abnormal contraction of muscle or muscle fibers. (Spasticity can also result from serious injuries to the spinal cord, not related to multiple sclerosis.)

3. The symptoms of MS vary according to the area of the nervous system which is affected and according to the severity of the disease. The symptoms can include one or more of the following: weakness, tingling, numbness, impaired sensation, lack of coordination, disturbances in equilibrium, double vision, loss of vision, involuntary rapid movement of the eyes (nystagmus), slurred speech, tremors, stiffness, spasticity, weakness of limbs, sexual dysfunction, paralysis, and impaired bladder and bowel functions.

4. Each person afflicted by MS is affected differently. In some persons, the symptoms of the disease are barely detectable, even over long periods of time. In these cases, the persons can live their lives as if they did not suffer from the disease. In others, more of the symptoms are present and acute, thereby limiting their physical capabilities. Moreover, others may experience sporadic, but acute, symptoms.

5. At this time, there is no known prevention or cure for MS. Instead, there are only treatments for the symptoms of the disease. There are very few drugs specifically designed to treat spasticity. These drugs often cause very serious side effects. At the present time two drugs are approved by FDA as "safe" and "effective" for the specific indication of spasticity. These drugs are Dantrium and Lioresal baclofen.

6. Unfortunately, neither Dantrium nor Lioresal is a very effective spasm control drug. Their marginal medical utility, high toxicity and potential for serious adverse effects make these drugs difficult to use in spasticity therapy.

7. As a result, many physicians routinely prescribe tranquilizers, muscle relaxants, mood elevators and sedatives such as Valium to patients experiencing spasticity. While these drugs do not directly reduce spasticity they may weaken the patient's muscle tone, thus making the spasms less noticeable. Alternatively, they may induce sleep or so tranquilize the patient that normal mental and physical functions are impossible.

8. A healthy, athletic young woman named Valerie Cover was stricken with MS while in her early twenties. She consulted several medical specialists and followed all the customary regimens and prescribed methods for coping with this debilitating disease over a period of several years. None of these proved availing. Two years after first experiencing the symptoms of MS her active, productive life — as a Naval officer's wife and mother — was effectively over. The Social Security Administration declared her totally disabled. To move about her home she had to sit on a skateboard and push herself around. She spent most of her time in bed or sitting in a wheelchair.

9. An occasional marijuana smoker in her teens, before her marriage, she had not smoked it for five years as of February 1986. Then a neighbor suggested that marijuana just might help Mrs. Cover's MS, having read that it had helped cancer patient's [sic] control their emesis. Mrs. Cover acceded to the suggestion.

10. Just before smoking the marijuana cigarette produced by her neighbor, Mrs. Cover had been throwing up and suffering from spasms. Within five minutes of smoking part of the marijuana cigarette she stopped vomiting, no longer felt nauseous and noticed that the intensity of her spasms was significantly reduced. She stood up unaided.

11. Mrs. Cover began smoking marijuana whenever she felt nauseated. When she did so it controlled her vomiting, stopped the nausea and increased her appetite. It helped ease and control her spasticity. Her limbs were much easier to control. After three months of smoking marijuana she could walk unassisted, had regained all of her lost weight, her seizures

became almost nonexistent. She could again care for her children. She could drive an automobile again. She regained the ability to lead a normal life.

12. Concerned that her use of this illegal substance might jeopardize the career of her Navy officer husband, Mrs. Cover stopped smoking marijuana several times. Each time she did so, after about a month, she had retrogressed to the point that her MS again had her confined to bed and wheelchair or skateboard. As of the Spring of 1987 Mrs. Cover had resumed smoking marijuana regularly on an "as needed" basis. Her MS symptoms are under excellent control. She has obtained a full-time job. She still needs a wheelchair on rare occasions, but generally has full use of her limbs and can walk around with relative ease.

13. Mrs. Cover's doctor has accepted the effectiveness of marijuana in her case. He questioned her closely about her use of it, telling her that it is the most effective drug known in reducing vomiting. Mrs. Cover and her doctor are now in the process of filing an Investigational New Drug (IND) application with FDA so that she can legally obtain the marijuana she needs to lead a reasonably normal life.

14. Martha Hirsch is a young woman in her mid-thirties. She first exhibited symptoms of MS at age 19 and it was diagnosed at that time. Her condition has grown progressively worse. She has been under the care of physicians and hospitalized for treatment. Many drugs have been prescribed for her by her doctors. At one point in 1983 she listed the drugs that had been prescribed to her. There were 17 on the list. None of them has given her the relief from her MS symptoms that marijuana has.

15., During the early stages in the development of her illness Ms. Hirsch found that smoking marijuana improved the quality of her life, keeping her spasms under control Her balance improved. She seldom needed to use her cane for support. Her condition lately has deteriorated. As of May 1987 she was experiencing severe, painful spasms. She had an indwelling catheter in her bladder. She had lost her locomotive abilities and was wheelchair bound. She could seldom find marijuana on the illegal market and, when she did, she often could not afford to purchase it. When she did obtain some, however, and smoked it, her entire body seemed to relax, her spasms decreased or disappeared, she slept better and her dizzy spells vanished. The relaxation of her leg muscles after smoking marijuana has been confirmed by her personal care attendant's examination of them.

16. The personal care attendant has told Ms. Hirsch that she, the attendant, treats a number of patients who smoke marijuana for relief of MS symptoms. In about 1980 another patient told Ms. Hirsch that he knew many patients who smoke marijuana to relieve their spasms. Through him she met other patients and found that marijuana was commonly used by many MS patients. Most of these persons had told their doctors about their doing so. None of those doctors advised against the practice and some encouraged it.

17. Among the drugs prescribed by doctors for Ms. Hirsch was ACTH. This failed to give her any therapeutic benefit or to control her spasticity. It did produce a number of adverse effects, including severe nausea and vomiting, which, in turn, were partly controlled by rectally administered anticmetic drugs.

18. Another drug prescribed for her was Lioresal, intended to reduce her spasms. It was not very effective in so doing. But it did cause Ms. Hirsch to have hallucinations. On two occasions, while using this drug, Ms. Hirsch "saw" a large fire in her bedroom and called for help. There was no fire. She stopped using that drug. Ms. Hirsch has experienced no adverse reactions with marijuana.

19. Ms. Hirsch's doctor has accepted marijuana as beneficial for her. He agreed to write her a prescription for it, if that would help her obtain it. She has asked him if he would file an IND application with the FDA for her. He replied that the paperwork was "overwhelming." He indicated willingness to help in this undertaking after Ms. Hirsch found someone else willing to put the paperwork together.

20. When Greg Paufler was in his early twenties, employed by Prudential Insurance Company, he began to experience the first symptoms of MS. His condition worsened as the disease intensified. He had to be hospitalized. He lost the ability to walk, to stand. Diagnosed as having MS, a doctor prescribed ACTH for him, an intensive form of steroid therapy. He lost all control over his limbs and experienced severe, painful spasms. His arms and legs became numb.

21. ACTH had no beneficial effects. The doctor continued to prescribe it over many months. ACTH made Paufler ravenously hungry and he began gaining a great deal of weight. ACTH caused fluid retention and Paufler became bloated, rapidly gaining weight. His doctor thought Paufler should continue this steroid therapy, even though it caused the adverse effects mentioned plus the possibility of sudden heart attack or death due to respiratory failure. Increased dosages of this FDA-approved drug caused fluid to press against Paufler's lungs making it difficult for him to breathe and causing his legs and feet to become swollen. The steroid therapy caused severe, intense depression marked by abrupt mood shifts. Throughout, the spasms continued and Paufler's limbs remained out of control. The doctor insisted that ACTH was the only therapy likely to be of any help with the MS, despite its adverse effects. Another, oral steroid was eventually substituted.

22. One day Paufler became semi-catatonic while sitting in his living room at home. He was rushed to the hospital emergency room. He nearly died. Lab reports indicated, among other things, a nearly total lack of potassium in his body. He was given massive injections of potassium in the emergency room and placed on an oral supplement. Paufler resolved to take no more steroids.

23. From time to time, prior to this point, Paufler had smoked marijuana socially with visiting friends, seeking some relief from his misery in a temporary "high." He now began smoking marijuana more often. After some weeks he found that he could stand and then walk a bit. His doctor dismissed the idea that marijuana could be helpful with MS, and Paufler,

himself, was skeptical at first. He began discontinuing it for a while, then resuming.

24. Paufler found that when he did not smoke marijuana his condition worsened, he suffered more intense spasms more frequently. When he smoked marijuana, his condition would stabilize and then improve; spasms were more controlled and less severe; he felt better; he regained control over his limbs and could walk totally unaided. His vision, often blurred and unfocused, improved. Eventually he began smoking marijuana on a daily basis. He ventured outdoors. He was soon walking half a block. His eyesight returned to normal. His central field blindness cleared up. He could focus well enough to read again. One evening he went out with his children and found he could kick a soccer ball again.

25. Paufler has smoked marijuana regularly since 1980. Since that time his MS has been well controlled. His doctor has been astonished at Paufler's recovery. Paufler can now run. He can stand on one foot with his eyes closed. The contrast with his condition, several years ago, seems miraculous. Smoking marijuana when Paufler feels an attack coming on shortens the attack. Paufler's doctor has looked Paufler in the eye and told him to keep doing whatever it is he's doing because it works. Paufler and his doctor are exploring the possibility of obtaining a compassionate IND to provide legal access to marijuana for Paufler.

26. Paufler learned in about 1980 of the success of one Sam Diana, a MS patient, in asserting the defense of "medical necessity" in court when charged with using or possessing marijuana. He learned that doctors, researchers and other MS patients had supported Diana's position in the court proceeding.

27. Irvin Rosenfeld has been diagnosed as having Pseudo Pseudo Hypoparathyroidism. This uncommon disease causes bone spurs to appear and grow all over the body. Over the patient's lifetime hundreds of these spurs can grow, any one of which can become malignant at any time. The resulting cancer would spread quickly and the patient would die.

28. Even without development of a malignancy, the disease causes enormous pain. The spurs press upon adjacent body tissue, nerves and organs. In Rosenfeld's case, he could neither sit still nor lie down, nor could he walk without experiencing pain. Working in his furniture store in Portsmouth, Virginia, Mr. Rosenfeld was on his feet moving furniture all day long. The lifting and walking caused serious problems as muscles and tissues rubbed over the spurs of bone. He tore muscles and hemorrhaged almost daily.

29. Rosenfeld's symptoms first appeared about the age of ten, various drugs were prescribed for him for pain relief. He was taking extremely powerful narcotics. By the age of 19 his therapy included 300 mg. of Sopor (a powerful sleeping agent) and very high doses of Dilaudid. He was found to be allergic to barbiturates. Taking massive doses of pain control drugs, as prescribed, made it very difficult for Rosenfeld to function normally. If he took enough of them to control the pain, he could barely concentrate on his schoolwork. By the time he reached his early twenties Rosenfeld's monthly drug intake was between 120 to 130 Dilaudid tablets, 30 more Sopor sleeping pills and dozens of muscle relaxants.

30. At college in Florida Rosenfeld was introduced to marijuana by classmates. He experimented with it recreationally. He never experienced a "high" or "buzz" or "floating sensation" from it. One day he smoked marijuana while playing chess with a friend. It had been very difficult for him to sit for more than five or ten minutes at a time because of tumors in the back of his legs. Suddenly he realized that, absorbed in his chess game, and smoking marijuana, he had remained sitting for over an hour — with no pain. He experimented further and found that his pain was reduced whenever he smoked marijuana.

31. Rosenfeld told his doctor of his discovery. The doctor opined that it was possible that the marijuana was relieving the pain. Something certainly was — there was a drastic decrease in Rosenfeld's need for such drugs as Dilaudid and Demerol and for sleeping pills. The quality of pain relief which followed his smoking of marijuana was superior to any he had experienced before. As his dosages of powerful conventional drugs decreased, Rosenfeld became less withdrawn from the world, more able to interact and function. So he has continued to the present time.

32. After some time Rosenfeld's doctor accepted the fact that the marijuana was therapeutically helpful to Rosenfeld and submitted an IND application to FDA to obtain supplies of it legally for Rosenfeld. The doctor has insisted, however, that he not be publicly identified. After some effort the IND application was granted. Rosenfeld is receiving supplies of marijuana from NIDA. Rosenfeld testified before a committee of the Virginia Legislature in about 1979 in support of legislation to make marijuana available for therapeutic purposes in that State.

33. In 1969, at age 19, David Branstetter dove into the shallow end of a swimming pool and broke his neck. He became a quadriplegic, losing control over the movement of his arms and legs. After being hospitalized for 18 months he returned home. Valium was prescribed for him to reduce the severe spasms associated with his condition. He became mildly addicted to Valium. Although it helped mask his spasms, it made Branstetter more withdrawn and less able to take care of himself. He stopped taking Valium for fear of the consequences of long-term addiction. His spasms then became uncontrollable, often becoming so bad they would throw him from his wheelchair.

34. In about 1973 Branstetter began smoking marijuana recreationally. He discovered that his severe spasms stopped whenever he smoked marijuana. Unlike Valium, which only masked his symptoms and caused him to feel drunk and out of control, marijuana brought his spasmodic condition under control without impairing his faculties. When he was smoking marijuana regularly he was more active, alert and outgoing.

35. Marijuana controlled his spasms so well that Branstetter could go out with friends and he began to play billiards again. The longer he smoked marijuana the more he was able to use his arms and hands. Marijuana also improved his bladder control and bowel movements.

EXHIBIT K

Editorials

Federal Foolishness and Marijuana

THE advanced stages of many illnesses and their treatments are often accompanied by intractable nausea, vomiting, or pain. Thousands of patients with cancer, AIDS, and other diseases report they have obtained striking relief from these devastating symptoms by smoking marijuana.[1] The alleviation of distress can be so striking that some patients and their families have been willing to risk a jail term to obtain or grow the marijuana.

Despite the desperation of these patients, within weeks after voters in Arizona and California approved propositions allowing physicians in their states to prescribe marijuana for medical indications, federal officials, including the President, the secretary of Health and Human Services, and the attorney general sprang into action. At a news conference, Secretary Donna E. Shalala gave an organ recital of the parts of the body that she asserted could be harmed by marijuana and warned of the evils of its spreading use. Attorney General Janet Reno announced that physicians in any state who prescribed the drug could lose the privilege of writing prescriptions, be excluded from Medicare and Medicaid reimbursement, and even be prosecuted for a federal crime. General Barry R. McCaffrey, director of the Office of National Drug Control Policy, reiterated his agency's position that marijuana is a dangerous drug and implied that voters in Arizona and California had been duped into voting for these propositions. He indicated that it is always possible to study the effects of any drug, including marijuana, but that the use of marijuana by seriously ill patients would require, at the least, scientifically valid research.

I believe that a federal policy that prohibits physicians from alleviating suffering by prescribing marijuana for seriously ill patients is misguided, heavy-handed, and inhumane. Marijuana may have long-term adverse effects and its use may presage serious addictions, but neither long-term side effects nor addiction is a relevant issue in such patients. It is also hypocritical to forbid physicians to prescribe marijuana while permitting them to use morphine and meperidine to relieve extreme dyspnea and pain. With both these drugs the difference between the dose that relieves symptoms and the dose that hastens death is very narrow; by contrast, there is no risk of death from smoking marijuana. To demand evidence of therapeutic efficacy is equally hypocritical. The noxious sensations that patients experience are extremely difficult to quantify in controlled experiments. What really counts for a therapy with this kind of safety margin is whether a seriously ill patient feels relief as a result of the intervention, not whether a controlled trial "proves" its efficacy.

Paradoxically, dronabinol, a drug that contains one of the active ingredients in marijuana (tetrahydrocannabinol), has been available by prescription for more than a decade. But it is difficult to titrate the therapeutic dose of this drug, and it is not widely prescribed. By contrast, smoking marijuana produces a rapid increase in the blood level of the active ingredients and is thus more likely to be therapeutic. Needless to say, new drugs such as those that inhibit the nausea associated with chemotherapy may well be more beneficial than smoking marijuana, but their comparative efficacy has never been studied.

Whatever their reasons, federal officials are out of step with the public. Dozens of states have passed laws that ease restrictions on the prescribing of marijuana by physicians, and polls consistently show that the public favors the use of marijuana for such purposes.[1] Federal authorities should rescind their prohibition of the medicinal use of marijuana for seriously ill patients and allow physicians to decide which patients to treat. The government should change marijuana's status from that of a Schedule 1 drug (considered to be potentially addictive and with no current medical use) to that of a Schedule 2 drug (potentially addictive but with some accepted medical use) and regulate it accordingly. To ensure its proper distribution and use, the government could declare itself the only agency sanctioned to provide the marijuana. I believe that such a change in policy would have no adverse effects. The argument that it would be a signal to the young that "marijuana is OK" is, I believe, specious.

This proposal is not new. In 1986, after years of legal wrangling, the Drug Enforcement Administration (DEA) held extensive hearings on the transfer of marijuana to Schedule 2. In 1988, the DEA's own administrative-law judge concluded, "It would be unreasonable, arbitrary, and capricious for DEA to continue to stand between those sufferers and the benefits of this substance in light of the evidence in this record."[1] Nonetheless, the DEA overruled the judge's order to transfer marijuana to Schedule 2, and in 1992 it issued a final rejection of all requests for reclassification.[2]

Some physicians will have the courage to challenge the continued proscription of marijuana for the sick. Eventually, their actions will force the courts to adjudicate between the rights of those at death's door and the absolute power of bureaucrats whose decisions are based more on reflexive ideology and political correctness than on compassion.

Jerome P. Kassirer, M.D.

EXHIBIT L

Providing Medical Marijuana: The Importance of Cannabis Clubs†

Harvey W. Feldman, Ph.D.* & Jerry Mandel, Ph.D.*

Abstract—In 1996, shortly after the San Francisco Cannabis Club was raided and (temporarily) closed by state authorities, the authors conducted an ethnographic study by interviewing selected former members to ascertain how they had benefited from the use of medical marijuana and how they had utilized the clubs. Interviews were augmented by participant observation techniques. Respondents reported highly positive health benefits from marijuana itself, and underscored even greater benefits from the social aspects of the clubs, which they described as providing important emotional supports. As such, cannabis clubs serve as crucial support mechanisms/groups for people with a wide variety of serious illnesses and conditions. The authors concluded that of the various methods so far proposed, the cannabis clubs afford the best therapeutic setting for providing medical cannabis and for offering a healing environment composed of like-minded, sympathetic friends.

Keywords—cannabis clubs, ethnography, medical marijuana, public policy, social environment

The issue of whether marijuana has medicinal benefits no longer seems to be in question. Hundreds of scientific studies and thousands of testimonials from patients have established marijuana's effectiveness in controlling the nausea of cancer patients undergoing chemotherapy and/or radiation; in enhancing appetites for AIDS patients who suffer a wasting syndrome or who have adverse reactions to their new HAART (highly active antiretroviral treatment) medications; in reducing intraocular pressure for persons with glaucoma; in giving relief from spasms of muscular dystrophy; and for relieving pain from dozens of other serious diseases (Ad Hoc Group of Experts, National Institutes of Health 1997; Gieringer 1996). Voters in California and Arizona confirmed their belief in these medical benefits when they voted overwhelmingly in 1996 to make marijuana legally accessible to qualified medical patients (in California this was achieved by passing Proposition 215). Despite federal resistance to recognizing the medical utility of cannabis, the remaining unresolved question for public policy debate and scientific exploration is not *whether* marijuana can be a useful tool in managing a range of diseases but simply *how* qualified patients can acquire a medicine that they and their physicians believe will benefit their treatment and alleviate suffering.

Of the several ways available for qualified patients to gain access to medicinal cannabis, a frequent suggestion has been for patients to grow their own supplies. While highly desirable, only a small minority of medical marijuana patients have the wherewithal to grow their own plants. Most city dwellers do not have outdoor yards or balconies; those who do report greater danger from thieves than from the police. Indoor growing requires a large initial investment for expensive equipment, which patients who live on limited or fixed incomes simply cannot afford. Patients must also be very skilled home gardeners to ensure a sufficient amount with the proper potency in order not to run short.

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Of special importance is knowing how to identify infestation and molds, which, if inhaled, might exacerbate already compromised health conditions.

Some observers have suggested acquiring cannabis supplies through either the medical/pharmaceutical professions or from the police. With regard to the medical and pharmaceutical professions, no specific recommendations have been forthcoming from either field (beyond limiting cannabis use to prescribed THC/Marinol®). Both professions seem content to allow the matter of delivery to be settled elsewhere. Our past history of marijuana prohibition has resulted in physicians seemingly knowing less about smoked marijuana, the preferred route of ingestion among patients, than the patients themselves. In California, most physicians who recommend patients to cannabis clubs appear satisfied with only *recommending* cannabis and *monitoring* patients while allowing cannabis buyers clubs (CBCs) to dispense it. The problems (especially with regards to available sources, storage, and assessing potencies) surrounding how pharmacies might dispense cannabis have not even begun to be speculated upon by the pharmaceutical profession.

Since the passage of Proposition 215 in California, there has been some discussion, especially in San Mateo County, about the feasibility of the police providing confiscated marijuana to qualified patients. This new police function would require a different kind of training for this new quasi-medical role. From our discussions with CBC members, many would balk at revealing confidential health information to their local police departments. Constancy of supply in the San Mateo plan would depend on police seizure activities. Would police increase their seizures in order to meet the medical demands of patient consumers if their supplies ran out? Would they turn away legitimate patients? Or, out of necessity, would the police grow cannabis, or purchase it from the black market in order to meet their medical responsibilities? The number of complications inherent in the police option makes it a choice that offers amusing contradictions, but given the historical role of police in our series of drug wars, such a plan would be impractical and unworkable.

Prior to the passage of Proposition 215 and the advent of cannabis clubs, all marijuana purchases in California were illegal. Although the black market is still an option for legitimate patients to acquire cannabis, it has a number of disadvantages for persons with serious medical conditions. If other options are not available, it forces patients to risk arrest in the process of purchasing medicine. Without necessarily defaming street dealers or impugning their honesty, these illegal transactions seldom involve discussions about the quality, freshness, purity, or even the sources of the product. In these furtive sales, consumers might easily be cheated, or simply sold bogus cannabis. For individuals with life-threatening diseases, the total interaction of purchasing medicine on the black market seems unnecessarily risky, inappropriate, and demeaning as well as especially costly.

Of all the apparent available choices, purchasing marijuana through cannabis buyers clubs, from the authors' perspective, is clearly the soundest option. At this juncture, one might ask, "What are cannabis buyers clubs?" "What functions do they serve?" "How do people get into them?" and "What do members do there?"

BACKGROUND AND RESEARCH

Despite the media attention devoted to the cannabis clubs, which has usually emphasized the public smoking aspect, to our knowledge there has been almost nothing written about them by trained and qualified social science observers, other than one oral presentation to the American Anthropological Association (Roberts 1996) and a *New York Times Magazine* article (Pollan 1997) which dealt more with the general implementation of Proposition 215 than with cannabis clubs exclusively. This article is an attempt to begin filling that gap in knowledge.

Beginning in February 1996, the authors, both experienced drug researchers, were part of a research group that met biweekly at the San Francisco Cannabis Buyers Club (SF CBC). The group was started and chaired by Dr. Tod Mikuriya, who has been a leader in the medical marijuana field since he was a consulting psychiatrist with the National Institute on Mental Health in 1967. At the end of July 1996, the Drug Policy Foundation awarded our research group a small grant to analyze the 12,000 or so intake forms the SF CBC required from all its members, with the goal of determining the distribution of disease categories and the demographic characteristics of its members. Less than a week later, however, on August 4, 1996, the California State Attorney General's Office and agents from the California Narcotics Enforcement Agency raided the club, shut it down (temporarily, it turned out) and removed all the records, which remain under court seal. With permission from the Drug Policy Foundation, we revised our research plan and decided to explore the ways members utilized the CBC and the impact of its closing. Within two months, new but smaller cannabis clubs as well as other delivery arrangements emerged to fill the void, some lasting only a short time. The authors associated themselves primarily with Flower Therapy, one of the new clubs which some of the former SF CBC employees opened to meet the demand for cannabis of some of the 12,000 members who were separated from their supply as a result of the Attorney General's raid.

Flower Therapy provided full cooperation with the research by providing a setting for interviews and observations, and by allowing staff to refer members to our research. We interviewed as broad a cross-section of the membership as our budget would allow. Selection of respondents was made to provide a broad representation of disease categories, gender, age, sexual orientation, and race/ethnicity. To assure standardization, we developed an

interview guide. The interviews were opened-ended, lasted between one and two hours, were tape-recorded, and transcribed. The few interviews not conducted at Flower Therapy were held in the respondents' residence. Some of those interviewed had been both member and staff at the SF CBC prior to the raid; others had been regular members. While the interviews were our core data, they were backed up with hours of participant observation—the ethnographer's stock-in-trade—at three clubs: the SF CBC before it was raided; Flower Therapy over a 16-month period; and the Oakland Cannabis Buyer's Cooperative.

WHAT ARE CANNABIS CLUBS?

The concept of a cannabis club is the invention of Dennis Peron, a San Francisco marijuana dealer since 1973 who became converted to the cause of medical use of cannabis when his gay lover, a young man with AIDS, found relief from symptoms with regular marijuana use. Peron's concept was to provide not only a cafeteria of cannabis products—including marijuana of varying potencies, cannabis pastries, and smoking paraphernalia—but to create a life space where persons with life-threatening or seriously debilitating diseases could gather, relax, and consume their medications in an accepting, friendly, and colorful surrounding. Some critics referred to Dennis' place as a "circus," but considering that it was both staffed and utilized by sick and dying people, more sensitive observers might conclude that he had created a therapeutic atmosphere that encouraged relaxation, friendly interaction, laughter and healing. It was lively without being unnecessarily noisy, and had attractive furniture arranged to facilitate small group conversation and discussion. With this as a model, other clubs modified one feature or another—e.g., the Oakland club's rental agreement did not permit smoking on the premises, and Flower Therapy gave more emphasis to research and structured intervention—but the essential concept of having a place where members could select from a range of cannabis products and gather to socialize was Peron's original creation. As a new social institution, the cannabis club provides a setting that is a combination of a community center and settlement house (better known in eastern and midwest cities), a hospice, a friendly cafe, and—given the illegal nature of it prior to Proposition 215—a kind of speakeasy which had the approval and public support of San Francisco's Board of Supervisors, Mayors Frank Jordan and Willie Brown, its Department of Public Health, its District Attorney's Office, and the administration of the San Francisco Police Department.

ROUTES OF ENTRY

The development of the SF CBC is attributable to three underlying currents that seem peculiar to San Francisco: (1) its history of progressive political activism, (2) its reputation for innovation, and (3) its relatively small population, which allows for information to be disseminated quietly and quickly by word-of-mouth.

The political background which brought like-minded people together in the medical marijuana movement was given a substantial boost with Proposition P, a local ordinance the San Francisco Board of Supervisors passed in 1992 that directed the San Francisco police department to make marijuana arrests its lowest priority. This ordinance allowed Peron to come out of the shadows and become more public in using his private residence for commercial marijuana sales, and eventually to become the central San Francisco figure around whom others gathered in order to advance the cause of marijuana both as a political rallying point and as a legitimate medicine. Dee, the fictitious name for one of the early recruits, explained how her contacts with Peron introduced her to both the medical and political aspects of marijuana:

> Oh, when I met Dennis, we'd sit around his living room and plan it [organizing for the passage of Proposition P, a San Francisco initiative requesting that police lower the priority of marijuana arrests]. I met him almost six years ago through my ex-husband. . . I met him and I knew from the minute I met him that he was coming from the heart as far as helping sick people get marijuana. We just connected. And the second time I went to his house, he just grabbed me and hugged me and kissed me and said, "Welcome back." And I was a regular at his house from 1992 on, even though I had to drive back and forth from Bakersfield . . . And then in 1994 my friends were worried that I was dying (from multiple sclerosis). I was wheel-chair bound and weighed about 100 pounds. I had gone to Los Angeles for a Medical Marijuana Day in 1994, and they all saw me and realized how critically ill I was. And they moved me to Santa Cruz and then I got moved to San Francisco with Dennis' help.

Others came to the club through other word-of-mouth referrals; one, an elderly woman with both glaucoma and breast cancer, was referred by a member of the San Francisco Board of Supervisors:

> HWF: How did you initially learn about the club?
> Hortense: From A [the elected Supervisor] sending me that note. I didn't even know it existed before then.
> HWF: How did you go about becoming a member?
> Hortence: I just made a nuisance of myself. I went every week on Fridays and Saturdays and talked to people. Then I decided my role was to listen, and I did that for quite awhile. And then in July, Dennis asked if I would do intake. There wasn't a lot of intake. We only had a hundred members or something like that.

Regarding the original club, located on Church Street in much smaller quarters than the one which has received national and international attention, others heard from friends about a unique place where marijuana could be openly purchased and consumed. While the early members joined because they were personal acquaintances of

Peron, a critical mass developed so that word-of-mouth became the most common route into the club:

> JM: How did you learn about the club?
> Hector: The club? A friend of mine told me about it because access [to medical marijuana] after HIV was still often awkward and expensive. Some people you buy from have minimum amounts that you have to meet. Like an eighth [ounce] for $60 or more. And limited hours. You don't know when they are going to be home, or when it's going to be available. So when you run out and when you want it, there was no guarantee that you were going to have enough money or that it would be easily accessible. A friend of mine knew about the club on Church Street, and took me, and introduced me. I had my proper paper work.
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> ***
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> HWF: How did you hear about the club?
> Marie: From a care-giver. I was in the hospital, and I wanted to get out. [A friend] told me about it.
> HWF: Where was the club then?
> Marie: On Market Street. And I couldn't believe it. It was like a piece of heaven. . . . I went with my doctor's letter. I knew what I had to bring. I was prepared. They walked me through it and introduced me around. It was just wonderful.
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> JM: When did you first get involved in the club?
> James: Way in the beginning because I had a low number [cell count]. At the club on Church Street.
> JM: How did you gravitate there?
> James: My boss at the time brought me in because at the time you had to have a member bring you in was the way it worked. You couldn't just walk in.
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> HWF: How did you initially learn about the club?
> Donald: A good question. Hmmmm? I guess a friend told me about it. . . . That there was a marijuana buyer's club that was right down the street from me. At that point I was HIV-positive so I could become a member.
> HWF: So, it was described to you as . . . ?
> Donald: As a place to buy marijuana for people with AIDS.
> HWF: Was it exclusively AIDS in the early days?
> Donald: It wasn't. No, because Hortense had glaucoma. No, but that's what they told me. Once I went, I found out it was for AIDS, cancer, glaucoma.

ACTIVITIES AND SOCIALIZATION WITHIN THE CLUB

Without question, the focal point of the CBCs was the distribution of medical cannabis. What too often is either understated or ignored is the variety of ways members utilized the club as a social and recreational institution. Most of these social activities appear to come about as a byproduct of the size of the facility and numbers of people in attendance rather than through formally planned programs. Members and staff found that marijuana itself produced a sense of well-being and that sharing both the substance and experiences developed strong bonds of friendship. This became especially true for members whose daily routines for dealing with their illnesses had left them isolated, pained, and frequently deeply depressed. The ways members went about enjoying their socialization varied. Some found the club simply a sanctuary from loneliness, a place to go and just hang out. Several respondents compared the cannabis club to the social setting of the bar, a likely comparison since both served as places of socialization and as a place where a mood-altering substance could be purchased and consumed. In contrast to bars, members found the club more suitable to sustaining friendships. Chuckles, a gay male with HIV/AIDS, claimed to have found the CBC far superior:

> Oh, yes, there were lots of shared experiences. Lots of new social contacts that I would not have made or would not have *wanted* to make in any other place. The only other place for me to go, as a gay male, was to a bar, which means drinking, which is much more deleterious to *my* health and my *behavior* than is marijuana.

Kenny compared the relaxed atmosphere of the cannabis club to a bar that might offer free beer:

> I saw very few problems of members because of marijuana and considering that it was open to such a wide spectrum of different types of people, I think that it was amazing that I never saw a fist fight in there. I heard a few people had to be escorted out at times, but compared to say, a bar, I'd hate to even think of what it would be like to have a place with free beer given out to all customers. . . . Some people talk about being shy going into a party, walking into a room . . . I never felt that. I'd go in, and the first thing, look around the room to see who was there, and say "hi" to this person and that person. It was very social. I can't stress that enough.

When the SF CBC moved to its larger (four-story) quarters on Market Street, directly on the main business and traffic artery in downtown San Francisco—and with the ensuing increase in membership and media attention, and the political move to make medical marijuana legal under Proposition 215—a new era began. A sense of excitement and destiny seemed to transform the club. Historically, it became the facility where former hippie/radical/marijuana devotees, some of whom were now debilitated with legitimate medical conditions, blended with the rising number of people who had never been part of the counter-culture and were, for the most part, naive and resistant to using marijuana recreationally. With a sense of "only in San Francisco," the factions came together in a common political purpose, a satisfaction and relief of finding others in similar medical situations, and a feeling of safety because the club was protected by the local authorities.

Though the first-time visitor might be wide-eyed, having what appeared to be legitimate access to marijuana and the ability to consume it in public without fear, regular

members found that their satisfactions were as much social as medical, maybe even more so. In reflecting on their use of the club, members overwhelmingly described the social benefits in glowing terms.

When asked the question, "What did you like best about the club?" almost without exception respondents answered in one form or another, "the social life." As with a community center or perhaps a hospice, members could find or create activities that utilized their skills, abilities, or talents. Sandy, a small woman who walked with two hand canes, described how she would teach origami (the Japanese art of folding paper into flowers or animals), and how her involvement served to improve her physical condition:

> Twice a week I'd go up there. Friday, and then Saturday, Saturday because of the evening thing. Mainly do origami, the fellowship, and I'd bring a little weed and everybody'd have a little bit of weed. We'd smoke, but mainly we'd be sitting there shooting the breeze, folding stuff, singing along with the radio. Heck, we'd go up and down the elevator, or up and down the steps. I was walking up and down the steps on a regular basis. I *was*. Yes, I *was*. Now, I'd do the elevator every now and then, you know, but I was doing steps, man. It was great. It was old home week. You'd walk in there, and it didn't matter what kind of day you had had. And it wasn't the pot. If it was only the pot, I wouldn't be there, quite frankly.

For members with limited incomes or the homeless with qualifying illnesses, the club provided oranges in containers placed strategically throughout the facility. On weekend days, staff prepared a full home-cooked dinner for members. Hector explained how he would schedule his visits to coincide with the meals:

> Well, food. There was a time or two that I went knowing specifically it was Saturday afternoon and I specifically expected food would be there, and I was kind of broke, and I thought, I wouldn't wonder whether I'd get a potato or a cherry pie from the store. I expect there would be something decent to eat there.

Others, like Jamie, enjoyed the Saturday night entertainment, which was provided by volunteer performers or members themselves in a kind of "open mike" evening:

> I was there Saturday nights. They . . . had really great music. Saturday nights they would put on some nice shows, and things like that. Put on some bad shows, too. Put on shows. It was fun there. It really was.

FINDING SUPPORT GROUPS

When members were asked how they spent their time at the CBC or what they liked best, the most common and repeated response related less to the acquisition of cannabis and emphasized the supportive aspect of being with like-minded people with similar medical conditions. For many of the members, the clubs provided a kind of generalized support group: the social interaction that took place was an important and significant component of their treatment and/or rehabilitation. For some individuals, the CBCs were their *primary* source of socialization. Recently, Lester Grinspoon, the Harvard psychiatrist and author of *Marijuana Reconsidered* (1994), one of the best and most complete discussions of medical marijuana, turned his attention to the subject of cannabis clubs. In an article which will appear in the 1998 Summer issue of *Playboy* (Grinspoon In press), he notes that recent studies by others have shown that having a *social* support network is an essential ingredient for cancer patients and that " . . . these kinds of supports improve the quality of life . . . and that there is growing evidence that [they] may also *prolong* life" [emphasis added]. He notes that in one study "socially isolated women were found to be at five times higher risk of death from ovarian and related cancers than the controls," who were not reported to be isolated. In a second study, he stated, "women with breast cancer were 50 percent *less* likely to die in the first months after surgery if they said they had confidants, i.e. people they were close to." Grinspoon (1998) goes on to report that the studies showed that patients " . . . become less anxious and depressed, make better use of their time, and are more likely to return to work than similar patients who are given only standard care." These and several other examples discussed by Dr. Grinspoon provide strong testimony for the social role that cannabis clubs can and have provided.

Not all cannabis clubs make a concerted effort to capitalize on this therapeutic possibility. But it is clear from the interviews that there were beneficial aspects to mere attendance at the clubs. Seriously ill and dying people can gather and enjoy the friendship of others in like situations. They learn how others with similar medical and social conditions cope. Hector again supplies one of many testimonials to the therapeutic benefits of his attendance at the SF CBC:

> There's *nothing* else like it. There's no facility in town that offered a comfortable social place to hang out and meet other people that are in your same similar situation facing terminal illness . . . and trying to cope with it, both physically and emotionally . . . Let me put it this way. I think that depression is a real illness for some people. And as a major branch for almost all people who suffer from HIV. Once you're facing a terminal illness, you are bound to have a thousand ways of depression. And I think a support group, wherever you find it, a fully functioning support group and facility, is, can be a big booster and counter to serious depression . . . And the option of having a place to go that provides medicine in terms of marijuana but also medicine in terms of a real friendly network and reliable support group has been really important. And I haven't jumped into, or found a support group that was as comfortable and attracted to as I was with the support group I found on a daily basis at that place.

Such sentiments were repeated often both spontaneously and in response to direct questions regarding what they liked or didn't like about the SF CBC. Frederick, a regular visitor to the club, actually downplayed the importance of marijuana and emphasized the social aspects as the club's primary significance even though he himself seldom used the club in that way:

> I never smoked at the club. I was never a big one to go hang out and smoke. I would just get my stuff and would leave, which is what I thought people should do. Although I do, I am aware that people stayed . . . They hung out and smoked. I slowly started to see. I was just there Sunday night. I'm starting more and more to see that the reason they are there isn't just because, just that they want to sit there and smoke pot. It's because they know each other. I think marijuana is a secondary issue . . . It's about whatever it is that brings them, these people together, which is probably more their illness itself. Well, they all have illnesses in common, and the political issues that surround it [their illness]. That's what they are all always talking about. That's how they became friends . . . So, the marijuana itself to me is a small character in all this. Even with me personally, I don't see marijuana as being the star of the show here.

Given the pervasiveness of terminal illness among the membership, managing depression and grief was always an issue which arose both from trying to adjust to having diseases where death was near and in dealing with the loss of friends. Being an active member of the CBC helped many individuals who had been living in isolation to reestablish a friendship network. Kendall, another member with full-blown AIDS, underscored the social role the club played in introducing him to a new set of friends:

> The mainstay of my friends now are the people that I met through the club. Some [friends from the club] I've known way back, but a lot of them are people I just met in the past couple of years. Course, also in the past 10 years I've had a lot of friends die from AIDS. I could think of a whole group of people I would have been out with, say, to dinner, or at a bar, and I am the only one that's alive out of, say seven or eight people in the group . . . I find it very hard to gauge how much benefit I should ascribe to marijuana and how much to the club itself. Because just being around people has really helped a lot. Like I said, I lost a great portion of my friends to AIDS. Other people I just drifted apart from. So, this was a way back into having a close circle of friends

In keeping with the way the clubs provide a healing atmosphere, Jamie noted how the social relations he had developed over time allowed him and others to manage the grief associated with the death of close friends and helped him find a new set of associates whose concerns he valued:

> We had wakes there. We had a wake for Jimmy when he died. Jimmy was one of the original people from before it was Church Street . . . That's how long Jimmy was a member . . . He was one of the original I'd say 10 people in the beginning. And when he died, they had a wake . . . I've been a part of the club because I was there everyday. I became a part of the club, one of the faces that belongs there. When I went away for a week, everybody said, "Where'd you go?" It's a *social* thing to do, *every day* of your life. Well, almost everyday.

THE ETHOS OF "LOVE AND COMPASSION"

One of the remarkable consequences of having established the clubs as a place where members could expect help was the way the notion of helping others permeated member interaction, so that group esteem and status was often connected to performing kind, compassionate acts. One might say that there emerged an unstated expectation that rewards and recognition could be accrued through acts of helping other members. As a result, several respondents reported how they consciously set out to be of service to other members, which they viewed as being consistent with the club's mantra and slogan of "love and compassion." This aspect of helping was a route to both recognition and acceptance. Sidney, whose medical diagnosis did not include physical infirmities, explained how he created a helping role for himself in an attempt to become an official volunteer:

> I hung around every day that I could because I wanted to help people who had problems with neuropathy, palsy, sclerosis, dystrophy. They can't roll [joints]; they can't clean [remove stems and seeds from marijuana]. They're shaking, trembling . . . A friend of mine has glaucoma and also has spasticity and arthritis. She'll come in and literally hand me her bag [of marijuana], and I would sit and roll her entire bag. And she would hand me a cigarette. And I would say, "No, thanks." And she would say, "Okay, just light it."

For Marie, a 40-year-old African-American women who was wheelchair bound because of muscular dystrophy, and a lifetime resident of San Francisco before moving to an adjacent county when special housing for her medical condition became available, her three visits a week to the club were her rationale for leaving her apartment. As a knowledgeable observer of San Francisco scenes while growing up in the Haight-Ashbury district, and as a child seeing the development of the counter-culture during its heyday in the mid-sixties, she summed up her view of the SF CBC by putting it in the context of San Francisco as a city of civility:

> Marie: I went Mondays, Wednesdays, and Fridays.
> HWF: Did you go there only to buy or did you hang around?
> Marie: I went there to buy but I'd always run into someone I knew who I'd sit around and smoke a joint with and talk about how cool it [the club] was . . . The club was *life*! The club was what San Francisco was all about. People were there sharing, talking, loving, just having a good time. And it was all kinds of people from all walks of life . . . It reinforced what San Francisco was all about. I looked forward to it. Wednesdays is Farmer's Market Day [on Market Street near the SF CBC]. It was perfect. I could go to the club and then get my fruits and vegetables on my trip to the city.

SUMMARY AND CONCLUSIONS

Our approach in assessing the functions of cannabis clubs, particularly what was formerly called the San Francisco Cannabis Buyers Club, was an ethnographic examination of how members themselves perceived the benefits of their membership. While the acquisition of medical marijuana for specific diseases (as recommended by their physicians) was the members' major rationale for seeking membership, almost without exception they expressed greater satisfaction in the social interaction and activities they found. Most of the members learned of the club through friends or acquaintances who were either members themselves or who knew of the club through other friends. Without advertisement or recruitment, members heard through word-of-mouth that Dennis Peron had created a facility where persons with serious and/or terminal illnesses could purchase and smoke marijuana. With the apparent success of Dennis' place, others with imagination and administrative skills opened similar, if somewhat unique, clubs throughout the state—in Marin, Eureka, San Jose, Oakland, Hayward, Los Angeles, Orange County, and other areas—after becoming acquainted with the SF CBC. Each may have had a somewhat original twist, but the notion of having a facility where cannabis could be purchased (and sometimes ingested onsite) was patterned after the original club created by Dennis Peron.

Members who probably would have been content to find only a legitimate source of medical marijuana were even more pleased to discover that the setting itself served therapeutic purposes for them by providing a natural environment in which to socialize with others who were struggling not only with serious disease but who were frequently isolated, frightened, and depressed. As a result, members often stated that the socialization they encountered and the friends they made at the clubs were health producing. Most frequently members referred to these friendship circles as "support groups" because they offered mutual help in a number of critical emotional areas: adjusting to a terminal illness, or managing the grief which accompanies the many deaths an epidemic like HIV/AIDS leaves in its wake.

At the time of this writing, two legal actions are underway in attempts to close the clubs: (a) action by the California State Attorney General's Office, which claims that cannabis clubs do not qualify as primary caregivers under their interpretation of Proposition 215; and (b) a federal civil suit against six California clubs—including the San Francisco Cannabis Cultivators' Cooperative, Flower Therapy (which closed because of federal action against the club's landlord), and the Oakland Cannabis Buyers' Cooperative. The federal case seems the simplest since it drew on the Controlled Substances Act of 1972, which classified marijuana as a Schedule I drug (a classification specifying that marijuana has no legitimate medical use). The federal action—taken by the Drug Enforcement Administration (DEA) under the Department of Justice—simply does not recognize the many studies and reports on marijuana which have demonstrated its medicinal usefulness. Perhaps the anticipated report from the Institute on Medicine (whose members visited the Bay Area cannabis clubs in December, 1997) on its investigation of possible medical uses for marijuana will help bring the Department of Justice and the DEA more into line with the available scientific evidence. At the moment, the DEA simply ignores all scientific and medical evidence, and with apparent blindness continues to argue that marijuana has *no* legitimate medical use. With that as their foundation for determining public policy, from the DEA's perspective all marijuana use remains illegal. And they saw fit to take civil—not criminal action—against six of the better known clubs. The remedy for the federal position, which in all likelihood is forthcoming, is to reschedule cannabis and recognize what thousands of Americans and hundreds of physicians already know—that cannabis is a remarkable, naturally grown substance with wide utility in the treatment of a variety of diseases. The authors concur with the *New England Journal of Medicine,* which stated in its editorial of January 30, 1997 (Kassirer 1997) that " . . . a federal policy that prohibits physicians from alleviating suffering by prescribing marijuana for seriously ill patients is misguided, heavy-handed, and inhumane."

The California Attorney General's case is somewhat different, since under Proposition 215 the use and recommendation of cannabis for severe medical conditions is legal. In California, the suit against the SF CBC attempts to clarify Proposition 215 by implying that the law does not authorize or consider the role of cannabis clubs in providing marijuana to legitimate patients. While the Attorney General's Office has not developed its own plan for distribution, it does seem to support the police option suggested in San Mateo County, which (as discussed earlier) would blur the lines between law enforcement functions and medical practice. Having the police as distributors of medical cannabis would have a chilling effect on how medical patients, fully aware of how police departments in the past viewed marijuana consumers, might utilize or abuse this new distribution route.

After almost two years of investigation into the functions of cannabis clubs, witnessing how members participate in the socialization that takes place in them, and formally interviewing a selected sample of patients, as social scientists the authors conclude that the cannabis clubs are not only a desirable method but a preferred method for the distribution of medical marijuana. Without question, of the available ways of providing cannabis, the CBCs provide the safest and least expensive commercial method for patients to purchase medical marijuana. Moreover, the existing relationships are trusting ones that have been developed over the years, and they would be difficult to

transfer. Of greatest importance is that the clubs provide a therapeutic setting which *patients themselves* find gratifying, socially supportive, and congenial.

Rather than attempting to shut down cannabis clubs, public policy makers at the federal and state level should move toward supporting the clubs' existence, and thus function the way the health, law enforcement, and elected political officials in San Francisco have done over the past six years. As a new and promising strategy, the cannabis club concept is boldly imaginative and, according to our investigations, highly effective in providing its sick and terminally ill members both a medicine and a social setting which has improved the quality of their lives.

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EXHIBIT M

Select Committee on Science and Technology Report

HOUSE of LORDS

PRESS INFORMATION

EMBARGO 0001 HOURS
WEDNESDAY 11th NOVEMBER 1998

LORDS SAY, LEGALISE CANNABIS FOR MEDICAL USE

The Government should allow doctors to prescribe cannabis for medical use: this is the conclusion of a report by the House of Lords Science and Technology Committee, published today.

Lord Perry of Walton, chairman of the inquiry said: "We have seen enough evidence to convince us that a doctor might legitimately want to prescribe cannabis to relieve pain, or the symptoms of multiple sclerosis (MS), and that the criminal law ought not to stand in the way. Far from being a step towards general legalisation, our recommendation would make the ban on recreational use easier to enforce. Above all, it would show compassion to patients who currently risk prosecution to get help."

MEDICAL USE

Cannabis is a "Schedule 1" drug, and cannot be used at all in medicine, except for research under special Home Office licence. **The Lords recommend that it should be moved to "Schedule 2".** This would allow doctors to prescribe it, subject to certain special regulations, and it would allow doctors and pharmacists to supply it in accordance with a prescription.

The report sets out evidence that cannabis can be effective in some patients to relieve the symptoms of MS, and against certain forms of pain. The Lords say, this evidence is enough to justify a change in the law. They are less convinced about its effectiveness in other conditions, including epilepsy, glaucoma and asthma.

The Lords welcome the fact that clinical trials of cannabis are currently being launched, by the Royal Pharmaceutical Society, and by Dr Geoffrey Guy of GW Pharmaceuticals, with a view to the eventual licensing of cannabis as a medicine. The Lords say, however, that cannabis should be rescheduled now, rather than waiting several years for the results of these trials.

If cannabis ever becomes a licensed medicine, the Lords do not envisage it being licensed for smoking; they call for research into alternative delivery systems.

At present, people who use cannabis for medical reasons risk prosecution; and juries sometimes refuse to convict such people, which brings the law into disrepute. If prescription were legalised, then someone using cannabis for medical reasons who was accused of recreational use could clear himself at once by producing the prescription. [More]

RECREATIONAL USE

The Lords find enough evidence of toxic effects of cannabis to justify maintaining the present ban on recreational use. Besides being intoxicating, they report that:

- regular heavy use can lead to psychological dependence, and even in some cases to physical dependence, involving withdrawal symptoms;

- cannabis can pose a risk to people with a heart condition;

- cannabis can exacerbate pre-existing mental illness;

- smoking cannabis is as bad for the lungs as smoking tobacco, and may cause cancer.

NOTES FOR EDITORS

1. The report follows an inquiry which began in April, and included 12 public hearings. A list of the Lords who took part in the study is attached :

2. The report is published by The Stationery Office: *Cannabis*, HL Paper 151, ISBN 0 10 4151986, £9.50.

3. The evidence taken by the Committee is published separately as HL Paper 151-I, ISBN 0 10 4792981, £22.60.

4. The full text will be on the Internet on publication, accessible via the UK Parliament home page at

4. The full text will be on the Internet on publication, accessible via the UK Parliament home page at **www.parliament.uk**

4. The Government are required to respond in writing to the report; and the report will be debated in the House of Lords.

Further information from Elaine Morgan/Tessa Perfect

House of Lords Committee Office

'Phone 0171-219 6075; Fax 0171-219 4931 [Ends]

CHAIRMAN

Lord Perry of Walton FRS (Lib Dem): former Professor of Pharmacology; founding Vice-Chancellor of the Open University 1969-81.

MEMBERS

Lord Butterfield (Cons): Vice-Chancellor of Nottingham University 1970-75; Regius Professor of Physic (ie medicine), Cambridge, 1975-87; Vice-Chancellor of Cambridge University 1983-85.

Lord Butterworth (Cons): Vice-Chancellor of the University of Warwick 1963-85.

Lord Carmichael of Kelvingrove (Lab): MP 1962-83; former junior Minister in various departments.

Lord Dixon-Smith (Cons): former Chairman, Association of County Councils.

Lord Kirkwood (Lib Dem): metallurgist; former lecturer, Sheffield University.

Lord Nathan (cross-bench): solicitor; former member of Royal Commission on Environmental Pollution.

Lord Porter of Luddenham (cross-bench): Nobel Prize for Chemistry 1967; President of the Royal Society 1985-90.

Lord Rea (Lab): former GP.

Lord Soulsby of Swaffham Prior (Cons): Emeritus Professor of Animal Pathology, Cambridge; President of the Royal Society of Medicine.

Lord Walton of Detchant (cross-bench): former professor of Neurology and Dean of Medicine, Newcastle University; former President of the General Medical Council, the British Medical Association, and the World Federation of Neurology.

Lord Winston (Lab): Dean of the Institute of Obstetrics and Gynaecology.

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CANNABIS:

THE SCIENTIFIC AND MEDICAL EVIDENCE

CHAPTER 1 INTRODUCTION

1.1 Cannabis has been used medically for thousands of years in oriental and Middle Eastern countries and as an intoxicant for many hundreds of years in India and in the Middle East; and it was employed in Western medicine for at least two millennia. The medical use of cannabis in Europe and North America, however, declined in this century because of the lack of any standardised preparations of the plant product and its unreliable absorption when given by mouth, and because of the development of more potent and reliable drugs for the conditions for which cannabis was then being used.

1.2 During the 1960s and 1970s there was a large increase in the use of smoked cannabis as an intoxicant in the USA and in Europe, where it had been largely unknown previously as a drug of abuse. The recreational use of cannabis has continued to increase in recent years, particularly among the young. Medical use in the United Kingdom was prohibited in 1973; but cannabis is now the most widely used of all illegal intoxicants.

1.3 During the 1980s and 1990s there has been renewed interest in the potential medical uses of cannabis and its derivatives. Substantial numbers of patients with various conditions are illegally self-medicating with cannabis and are convinced that they derive medical benefit—although scientific evidence for or against such a conclusion is largely lacking. This has led to calls for cannabis again to be made available for medical applications.

1.4 In Britain this debate has led a number of expert bodies to review the medical and scientific evidence for and against such proposals. The British Medical Association published a report on the topic in 1997[1]. The Department of Health recently commissioned three literature reviews on cannabis, at the request of the Advisory Council on the Misuse of Drugs (ACMD); we have seen these (they were placed in the Library of the House on 9 June), and the authors have all given evidence to this inquiry[2]. Reports were also published last year by the US National Institutes of Health and the American Medical Association[3].

1.5 In the light of this heightened interest in cannabis, and particularly the report by the BMA, we decided to examine the scientific and medical evidence to determine whether there was a case for relaxing some of the current restrictions on the medical uses of cannabis. We have also considered whether the continued prohibition of recreational use is justified on the basis of the scientific evidence of adverse effects. Recreational use raises other issues besides the adverse effects of the drug: these are outside our remit "to consider science and technology", belonging instead to the realms of law, sociology and even philosophy, and we have not considered them. Neither have we considered whether cannabis is a stepping stone or gateway to other more dangerous drugs; we have confined our considerations solely to cannabis.

1.6 Chapters 2 and 3 of this Report are introductory, giving brief accounts of the history of cannabis and its pharmacology. In Chapters 4-7 we review the evidence which we have received on the four key issues: the adverse effects of taking cannabis; current and proposed medical uses; recreational use; and the implications of possible changes to the law. Our conclusions and recommendations are set out in Chapter 8.

1.7 This report was prepared by Sub-Committee I, whose members are listed in Appendix 1. They received evidence from the persons and organisations listed in Appendix 2, to all of whom we are grateful for their help. We are particularly grateful to the Sub-Committee's Specialist Adviser, Professor Leslie Iversen FRS, Visiting Professor of Pharmacology at the University of Oxford. Professor Iversen attended two international conferences on the Sub-Committee's behalf; his accounts of these appear in Appendices 3 and 4. Abbreviations are listed in Appendix 5.

1.8 We also acknowledge the assistance of the Parliamentary Office of Science and Technology (POST). POST's report *Common Illegal Drugs and their Effects* (May 1996), and POST note 113 *Cannabis Update* (March 1998), have been particularly helpful.

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1 *Therapeutic uses of cannabis*, BMA/Harwood Academic Publishers, 1997, ISBN 90-5702-318-0. Back

2 *Cannabis: clinical and pharmacological aspects*, by Prof C H Ashton; *Psychiatric aspects of cannabis use*, by Dr A Johns; *Therapeutic aspects of cannabis and cannabinoids*, by Dr P Robson. Back

3 NIH *Report on the medical uses of marijuana*, August 1997; AMA *Medical Marijuana*, December 1997. Back

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CHAPTER 2 HISTORY OF THE USE OF CANNABIS

2.1 The earliest known reference to cannabis is in Assyrian tablets of the seventh century BC. It has thus been in use for at least 2600 years. Like very many other herbs, it has been used medically for a wide variety of ailments, especially throughout Asia and the Middle East. The mild euphoria that it induces led to its use as an intoxicant, perhaps most notably in countries where Islam prohibited the use of alcohol.

2.2 In Western medicine, it appeared in the Herbal (i.e. pharmacopoeia) of Dioscorides of about 60 AD, and in all subsequent herbals. The 16th century saw a detailed interest in cannabis, with reports of it and its usages being sent back by many travellers to the East, and the number of possible uses given in the herbals doubled. In England, the Herbal of John Gerard (1597) recommended it as it "consumeth wind and drieth up seed [i.e. semen]", and quoted Dioscorides as recommending it for easing the pain of earache and for the treatment of jaundice. Nicholas Culpeper, in his Herbal (1653), gave the same indications for the use of cannabis seeds, and also recommended the decoction of the roots, as this "allayeth inflammations, easeth the pain of gout, tumours or knots of joints, pain of hips...".

2.3 In these and other early Herbals, each medicine was said to have multiple uses, often without justification. More critical views ultimately prevailed, but only slowly. Thus by 1788 the *New Edinburgh Dispensatory* still included three quarters of the entries of Dioscorides, but excluded most animal products. Such exotic remedies as "scrapings of an elephant's tooth", "dust from the walls of a wrestling school" and, remarkably, as a cure for quartan malaria, "seven bed bugs in meat and beans", had been eliminated. The loss of the animal products and most of the minerals left the 1788 *New Dispensatory* consisting mainly of herbal remedies. There was little change for 150 years, and the British Pharmacopoeia of 1914 included most of the contents of the volume of 1788. But the situation was about to change radically, with the rise of synthetic pharmaceutical chemistry.

2.4 Meanwhile, in 1833 Samuel Carey in his *Supplement to the Pharmacopoeia and Treatise on Pharmacology* advised that cannabis could be used to make "an agreeable intoxicating drink". This is the only British reference to cannabis as an intoxicant known to us from this period.

2.5 Cannabis was reintroduced into British medicine in 1842 by Dr W O'Shaughnessy, an army surgeon who had served in India. In Victorian times it was widely used for a variety of ailments, including muscle spasms, menstrual cramps, rheumatism, and the convulsions of tetanus, rabies and epilepsy; it was also used to promote uterine contractions in childbirth, and as a sedative to induce sleep. It is said to have been used by Queen Victoria against period pains: there is no actual proof of this at all, but Sir Robert Russell, for many years her personal physician, wrote extensively on cannabis, recommending it for use in dysmenorrhoea. It was administered by mouth, not by smoking, but usually in the form of a tincture (an extract in alcohol). Cannabis extracts were also incorporated in many different proprietary medicines.

2.6 "People were well aware at that stage that [cannabis] was an unpredictable drug" (Edwards Q 26). The advent of a host of new and better synthetic drugs led to the abandonment of many ancient herbal remedies, including cannabis. Thus in the British Pharmacopoeia of 1932 no fewer than 400 herbal remedies were omitted, among them cannabis, extract of cannabis and tincture of cannabis—though all three remained in the British Pharmaceutical Codex of 1949[4].

2.7 Until 1968, the only control of medicines in the United Kingdom (other than those regarded as dangerous) was provided by the pharmacopoeias, which set quality standards for the preparation of drugs. The Medicines Act 1968 was enacted following the thalidomide tragedy: it gave the Government power to license pharmaceutical companies, and individual products and clinical trials. It also established the Medicines Commission and the Committee on the Safety of Medicines, to advise the Government on the exercise of their new powers. Existing drugs received "licences of right". The licensing powers are now exercised through the Medicines Control Agency (MCA). Doctors may prescribe an unlicensed drug, or a licensed drug for an unlicensed indication ("off-label"); but they do so at their own risk, and without the benefit of the surveillance for adverse effects which is conducted in respect of licensed medicines through the "yellow card" system.

2.8 Drug abuse has been the subject of international conventions since 1912. In 1961 these were consolidated and brought up to date by the UN Single Convention on Narcotic Drugs. Cannabis and cannabis resin were listed in Schedule IV, which entitled (but did not oblige) parties to adopt "special measures of control", and to ban them altogether "except for amounts which may be necessary for medical and scientific research only, including clinical trials..." (Article 2.5). According to the Home Office (p 150), this reflected "WHO's view that the drug was widely abused, had no therapeutic value and was obsolete in medical practice". Under the Dangerous Drugs Act 1964 (shortly consolidated by the Dangerous Drugs Act 1965), which implemented the Convention in the United Kingdom, cannabis was still able to be prescribed, though subject to certain controls. The tincture received a "licence of right" under the Medicines Act 1968; doctors were therefore still able to prescribe it.

2.9 The scale of drug abuse increased dramatically during the 1960s. In 1971 the UN adopted a further Convention on Psychotropic Substances; and the United Kingdom enacted the Misuse of Drugs Act 1971, which repealed the Act of 1965 and other enactments, replacing them with a more comprehensive and flexible regime. Cannabinol and its derivatives including THC (the chemical which gives cannabis its psychoactive properties—see Chapter 3) appeared in Schedule I to the Convention, and parties were therefore obliged to ban them "except for scientific and very limited medical purposes by duly authorized persons" (Article 7(a)). In 1973 the licences of right granted in 1968 were reviewed, and the original Misuse of Drugs Regulations (SI 1973 No. 797) were made under the 1971 Act. Cannabis's licence of right was not renewed, and the Regulations listed cannabis, cannabis resin and cannabinol and its derivatives in Schedule 4—which is now Schedule 1 to the Misuse of Drugs Regulations 1985 (No. 2066), thereby prohibiting medical use altogether.

the Misuse of Drugs Regulations 1985 (No. 2000)—thereby prohibiting medical use altogether.

2.10 According to the MCA, by 1973 there was "insufficient evidence" to support medical use of the tincture (Q 174), and it was rarely prescribed except to patients who were already drug misusers. The Parliamentary Under-Secretary of State for Health told the Commons on 14 January 1998 (col. 320), "It was rarely used and, when it was, it was used mainly for its sedative qualities. Advice at the time from the World Health Organization was that cannabis was no more effective than any other available drug in treating the conditions for which it was used, so its use was stopped." According to the Department of Health, there was also a problem of diversion to recreational use through bogus prescriptions (Q 174).

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4 The British Pharmaceutical Codex, produced by the Royal Pharmaceutical Society of Great Britain, was a source of officially recognised standards for pharmaceutical preparations until 1979. Since then it has been in the process of being superseded by the British and European Pharmacopoeias. Back

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CHAPTER 3 PHARMACOLOGY OF CANNABIS AND THE CANNABINOIDS

3.1 The plant *Cannabis sativa* is also known as hemp; it is related to the nettle and the hop. It grows readily in a warm climate, and may be grown in more temperate regions. As a drug of abuse, it usually takes the form of herbal cannabis (marijuana), consisting of the dried leaves and female flower heads, or cannabis resin (hashish), the resin secreted by the leaves and flower heads, which may be compressed into blocks.

3.2 The family of chemically related 21–carbon alkaloids found uniquely in the cannabis plant are known as cannabinoids. There are more than 60 different cannabinoids; one of these, D^9–tetrahydrocannabinol (THC), is the most abundant and accounts for the intoxicating properties of cannabis. Other cannabinoids which occur in some abundance (e.g. cannabidiol and cannabinol) are not psychoactive, but it is thought that they may modify the effects of THC. The amounts and proportions of the various cannabinoids in each plant vary from strain to strain, and can be adjusted by breeding. By coincidence, the chemistry and pharmacology of cannabis were among the principal interests of the late Lord Todd, when he worked at Manchester University in the 1930s; he went on to become, among other things, the first Chairman of the House of Lords Select Committee on Science and Technology on its establishment in 1979.

3.3 THC and other cannabinoids dissolve readily in fat but not in water. This limits the possible formulations of cannabis and cannabinoid preparations, and slows down their absorption from the gut. On the other hand, when cannabis is smoked (in a "joint" or "reefer", or in a pipe), THC is absorbed very quickly into the bloodstream, through the large surface area of the pharynx and the lungs. After smoking, the psychoactive effects of THC are perceptible within seconds, and peak effects are achieved within minutes. When cannabis or cannabinoids are taken by mouth, peak effects may not occur for several hours, but they last longer. After smoking or oral ingestion, the drug persists in the brain longer than in the blood; so the psychological effects persist for some time after the level of THC in the blood has begun to decline.

3.4 Smoking delivers 30 per cent or more of the total THC in a cannabis cigarette to the blood stream. The proportion of THC absorbed after taking cannabis by mouth is 2-3 times less, because after absorption in the gut the drug is largely degraded by metabolism in the liver before it reaches the general circulation. Preliminary reports indicate that absorption into the circulation can be increased if THC is administered by rectal suppository, as this route delivers the drug directly into the circulation, avoiding the liver.

3.5 Once THC has entered the bloodstream, it is widely distributed in the body, especially in fatty tissues. The slow release of THC from these tissues produces low levels of drug in the blood for several days after a single dose, but there is little evidence that any significant pharmacological effects persist for more than 4-6 hours after smoking or 6-8 after oral ingestion. The persistence of the drug in the body, and the continuous excretion of degradation products in the urine, can however give rise to cannabis–positive forensic tests days or even weeks after the most recent dose. (The implications of this for roadside testing of drivers are considered below, at paragraph 4.9.)

3.6 According to Professor Trevor Robbins, speaking for the Medical Research Council (MRC), "Cannabinoid pharmacology has exploded in the last decade, opening up all sorts of exciting possibilities" (Q 628). These advances are reviewed in evidence to this Committee by the Royal Society and by Dr Roger Pertwee of the University of Aberdeen[5]. It is now recognised that THC interacts with a naturally occurring system in the body, known as the cannabinoid system. THC takes effect by acting upon cannabinoid receptors (see Box 1). Two types of cannabinoid receptor have been identified: the CB1 receptor and the CB2 receptor. CB1 receptors are present on nerve cells in the brain and spinal cord as well as in some peripheral tissues (i.e. tissues outside the brain); CB2 receptors are found mainly on cells of the immune system and are not present in the brain.

3.7 The roles played by CB1 and CB2 receptors in determining the various effects of cannabis in the whole organism remain to be established. Among the effects of cannabinoids known from animal experiments to be mediated by CB1 receptors are pain relief, impairments in memory and in the control of movements, lowering of body temperature and reductions in the activity of the gut. As CB1 receptors are the only ones known to exist in the brain, it is assumed that they mediate the intoxicant effects of THC. Little is known about the physiological role of the more recently discovered CB2 receptor, but it seems to be involved in the modulation of the function of the immune system.

BOX 1: CANNABIS PHARMACOLOGY—TERMINOLOGY

In common with many other drugs, the effects of THC result from its ability to activate special proteins known as *receptors* found on the surface of certain cells. The drug binds specifically to these proteins and activates a series of processes within the cells, leading to alterations in the cell's activity. Drugs, such as THC, that are able to "switch on" a receptor are known as *agonists* at that receptor. Other substances, however, bind to the receptor and, rather than activating it, prevent its activation by agonists; such substances are known as receptor *antagonists*.

The term *cannabinoid* was originally used to describe the family of naturally occurring chemicals found in cannabis, of which THC is the principal member. It is now also taken to encompass all those substances capable of activating cannabinoid receptors. These include the naturally occurring plant cannabinoids, certain synthetic substances (e.g. nabilone—see Box 4 below), and the recently discovered *endogenous cannabinoids* (see paragraph 3.8 below).

3.8 Another important recent discovery has been that the body contains naturally occurring ("endogenous") compounds that can activate cannabinoid receptors. The most important of these "endogenous cannabinoids" are the fat–like materials arichidonylethanolamide ("anandamide") and 2–arichidonyl–glycerol (2–AG).

3.9 These discoveries have transformed the character of scientific research on cannabis, from an attempt to understand the mode of action of a psychoactive drug to the investigation of a hitherto unrecognised physiological control system in the brain and other organs. Although the physiological significance of this system is still largely unknown, one of the principal actions of THC and the endogenous cannabinoids seems to be to regulate the amounts of chemical messenger substances released from nerves in the brain, thus modulating neural activity.

3.10 The discovery of the endogenous cannabinoid system has significant implications for future pharmaceutical research in this area. Drugs that selectively activate CB1 or CB2 receptors (agonists), or selectively block one or other of these receptor types (antagonists), have already been developed by some pharmaceutical companies (Lambert p 109 and Q 438; Pertwee Q 285). Agonists to the CB2 receptor may have beneficial effects in modulating immune responses, and would not be expected to possess any psychoactive properties as the CB2 receptor is not found in the brain. Antagonists to the CB1 receptor are also being investigated, as novel therapeutic agents with the potential of reducing memory deficits associated with ageing or neurological disease, as novel treatments for schizophrenia or other psychoses, and as appetite suppressants.

3.11 It seems likely that most of the putative medical indications proposed for cannabis involve actions of the drug on CB1 receptors in the central nervous system. Extensive attempts were made by academic and pharmaceutical industry researchers during the 1970s to develop new chemically modified cannabinoid molecules that separated the desired therapeutic effects from the psychoactive properties of these substances; but so far no such compound has been discovered.

3.12 Research continues apace. Professor Patrick Wall of St Thomas' Hospital[6] reports "intense activity in universities and pharmaceutical companies" in this field; "Large numbers of cannabinoids are being synthesised and investigated particularly by US companies" (p 31); "It is an exciting period" (Q 101, cp Q 125, Pertwee QQ 281-298 and Notcutt Q 411). According to Dr Lambert, "The pharmaceutical industry has now provided the researcher with a wide range of tools to probe the cannabinoid system"[7].

3.13 Recent data from animal studies reveal that, in common with various drugs of addiction (heroin, cocaine, nicotine and amphetamines), THC activates the release of the chemical messenger dopamine in some regions of the brain of rats (Pertwee Q 311, Wall Q 126). This is considered important as this pattern of dopamine release is thought to be associated with the rewarding properties of these drugs and hence may be related to their ability to cause dependence.

3.14 Other recent scientific findings indicate a relationship between the cannabinoid system in the brain and the naturally occurring opioid system[8]. The ability of THC to trigger dopamine release in the rat brain is blocked by prior administration of naloxone, a drug that selectively blocks the actions of opiates in the brain. This suggests that some of the psychoactive effects of THC and other cannabinoids may be mediated indirectly through an ability to activate the opioid system (Pertwee Q 311). Recent studies have also shown that the administration of THC to animals enhances the pain-relieving effects of morphine and related opiates. Furthermore, administration of naloxone (the opiate-blocker) to animals previously treated repeatedly with a cannabinoid produced some physical withdrawal signs; conversely, administration of a cannabinoid antagonist to animals previously dependent on heroin elicited some (but not all) of the signs of opiate withdrawal (see Appendix 4, paragraph 8). On the other hand, although some of the actions of THC may involve activation of the opioid system, THC does not mimic morphine or heroin either in its effects on animals or in the subjective experience of human users.

3.15 This new information may or may not be relevant to the debate as to whether cannabis induces physical dependence. We discuss the degree to which cannabis may induce dependence in man below, in Chapter 4.

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5 Dr Pertwee is a world expert on the cannabinoids, and current President of the International Cannabinoid Research Society. At the University of Aberdeen, he heads a research team of eight scientists engaged in research in this area. He was a contributing author to the BMA report. Back

6 Professor Wall is editor-in-chief of the medical journal *Pain*; he was a contributing author to the BMA report, and appeared before us on behalf of the ACT. Back

7 Hirst R A, Lambert D G and Notcutt W G, *Pharmacology and potential therapeutic uses of cannabis*. Br. J. Anaesthesia, July 1998. Back

8 The opioid system consists of receptors normally activated by the enkephalins and endorphins, normally released in response to pain and stress. They are also activated by morphine, heroin and other opiates. Back

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CHAPTER 4 TOXIC EFFECTS OF CANNABIS AND CANNABINOIDS: REVIEW OF THE EVIDENCE

4.1 The prohibition of the recreational use of cannabis, and some of the doubts about medical use, are based on the presumption that cannabis is harmful to individual and public health. We have tested the strength of that presumption, and this Chapter records what we have found. New research on this subject is constantly coming forward, so this cannot be said to be the last word on it. Although cannabis is not in the premier league of dangerous substances, new research tends to suggest that it may be more hazardous to health than might have been thought only a few years ago (Edwards QQ 21, 27).

4.2 In assessing the adverse effects associated with cannabis use, we have been assisted by a number of detailed recent reviews, including the recent WHO report *Cannabis: a health perspective and research agenda* (WHO/MSA/PSA/97.4); the Australian National Drug Strategy report *The health and psychological consequences of cannabis use* (1994) and other documents[2] submitted by Professor Wayne Hall, Executive Director of the Australian National Drug and Alcohol Research Centre in Sydney, and his colleagues; and the recent reviews noted above commissioned by the Department of Health. The evidence submitted to us by the Royal Society and the Royal College of Psychiatrists is also particularly relevant.

Acute (short-term) effects of cannabis

4.3 The acute toxicity of cannabis and the cannabinoids is very low; no-one has ever died as a direct and immediate consequence of recreational or medical use (DH QQ 219–223). Official statistics record two deaths involving cannabis (and no other drug) in 1993, two in 1994 and one in 1995 (HC WA 533, 21 January 1998); but these were due to inhalation of vomit. Animal studies have shown a very large separation (by a factor of more than 10,000) between pharmacologically effective and lethal doses.

4.4 One minor toxic side-effect of taking cannabis which merits attention is the short-term effect on the heart and vascular system. This can lead to significant increases in heart rate and a lowering of the blood pressure (Pertwee Q 299). For this reason patients with a history of angina or other cardiovascular disease could be at risk and should probably be excluded from any clinical trials of cannabis-based medicines.

4.5 The most familiar short-term effect of cannabis is to give a "high" — a state of euphoric intoxication. This is, of course, precisely the effect sought by the recreational user, analogous to the effect of alcohol and sought for similar reasons. We have been told, however, that people who use cannabis for medical purposes regard it as an unwelcome side-effect (Hodges Q 97).

4.6 Intoxication with cannabis leads to a slight impairment of psychomotor and cognitive function, which is important for those driving a vehicle, flying an aircraft or operating machinery (DH Q 197). The Department of Health rate this as "the major concern from a public health perspective" raised by recreational use (p 46), and Professor Hall considers it the most serious possible short-term consequence of cannabis use, both for the user and for the public (p 222).

4.7 There is some disagreement about how long such impairments persist after taking cannabis: most assume that they last for only a few hours (e.g. Kendall p 266); but Professor Heather Ashton of the University of Newcastle-upon-Tyne, principal author of the BMA report, suggested that subtle cognitive impairments could persist for 24 or even 48 hours or more (Q 72), whereas the DETR say "probably .... 24 hours at most" (*Press*

Notice 94/Transport, 11 February 1998). On the other hand the impairment in driving skills does not appear to be severe, even immediately after taking cannabis, when subjects are tested in a driving simulator. This may be because people intoxicated by cannabis appear to compensate for their impairment by taking fewer risks and driving more slowly, whereas alcohol tends to encourage people to take greater risks and drive more aggressively (POST note 113; cp DH p 240).

4.8 Analysis of blood samples from road traffic fatalities in 1996-97 (the results of the first 15 months of a three year DETR study—*Press Notice 94/Transport*, 11 February 1998) showed that 8 per cent of the victims were positive for cannabis, including 10 per cent of the victims who were driving. However, it is not clear what figures would have been obtained from a random sample of road users not involved in accidents (DH Q 211); and some of those who tested positive may have taken the cannabis as much as 30 days before, so that the effects would have worn off long since (DH p 240). The interpretation of traffic accident data is further confounded by the fact that 22 per cent of the drivers found to be cannabis–positive also had evidence of alcohol intake; proportions of alcohol–positives among cannabis–positive drivers as high as 75 per cent have been reported in other countries in similar studies. Professor Hall considers cannabis's contribution to danger on the roads to be very small; in his view the major effect of cannabis use on driving may be in amplifying the impairments caused by alcohol (cp Keen Q 42). According to a survey of 1,333 regular cannabis users by the Independent Drug Monitoring Unit (IDMU) in 1994, users who drove reported a level of accidents no higher than the general population; those with the highest accident rates were more likely to be heavier poly-drug users.

4.9 It is difficult to see how cannabis intoxication could be monitored, if its use were permitted. There could be no equivalent of the breathalyser for alcohol, since small amounts of cannabis continue to be released from fat into the blood long after any short-term impairment has worn off (see paragraph 3.5 above).

4.10 A single dose of cannabis for an inexperienced user, or an over–dose for an habitual user, can sometimes induce a variety of intensely unpleasant psychic effects including anxiety, panic, paranoia and feelings of impending doom (BMA p 9, RCPsych p 282). These adverse reactions are sometimes referred to as a "whitey" as the subject may become unusually pallid (Montgomery Q 577). These effects usually persist for only a few hours.

4.11 In some instances cannabis use may lead to a longer-lasting toxic psychosis involving delusions and hallucinations that can be misdiagnosed as schizophrenic illness (Strang Q 239, van der Laan Q 512). This is transient and clears up within a few days on termination of drug use; but the habitual user risks developing a more persistent psychosis, and potentially serious consequences (such as action under the Mental Health Acts and complications resulting from the administration of powerful neuroleptic drugs) may follow if an erroneous diagnosis of schizophrenia is made. It is also well established that cannabis can exacerbate the symptoms of those already suffering from schizophrenic illness (Q 239) and may worsen the course of the illness; but there is little evidence that cannabis use can precipitate schizophrenia or other mental illness in those not already predisposed to it (RCPsych p 283).

4.12 These relatively rare adverse psychological effects of cannabis are not considered to represent a serious limitation on the potential medical use of the drug (Strang Q 244), save that patients suffering from schizophrenic illness or other psychoses should be excluded. However they do constitute an issue for public health. According to the Department of Health, cannabis contributes to the extra cost of acute psychiatric services imposed by drug misuse, though this cannot be separately costed (p 46; cp RCPsych p 282). The Royal College of Psychiatrists (p 284) believe that the proportion of users who experience acute adverse mental effects is "significant".

Chronic (long-term) toxicity

4.13 Cannabis can have untoward long-term effects on cognitive performance, i.e. the performance of the brain, particularly in heavy users. These have been reviewed for us by the Royal College of Psychiatrists and the Royal Society. While users may show little or no impairment in simple tests of short-term memory, they show significant impairments in tasks that require more complex manipulation of learned material (so-called "executive" brain functions) (Edwards Q 21). There is some evidence that some impairment in complex cognitive function may persist even after cannabis use is discontinued[10]; but such residual deficits if present are small, and their presence controversial (van Amsterdam Q 494, Hall Q 741). Dr Jan van Amsterdam of the Netherlands National Institute of Public Health and the Environment, who has reviewed the literature on long-term cognitive effects of prolonged heavy use and kindly came to Westminster to tell us his findings, pointed out the practical difficulties of assessing possible residual effects (Q 487). These include the impossibility of obtaining pre–drug baseline values (i.e. measures of the cognitive functioning of the subject before their first use of cannabis), the difficulty of estimating the drug dose taken, the need for a lengthy "wash–out" period after termination of use to allow for the slow elimination of residual cannabis from the body, and the possibility of confusing long-term deficits with withdrawal effects. He felt that many of the published reports on this subject had not taken adequate account of these problems.

4.14 The occurrence of an "amotivational syndrome" in long-term heavy cannabis users, with loss of energy and the will to work, has been postulated. However it is now generally discounted (van Amsterdam Q 503); it is thought to represent nothing more than ongoing intoxication in frequent users of the drug (RCPsych p 283).

4.15 Animal experiments have shown that cannabinoids cause alterations in both male and female sexual hormones; but there is no evidence that cannabis adversely affects human fertility, or that it causes chromosomal or genetic damage (WHO report ch.7). The consumption of cannabis by pregnant women may, however, lead to significantly shorter gestation and lower birth-weight babies in mothers smoking cannabis six or more times a week (WHO report ch.8; DH p 47). These effects may be due to the inhalation of carbon monoxide in cannabis smoke, which lowers the ability of the blood to carry oxygen to the foetus, rather to any direct effect of cannabinoids. If so, they are comparable with the effects of smoking tobacco.

4.16 The NHS National Teratology [i.e. foetal abnormality] Information Service advise, "There are a few case reports of malformations following marijuana use in pregnancy. However, there is no conclusive evidence to suggest either an increase in the overall malformation rate or any specific pattern of malformations". Nevertheless, they warn: "We would not recommend the legalisation of cannabis because of the potential fetotoxicity that may occur if it is used in pregnancy" (p 280).

4.17 Most of our witnesses regard the consequences of smoking cannabis as the most important long-term risk associated with cannabis use[11]. Cannabis smoke contains all of the toxic chemicals present in tobacco smoke (apart from nicotine), with greater concentrations of carcinogenic benzanthracenes and benzpyrenes It has been estimated (BMA p 11) that smoking a cannabis cigarette (containing only herbal cannabis) results in approximately a five–fold greater increase in carboxy–haemoglobin concentration[12], a three–fold greater increase in the amount of tar inhaled, and a retention in the respiratory tract of one third more tar, than smoking a tobacco cigarette. Cannabis resin, the most commonly used form of cannabis in the United Kingdom, is often smoked mixed with tobacco, thus adding the well-documented risks of exposure to tobacco smoke, while complicating the picture for the researcher.

4.18 Regular cannabis smokers suffer from an increased incidence of respiratory disorders, including cough, bronchitis and asthma. Microscopic examination of the cells lining the airways of cannabis smokers has revealed the presence of an inflammatory

response and some evidence for what may be pre-cancerous changes. There is as yet no epidemiological evidence for an increased risk of lung cancer (DH p 46, Q 205); but, by analogy with tobacco smoking, such a link may take 25-30 years or more before it becomes evident, and the widespread use of smoked cannabis in Western societies dates only from the 1970s. There are some reports of an increased incidence of cancers of the mouth and throat in young cannabis users[13], but so far these involve only small numbers and no cause and effect relationship has been established. Nevertheless, Professor Hall considers it a "pretty reasonable bet" that heavy users incur a risk of cancer (Q 741); and the risk is considered by some of our witnesses to be sufficiently serious to rule out any approval of long-term medical use of smoked cannabis, and to justify the present prohibition on recreational use.

Tolerance to cannabis

4.19 Tolerance is the phenomenon whereby a regular user of a drug requires more each time to achieve the same effect. It is not an adverse effect in itself; but it may make medical use more difficult, and recreational use more damaging as the user's demand for the drug increases.

4.20 Dr Pertwee told us that both animal and human data show that tolerance can develop on repeated administration of high doses of cannabinoids; tolerance may develop more readily to some effects in animals (e.g. lowering of body temperature) than to others (Q 304). However Clare Hodges[14], a sufferer from MS, said that she had not experienced tolerance to the palliative effects of low doses of cannabis, and had been taking the same dose (9g of herbal cannabis per week, costing about £30 per week, usually smoked) for six years; neither had other medical users reported tolerance in their experience (QQ 117-119; cp LMMSG p 269).

4.21 Whether tolerance develops may therefore depend on how much drug is consumed, and how often. Neil Montgomery, a research journalist currently studying cannabis users through the Department of Social Anthropology at the University of Edinburgh, said that his observations of heavy cannabis users (using more than 28g of cannabis resin per week) suggested that they needed as much as eight times higher doses to achieve the same psychoactive effects as regular users consuming smaller doses of the drug (Q 570). Clear evidence of tolerance has also been reported in volunteers given large doses of THC under laboratory conditions (Pertwee Q 304).

4.22 This conforms with the evidence of Professor Wall, who compared the experience with morphine and related opiate pain-relieving agents during the past 20-30 years, pioneered by Dame Cicely Saunders and the Hospice movement. This has shown that tolerance (and addiction—see below) are not major problems in the medical use of these drugs, although in recreational use they may pose severe problems (Q 120).

Dependence on cannabis

4.23 The repeated use of cannabis or cannabinoids does not result in severe physical withdrawal symptoms when the drug is withdrawn; so many have argued that these drugs are not capable of inducing dependence. Dr Pertwee, and Dr David Kendall of the University of Nottingham (p 267), however, described new evidence from animal studies showing marked signs of withdrawal in animals treated repeatedly with large doses of cannabinoids and then challenged with a newly developed cannabinoid CB1 receptor antagonist (see Box 1) called SR141716A. This has provided the first real evidence for physical dependence and withdrawal symptoms in animals (QQ 308-310).

4.24 The BMA report says that withdrawal symptoms from cannabis in man are mild and short–lived; but in the light of the newer definitions of dependence noted in Box 2 this evidence is inconclusive. Professor Ashton indicated that she felt cannabis to be potentially addictive, and compared the withdrawal symptoms—tremor, restlessness and insomnia—to those experienced by users of alcohol, sleeping pills or tranquillisers. She had talked to

students with quite severe cannabis withdrawal problems (Q 73).

BOX 2: DEFINITIONS OF DEPENDENCE

The consumption of any psychoactive drug, legal or illegal, can be thought of as comprising three stages: use, abuse, and addiction. Each stage is marked by higher levels of drug use and increasingly serious consequences.

Abuse and addiction have been defined and redefined by various organisations over the years. The most influential current system of diagnosis is that published by the American Psychiatric Association (DSM-IV, 1994). This uses the term *substance dependence* instead of addiction, and defines this as a cluster of symptoms indicating that the individual continues to use the substance despite significant substance-related problems. The symptoms may include *tolerance* (the need to take larger and larger doses of the substance to achieve the desired effect), and *physical dependence* (an altered physical state induced by the substance which produces physical *withdrawal symptoms*, such as nausea, vomiting, seizures and headache, when substance use is terminated); but neither of these is necessary or sufficient for the diagnosis of substance dependence. Using DSM-IV, dependence can be defined in some instances entirely in terms of *psychological dependence*; this differs from earlier thinking on these concepts, which tended to equate addiction with physical dependence.

The DSM-IV system also defines *substance abuse* as a less severe diagnosis, involving a pattern of repeated drug use with adverse consequences but falling short of the criteria for substance dependence.

4.25 Professor Griffith Edwards, a member of the Advisory Council on the Misuse of Drugs[15] (Q 27), said that, using internationally agreed criteria (DSM-IV—see Box 2), there seemed no doubt that some regular cannabis users become dependent, and that they suffer withdrawal symptoms on terminating drug use. According to the WHO report, cannabis dependence is characterised by a loss of control over drug use, cognitive and motivational impairments that interfere with work performance, lowered self-esteem and often depression. Professor Hall wrote, "By popular repute, cannabis is not a drug of dependence because it does not have a clearly defined withdrawal syndrome. There is, however, little doubt that some users who want to stop or cut down their cannabis use find it very difficult to do so, and continue to use cannabis despite the adverse effects that it has on their lives." In oral evidence he added that users who sought treatment for cannabis dependence had typically taken large amounts of cannabis every day for perhaps 15 years or more (Q 745).

4.26 The Institute for the Study of Drug Dependence likewise conclude that, while physical dependence is rare, "Regular users can come to feel a psychological need for the drug or may rely on it as a "social lubricant": it is not unknown for people to use cannabis so frequently that they are almost constantly under the influence" (p 263).

4.27 One measure of the significance of cannabis dependence is the proportion of users who become dependent. Since cannabis dependence is poorly defined, and the total number of users is unknown, this figure is elusive. Data from a recent study of 200 regular users in Australia[16] suggest that more than 50 per cent of such users may be classified as dependent, although many of these do not consider themselves as dependent. This corresponds with the finding of an American study of 1991, cited by the WHO report, that "about half of those who use cannabis daily will become dependent". According to Professor Hall, "Epidemiological studies suggest that cannabis dependence in the sense of impaired control over use is the most common form of drug dependence after tobacco and alcohol, affecting as many as one in ten of those who ever use the drug" (p 221).

4.28 Neil Montgomery estimates that approximately 5 per cent of regular cannabis users are heavy users, consuming as much as 28g of cannabis resin per week. "These are people who have become dependent on cannabis; they are psychologically addicted to the

people who have become dependent on cannabis, they are psychologically addicted to the almost constant consumption of cannabis...Becoming stoned and remaining stoned throughout the day is their prime directive" (Q 554).

4.29 Another measure of the extent of cannabis dependence is the number of people who seek treatment for it. Department of Health figures (1996) show that in 6 per cent of all contacts with regional drug clinics cannabis was the main drug of misuse (Q 27). A similar figure, that cannabis users constitute 7 per cent of all new admissions to drug treatment centres in Australia, was reported recently. Dr Philip Robson[17], who runs a Regional Drug Dependence Unit in Oxford, said that 4.9 per cent of those admitted to his unit cited cannabis as their main drug (Q 462). However he did not regard cannabis as an important drug of addiction: "The drug falls well below the threshold of what would be expected for a dependency–producing drug which has clinical significance...I do not meet people who are prepared to knock over old ladies in the street or burglarise houses or commit other crimes to obtain cannabis". Professor Robbins estimated that at least 2 per cent of regular cannabis users (whom he defined as those using cannabis more than once a week) in the USA are dependent, on the basis of an estimate of 5m users and an official figure of 100,000 on specific treatment for cannabis dependency syndrome (Q 623).

4.30 It has been suggested that US figures may be inflated by people on compulsory treatment, for instance after testing positive at work, who may not in fact be dependent. According to Professor Hall, however, "In Australia ... drug testing is uncommon and there is no cannabis treatment industry. Yet treatment services...have seen an increase in the number of persons seeking help for cannabis" (p 221). He even suggests that the figures may be kept down by the widespread belief that it is not possible to be dependent on cannabis (Q 748).

4.31 Giving up cannabis is widely believed to be relatively easy: according to the Department of Health, "studies report that of those who had ever been daily users only 15 per cent persisted with daily use in their late twenties" (p 45). Most epidemiological studies in Britain and the United States have shown that the illicit use of cannabis mainly involves people in their late teens and twenties, with relatively few users over the age of 30.

4.32 It has been assumed that young cannabis users give up the habit when they enter their thirties; IDMU (p 236), however, suggest that this pattern may be changing. The British Crime Survey (1996) shows that although the prevalence of cannabis use falls after the age of 30, the greatest proportional increases in the period 1991-1996 were in older age groups, with incidence of past use doubling in the 40-44 age group (from 15 per cent to 30 per cent) and trebling in the 45-59 age group (from 3 per cent to 10 per cent). IDMU conclude that the current relatively low levels of cannabis use in the over-30 age group may reflect a generational and cultural divide, rather than substantial numbers of users giving up.

4.33 It is therefore clear that cannabis causes psychological dependence in some users, and may cause physical dependence in a few. The Department of Health sum up the position thus (p 45, cp Edwards Q 28): "Cannabis is a weakly addictive drug but does induce dependence in a significant minority of regular cannabis users."

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9 Including Hall W, Room R and Bondy S, *A comparison of the health effects of alcohol, cannabis, tobacco and opiates*, in Kallant H, Corrigal W, Hall W and Smart R eds *The Health Effects of Cannabis*, Addiction Research Foundation, Toronto, 1998; and articles awaiting publication in *Addiction* (*Respiratory risks of cannabis smoking*, 1998, 93, 1461), *Drug and Alcohol Review*, and the *Lancet* Seminar series (14 November 1998). Back

10 N Solowij, *Cannabis and Cognitive Functioning*, Cambridge University Press, 1998. Back

11 See in particular DH p 46; papers kindly supplied by Professor Donald Tashkin, University of California Los Angeles School of Medicine, and Professor Hall; and Appendix 3, paragraph 8. Back

12 Carboxy-haemoglobin is formed by the action of carbon monoxide on haemoglobin in the blood. It interferes with the transport of oxygen around the body. Back

13 E.g. Taylor FM III, *Marijuana as a potential respiratory carcinogen: a retrospective analysis of a community hospital population*, South. Med. J. 1988, 81, 1213. Back

14 Miss Hodges is the founder-Director of the UK Alliance for Cannabis Therapeutics (ACT). "Clare Hodges" is a *nom de guerre*. Back

15 Professor Edwards is Professor Emeritus of Addiction Behaviour at the Institute of Psychiatry, University of London; past Chairman of the National Addiction Centre; and editor-in-chief of the journal *Addiction*. The ACMD is established under the Misuse of Drugs Act 1971, to advise the Government. Back

16 By Dr Wendy Swift, Australian National Drug and Alcohol Research Centre. Back

17 Consultant psychiatrist, Warneford Hospital; senior clinical lecturer, University of Oxford; author of one of the reviews for the Department of Health referred to in paragraph 1.4. Back

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CHAPTER 5 MEDICAL USE OF CANNABIS AND CANNABINOIDS: REVIEW OF THE EVIDENCE

5.1 The main reason for our inquiry is that there are now calls for the law to be changed to permit wider medical use of cannabinoids, and to permit the medical use of cannabis itself. This Chapter reviews the evidence which we have received about current and proposed medical uses for cannabis and the cannabinoids. It is important to distinguish the different substances and preparations; for instance, cannabis leaf must be distinguished from cannabis extract, and whole cannabis from THC. It is also important, though not always easy, to distinguish the various possible routes of administration, e.g. by smoking and by mouth.

Current medical use of cannabis

5.2 Today in the United Kingdom, medical use of cannabis itself is illegal (see Box 3) but quite widespread. According to the BMA report, "many normally law-abiding citizens—probably many thousands in the developed world" use cannabis illegally for therapy. Most such users smoke their cannabis, but some take it by mouth. The UK Alliance for Cannabis Therapeutics (ACT) know of 200 people in the United Kingdom who have used cannabis for MS (p 29): 53 took part in a recent study of perceived effects of smoked cannabis[18] (Q 262). Clare Hodges writes, "It is impossible to know how many people with MS use cannabis...My impression is that most people with MS do not". A Multiple Sclerosis Society survey produced a figure of one per cent; but the Society believe the true figure to be higher (Q 341).

BOX 3: CURRENT LEGAL CONTROLS

The regulation of cannabis in the United Kingdom under the Misuse of Drugs Act 1971 is complicated. Schedule 2 to the Act classifies cannabis itself, and cannabis resin, as Class B controlled drugs, and the cannabinoid cannabinol and its derivatives (defined as THC and 3-alkyl homologues thereof) as Class A controlled drugs. Offences involving Class A drugs attract stiffer penalties. Under the Act it is an offence to import, export, produce, supply or possess controlled drugs (though it is not an offence to use them); it is also an offence to cultivate cannabis plants, or to permit premises to be used for smoking cannabis.

Reference is often made in this context to "Schedule 1 and Schedule 2". These are Schedules not to the Act itself, but to the Misuse of Drugs Regulations 1985 (No. 2066) made under the Act. Schedules 2-5 list drugs to which various exemptions from the Act apply; in particular, drugs in Schedule 2 may be administered by, or on the instructions of, a doctor or dentist (Regulation 7), may be produced by a practitioner or pharmacist (Reg. 8), may be supplied (Reg. 8) and possessed (Reg. 10) by various classes of person, including practitioners, pharmacists and heads of laboratories, and may be possessed by patients (Reg. 10). Schedule 1 lists drugs to which the exemptions do not apply; cannabis, cannabis resin, and cannabinol and its derivatives (other than dronabinol—see Box 5) appear in Schedule 1.

The 1985 Regulations also empower the Secretary of State to license anyone to produce, possess or supply any controlled drug, including a Schedule 1 drug (Reg. 5); to license cultivation of cannabis plants (Reg. 12); and to approve premises for smoking cannabis for research purposes (Reg. 13).

The position in practice is therefore that cannabis and most of its derivatives may not be used in medicine, and may be possessed for research only under Home Office licence. There are two psychoactive cannabinoids, nabilone and dronabinol, which may be used for medicine: see Boxes 4 and 5. Two non-psychoactive cannabinoids, cannabidiol and cannabichromene, are not controlled drugs, and could in theory be prescribed as unlicensed medicines, but no-one is currently doing so.

This UK regime is one of the most restrictive in the world. Places with a more liberal regime include the Netherlands, Italy, Spain, Canada, and some states of Germany, Australia and the USA.

5.3 The ACT also know of 50 users with spinal injury, and 20 with other conditions. A survey conducted by the newspaper *Disability Now* in 1997 among its disabled readers revealed, among 200 respondents, 40 people taking cannabis for MS, 40 for spinal injury, 35 for back pain, 27 for arthritis and 64 for other conditions. IDMU's surveys of 2,794 regular cannabis users have revealed 78 whose main reason for using it is medical (p 244).

5.4 We have received written evidence (not included in the volume of printed evidence) from four patients suffering from MS (besides Miss Hodges) who report that cannabis has a beneficial effect on their symptoms and call for a change in the law to permit the prescription of cannabis. Dr Fred Schon, a consultant neurologist, described the apparently dramatic improvement obtained by self-medication with smoked cannabis resin by an MS patient who had developed a severe and disabling abnormality of eye movements (p 303). We have also heard from people who have used cannabis against epilepsy, ME and pain, and as an anti-emetic after chemotherapy. Further anecdotal evidence was provided by the Alliance for Cannabis Therapeutics and the London Medical Marijuana Support Group.

5.5 According to Neil Montgomery, some users of cannabis for medical purposes are also, or have been, recreational users, and their medical use is to some extent conditioned by their recreational experience (p 132). Three of the nine such users who have given us evidence are in this category. An increasing number are growing their own cannabis, "primarily to avoid problems of impurity", or buying in bulk to ensure consistency of dose; either course exposes them to stiffer sentences, if caught, than the frequent purchase of small quantities (cp IDMU p 261). Medical users typically take cannabis as frequently as, but in smaller quantities than, recreational users (Q 567).

5.6 Use of cannabis for medical purposes is sometimes connived at by the medical profession. Clare Hodges took

5.6 Use of cannabis for medical purposes is sometimes connived at by the medical professions. Clare Hodges took medical advice before trying cannabis for her MS, and was not dissuaded (p 27). "Over 50 patients have told the ACT that their doctors have recommended that they try cannabis for symptomatic relief" (p 29); and 50 of the 200 respondents to the *Disability Now* survey said their doctor knew and approved. 100 doctors are associated with the ACT (Q 96). Most medical users tell the Multiple Sclerosis Society that their doctors are "mildly supportive" (Q 341). One user's doctor knows that she uses cannabis for pain relief and is unconcerned. Another took to cannabis for his epilepsy on a doctor's recommendation. On the other hand, a third user's consultant would not support his letter to us, "due to the advances in anti-emetic drugs". According to Dr William Notcutt, a consultant anaesthetist[19], self-medication with cannabis for pain is now common, and "Advising on its use can be part of the pharmacological management of pain nowadays" (p 101, Q 434). Finally, the BMA report on medical use was itself prompted by a resolution in favour of medical use of "certain additional cannabinoids", passed by the BMA's Annual Representative Meeting in 1997.

5.7 The Government consider that the burden of proof rests on the proponents of medical use of herbal cannabis. As recently as 1 March 1994, the then Home Office Minister referred in a Commons answer to "long-standing advice that cannabis has no recognised medical use" (HC WA 632). Since then, the Government line appears to have softened a little: on 2 July 1997, Tessa Jowell MP, the Minister of State for Health, said that officials were keeping available research under review. "At present the evidence is inconclusive. The key point is that a cannabis-based medicine has not been scientifically demonstrated to be safe, efficacious and of suitable quality" (HC WA 174). On 27 October 1997, Paul Flynn MP put it to George Howarth MP, Under-Secretary of State at the Home Office, that cannabis was already widely used, illegally, by sufferers from MS, cerebral palsy and glaucoma; the Minister replied, "All drugs used for medical purposes have to be scientifically tested. If cannabis succeeds in those tests...the Secretary of State for Health...would be willing to consider allowing medicinal use of it. Unfortunately, as of now, there is no such evidence" (col. 580; see also HL 20 April 1998, WA 192, and HC 5 May 1998, WA 351).

5.8 The Department of Health say the same in written evidence: "There is insufficient evidence to demonstrate the effectiveness of cannabis as a therapeutic agent at this stage" (p 48). In oral evidence they went a little further: "We very much recognise the importance of research in this area and its potential value, particularly when addressed to the needs of patients for whom we have relatively little else to offer" (Q 167). But MS is not the only condition where conventional treatments are relatively limited in their effects, and the Department warned against allowing the "added frisson" of cannabis to distort the perspective (Q 225).

Advice to medical users

5.9 Given that use of cannabis for medical purposes is clearly going on in spite of the law, we asked some of our witnesses what advice they would give to people conducting or contemplating medical use, and to their doctors. The Department of Health suggest that doctors should advise users as to the legal position, and as to the "limited evidence" of efficacy. However, "one has also to recognise that people may choose to do things that their doctors advise against, and there would be a necessity for the doctor subsequently to continue to work to support that individual" (Q 172). One official went so far as to say, off the cuff but not off the record, "Other people's decisions have to be other people's decisions" (Q 224).

5.10 The BMA advise users of cannabis for medical purposes to be aware of the risks, to enrol for clinical trials, and to talk to their doctors about new alternative treatments; but they do not advise them to stop (Q 55). The Multiple Sclerosis Society "does not actually condone or encourage individuals in breaking the law" (Q 341).

Current medical uses of cannabinoids

5.11 Although cannabis itself is illegal, certain cannabinoids are in current use in UK medicine, within the law. Cannabinoids have anti-nausea effects, and have been used clinically to suppress the nausea and vomiting associated with chemotherapy in cancer patients. This is the only medical indication for which adequate data from controlled clinical trials exist, mostly from studies in the 1970s with pure THC and the synthetic cannabinoid nabilone, an analogue of THC, which were found to be as effective as prochlorperazine and other anti-nausea agents available at the time. On the basis of this evidence nabilone was licensed and is available as a prescription medicine in the United Kingdom for this indication (see Box 4). However, according to Professor Malcolm Lader of the Institute of Psychiatry, University of London[20] (Q 7), it has been little used. He believes that this is largely due to the fact that more powerful anti-nausea medicines were introduced in the 1980s—the serotonin antagonists ondansetron (Zofran), granisetron (Kytril) and tropisetron (Navoban), which are now widely used in conjunction with cancer chemotherapy (cp Hall p 221 and Appendix 3 paragraph 13). They have the advantage over the water-insoluble cannabinoids that they can be delivered intravenously as well as by mouth, and they are effective in up to 90 per cent of patients. There have been no clinical trials to compare the effectiveness of cannabinoids with the serotonin antagonists (RPharmSoc p 287).

Box 4: NABILONE

Nabilone is an analogue of D^9-THC. It was licensed in 1982 for prescription-only hospital-only use against nausea arising from chemotherapy and unresponsive to other treatment. It is manufactured synthetically by Eli Lilly & Co. Ltd and sold in the United Kingdom by Cambridge Selfcare Diagnostics Ltd; a pack of 20 1mg capsules (to be taken by mouth) costs £102. 5,400 packs were sold in 1997-98. It is not a controlled drug.

According to Dr Kendall of the University of Nottingham, nabilone is not widely used to treat nausea (p 268). Nabilone is used "very infrequently" in MS—probably less than cannabis itself (MSSoc Q 353). However Dr Notcutt is using it for pain control at James Paget Hospital in Great Yarmouth—see paragraph 5.14.

5.12 This means that cannabis and cannabinoids are likely to be of benefit as anti-emetics only to the small proportion of patients who do not respond to existing treatments, or possibly in the treatment of the delayed stages of emesis which can

occur for some days following cancer chemotherapy, and which do not respond well to the serotonin antagonists. Nevertheless, cannabinoids are undoubtedly effective as anti-emetics and more research in this field might explore their use in combination with the serotonin antagonists, help to determine for which patients they are most appropriate, and examine the potential of the allegedly less psychoactive cannabinoid D^8-THC, for which there have been encouraging preliminary clinical results (Q 74).

5.13 THC itself (dronabinol—see Box 5) is licensed as an anti-emetic in the USA, but not in this country. The BMA report recommends that it should be licensed here. This would depend on the manufacturer applying for a licence; in the mean time, doctors may prescribe it on an unlicensed basis at their own risk.

BOX 5: DRONABINOL

Dronabinol is THC. It is marketed as Marinol, synthetic D^9-THC in sesame oil, supplied in soft gelatine capsules (to be taken by mouth) containing 2.5, 5 or 10mg of THC. It is licensed in the USA as an anti-emetic, and also to stimulate the appetite of AIDS patients. Marinol is manufactured by Unimed Pharmaceuticals Inc. in the USA; it is significantly more expensive than nabilone (Notcutt Q 427). It is not licensed as an anti-emetic here; but in 1995, on WHO advice, it was moved from Schedule 1 to Schedule 2 of the 1985 Regulations (by the Misuse of Drugs (Amendment) Regulations 1995, No. 2048), and may therefore be prescribed on the named-patient basis defined in the 1985 Regulations (see Box 6).

In a 1997 survey in the USA, only 6 per cent of 1,500 oncologists said they had prescribed dronabinol in the previous year (Brett p 204, cp Hall p 222). According to the BMA, take-up in the United Kingdom is low, because of the administrative obstacles and the availability of good alternatives (Q 83). According to Dr Notcutt of James Paget Hospital, Great Yarmouth (Q 422), it is not in practice available in the United Kingdom at present.

5.14 Dr Notcutt is currently treating patients suffering from intractable pain with nabilone, on an unlicensed basis. He has treated a total of 60 patients with a variety of chronic pain conditions, including MS, cancer, peripheral nerve damage and spinal lesions. As many as 50 per cent have derived some pain relief from nabilone, but a significant number of patients are unable to tolerate the side effects of the drug (unpleasant psychoactive effects and drowsiness) (Q 400) and the overall success rate is about 30 per cent (p 104).

5.15 Cannabis has been advocated to treat anorexia, but the scientific basis of this remains unclear. In normal subjects cannabis intake is followed about three hours later by an increased appetite ("the munchies"), particularly for sweet foods (Pertwee Q 256). Regular users of cannabis, however, become tolerant to this effect and appetite may even be depressed. According to the BMA report clinical trials have failed to establish any beneficial effect of THC on appetite in patients with anorexia nervosa. However, in controlled clinical trials in patients with advanced AIDS-related illnesses, dronabinol significantly reduced nausea, prevented further weight loss and improved patients' mood. On the basis of such data the US Food and Drug Administration have licensed dronabinol for the treatment of anorexia associated with AIDS; Dr Robson sees this as "the most compelling indication" for cannabis-based medicines (Q 458).

5.16 There is a concern with regard to the use of cannabinoids in AIDS because of the possible immunosuppressive effects of these drugs (BMA QQ 79, 80, Hall Q 742). Such effects could be damaging in patients whose immune system is already compromised, although there is no evidence of any relationship between cannabis use and the rate of progression to AIDS in HIV-positive men (Robson Q 460).

5.17 The BMA report recommends that the licensed indications for nabilone be extended to preventing weight loss and treating anorexia in patients with cancer or AIDS, and that dronabinol should be licensed in this country for this indication. As noted already, this would depend on application by the manufacturers; in the mean time, doctors may prescribe "off-label" at their own risk. Dronabinol is a controlled drug, listed in Schedule 2 to the Misuse of Drugs Regulations (see Box 2); so prescription would have to be on the "named-patient" basis defined in the Regulations (see Box 6).

BOX 6: PRESCRIPTION ON THE NAMED-PATIENT BASIS
Under Regulation 15 of the Misuse of Drugs Regulations 1985, any prescription for a drug listed in Schedule 2 (or Schedule 3) to the Regulations shall:
"(a) be in ink or otherwise so as to be indelible and be signed by the person issuing it with his usual signature and dated by him;
(b) insofar as it specifies the information required by sub-paragraphs (e) and (f) below to be specified, be written by the person issuing it in his own handwriting;
(c) except in the case of a health prescription, specify the address of the person issuing it;
(d) have written thereon, if issued by a dentist, the words "for dental treatment only" and, if issued by a veterinary surgeon or a veterinary practitioner, a declaration that the controlled drug is prescribed for an animal or herd under his care;
(e) specify the name and address of the person for whose treatment it is issued or, if it is issued by a veterinary surgeon or veterinary practitioner, of the person to whom the controlled drug prescribed is to be delivered;
(f) specify the dose to be taken and—
(i) in the case of a prescription containing a controlled drug which is a preparation, the form and, where appropriate, the

(f) in the case of a prescription containing a controlled drug which is a preparation, the form and, where appropriate, the strength of the preparation, and either the total quantity (in both words and figures) of the preparation or the number (in both words and figures) of dosage units, as appropriate, to be supplied;
(ii) in any other case, the total quantity (in both words and figures) of the controlled drug to be supplied;
(g) in the case of a prescription for a total quantity intended to be supplied by instalments, contain a direction specifying the amount of the instalments of the total amount which may be supplied and the intervals to be observed when supplying."

Proposed new indications for cannabis-based medicines

5.18 Besides those conditions noted above for which cannabinoids are already used within the law, the conditions most often cited are MS and pain. Claims are also made in connection with epilepsy, glaucoma and asthma. We review the evidence on each of these conditions below.

Multiple sclerosis

5.19 The Multiple Sclerosis Society has in its membership 35,000 of the total of 85,000 patients suffering from this disease in the United Kingdom. The Society estimate that more than 1 per cent of these patients, and possibly as many as 3-4 per cent, are illegally using cannabis for relief of symptoms (Q 341). Representatives of the Society described for us the commonest symptoms of the disease. Fatigue is the most frequent in 95 per cent of patients, followed by balance problems (84 per cent), muscle weakness (81 per cent), incontinence (76 per cent), muscle spasms (66 per cent), pain (61 per cent) and tremor (35 per cent) (Q 334). Although the interferons (alpha and beta) are proving to be of some value in relapsing-remitting and progressive cases of the disease, these symptoms are still poorly controlled by existing treatments, and no cure has been found.

5.20 Dr Lorna Layward of the Multiple Sclerosis Society, and Dr Pertwee, reviewed for us the six published clinical trials of cannabis or cannabinoids in MS. These have involved small numbers of patients (a total of 41 subjects world-wide), but some positive results have been reported, especially for spasticity, pain associated with spasticity, tremor and urinary bladder control (QQ 262, 372). Dr Pertwee took part in the study of perceived effects of cannabis on MS noted above: in a postal survey of 112 MS patients self-medicating with cannabis in the United Kingdom and the USA, more than 90 per cent reported a beneficial effect on spasticity, and many also reported pain relief and improved urinary control (Q 262).

5.21 Dr Layward and Dr Pertwee referred to experimental results in animals which offer a scientific basis for the use of cannabis and cannabinoids in the treatment of MS. In an MS-like disease in mice (experimental autoimmune encephalomyelitis), low doses of cannabinoids alleviate the muscle tremor seen in such animals. Cannabinoids also suppress spinal cord reflexes in animals (QQ 262, 356).

5.22 It is natural to wonder whether the beneficial effects of cannabis reported by MS patients might simply be related to the feeling of well-being caused by the intoxicant properties of the drug. Clare Hodges said that cannabis greatly helped her physical symptoms, specifically the relief of discomfort in bladder and spine, and relief from nausea and tremors (Q 98). "Cannabis helps my body relax. I function and move much easier. The physical effects are very clear. It is not just a vague feeling of well-being". She positively prefers to avoid intoxication, and feels able to control the dose of cannabis to obtain physical relief without getting high (p 27, Q 98; cp LMMSG p 270). Professor Wall likened this to the experience of patients using self-administered morphine or related narcotics for pain control, who control the dose to achieve a bearable level of pain without muddled thinking (Q 98).

5.23 The BMA report concluded, "It is somewhat paradoxical that cannabinoids are reported to be of therapeutic value in neurological disorders...since very similar symptoms can be caused by cannabis itself...it is not clear how much of the reputed effects of cannabis in motor disorders are due to psychoactive or analgesic effects". Nevertheless, it recommended that "A high priority should be given to carefully controlled trials of cannabinoids in patients with chronic spastic disorders which have not responded to other drugs". This view is shared by many of our witnesses.

5.24 The BMA report calls for the extension of the licensed indications for nabilone, and for the licensing of dronabinol, for use in MS and other chronic spastic disorders unresponsive to standard drugs. The wording of the report is ambiguous: on p 9 it says, "*Depending on the results of...trials* there may be a case for considering extension of the indications..."; on p 80 it says, "There is a case for the extension of the indications" for such use *pending* trials. The latter is repeated in the BMA's written evidence to us (p 10). According to Professor Ashton the ambiguity is inadvertent; and a letter from Professor Nathanson of the BMA (p 206) confirms that the BMA does indeed support licensing *pending* further research.

5.25 The National Drug Prevention Alliance suggest that this ambiguity reflects disagreement between Professor Ashton, the main author, and editors at the BMA. They would regard licensing in advance of trials as "an extraordinary aberration" (p 279). The Christian Institute say it would set "a very bad precedent" (p 208). In any case, the MCA are not prepared to allow anecdotal evidence as a substitute for clinical trials (QQ 168, 178, 189); and no application to extend the licence for nabilone has in fact been made (Q 191).

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18 Consroe P, Musty R, Rein J, Tillery W and Pertwee R, *The perceived effects of smoked cannabis on patients with MS*. Eur. Neurol. 1997, 38, 44. Back

19 Dr Notcutt is a consultant in anaesthesia and pain management at James Paget Hospital, Great Yarmouth, and a senior

lecturer at the University of East Anglia. He has extensive experience of the clinical use of nabilone (see Box 4) for the unlicensed indication of pain control. Back

20 Chairman of the Technical Sub-Committee of the ACMD. Back

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CHAPTER 5 MEDICAL USE OF CANNABIS AND CANNABINOIDS: REVIEW OF THE EVIDENCE

Pain

5.26 Besides MS, the other main indication claimed for cannabis-based medicines is the control of pain (analgesia). The BMA report says, "The prescription of nabilone, THC and other cannabinoids...should be permitted for patients with intractable pain", especially in terminal illness.

5.27 Professor Wall told us that there is clear evidence of analgesic effects of cannabis and cannabinoids from animal experiments. Some of the results suggest that pain which originates from damaged nerves might respond to cannabinoids: this could be of medical value as this type of pain does not respond well to treatment with morphine and related narcotics (Q 99). An example of such pain is phantom limb pain following amputation (Q 100). As many as 30 per cent of amputees suffer from this distressing condition, for which there is currently no satisfactory treatment. Dr Colin Stewart, who works in the field of major limb amputation in Dundee, reports anecdotal evidence that cannabis can relieve this pain: he recommends that trials of cannabis be undertaken in such patients (p 304).

5.28 Dr David Lambert, of the University of Leicester, confirmed that there is evidence for analgesic actions of cannabinoids acting on both the spinal cord and higher brain centres. He and Dr Notcutt suggested that one way of dissociating the pain-relieving actions of cannabinoids from their psychoactive effects might be to deliver the cannabinoid locally to the spinal cord via the cerebrospinal fluid, as has been done with opiate analgesics (QQ 440-6).

5.29 Dr Anita Holdcroft of Hammersmith Hospital, a contributing author to the BMA report, has reported the results of a placebo-controlled trial of cannabis in a patient with severe chronic pain of gastrointestinal origin (diagnosed as familial Mediterranean fever)[21]. Treatment was with capsules of cannabis oil, standardised for THC content. The patient's demand for morphine was substantially lower during treatment with cannabis than during a period of placebo treatment (p 224).

5.30 In short, there is scientific evidence that cannabinoids possess pain-relieving properties, and some clinical evidence to support their medical use in this indication. Many of our witnesses consider that high priority should be given to further research in this area.

Epilepsy

5.31 There is some anecdotal evidence to support the possible use of cannabis or cannabinoids in the treatment of epilepsy, but little more. Cannabinoids can exert both convulsant and anticonvulsant effects in various animal tests. Of greatest interest are the anticonvulsant properties of the naturally occurring cannabinoid cannabidiol: this compound is essentially devoid of the psychoactive effects of THC. The limited clinical data available on the use of cannabidiol in the treatment of epilepsy are, however, equivocal and based on very small numbers of patients. The BMA report concludes, "It could possibly provide a useful adjunctive therapy for patients poorly controlled on presently available drugs. THC and other psychoactive cannabinoids are probably not suitable as anticonvulsants".

Glaucoma

5.32 Cannabinoids cause a lowering of pressure in the eye both in animals and in man, although the site of action and the mechanism involved remain unknown. It has been suggested that cannabis or cannabinoids might be useful in the treatment of elevated intraocular pressure (IOP) in glaucoma, one of the commonest causes of blindness (see the BMA and WHO reports). Keith Green, Professor of Ophthalmology at the Medical College of Georgia, USA, told us the results of his own studies in more than 300 human subjects with both normal and raised IOP. Cannabis caused an average 25 per cent decrease in IOP which lasted for 3-4 hours. However, in order to maintain IOP at baseline levels, patients would have to smoke as many as 10 cannabis cigarettes a day, which is not practicable in view of the psychoactive effects of the drug and its ability to impair cognitive function. Professor Green calls for further research to determine the mechanisms involved, in order to see whether the desired ocular effects could be dissociated from the intoxicant effects (p 219; cp Appendix 3, paragraph 12). A similar view is expressed in the BMA and AMA reports, and by Professor Hall (Q 753).

Bronchial asthma

5.33 Cannabis and THC dilate the small airways of the lung, and this has suggested a possible application in the treatment of bronchial asthma. However, according to the BMA report, there have been few clinical trials and these were mostly in the 1970s before the advent of the more powerful drugs now available for the treatment of this illness. Smoked cannabis is clearly unsuitable for the treatment of asthma because of the irritant effects of the smoke, and THC delivered by aerosol also appears to have irritating effects. The Royal Society, however, conclude, "Cannabinoids...seem to be no less effective than conventional drug treatments. Further studies are required to improve cannabinoid formulation for administration as an aerosol" (p 294, cp Hall Q 753).

5.34 It is interesting to note that, if cannabis were effective in both glaucoma and bronchial asthma, it would be especially useful for patients suffering from both conditions, since many treatments for one of these conditions are contra-indicated for the other

Need for clinical trials of cannabis and cannabinoids

5.35 As noted above, the Government consider that the burden rests on the proponents of wider medical use to satisfy the Medicines Control Agency that the proposed medicine fulfils the normal criteria of quality, safety and efficacy. Dr Brian Davis of the MCA (QQ 167-171) emphasised that efficacy can be established only by undertaking controlled scientific trials: anecdotal evidence is not acceptable. The BMA report and the Multiple Sclerosis Society (Q 389) accept this position.

5.36 The requirements for approval of a new medicine are summarised as follows by the Royal Pharmaceutical Society (p 290):

" — The active compound must be characterised chemically and physically;

— The active compound must be presented in a standardised dosage formulation;

— Adequate tests must have been conducted on its safety;

— Adequate controlled clinical studies must have been conducted in well-defined disease entities and efficacy demonstrated objectively;

— The evidence must have been published and subjected to peer review."

No-one claims that cannabis, or any cannabis-based medicine other than nabilone and dronabinol, has yet passed any of these tests.

5.37 There have been few adequately controlled clinical trials to date on cannabis and the cannabinoids, except as anti-emetics (see above); those which have been published are listed in Appendix III to the BMA report. (For details of what constitutes a clinical trial, see Box 7.) In MS, there have been only six trials, with a total of only 41 patients. There is broad agreement that more and better clinical trials would be a good thing (eg DH Q 180, ACT p 28). As Dr Pertwee pointed out, there is an element of urgency: "Cannabis is already being used...We are not in a situation where we can wait and see" (Q 317). The situation is particularly urgent with respect to symptom control in MS, as the BMA report acknowledges, because of a current lack of treatments. Similarly, in analgesia (pain control), there has been no new drug for 20 years (Notcutt Q 411).

BOX 7: CONTROLLED CLINICAL TRIALS

The approval of new medicines for human use requires that they be tested rigorously in controlled clinical trials. "Controlled" means comparing the test drug with an inactive dummy or "placebo". Placebo tablets or capsules are prepared in such a manner that they cannot be distinguished from the active test drug. In a "double-blind" placebo-controlled trial neither the patient nor the doctor or nurse knows whether active drug or placebo is given to any particular patient; this information is held in coded form by a person not actively involved in the conduct of the trial and is not made available until the trial has ended. Patients are randomly allocated to placebo and test drug groups to avoid any possible bias in the selection of those who are to receive the active drug. The outcome of the trial should involve objective measurements wherever possible, using predetermined outcome measures or "endpoints". The success or failure of the trial is measured by criteria established in a written trial protocol before the start of the trial. The trial should include a sufficiently large number of subjects to provide statistically significant differences in outcome measures between the placebo and drug–treated groups.

A variant on the use of separate groups of patients to receive placebo or test drug is the so–called "crossover" design, in which the same patients receive placebo and test drug at different stages during the trial and are crossed over from one to the other after a "wash-out" period in a random order, so that the trial remains double-blind.

The conduct of any clinical trial involving patients must be approved by the Medicines Control Agency, who issue a Clinical Trial Certificate (CTX) if the detailed written protocol for the trial meets with their approval. In addition the conduct of a clinical trial requires the prior approval of the local Ethics Committee at the site where the study is to be conducted.

5.38 The BMA report called on the Clinical Cannabinoid Group (an informal network of interested researchers convened by Dr Pertwee), patient groups, pharmaceutical companies and the Department of Health to "work together to encourage" trials. In their written evidence the BMA say, "the accumulation of scientific evidence has been hampered by regulations restricting the use of cannabinoids to one clinical indication" [anti-emesis] (p 11). Following their report, the BMA met the Government's Chief Medical Officer in March 1998 "to discuss likely further actions in moving forward clinical trials of cannabinoids for therapeutic uses". At the meeting, it was agreed that an appropriate body to conduct such trials was required and that it should be an independent or institutional research organisation.

5.39 Clinical trials are expensive, but the research funding bodies have no objection of principle to funding work in this field. The MRC report a shortage of high-quality research proposals in this area (Q 629); but they would be "supportive" of funding well-conceived clinical trials in this field, and would even be prepared to consider a grant application "out of turn" (QQ 638, 769). In February 1998 the MRC had three grants, one to Dr Pertwee and two to Dr Kendall; Dr Pertwee's has now finished, as has one of Dr Kendall's (Q 621). The Wellcome Trust had made nine grants since 1990: five project

grants, including three to Dr Pertwee, and four research career re-entry fellowship grants, all to colleagues of Dr Pertwee. The Multiple Sclerosis Society and the BMA are also willing to help fund a trial (MSSoc p 89; Q 769). The Department of Health do not normally fund trials, but might "facilitate" (Q 194). Besides the Wellcome Trust, Dr Pertwee's research group in Aberdeen is also funded by the USA's National Institute on Drug Abuse (part of the National Institutes of Health) and a pharmaceutical company (Q 252).

5.40 Professor Edwards (Q 19) questions the justification for carrying out expensive controlled trials with cannabis. He is concerned about the possibility of diversion to misuse of the drug. As a preliminary, he favours a series of smaller-scale clinical investigations in individual patients.

5.41 Several of our witnesses have commented on the difficulties of conducting clinical trials with cannabis. How can a standardised product be made available? What formulation is to be used? How can the dose be predicted for any particular medical condition? How consistent and predictable would blood levels of THC be (QQ 7, 8, 180, 781)? In addition, individual patients are likely to differ considerably in the dose needed to control their symptoms—as with the use of opiates in the control of severe pain, where Professor Wall points out that a tenfold range of doses is commonly observed (QQ 112-3).

5.42 Professor David Grahame-Smith, Chairman of the Advisory Council on the Misuse of Drugs (Q 8), raised the question of the difficulty of carrying out a double-blind placebo-controlled trial with a psychoactive agent, as the drug could easily be distinguished from the inert placebo. Professor Lader suggested that one solution to this might be to test cannabis by comparison with some other psychoactive drug, rather than against an inactive placebo. Other possibilities are to use doses of the active drug too small to have psychoactive effect; or to proceed with an inactive placebo, and find out at the end of the trial how far patients could tell whether they were receiving the active drug or the placebo (Q 779).

5.43 In addition to these practical problems, clinical researchers face extra legal hurdles, and a generally negative climate of opinion, because of the status of cannabis as a Schedule 1 controlled drug. We consider this problem, and what might be done about it, in Chapter 7.

5.44 Clinical trials are now under active consideration in several fora. First, Dr Geoffrey Guy, a pharmaceutical entrepreneur, has recently set up GW Pharmaceuticals, to conduct licensed research and develop cannabis-based medicines, in collaboration with HortaPharm BV of Holland (see Dr Guy's evidence, and QQ 107, 135, 413-420, 447). The aim is to produce standardised whole-plant extracts, rather than single chemicals, from plants bred for standard cannabinoid content, with a non-smoking mode of administration offering the advantages of smoking without the harm, and to proceed via clinical trials to an application for a product licence. Dr Guy received licences to cultivate cannabis, and to possess and supply it for research, from the Home Office in June 1998. He is now recruiting patients for trials, with help from the ACT.

5.45 Dr Guy is confident that rigorous trials can be mounted, and that contamination of the plant material can be avoided. He advocates the use of plant-derived products, and cites the examples of gentamicin, papaveretum and digitalis as approved plant-derived products that contain complex mixtures of alkaloids. He believes that, by using controlled growing conditions and cloned cannabis plants, it will be possible to produce a herbal preparation of consistent composition with adequate quality controls. This position is reinforced by data from the Dutch organisation Maripharm (see Appendix 4 paragraph 14), who have been able to produce medical-grade herbal cannabis selected to have a consistent content of THC (10.7 ± 0.1 per cent) and a low content of other cannabinoids.

5.46 Secondly, following the meeting between the BMA and the CMO (see above, paragraph 5.38), the Royal Pharmaceutical Society have set up a "working party on therapeutic uses of cannabinoids", chaired by Professor Sir William Asscher, a past Chairman of the Committee on Safety of Medicines. The group includes representatives of the NHS R&D Directorate, the MRC and the Multiple Sclerosis Society, and researchers including Dr Pertwee. Its objectives are "to produce guidelines for pilot clinical trials for cannabinoids as proof of principle of their effectiveness, and to assist those who wish to conduct such trials to successfully complete them and publish the results". The group has drawn up protocols for two trials: one for spasticity arising from MS, the other for post-operative pain. In each case the trial will be longitudinal (i.e. not a cross-over trial), involving three groups of patients: one will be given dronabinol, another an extract of cannabis containing the same quantity of THC, and the third a placebo. Smoking has been ruled out; administration will be by oral capsule. The lead clinician for the pain trial is Dr Anita Holdcroft, whose previous single-patient trial of cannabis was noted above; the lead clinician for the MS trial is Dr John Zajicek of Derriford Hospital, Plymouth. The protocols are to be launched shortly, at which point applications will be made for funding (from non-industrial sources) and for Home Office licences. (See the evidence of members of the working party, QQ 768-811.)

5.47 In addition, Jo Barnes of Exeter University is launching a pilot study of oral THC involving 30 MS patients, funded by the university, intended to "provide data which can be used for a sample size calculation for a full-scale study" (p 217). Dr Robson is planning pilot studies using nabilone and dronabinol for detoxification from opiates and as an anxiolytic/hypnotic in acute drug-related problems (p 118, Q 458). Professor Wall knows of three other United Kingdom trials at an advanced planning stage, by Dr Pertwee, Dr Notcutt (Q 448), and Dr Clare Fowler at the National Hospital for Neurology and Neurosurgery in London.

5.48 These various initiatives are, or may become, interrelated. The Asscher group trials, and others, may use GW Pharmaceuticals as the source of supply of cannabis material; in that case they might be covered by an extension of Dr Guy's Home Office licence. The Exeter group, and others, may bring their trials within the Asscher group's protocols, so as to become part of a national study. In the end, it is possible that all or most of these initiatives will come together into two national trials, using the Asscher group's protocols and Dr Guy's licence and materials.

Should clinical trials be limited to cannabinoids?

5.49 Both Dr Guy and the Asscher group propose to conduct trials involving extracts of herbal cannabis; but according to several of our witnesses this may be a mistake. Professor Ashton and Professor Nathanson of the BMA (Q 55), reflecting the position of the BMA report itself, argued strongly in favour of trials of synthetic cannabinoids rather than herbal cannabis, because of the difficulties of obtaining standardised preparations of the plant material. Both Dr Guy and the Asscher group believe that they can solve the problem of standardised preparations.

5.50 The Association of Chief Police Officers argue that clinical research should be confined to individual cannabinoids: ACPO believe that cannabis is a harmful substance, the control of which must be continued (p 196). The Christian Institute take a similar view, arguing *inter alia* that medical use might serve as a front for legalisation (p 208). (We consider this argument below in Chapter 7.) Mary Brett, Head of Health Education at Dr Challoner's Grammar School[22], writes, "All scientific evidence is unequivocal in favour of maintaining prohibition of crude marijuana for both medical and recreational use. However, purified cannabinoids may, after rigorous testing and clinical trials in comparison with other and existing treatments, prove to be beneficial in certain disorders ..." (p 206).

5.51 Others, however, favour research on herbal preparations derived from cannabis. Professor Wall argues in favour of trials of cannabis rather than pure cannabinoids. He criticises the BMA report for recommending that trials be confined to synthetic cannabinoids (p 32); he considers that it would be premature at this stage of our knowledge to assume that the only active substance in cannabis is THC (Q 103). We have received anecdotal evidence that users who have tried cannabis and nabilone and/or dronabinol prefer cannabis (LMMSG p 271; ACT pp 28, 30; IDMU p 228).

5.52 The Royal Society (p 295) also conclude that "Several components of cannabis might be required to reproduce the effects seen with the whole drug". Others in favour of including cannabis itself in any programme of trials include the Royal Pharmaceutical Society (p 284), Dr Kendall (p 268), Dr Pertwee (QQ 266, 315), Dr Robson (Q 480), Dr Stewart and Dr Schon. The Multiple Sclerosis Society (Q 352) point out that cannabis is available, and is what existing medical users are using; the ACT observe that including it in trials would permit existing users to regularise their position (by enrolling for trials) without changing their medication (Q 149). Professor George Radda, Chief Executive of the MRC, would not rule out extracts of herbal cannabis; "but we must know the composition" (Q 645).

5.53 Some witnesses point out that the variable chemical composition of herbal cannabis can be turned to medical advantage. The London Medical Marijuana Support Group argue that differing strains of cannabis containing different proportions of THC, cannabinol (CBN) and cannabidiol (CBD) might have different medical effects: "The more CBN and CBD, the greater the intensity of body related sensations; the less CBN and CBD and the more THC, the more mentally active the stimulation will generally be. High CBN and CBD cannabis is more effective for the control of symptoms which are generally felt as being body related, such as chronic pain" (p 270). Neil Montgomery also maintains that cannabis resins of different geographic origin elicit distinct patterns of psychoactive effect (Q 594). There is, however, no scientific evidence available on these topics.

Should clinical trials include smoking?

5.54 Both Dr Guy and the Asscher group have ruled out smoking for the purposes of their trials; and many of our witnesses would support them (e.g. Notcutt p 104, Henry p 224, RPharmSoc p 284, Wall Q 103, Pertwee QQ 266, 315, MSSoc Q 364, ACT Q 154). Smoking is felt to carry too great a potential health risk: see Chapter 4. However, as noted above, there are anecdotal reports that those who use cannabis for medical purposes favour smoked cannabis over orally administered cannabinoids such as nabilone. The perceived advantages of smoked cannabis may be due to the rapid absorption and flexibility of dose–control offered by smoking as a route of administration: see Chapter 3.

5.55 Dr Robson suggested that there should be a comparison in clinical trials between smoked cannabis and smoked THC (Q 480). The Asscher group's proposal, to compare orally administered THC with an orally administered cannabis product, will achieve the same result, namely a comparison of like with like.

5.56 There is considerable discussion of possible improvements in the mode of administration of cannabis and synthetic cannabinoids (e.g. QQ 60, 266-273). IDMU (p 235) described recent research in the United States on the ability of various methods of smoking herbal cannabis to reduce tar intake relative to THC. Surprisingly, the use of a water pipe, in which the cannabis smoke is passed through water prior to being inhaled, and the use of a vaporiser, in which herbal cannabis is heated but not burned, had relatively little effect in reducing the amount of tar inhaled. Unfortunately the slow and unreliable absorption of herbal cannabis and synthetic cannabinoids taken by mouth can lead to both under– and over–dosing. Other possibilities include the development of inhalers (e.g. Guy QQ 713-4), sprays, rectal suppositories (see Appendix 3, paragraph 3) and skin patches, and a sub-lingual method (taking a tincture under the tongue—LMMSG p 270). Research on such alternative delivery systems is held to be a high priority by many witnesses.

5.57 Although there is general agreement that smoked cannabis carries a potential risk for long-term users, the medical application of smoked cannabis is not ruled out by all. The US National Institutes of Health report says, " ...there might be some patient populations, e.g. cancer patients experiencing nausea and vomiting during chemotherapy, for whom the inhalation route might offer advantages over the currently available capsule formulation [of THC]". They conclude, "In summary, the testing of smoked marijuana to evaluate its therapeutic effects is a difficult, but not impossible, task". The American Medical Association report recommends "that adequate and well controlled studies of smoked marijuana be conducted in patients who have serious conditions for which preclinical, anecdotal or controlled evidence suggests possible efficacy including AIDS wasting syndrome, severe acute or delayed emesis induced by chemotherapy, multiple sclerosis, spinal cord injury, dystonia [involuntary muscle movements, e.g. a tic], and neuropathic pain...". Among our witnesses, those who would include smoking in trials include Dr Schon (p 304), Dr Stewart (p 305) and Dr Robson (Q 480); and Professor Radda of the MRC would be prepared to do so, provided that the trial protocols were satisfactory (QQ 646, 654).

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CHAPTER 6 RECREATIONAL USE OF CANNABIS

Prevalence

6.1 Cannabis is by far the most widely used illicit drug in the United Kingdom, as in most other Western countries; and almost all of this use is for recreational rather than medical purposes. According to the Department of Health, "Cannabis is now the third most commonly consumed drug after alcohol and tobacco" (p 47).

6.2 Cannabis dominates the drug crime statistics, and the figures are rising. Figures for the whole United Kingdom for 1996 (*Home Office Statistical Bulletin* 10/98) show that 72,745 drug offenders (77 per cent of the total) committed offences involving cannabis (alone or with other drugs). There were 91,432 seizures of cannabis in 1996 (75 per cent of the total for all drugs) and this involved record quantities of cannabis resin (66,921 kg), herbal cannabis (34,373.6 kg) and cannabis plants (116,119 plants). These figures, which are the most recent available, represent more than a three–fold increase over 1990, with a particularly sharp increase in the number of offences related to the cultivation of cannabis plants and the numbers of plants seized.

6.3 It is difficult to put a figure on the prevalence of cannabis use in the United Kingdom. The Parliamentary Office of Science and Technology, in their *Cannabis Update* of March 1998, gave figures from the British Crime Survey 1994 which indicate that in the adult population (16-59) 1 in 5 had "ever tried" cannabis (1 in 20 within the previous month) and in the 16–29 age group just over 1 in 3 had "ever tried" cannabis (1 in 20 within the previous month). These figures are not dissimilar to those in the WHO report for other countries in Europe[23], with somewhat higher figures for the USA, Canada and Australia. They suggest that as many as 7.5m people aged 16-59 in the United Kingdom have used cannabis at least once, and that between 1.5m and 2m take the drug at least once a month (cp Montgomery Q 559). The Royal College of Physicians have established a Joint Working Party with the Royal College of Psychiatrists which among other matters will review the epidemiology of illicit drug use in the United Kingdom.

Pattern of use

6.4 The pattern of cannabis consumption in the United Kingdom varies according to geography, socio–economic conditions and the age of the user. Professor Edwards observed that cannabis is and has been used in very different ways in different times and places; for instance, there are people in south London who smoke 20 joints a day (Q 26). Dr Robson cautions that much of the use of cannabis in the community does not come to the attention of the health services or the police, and therefore little is known about it (Q 456).

6.5 The Independent Drug Monitoring Unit conducted a survey of 1,333 regular cannabis users who attended a major pop festival in Britain in the summer of 1994 (p 231). The majority were daily cannabis users with an average consumption of about 24.8g of cannabis resin per month. Respondents gave highly positive subjective ratings to cannabis (as opposed to negative subjective ratings to solvents, cocaine and heroin). More than 60 per cent believed that cannabis had been of benefit to their physical or mental health. They would prefer that the law was more liberal, but a majority (70 per cent) did not think that they would use more if it was.

6.6 Dr James Robertson, a GP working in Edinburgh, has reported the results of a survey (funded by the Royal College of General Practitioners) of 328 consecutive patients attending his surgery (average age 33.7 years)[24]. 200 patients (61 per cent) said that they

had used cannabis at least once, and more detailed interviews of 101 of these revealed that 90 were regular users, with 67 using cannabis on a daily basis. Most spent £25 or less per week on cannabis, but a small number of individuals spent £100 or more per week.

6.7 Neil Montgomery described for us various ways to take cannabis recreationally (QQ 544-554). He divides recreational users into three groups:

· Casual Irregular use, in amounts up to 1g of resin at a time, to an annual total of no more than 28g (Q 545);

· Regular Regular use, typically of 0.5g of resin a day (equivalent to 3 or 4 smokes of a joint or pipe), adding up to about 3.5g per week (Q 548);

· Heavy More or less permanently stoned, using more than 3.5g of resin per day and 28g or more per week (Q 554). The smallest group, around 5 per cent. "The extent to which a heavy user can consume cannabis is largely unappreciated."

Herbal cannabis appears to be consumed at twice the rate of cannabis resin, presumably because of its lower content of THC. Comparable data are provided by IDMU (pp 231—3).

6.8 According to POST's *Cannabis Update*, 9 per cent of ever-users use cannabis daily, and 14 per cent several times a week, making it of all illegal drugs the one most likely to be used regularly. According to Professor John Strang, Director of the National Addiction Centre, few users end up in hospital with acute psychiatric problems, and most regular users are not nowadays advised by their doctor to change their habits (Q 244). For the risk of dependence, see Chapter 4.

6.9 Many cannabis users also consume a variety of other psychoactive agents. As the commonest method of using cannabis in the United Kingdom is to smoke cannabis resin mixed with tobacco, nicotine use is very high among cannabis users. Among other things, this makes it difficult to assess the respiratory risks of smoked cannabis as they are confused with the well-established risks of smoked tobacco. Alcohol use is also common, but regular cannabis users may consume less than non-cannabis users. Drug treatment clinics often see poly-drug users, who are consuming a variety of illicit substances, of which cannabis is commonly one (QQ 42, 216, 487, 515, 562; DH p 47).

6.10 According to the Department of Health, most cannabis users have discontinued by their mid to late 20s (p 46); and of those who have ever been daily users, only 15 per cent persist with daily use in their late 20s (p 45). Neil Montgomery has identified a group of regular users who stop in their 30s and start again in their 50s (Q 575).

Content of cannabis consumed in the United Kingdom

6.11 Some of our witnesses expressed concern that the preparations of illicit cannabis used in the United Kingdom today are more potent than previously, exposing users to a greater risk of acute intoxication and long-term adverse effects. Professor Ashton (p 12) suggested that "a typical 1970s `reefer' contained about 10mg of THC..., while a typical `joint' today may contain 60-150mg or more of THC. This increase in potency results from sophisticated plant breeding and cultivation methods leading to highly potent varieties of cannabis, such as Skunkweed". Other witnesses made similar assertions (e.g. Q 33).

6.12 However, the Home Office Forensic Science Service, who have data on the THC content of seized cannabis samples, do not support the view that most users in the United Kingdom are exposed to material containing ten times as much THC as in the 1960s and 1970s. They say, "Cannabis resin...has a mean THC content of 4-5 per cent, although the range is from less than 1 per cent to around 10 per cent. This pattern has remained unchanged for many years" (p 218). Cannabis resin, imported most commonly from

Morocco, Afghanistan or Pakistan (IDMU p 230), is the form of cannabis most widely used in the United Kingdom, and accounted for two thirds by weight of all seized material in 1996 (*Home Office Statistical Bulletin* 10/98). One of our witnesses, a user and convicted dealer, claimed that most modern cannabis is in fact weaker than material from the 1960s.

6.13 On the other hand, there appears to have been an increase in the THC content of herbal cannabis—probably because of the use of new strains of cannabis plant and improved growing conditions. In the United States, the University of Mississippi have analysed the THC content of seized cannabis on behalf of the US government since 1980 (see Appendix 4, paragraph 13). They report an increase in the THC content of herbal cannabis from around 2 per cent in 1980-81 to more than 4 per cent in 1997. The Forensic Science Service report that herbal cannabis in the United Kingdom currently also contains an average of 4-5 per cent THC. They also report that cannabis grown in the home, using improved growing techniques and improved plant varieties, now produces herbal cannabis with a considerably higher THC content, with an average close to 10 per cent THC and a range extending to over 20 per cent (p 218). Use of "hydroponic" cannabis (grown in a nutrient solution rather than in soil) appears to be increasing rapidly, with plant seizures in the United Kingdom up from 11,839 plants in 1992 to 116,119 in 1996.

6.14 Professor Hall suggested, "More potent forms of cannabis need not inevitably have more adverse effects on users' health than less potent forms. Indeed, it is conceivable that increased potency may have little or no adverse effect if users are able to titrate their dose to achieve the desired state of intoxication. If users do titrate their dose, the use of more potent cannabis products would reduce the amounts of cannabis material that was smoked, thereby marginally reducing the respiratory risks of cannabis smoking" (p 221; cp IDMU p 235).

6.15 The overall quality of imported cannabis resin appears to have fallen in recent years; many users perceive cannabis resin as adulterated and forensic analysis frequently confirms that this is the case, with the addition of caryophyllene, a constituent of cloves, being particularly common (IDMU p 230; Montgomery p 132 and QQ 577, 589). Yet Professor Hall considers that concern about herbicide contamination is unfounded, and that case history evidence of health problems from microbial contamination is limited. Neil Montgomery calls for research in this area.

The state of the law

6.16 This Government show no sign of taking a softer line against recreational use of cannabis than their predecessors. According to the White Paper *Tackling Drugs* (Cm 3945) of April 1998, "The more evidence that becomes available about the risks of, for example, cannabis...the more discredited the notion that any of the substances currently controlled under the 1971 Act are harmless". This echoes the view of Professor Edwards of the ACMD: "We are in a rapidly changing field of knowledge"; and new knowledge is making cannabis look more dangerous, not less (QQ 21, 27).

6.17 Most of our professional witnesses agree that the adverse effects of cannabis fully justify prohibition (e.g. Henry/RCPath p 224). The only argument on the other side is that cannabis is arguably less dangerous than alcohol or tobacco (e.g. RCGP p 281, Kendall p 268). Professor Hall acknowledged this, but noted "the difficulty in predicting the effect that relaxation of cannabis prohibition would have on current patterns of cannabis use and the harms caused by that use" (p 222).

6.18 The Under-Secretary of State at the Home Office, George Howarth MP, told us confidently that legalising recreational use would cause such use to increase (Q 674). Professor Edwards, writing for the Royal Society, is less sure: "We would expect weakening of controls over cannabis to result in increased use levels, but this is an empirical question on which research at present is not conclusive...Removal of prohibition on cannabis would have to be described as a voyage into the unknown. Some added harm and some

added costs would undoubtedly result" (p 303). There is international experience which might throw light on this question, but we have not explored it in detail.

6.19 We have not considered the wider range of social and criminological issues which would be raised by any proposal to change the law on recreational cannabis use. These include enforcement, the impact on use of other illegal drugs, and the international context and the danger of "drug tourism"; as well as ethical, philosophical and religious questions about the freedom of the individual, the nature of society and the morality of mind-altering drugs. As we said when we began this enquiry, these matters fall outside our remit as a Science and Technology Committee. An Independent Inquiry into the Misuse of Drugs Act, chaired by Lady Runciman of Doxford and supported by the Police Foundation, is currently considering the matter in its wider context; they expect to report next year.

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23 See also the *Annual Report on the State of the Drugs Problem in the EU 1997*, by the European Monitoring Centre for Drugs and Drug Addiction. Back

24 Br. J. Gen. Pract. 1996, 46, 671. Back

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CHAPTER 7 CHANGING THE LAW ON MEDICAL USE AND RESEARCH: REVIEW OF THE EVIDENCE

7.1 In law, it would be possible to make cannabis and/or additional cannabinoids prescribable by moving them from Schedule 1 to Schedule 2 to the Misuse of Drugs Regulations, in advance of any cannabis-based medicine being licensed and reaching the market. However, the Government are not willing to reschedule cannabis in advance of licensing. Licensing depends on research and clinical trials: the Government are satisfied with the arrangements for allowing research and trials, but some of our witnesses are not. In the mean time, medical use remains illegal.

Prosecution for use of cannabis for medical purposes

7.2 It is not known what proportion of prosecutions for possession of cannabis arise from medical use. The ACT drew our attention to 15 reported cases of people charged with cultivation, possession and/or supply in medical situations since 1996: of the 12 cases where the outcome was known, one resulted in a sentence of 50 hours' community service; in the other 11, either the prosecution was abandoned, the defendant was acquitted, or the sentence was no greater than a conditional discharge. IDMU offer further figures (p 258); they comment that, although outcomes in such cases are highly variable, juries seem more likely to acquit "where there is convincing medical evidence, given similar circumstances concerning paraphernalia".

7.3 People who use cannabis for medical purposes face prosecution if caught cultivating or possessing cannabis; but, according to Austin Mitchell MP, "It is bringing the law into a certain amount of difficulty and disrepute because either the police are cautioning or the courts are giving very lenient sentences" (Q 132). Dr Pertwee considers it unsatisfactory that such people are sometimes prosecuted, unsatisfactory that law-breaking is sometimes tolerated, and unsatisfactory that the position is inconsistent around the country (Q 313).

7.4 The BMA report recommends, "While research is under way, police, the courts and other prosecuting authorities should be aware of the medicinal reasons for the unlawful use of cannabis by those suffering from certain medical conditions for whom other drugs have proved ineffective" (cp Q 55). Similarly the Multiple Sclerosis Society want the law to treat people caught using cannabis for medical reasons in an "appropriately compassionate fashion" (p 90). They report that most people convicted in such circumstances receive a suspended sentence; but they are concerned about the way the system treats people as much as about the verdict (Q 341; cp IDMU p 261).

7.5 Mr Howarth, the Under-Secretary of State, declined to comment on how the Crown Prosecution Service and the courts treat such cases (QQ 668-673), beyond observing that in some cases the plea-in-mitigation of medical use might be trumped-up (Q 674). The Home Office added that official statistics do not distinguish between cases with a medical aspect and cases without; but that, on the anecdotal evidence, outcomes in medical cases were not obviously out of line with outcomes in purely recreational cases (Q 675). (The proportion of persons in the United Kingdom dealt with for possession of cannabis who are cautioned rather than prosecuted rose from 35 per cent in 1986 to 62 per cent in 1995—*Home Office Statistical Bulletin* 10/98.)

Possible transfer from Schedule 1 to Schedule 2

7.6 According to the Home Office (p 150), cannabis could be transferred from

Schedule 1 to Schedule 2 by statutory instrument, subject to negative resolution in Parliament. The ACMD would have to be consulted first. According to the Minister (Q 676), under the 1961 UN Convention, rescheduling cannabis itself and cannabis resin would not require international agreement; but, under the 1971 Convention, rescheduling cannabinol and its derivatives other than dronabinol would require prior amendment of the Schedules to the Convention through the WHO and the UN Commission on Narcotic Drugs, as happened in the case of dronabinol in 1995.

7.7 Rescheduling would allow doctors to prescribe; but the Home Office say, "Our understanding is that the ability of doctors to prescribe cannabis would be hampered in practice if a cannabis-based medicine had not been granted a marketing authorisation by the MCA". The Minister said that there were "compelling policy reasons" for requiring an MCA licence first (Q 676). When asked to explain the practical difficulties, he referred to the extra burden of responsibility which a doctor takes on by prescribing an unlicensed medicine (Q 679); he queried the wisdom of permitting prescription without proof of safety and quality (Q 680); and he noted that the ACMD had not called for change (Q 688).

7.8 Rescheduling would also allow doctors and pharmacists to manufacture and supply (Q 680); anyone else, including a pharmaceutical company, would require a Home Office licence. It would not in itself disapply section 8 of the Misuse of Drugs Act, which makes it an offence to allow cannabis to be smoked on premises; but this could be done by secondary legislation (Q 684).

7.9 So the Government *could* reschedule cannabis; the next question is, whether they should. Dr Lambert says, "Many patients are already illegally using cannabis...Their needs must be addressed whilst formal studies are undertaken"[25]. IDMU finds the present position "inhumane", and "unjustifiable both on moral and on public health grounds" (p 229). Dr Pertwee says (p 68), "A strong case can be made on the grounds of common sense and compassion for allowing doctors to prescribe...(oral) cannabis now for serious symptoms including muscle spasms"; but he admits that it will take better evidence to persuade the Department of Health (Q 263; see also paragraph 7.15 below).

7.10 Dr Robson described the present position as an "affront to humanity" (Q 460). He called for "compassionate reefers" for AIDS and cancer patients (p 118), and possibly for patients with non-terminal conditions who might feel that the increased risk of cancer was worth taking (Q 469). He suggested that patients might be made to confirm in writing that the doctor had explained the risks; and that, if it were felt necessary, the number of doctors entitled to prescribe cannabis could be limited, as in the case of diamorphine (heroin) or cocaine prescribed for addicts under the Misuse of Drugs (Supply to Addicts) Regulations 1997 (Q 471). He added that research into synthetic cannabinoids might soon make herbal cannabis obsolete; but, in the mean time, "it just is not a dangerous enough drug for me to want to ban it" (Q 472).

7.11 The ACT want "medical preparations of natural cannabis...to be made available on a doctor's prescription while research is going ahead" (p 28), by moving cannabis from Schedule 1 to Schedule 2 (Q 133). They argue that "we know now that cannabis can be effective and is safe enough to be prescribed by a doctor...and there are people who need treatment now". Similarly, six of our witnesses, all users of cannabis for medical purposes themselves, want cannabis to be prescribable or otherwise legalised for medical use. 195 out of 200 respondents to the *Disability Now* survey, of whom 192 were disabled and 134 had taken cannabis for medical purposes, wanted such use to be legalised.

7.12 The London Medical Marijuana Support Group (p 271) consider the issue to be one of patients' rights: "Please do not continue to make sick people criminals". They call for either rescheduling, or a new system involving registration of patients. They would solve the problem of supply by allowing patients to grow their own, or by setting up co-operatives, or by permitting commercial cultivation. They argue that different users get benefit from different preparations: so they do not want a standardised preparation—though this would

be better than nothing.

7.13 If the law cannot be changed, it could in theory be applied with flexibility. IDMU suggest "directives to the CPS on criteria to use when deciding whether a prosecution of a medical cannabis user is in the public interest" (p 225). According to the Home Office, however, systematic non-enforcement would be "quite unacceptable" (Q 671).

7.14 Though some witnesses to this Committee favour immediate transfer from Schedule 1 to Schedule 2, others are against it. Professor Radda insisted that anecdotal evidence, however large in volume, was not sufficient reason for rescheduling (Q 657). Sir William Asscher considers that immediate rescheduling would actually threaten proper trials, such as those proposed by his working party (see Chapter 5), by encouraging patients to use cannabis in an uncontrolled way rather than enrolling for the trial and risking receiving a placebo (Q 808).

7.15 The Multiple Sclerosis Society want sufferers to be able to make "informed choice about therapeutic agents"; therefore they would not support prescription of cannabis for MS in advance of proper trials (p 90, Q 368). The Royal Society say that, pending proper trials, "There is no persuasive case for the non-experimental medical use of cannabis"; and they are against smoking (p 295). The Royal Pharmaceutical Society take the same line (p 289); so does Professor Strang, who would be worried if cannabis were given "some easy track" (Q 249); so does Edward Jurith, on sabbatical in Manchester from the post of General Counsel to the White House Office of National Drug Control Policy (p 265). The Christian Institute agree: "The rules must remain the same for all substances...Rescheduling cannabis would declare that cannabis is suitable for medical use. The studies have not been done to demonstrate this" (p 207). They add that permitting cannabis to be smoked "would profoundly damage current health promotion attempts to dissuade smoking". They suggest that other steps might be taken to help MS sufferers who are resorting to cannabis. Dr Pertwee considers that permitting prescription of cannabis could not be justified until both nabilone and dronabinol had been tried and failed (Q 314).

7.16 The BMA report recommends, "The WHO should advise the UN Commission on Narcotic Drugs to reschedule certain cannabinoids under the UN Convention on Psychotropic Substances, as in the case of dronabinol [which was rescheduled in 1995]. In response the Home Office should alter the Misuse of Drugs Act accordingly." Alternatively, "The Government should consider changing the Misuse of Drugs Act to allow the prescription of cannabinoids to patients with particular medical conditions that are not adequately controlled by existing treatments". On the other hand, David Nutt, Professor of Psychopharmacology at the University of Bristol[26], considers that the availability of nabilone, which may be prescribed on an unlicensed basis for any of the conditions identified by the BMA, makes it unnecessary to change the law (p 280).

7.17 The Royal Pharmaceutical Society caution that, if unlicensed use of cannabinoids becomes more common (as the BMA think it might, following their report—Q 83), there should be "full consultation between the medical and pharmacy professions" (p 290). They urge the Government to consider moving all cannabinoids from Schedule 1 to Schedule 2.

Research

7.18 As noted in Chapter 3, cannabinoid pharmacology is currently a lively field of research. However, until Dr Guy's initiative, no new cannabis-based medicines were in commercial clinical development (Wall Q 134). As to why this should be so, most of our witnesses point to the "stigma" of working with a "disreputable" substance and a Schedule 1 controlled drug (e.g. Austin Mitchell MP Q 132, Pertwee Q 317, Robson Q 482). Others point to the likelihood that a non-synthetic cannabis-based medicine would be cheap and therefore unprofitable, and the markets for it small (RPharmSoc p 289; Lader QQ 7, 17)—though Professor Ashton and the BMA believe that the global market is potentially

large (Q 57). Dr Pertwee believes that drug companies are very interested in the possibility of cannabinoids which avoid psychotropic effects by acting only on the CB2 receptor (Q 281); they are "dying to get in there, but they do not know what to do" (Q 295).

7.19 Dr Notcutt believes that what puts companies off research involving a Schedule 1 drug is not the stigma, but the "sheer difficulty" (Q 414). The principal additional difficulty is the requirement to obtain a licence from the Home Office (see Box 8). If cannabis were moved to Schedule 2 to the Regulations, research licences would no longer be required (Q 677).

BOX 8: CANNABIS RESEARCH LICENCES

Licences to possess any Schedule 1 drug for research may be granted by the Home Office under section 7 of the Misuse of Drugs Act and Regulation 5 of the Misuse of Drugs Regulations. The Under-Secretary of State at the Home Office, George Howarth MP, explained to us the conditions under which licences are granted (Q 662). There must be a legitimate reason for the research; details of method and timetable; ethical approval; and safeguards including safe custody and record-keeping. The research would normally be expected to be conducted at a university hospital or pharmaceutical company; and the method of administration must allow for control of dosage. According to the Home Office, there have been a total of 27 applications for cannabis research licences, of which 25 have been approved and two agreed in principle; no application for a licence has been refused (HC WA 255, 18 Dec. 1997).

The Home Office supplied us with a list of 22 current licences. All are granted to named researchers, 20 at universities and two in hospitals. Most are for teaching or testing purposes; only three appear to be for research. Four of the licences were issued this year, compared with 22 over the previous 24 years; the Home Office attribute the increase to a Royal Pharmaceutical Society symposium on medical uses of cannabis in July 1997 (Q 666). There are 80 current research licences for Schedule 1 substances other than cannabis (Q 665). Among our witnesses, cannabis research licences are or have been held by Dr Pertwee, Dr Schon (see p 303 and Q 664), Dr Holdcroft (see paragraph 5.29), and Dr Guy (see paragraph 5.44); and Jo Barnes has a licence "in principle" for the Exeter pilot study (see paragraph 5.47).

7.20 In addition to the lack of commercial development work, there is little clinical research in this area. Professor Wall comments, "It is a paradox that a subject of such intense scientific interest should receive so little clinical attention. One reason...[is] the daunting and excessive bureaucratic control which artificially separates studies of cannabis from drugs such as narcotics. The other reason is the general social atmosphere which labels cannabis with every possible negative attitude" (p 31, cp Q 143). He compares the attitude to medical use of narcotics before the work of Dame Cicely Saunders (Q 127). Similarly Dr Lambert says, "The Schedule 1 status of cannabis has made modern clinical research almost impossible, primarily because of the legal, ethical and bureaucratic difficulties in conducting trials with patients. In addition, the general attitude towards cannabis...has not helped"[27]. This is regrettable, since there is "a wide range of possibilities and a massive opportunity for research". The Royal Pharmaceutical Society blame the "disappointing" lack of evidence on the "stigma" attached to cannabis, and the burden of licensing (p 288).

7.21 Professor Hall also believes that research has been chilled by the link with recreational use. He regards this link as "spurious". He observes, "The recent discovery of the cannabinoid receptor may help to overcome some of the resistance...by holding out the prospect that the psychoactive effects...can be disengaged from [the] other therapeutically desirable effects" (p 222). The Multiple Sclerosis Society believe that the stigma attached to cannabis as a medicine can be countered by "raising awareness" and taking the issue seriously, which to some extent has already happened (Q 372); and they know of numerous volunteers for trials (Q 389).

7.22 Dr Holdcroft notes two further difficulties: the lack of standardised preparations (she produced her own capsules), and the medicolegal problems of working with cannabis-naive subjects[28]. Dr Notcutt blames the licensing system, and the problem of supply (Q 413); he is optimistic that Dr Guy's initiative may surmount both obstacles. Austin Mitchell MP believes that ethical committees "run a mile" from sanctioning clinical research using a Schedule 1 drug (Q 132). Professor Edwards likewise points to ethical problems (Q 19); he recommends, before blind trials, "a small series of open clinical investigations with repeat and careful observations on the individual patient". The National Drug Prevention Alliance, noting that the prospective markets may be too small to warrant the commercial cost of trials, suggest that trials might be grant-aided from public funds (p 279—they regard this as preferable to licensing without trials).

7.23 The Department of Health say, "Both the Home Office and MCA have always indicated that they are prepared to look sympathetically at well-founded research proposals in this area" (p 48, cp Q 167). However Dr Kendall calls for "relaxation of the level of control" over trials (p 268). Dr Robson, in his review for the Department, says, "Research will only be possible if the regulations imposed under the Misuse of Drugs Act are made more flexible". IDMU say (p 229), "The present licensing system and policy has severely limited research opportunities and should be reviewed"; given the rise in research activity noted above, the United Kingdom academic community and pharmaceutical industry may miss opportunities if the research licensing regime is not relaxed.

7.24 Yet the Multiple Sclerosis Society believe that the present system obstructs research more by its effect on attitudes than by practicalities (Q 388); and it is the impression of Austin Mitchell MP (Q 132) and Clare Hodges (Q 136) that the Home Office are already more flexible than they used to be. Professor Radda believes that a good research proposal will receive a licence without difficulty, and that scientists today are well used to regulation of this kind (Q 630). Dr Guy says that, although consultation was lengthy (from application to grant took 4 months—Q 663), the Home Office have been "most helpful" (p 162).

7.25 The BMA report said, "The regulation of cannabis and cannabinoids should be sufficiently flexible to allow such compounds to be researched without a Misuse of Drugs Act licence issued by the Home Office". In evidence, the BMA reported "very positive feedback" from the Department of Health and the Home Office on the pace of the licensing process (Q 82); but they said that at present there was serious delay (Q 92). The Home Office responded, saying, "Applications for research licences are dealt with as expeditiously as the circumstances allow" (p 149); the Minister gave the time from application to grant in the last six cases, which averaged seven weeks (Q 663). The BMA hope that guidelines for trials would help to accelerate the process (Q 92).

7.26 The Committee put to the BMA the idea of a meeting between the Home Office and researchers, and they welcomed it (Q 93). The Home Office say that they would be happy to hold such a meeting, jointly with the Department of Health: "It would provide a useful opportunity to highlight some of the complex issues involved such as the supply of standardised cannabis, and the adoption of sound methodologies". Work is now in hand to set up such a meeting (Q 686).

Medical use and recreational use

7.27 "Without pressing the panic button", Professor Edwards points out that cannabis or preparations of cannabis supplied for medical use might be diverted to recreational use (Q 20). Professor Hall warns that, if doctors were allowed to prescribe cannabis, some might be tempted to profit from bogus prescriptions (Q 761). New Department of Health guidelines on clinical management of drug abuse are to cover "leakage" of prescribable controlled drugs (such as methadone) onto the black market; the Department comment that leakage of

nabilone is "highly unlikely", since it is dispensed only by hospital pharmacies in small amounts (p 217). The BMA report says, "It would be prudent to develop a labelling system that does not identify prescribed drugs as cannabinoids, and to warn patients that such drugs should be kept in a place inaccessible to others". Professor Nathanson added that, ideally, cannabis-based medicines would be developed which had minimal psychoactive effects (Q 76).

7.28 On 23 January 1997, the then Under-Secretary of State, Home Office, told the House of Commons, "Many of those calling for the medical use of cannabis are using it as a stalking horse to promote the campaign for its legalisation" (HC col. 1060). David Copestake, a Methodist Minister who has researched and written in this field, takes this view; he observes that medical uses were once touted for tobacco (p 213). The NDPA say the same, claiming that the BMA has been "hi-jacked" and that the ACT are "very familiar" with lobbyists for legalisation (p 278). The Christian Institute agree (p 208).

7.29 The ACT insist that they are not calling for general legalisation (p 28). They point out that heroin (diamorphine) may be prescribed (it is a Class A drug under the Misuse of Drugs Act, yet in Schedule 2 to the 1985 Regulations). Dr Notcutt observes that there is no evidence that heroin abuse is thereby encouraged, and lists several other drugs of potential abuse which are used unlicensed in chronic pain (p 105). The MRC make the same point, and say (as do several other witnesses), "The question of potential medical uses for cannabis and its derivatives must be considered quite separately from the question of prohibition of recreational use" (p 144). According to Professor Hall, there is a stalking-horse element to the debate on medical use; but this should not be allowed to influence the argument either way (p 222).

7.30 The Department of Health still detect an element of the stalking-horse. However they acknowledge and support "the genuine concern of some people to find medicinal products for intractable conditions" (Q 176).

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25 Hirst R A, Lambert D G and Notcutt W G, *op. cit.* Back
26 A member of the Independent Inquiry into the Misuse of Drugs Act-see paragraph 6.19. Back
27 Hirst R A, Lambert D G and Notcutt W G, *op. cit.* Back
28 Holdcroft A *et al*, *op. cit.* Back

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CHAPTER 8 OPINION OF THE COMMITTEE

Medical use of cannabis: recommendations

8.1 We recognise that, in all the evidence we have received, there is not enough rigorous scientific evidence to prove conclusively that cannabis itself has, or indeed has not, medical value of any kind.

8.2 Nevertheless we have received enough anecdotal evidence (see above, paragraphs 5.4, 20-22, 27-30) to convince us that cannabis almost certainly does have genuine medical applications, especially in treating the painful muscular spasms and other symptoms of MS and in the control of other forms of pain.

8.3 **We therefore recommend that clinical trials of cannabis for the treatment of MS and chronic pain should be mounted as a matter of urgency.** We warmly welcome the fact that, in the course of our inquiry, both Dr Geoffrey Guy of GW Pharmaceuticals, and the Royal Pharmaceutical Society's working group under Sir William Asscher, have set off down this route (paragraphs 5.44-48). We welcome the Asscher group's intention to compare the effects of a standardised preparation of natural cannabis with those of the one synthetic cannabinoid already available, dronabinol, on the basis of the same dose level of THC.

8.4 Although neither Dr Guy nor the Asscher group contemplate trials of smoked cannabis, we agree with the Chief Executive of the MRC that such a trial should not be ruled out (paragraph 5.57). However we recognise the dangers of smoking, and we do not envisage smoking being used to administer any medicine eventually licensed. For this reason we **recommend that research be promoted into alternative modes of administration (e.g. inhalation, sub-lingual, rectal) which would retain the benefit of rapid absorption offered by smoking, without the adverse effects.**

8.5 The Government have said repeatedly that, if sufficient evidence in favour of cannabis as a medicine were produced for the MCA to be prepared to license it, they would amend the Misuse of Drugs Regulations so as to permit it to be prescribed. The problem with this policy is that it will take several years at least for this to happen. The Asscher group's trials are not expected to be complete before mid-2001, and will lead only to "proof of principle", leaving others to proceed with any pharmaceutical development. Dr Guy does not expect to receive a product licence in under five years. In the mean time, 85,000 people in this country will continue to suffer the very unpleasant symptoms of MS. Only a small proportion of these are known to have tried cannabis illegally; but of these, significant numbers report great relief of their symptoms. We do not believe that this position is satisfactory.

8.6 We therefore recommend that **the Government should take steps to transfer cannabis and cannabis resin from Schedule 1 to the Misuse of Drugs Regulations to Schedule 2** (see Box 3), **so as to allow doctors to prescribe an appropriate preparation of cannabis, albeit as an unlicensed medicine and on the named-patient basis** (see Box 6), **and to allow doctors and pharmacists to supply the drug prescribed.** This would also, incidentally, allow research without a special licence from the Home Office (see Box 8).

8.7 It is argued in some quarters that some of those who campaign for medical use see it as a stalking-horse for the legalisation of recreational use (paragraphs 7.28-30). We do not see this as a reason to resist medical use if, as we believe, it is justified by the evidence. We prefer the argument recently advanced by Austin Mitchell MP in the House of Commons (14 January 1998, col. 317): at present, people who use cannabis for medical reasons are caught in the front line of the war against drug abuse. This makes criminals of people whose intentions are innocent, it adds to the burden on enforcement agencies, and it brings the law into disrepute. Legalising medical use on prescription, in the way that we recommend, would create a clear separation between medical and recreational use, under control of the health care professions. We believe it would in fact make the line against recreational use easier to hold.

8.8 Before moving cannabis out of Schedule 1, the Government are required by law to consult the Advisory Council on the Misuse of Drugs. **We recommend that they do so at once, and respond to this report only after receiving and considering the advice of the Council.** We recognise that this may take longer than the time normally allowed for such responses.

Medical use of cannabinoids: recommendations

8.9 Unlike cannabis itself, the cannabinoid THC (dronabinol) and its analogue nabilone are already accepted by the Government as having medical value (paragraphs 5.11-17)—producing the anomaly that, while cannabis itself is banned as a psychoactive drug, THC, the principal substance which makes it psychoactive, is in legitimate medical use. Some of our witnesses are prepared (paragraph 5.50) to contemplate wider medical use of the cannabinoids, but not of cannabis itself. We disagree, since some users of both find cannabis itself more effective (paragraph 5.51). We do, however, welcome the inclusion of THC in the trials proposed by the Asscher group, in like-for-like comparison with cannabis itself.

8.10 Dronabinol (THC), though not licensed in this country, has already been moved to Schedule 2 to the Misuse of Drugs Regulations, and nabilone is a licensed medicine and not a controlled drug; so no Government action is required in either case to permit clinical trials or indeed prescription. All cannabinoids other than THC remain in Schedule 1, and transferring them would require agreement through the WHO under the 1971 Convention. We do not regard this as a priority, since we are not persuaded that any other cannabinoid has a convincing medical use; but we recommend that **the**

Government should raise the matter of rescheduling the remaining cannabinoids with the WHO in due course, in order to facilitate research.

Why change the law?

8.11 Our principal reason for recommending that the law be changed, to make legal the use of cannabis for medical purposes, is compassionate. Illegal medical use of cannabis is quite widespread (paragraphs 5.2-3); it is sometimes connived at and even in some cases encouraged by health professionals (paragraph 5.6); and yet at present it exposes patients and in some cases their carers to all the distress of criminal proceedings, with the possibility of serious penalties. We acknowledge that, if our recommendation were implemented, the United Kingdom would be moving out of step with many other countries; we consider that the Government should not be afraid to give a lead in this matter in a responsible way.

8.12 As a secondary reason, we would observe that the law in this area appears to be being enforced inconsistently, and in some cases with a very light hand (paragraphs 7.2-5). Some cases are not brought to court; where users of cannabis for medical purposes have been prosecuted, the sentence has sometimes been light; and there have even been cases where juries have refused to convict. The Minister told us that he was content to leave this as a matter for the discretion of the prosecuting authorities and the courts (QQ 668-673). That is a constitutionally proper position for a Minister; but it is not the right position for Parliament. If statute law is not enforced, Parliament is brought into disrepute; either enforcement must be tightened up, or the law must be changed. In this case, we recommend the latter.

8.13 A further subsidiary advantage of transfer from Schedule 1 to Schedule 2 would be the encouragement which this would give to research (paragraphs 7.18-26). There are exciting research opportunities in this field (see Chapter 3), which (on the basis of the number of grants by the MRC and the Wellcome Trust, and the number of Home Office research licences—paragraph 5.39 and Box 8) are not being fully taken up in this country, despite the excellence of British biomedical science. We are satisfied that the Home Office are not being deliberately obstructive; and we are glad that they have already taken up our proposal for a meeting between the research community and those responsible for the research licensing regime (paragraph 7.26). But, now that research in this field has taken off, and the existence of important medical applications is (in our view) well established, it is not appropriate for research to continue to be subject to this extra layer of administration. Transfer to Schedule 2 would also go some way to removing the stigma which many of our witnesses believe hangs over research in this field, deterring researchers, funding bodies, pharmaceutical companies and local ethics committees alike from involvement in research which might turn out to be of great importance.

8.14 As the Minister pointed out to us, a doctor who prescribed cannabis on these terms, in the absence of a product licensed by the MCA for the relevant indication, would take on himself full responsibility for the consequences (Q 679). This is true. However we have received evidence from doctors who are currently prescribing nabilone on an unlicensed basis (Notcutt Q 405). We believe that the overwhelming majority of members of the medical profession can be trusted not to be reckless in this matter, and that the professional regulatory bodies will deal effectively with any who are.

8.15 The Minister also observed that, in some cases, someone charged with a cannabis offence may claim medical use as a bogus defence or plea in mitigation (Q 674). We do not doubt that this happens at present; and, in the case of some people, it may be hard to tell where recreational use stops and medical use begins (paragraph 5.5). Rescheduling so as to permit prescription would in fact make this problem easier to deal with: rather than having to investigate individual medical histories, as at present, the authorities would simply ask to see the prescription.

8.16 As with any medicine, there are some groups of patients for whom cannabis-based medicines will not be appropriate. On the evidence before us, cannabis-based medicines should not be prescribed for persons with, or predisposed towards, schizophrenic illness (paragraph 4.12) or cardiovascular conditions (paragraph 4.4); nor, pending further research, should they be prescribed for pregnant women (paragraphs 4.15-16). As with many medicines, users should be warned of possible effects on driving ability (paragraphs 4.6-9) and cognitive function (paragraph 4.13). As with any potentially addictive medicine, the risk of addiction (paragraphs 4.23-33) should be weighed up when deciding whether to prescribe, and the user should be warned. **Therefore, if doctors are permitted to prescribe cannabis on an unlicensed basis, the medical professional bodies should provide firm guidance on how to do so responsibly** (paragraph 7.17).

8.17 As with any medicine which is open to abuse, **safeguards must be put in place by the professional regulatory bodies to prevent diversion to improper purposes** (paragraph 7.27). These might include a system of declarations to be signed by the doctor and the patient.

Recreational use

8.18 It is believed in some quarters that the current absolute prohibition on the recreational use of cannabis and its derivatives is not justified by the adverse consequences for the user and the public. On the evidence before us, we disagree. On the contrary, we endorse the Government's statement in *Tackling Drugs*: "The more evidence becomes available about the risks of...cannabis,...the more discredited the notion that [it is] harmless" (paragraph 6.16).

8.19 The harms must not be overstated: cannabis is neither poisonous (paragraph 4.3), nor highly addictive, and we do not believe that it can cause schizophrenia in a previously well user with no predisposition to develop the disease. However, we are satisfied that:

— It is intoxicating, enough to impair the ability to carry out safety-critical tasks (such as flying, driving or operating machinery) for several hours after taking (paragraphs 4.6-9);

— It can have adverse psychic effects ranging from temporary distress, through transient psychosis, to the exacerbation of pre-existing mental illness (paragraphs 4.10-12);

— Regular use can lead to psychological dependence (paragraphs 4.23-33); and, in some dependent individuals (perhaps 5-10 per cent of regular users), regular heavy use can produce a state of near continuous intoxication, making normal life impossible;

— Withdrawal may occasionally involve unpleasant symptoms (paragraphs 4.23-25);

— Cannabis impairs cognitive function during use (paragraph 4.6);

— It increases the heart rate and lowers the blood pressure, carrying risks to people with cardiovascular conditions, especially first-time users who have not developed tolerance to this effect (paragraph 4.4).

8.20 Moreover, it is possible, though not proved, that the effects of cannabis on driving etc. may last longer than a few hours after taking (paragraph 4.7); that the damage to cognitive function may endure after withdrawal (paragraph 4.13); and that cannabis has adverse effects on the immune system (paragraph 5.16) and on fertility and reproduction (paragraphs 4.15-16).

8.21 In addition, smoking cannabis carries similar risks of respiratory disorders to smoking tobacco. It is also possible, though not proved, that exposure to cannabis smoke increases the risk of cancers of the mouth, throat and lung (paragraphs 4.17-18).

8.22 Therefore, **on the basis of the scientific evidence which we have collected, we recommend that cannabis and its derivatives should continue to be controlled drugs.**

Summary of recommendations

8.23

(i) Clinical trials of cannabis for the treatment of MS and chronic pain should be mounted as a matter of urgency (paragraph 8.3).

(ii) Research should be promoted into alternative modes of administration (e.g. inhalation, sub-lingual, rectal) which would retain the benefit of rapid absorption offered by smoking, without the adverse effects (paragraph 8.4).

(iii) The Government should take steps to transfer cannabis and cannabis resin from Schedule 1 to the Misuse of Drugs Regulations to Schedule 2, so as to allow doctors to prescribe an appropriate preparation of cannabis, albeit as an unlicensed medicine and on the named-patient basis, and to allow doctors and pharmacists to supply the drug prescribed (paragraph 8.6).

(iv) The Government should consult the Advisory Council on the Misuse of Drugs on this matter at once, and respond to this report only after receiving and considering their advice (paragraph 8.8).

(v) The Government should raise the question of rescheduling the remaining cannabinoids with the WHO in due course (paragraph 8.10).

(vi) If doctors are permitted to prescribe cannabis on an unlicensed basis, the medical professional bodies should provide firm guidance on how to do so responsibly (paragraph 8.16); and safeguards must be put in place by the professional regulatory bodies to prevent diversion to improper purposes (paragraph 8.17).

(vii) Cannabis and its derivatives should continue to be controlled drugs (paragraph 8.22).

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APPENDIX 2

Witnesses

The following witnesses gave evidence. Those marked * gave oral evidence. Those marked ** gave written evidence which is not printed, but is available for inspection at the House of Lords Record Office (0171-219 5316):

Academy of Medical Sciences (with Royal Society)
* Advisory Council on Misuse of Drugs
* Alliance for Cannabis Therapeutics
** Anonymous
* Professor Heather Ashton
Association of Chief Police Officers
Dr Anthony Blowers, Surrey's Drug Action Team
Mary Brett, Dr Challoner's Grammar School (Boys), Amersham
* British Medical Association
** J Brown
Christian Institute
** S Cooke
David Copestake
Dr Angela Coutts, University of Aberdeen
Department of Complementary Medicine, University of Exeter
** R Creasey
** P Davidson
** M Davies
** S Day
* Department of Health
* Dutch National Institute of Public Health and the Environment
Evangelical Coalition on Drugs Executive Committee
** C Fell
Forensic Science Service
** L Gibson
Professor Keith Green, Medical College of Georgia, USA
* Dr Geoffrey Guy
* Professor Wayne Hall, Executive Director, National Drug and Alcohol Research Centre, Australia
Professor John Henry, Imperial College School of Medicine (on behalf of Royal College of Pathologists)
* Dr Anita Holdcroft, Imperial College School of Medicine
* Home Office
** M Humphreys
Independent Drug Monitoring Unit
Institute for the Study of Drug Dependence
International Drug Strategy Institute
Edward H Jurith
Dr David Kendall, University of Nottingham Medical School
* Dr David Lambert
** D Lewis
London Medical Marijuana Support Group
* Medical Research Council
* Medicines Control Agency
Dr Tod H Mikuriya

* Austin Mitchell MP
* Mr Neil Montgomery
* Multiple Sclerosis Society
* National Addiction Centre
National Drug Prevention Alliance
NHS National Teratology Information Service
* Dr William Notcutt
Professor David Nutt, University of Bristol
* Dr Roger Pertwee
** A Phillipson
** P Rigby
* Dr Philip Robson
** E Rorison
Royal College of General Practitioners
Royal College of Pathologists
Royal College of Psychiatrists
* Royal Pharmaceutical Society of Great Britain
Royal Society
** J Sayers
Dr Fred Schon, Mayday Hospital Croydon and St George's Hospital
** Dr P Shaw
** Councillor C Simpson, Aberystwyth
** L Standen
Dr Colin Stewart, Dundee Limb Fitting Centre
** G Vincent
Young Christian Democrats

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APPENDIX 3

Notes on Conference "Marihuana and Medicine" at New York University Medical Center, New York, 20-21 March 1998

by Professor Leslie Iversen FRS, Specialist Adviser

1. The conference, organised by Professor G. Nahas and colleagues, gave an overview of the current position in the USA. A topical issue there is whether smoked marijuana should be permitted for medical use, since oral formulations of tetrahydrocannabinol (THC) and nabilone are already available medically.

2. M. Huestis (National Institute on Drug Abuse) reviewed new information on the **disposition and metabolism of cannabis** in human subjects, using sensitive analytical techniques to measure THC and some of the major metabolites. Because a substantial proportion of the absorbed THC is sequestered in fat tissues, the half life of the drug in blood is > 4 days and the half life of the major urinary metabolite 11–carboxylic acid THC is > 30 hours. By measuring the ratio of unchanged THC to this metabolite in samples of blood or urine it may be possible to calculate when the last dose of THC was taken-information that could be of importance forensically. An unexpected finding was the large variability between subjects in the amount of THC absorbed by smoking a standard marijuana cigarette under laboratory conditions; even though the number and frequency of puffs was controlled there was a 3–fold range. For the same subject tested on different occasions there was also a considerable variability in the amount of THC absorbed (17 per cent on average).

3. M. El Sohly (University of Mississippi) described the development of a **rectal suppository** formulation for delivery of THC in the form of a "pro–drug" (the hemisuccinate ester) dissolved in a lipid base. Absorption of THC increased in a dose–dependent manner and was prolonged (THC was measurable in blood for up to 8 hours). Because this route of absorption avoids first pass metabolism in the liver, the amount of THC absorbed into circulation was more than twice as great as after oral dosage. Unfortunately there was a high variability between subjects in the amount of THC absorbed (about 3–fold). The advantages of this route of administration seem clear, but it was thought unlikely to be popular in the United States where suppository formulations have never been widely accepted.

4. B. Thomas (Research Triangle Institute) reviewed the operation of his laboratory which supplies **standard marijuana cigarettes** to the 8 individual glaucoma patients licensed in the US to receive this medication, and to research groups in the US and elsewhere. By using standard growing conditions (at the University of Mississippi) and different strains of cannabis plant they are able to generate marijuana cigarettes of consistent quality and standard THC content (standard = 1.8 per cent THC; strong = 4.0 per cent THC) free of microbial or insect contamination. Placebo cigarettes are prepared using leaf material extracted with alcohol to remove THC.

5. Roger Pertwee (University of Aberdeen) reviewed current knowledge of the two **cannabinoid receptors** CB1 (found in the brain and some peripheral organs) and CB2 (peripheral only). The presence of CB2 receptors on cells in the immune system has prompted some pharmaceutical companies to become interested in this as a possible target for the discovery of novel immune–suppressant or anti–inflammatory drugs. The French company Sanofi and the Canadian company Merck–Frosst have reported novel synthetic antagonists/agonists acting selectively at these sites. The availability of novel synthetic

antagonists acting at the CB1 receptors (eg SR141716A (Sanofi), LY 320135 (Eli Lilly)) has provided valuable new research tools. New drugs are also being designed based on the structure of the endogenous cannabinoid anandamide.

6. R. Mechoulam (Hebrew University, Israel) described his identification of Ä^9–THC as the principal psychoactive compound in cannabis extracts, and his subsequent discovery of **anandamide** as the naturally occurring cannabis–like compound in the brain. Other naturally occurring fatty acid derivatives also interact with cannabis receptors, and one of these, 2–arachidonylglycerol, may act selectively at CB2 receptors.

7. E. Gardner (Albert Einstein College of Medicine, New York) described studies of the interaction of THC with **reward pathways** in rat brain. He confirmed earlier work from an Italian laboratory (Tanda et al, 1997, *Science*, 276:2048–2050) that administration of THC (0.5mg/kg) to rats caused an increase in dopamine release in the nucleus accumbens region of the brain and, furthermore, that this release could be blocked by co–administration of the drug naloxone, which blocks opiate receptors in the brain. He also found that THC sensitised rats to the rewarding effects of intracranial self–stimulation and that this effect was also blocked by naloxone. These results are potentially important as they indicate that THC stimulates dopamine pathways in the brain known to be activated by various addictive drugs—nicotine, amphetamine, heroin and cocaine. The blocking effects of naloxone suggest that THC may exert at least part of its rewarding effects indirectly by promoting a release of opiate–like chemicals in the brain.

8. D. Tashkin (University of California Los Angeles) surveyed the **effects on the lung** of long-term marijuana use. He conducted large scale studies in the 1980s in heavy marijuana smokers and compared them with subjects who smoked tobacco. Marijuana smokers showed some bronchial symptoms (cough, wheeze and bronchitis), but there was no evidence for any significant reduction in overall respiratory function. When data were collected annually for a further 8 years, the marijuana smokers did not show the age–related decline in respiratory function seen in tobacco smokers. Nevertheless, there was concern about the longer-term effects of marijuana smoking. Examination of the lining of the airways revealed inflammatory changes in chronic marijuana smokers, with an increase in the number of mucus–secreting cells and sometimes what appeared to be pre–cancerous alterations in cells lining the lungs. Examination of lung biopsy specimens showed an increased expression of certain genes that are markers of lung tumours. In addition the immune defence system appears to be depressed in the lungs of marijuana smokers. The defending white cells (macrophages), although present in increased numbers, had a decreased ability to kill bacteria or fungi and produced reduced amounts of nitric oxide and cytokines, the normal defence chemicals. Suppression of immune system function may be related to a direct effect of cannabis on receptors on the macrophages and other immune system cells. Although there was no evidence for increases in lung cancers in marijuana smokers, there were some reports of increases in cancers of mouth and throat. The reduction in immune system function could make marijuana smokers especially vulnerable to lung infections.

9. K. Coe (formerly at Pfizer Research) and L. Lemberger (formerly at Eli Lilly Research) gave historical reviews of the **development of novel drugs** for the treatment of pain and prevention of nausea based on cannabinoid chemical structures. A project at Pfizer in the 1970s led to the discovery of the synthetic compound levonantradol and the related compound CP–55,940. These compounds had a much greater water solubility than THC and proved to be up to 100 times more potent than morphine in some animal tests of pain. Levonantrodol entered pilot scale clinical trials and was effective in suppressing post–operative pain and in preventing nausea and vomiting associated with cancer chemotherapy. It was evident, however, that the drug did not separate the beneficial clinical effects from intoxicant effects, and the company abandoned the project in 1980. CP–55,940 proved valuable, however, in radioactively labelled form as a probe which led to the identification of the cannabis CB1 receptor in the brain.

10. At Eli Lilly during the same period there was also a hope that the beneficial effects of

cannabinoids could be separated from unwanted psychoactivity, and this led to the discovery and development of **nabilone**. Clinical trials established the effectiveness of this drug in the treatment of the nausea and vomiting associated with cancer chemotherapy. Although some patients complained of the drug–induced "high", this appeared milder than that associated with THC. However, although nabilone was approved for medical use by the Food and Drug Administration, the US Drug Enforcement Agency insisted that it be given a "Schedule II" classification [i.e. a compound with some medical use but a high abuse potential, so doctors using it have to keep detailed records]. This led to the company withdrawing from the project and also failing to give any substantial marketing support to the compound. Post–marketing surveillance reports in the UK, where the compound has some limited use, have not shown any danger of abuse.

11. W. Notcutt (Great Yarmouth), a consultant in a pain clinic, reported on the positive effects of nabilone in the **relief of pain** in some of his patients who were suffering from chronic pain and not responding to other medications. In a total of 55 patients he observed beneficial effects of nabilone (improved sleep, reduced pain) in about one third.

12. K. Green (Medical College of Georgia) and M. Forbes (Columbia University College. NY) discussed the possible use of cannabis in the treatment of **glaucoma**. There are more than 2 million glaucoma patients in the USA alone, and glaucoma is a major cause of blindness. THC or smoked marijuana does cause a marked fall in intraocular pressure in both normal subjects and patients with glaucoma (up to 45 per cent reduction), but the effect is transient and returns to baseline within 3–4 hours. It is difficult to achieve longer-term control of intraocular pressure as this would require frequent repeat dosing. THC cannot be delivered topically to the eye (the preferred route for anti–glaucoma medications) because of its low water solubility. It is possible that an improved topical delivery formulation, or topical use of a more water soluble synthetic cannabinoid, could be developed in the future. In the USA a small group of patients (8) have individual permission to use smoked marijuana to treat their glaucoma.

13. R. Graller (New Orleans) reviewed the use of cannabis in the treatment of **nausea and vomiting**. Although there have been several controlled clinical trials showing the effectiveness of orally administered THC and nabilone in patients receiving cancer chemotherapy, there are few data on smoked marijuana. In recent years a new class of anti–nausea drugs, the 5–HT3 antagonists (e.g. ondansetron, granisetron) have radically improved the treatment of nausea and vomiting in cancer patients. He found that a combination of granisetron and the steroid dexamethasone controlled the symptoms in more than 90 per cent of patients. Unlike THC which cannot be given intravenously, granisetron can be given by this route as well as by mouth.

14. G. Francis (McGill University, Montreal) discussed the use of cannabis in the treatment of **multiple sclerosis**. There are few effective treatments for this disease, and more than 250,000 patients in the USA. Some symptoms are particularly poorly controlled by existing medicines, notably tremor, pain and spasticity. There are many anecdotal reports that these symptoms are eased by smoked marijuana, but so far there have been few controlled clinical trials. A currently ongoing study with 600 subjects aims to compare smoked marijuana with a placebo (cigarettes with THC removed). Results available so far suggest that the subjective reports of improvement by patients are not always accompanied by improvement in objective measures of performance.

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APPENDIX 4

Notes on the International Cannabinoid Research Society 1998 Symposium on Cannabinoids, La Grande Motte, France, 23-25 July 1998

by Professor Leslie Iversen FRS, Specialist Adviser

1. The annual meeting of this group of research scientists was held for the first time outside North America and was attended by about 150 scientists, largely from academia. Of the 135 papers presented 73 originated from the United States and 50 from Europe (including 12 from Britain, 5 of which were from Dr Pertwee's group in Aberdeen).

Endogenous cannabinoids

2. A substantial number of papers focused on the naturally occurring cannabinoids in the brain and in peripheral tissues. At least two lipid derivatives are now recognised: anandamide (arichidonyl–ethanolamide) and an arichidonic acid ester, 2–arachidonyl–glycerol (2–AG). The latter substance is as potent as anandamide and is present in much larger quantities than anandamide in the brain. Several papers focused on the biochemical mechanisms involved in the synthesis and degradation of these lipids in the brain, and progress has been made in defining the biochemical mechanisms involved. Attention has also focused on the development of metabolically more stable chemical analogues of anandamide and 2–AG with improved activity in whole animal studies: the naturally occurring compounds are rapidly degraded and are thus not very active *in vivo*. Another lipid, palmitoyl–ethanolamide, may represent the natural activator of CB2 receptors, although there was some disagreement about its pharmacological activity and selectivity.

Cannabinoid receptors

3. Several groups are studying the detailed molecular architecture of the CB1 and CB2 receptors and beginning to identify the precise sites at which the cannabinoids bind to these proteins. Studies of the receptors in *in vitro* model systems have revealed some interesting differences between the effectiveness of various cannabinoids in activating the receptors. In particular Ä^{9}–THC appears to act as only a partial agonist at the CB1 receptor (i.e. it cannot elicit a maximum response). Cannabidiol, one of the most abundant plant alkaloids, on the other hand appears to act as an antagonist at the CB1 receptor.

4. The CB1–selective antagonist drug SR141716A and the related CB2–selective antagonist SR144528 from the French pharmaceutical company Sanofi were the subject of many papers, and these compounds have proved to be important new research tools for probing cannabinoid functions. Scientists from Sanofi revealed that they are developing SR141716A for clinical trials, with schizophrenia as their first target (on the rationale that high doses of THC can cause a schizophrenia–like psychosis). A novel CB1 antagonist CP–272871 from Pfizer was described for the first time; it has properties similar to those of SR141716A.

5. The CB2 receptor, located principally on cells in the immune system, has attracted attention from a number of major pharmaceutical companies as a potential target for discovering novel anti–inflammatory or immuno-suppressant drugs. There has been progress in identifying CB2–selective drugs (by Merck Frosst, Glaxo–Wellcome, and Smith Kline Beecham) but so far there is little confidence that this target will prove useful. Dr Nancy Buckley (US National Institutes of Health) described the "CB2 knockout mouse" in which as

Buckley (US National Institutes of Health) described the "CB2 knockout mouse" in which as a result of genetic engineering the CB2 receptor is no longer expressed. These mice seem remarkably normal in their immune cell population and in immune function and have not so far assisted in understanding the role normally played by the CB2 receptors.

Adverse effects

6. D. Tashkin (UCLA) reported that treatment of mice with THC (5 mg/kg four times a week) led to more rapid growth of implanted lung cancer cells and decreased survival. He suggests that THC may suppress immune–mediated eradication of tumour cells.

7. A session sponsored by the US National Institute on Drug Abuse focused on the effects of long-term cannabis use on frontal lobe function in man. A series of studies using imaging, cerebral blood flow and electroencephalographic measurements indicated depressed frontal lobe function in long-term cannabis users, and there were accompanying subtle deficits in sensory and cognitive processing, the so-called "executive functions" of the brain. There was little evidence that any of these effects persisted after cessation of drug intake.

8. Billy Martin *et al* (Virginia, USA) described an animal model of cannabis dependence. When dogs were treated with high doses of THC for 7–14 days and then challenged with the CB1 antagonist SR141716A clear physical signs of withdrawal became apparent; these included trembling, shaking, restlessness, vomiting and diarrhoea. By using the antagonist challenge model it has become much clearer that physical dependence and withdrawal can occur with THC, at least in animals. Furthermore, de Fonseca *et al* (Madrid) reported that the administration of SR141716A to morphine–dependent animals elicited a behavioural and endocrine syndrome similar to that seen in opiate withdrawal, although considerably milder. Conversely some withdrawal signs could be elicited in cannabinoid-dependent animals when challenged with the opiate receptor antagonist naloxone, suggesting an interaction between the opioid and cannabinoid systems in the brain.

Possible applications of cannabinoids

9. The interaction of opiate and cannabinoid mechanisms was also highlighted by Sandra Welch (Medical College of Virginia, USA) who reported that low doses of THC significantly potentiated the pain–relieving effects of morphine and other opiates in a mouse model of arthritis–like pain. Higher doses of THC were also by themselves fully effective in causing analgesia in this model. She is planning a clinical trial (with the approval of the US Food & Drug Administration) of low doses of THC (dronabinol) in conjunction with self–administered morphine in patients suffering from cancer pain, in the hope that the drug combination may make morphine more effective in such patients.

10. D. Piomelli (San Diego, USA) described powerful analgesic effects of anandamide when injected directly into the rat paw in an inflamed paw model of inflammatory pain. The mechanism appeared to involve both CB1 and CB2 receptors located on sensory nerve fibres in the skin, and when a combination of CB1–selective and CB2–selective compounds was injected there was synergy between them. Experiments using radiolabelled anandamide showed that >90 per cent of the injected dose remained in the paw, and very little entered the brain or spinal cord. These results are highly original and suggest the possibility that cannabinoids can exert pain–relieving actions without having to penetrate into the central nervous system.

11. P. Consroe and R. Musty (University of Arizona, USA) described the results of an anonymous survey of 106 patients with spinal cord injuries who were self–medicating with smoked marijuana. Patients smoked an average of 4 joints a day, 6 days a week and had been doing so for >10 years. More than 90 per cent reported that cannabis helped improve symptoms of muscle spasms of arms or legs, and improved urinary control and function. Around 70 per cent reported pain relief. The results of this survey and a similar one conducted with R. Pertwee in MS patients may help to pinpoint the relevant symptoms to

focus on as outcome measures in future clinical trials of cannabis or cannabinoids.

12. D. Pate (University of Kuopio, Finland) described promising results in the reduction of intraocular pressure when a metabolically stable anandamide analogue was applied topically to normal rabbit eye. This effect appeared to involve a local CB1 receptor mechanism as it could be blocked by pretreating the animals with the antagonist SR141716A. In order to deliver the water–insoluble lipid derivative to the eye it was dispersed in an aqueous solution containing a beta–cyclodextrin carrier.

Miscellaneous

13. M. El Sohly (University of Mississippi, USA) summarised results obtained from the analysis of confiscated marijuana samples, a service which has been running since 1980 and which involves the analysis of samples from all regions of the United States. Data from 35,312 samples were available. The potency of marijuana leaf samples (the commonest in US seizures) rose from around 1.5 per cent THC content in 1980 to around 3 per cent in the 1980s and most recently to 3.87 per cent in 1996 and 4.15 per cent in 1997. The THC content of sinsemilla (the female plant flower head) rose from around 6.5 per cent in 1980 to 9.22 per cent (1996) and 11.53 per cent (1997). The increases are thought to be due to improved culture conditions rather than to any genetic improvements. Analysis of samples of cannabis resin or oil revealed few discernible trends, with figures ranging from 3 per cent to 19 per cent THC content.

14. J. Khodabaks and O. Engelsma (Maripharm, Netherlands) described their development of "The standardised medical grade marihuana plant". Until recently this group has been supplying Dutch pharmacists with medical grade marijuana, but its legal status has recently been questioned. The laboratory cultivates standard cannabis plants selected for a high yield of THC and low content of other cannabinoids; these are cloned by propagating (by cuttings) from female plants. The plants are grown under standard conditions and the female flower heads harvested and vacuum-sealed for storage and then gamma–irradiated to sterilise the preparations. Samples are routinely checked for THC and other cannabinoids and to ensure that they are free of pesticides. The THC content in different batches was highly consistent at 10.7 ± 0.1 per cent (standard deviation). Interestingly, in the light of discussions about the relevance of other cannabinoids in herbal cannabis, cannabidiol and cannabinol were present in only minor amounts (<0.1 per cent) in these samples.

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Enquiries

EXHIBIT N

THE NATIONAL ACADEMIES
Advisers to the Nation on Science, Engineering, and Medicine

National Academy of Sciences
National Academy of Engineering
Institute of Medicine
National Research Council

Institute of Medicine
Division of Neuroscience and Behavioral Health
Medical Use of Marijuana: Assessment of the Science Base
Janet E. Joy, Ph.D. Study Director

June 22, 1999

Jeffrey W. Jones
Oakland Cannabis Buyer's Cooperative
1755 Broadway
P. O. Box 70401
Oakland, CA 94612

Dear Mr. Jones:

Enclosed is a copy of the Institute of Medicine report, *Marijuana and Medicine: Assessing the Science Base*. Even though the report was released to the public on March 17, 1999 as uncorrected, xeroxed proofs, we didn't receive this final version until last week.

The visit to your organization was not only very helpful and informative for the study team, but also a genuine pleasure. I'm sincerely grateful for your curiosity, consideration, and openness.

With warm regards,

Deborah Yarnell
Research Associate

Enclosure

2101 Constitution Avenue, NW, Washington, DC 20418 *Telephone* (202) 334 1220 *Fax* (202) 334 1317 *email:* jjoy@nas.edu

EXHIBIT O

Synopsis of *Her Majesty the Queen v. Terrance Parker*

On October 8, 1999, a panel of the Ontario Court of Appeal, composed of Justices Catzman, Charron and Rosenberg considered a constitutional challenge to the marihuana prohibitions in the former *Narcotic Control Act* ("*NCA*") and the *Controlled Drugs and Substances Act* ("*CDSA*") in the context of the medical use of marihauna. On December 10, 1997, the trial judge, Sheppard J. granted a stay of proceedings brought against Terrance Parker for cultivating marihuana contrary to the *NCA* and for possession of marihauna contrary to the *CDSA*. The Crown appealed. The unanimous Court of Appeal upholds the trial judge's decision to stay the charges against Parker and dismisses that part of the Crown's appeal.

Terrance Parker has suffered from a very severe form of epilepsy since he was a young child. For close to 40 years he has experienced frequent serious and potentially life-threatening seizures. He has attempted to control these seizures through surgery and conventional medication. The surgery was a failure and the conventional medication only moderately successful. He has found that smoking marihuana substantially reduces the incidence of seizures. Since he has no legal source of marihuana, he has been growing it himself. On two occasions, the police searched his home and seized the marihuana. He was first charged with cultivating marihuana under the *NCA*. By the time of the second investigation, that Act had been repealed and he was charged with possession of marihuana under the new *CDSA*.

The former *NCA* and the *CDSA* prohibit the possession and cultivation of marihuana. Both statutes, however, contemplate that drugs like marihuana may have medicinal value and therefore should be available through a regulatory process. If a drug receives the necessary regulatory approval, it can be made available to the public through a physician's prescription. However, no drug company has applied for a licence to sell marihuana or CBD, which is one of the most promising active ingredients in marihuana for controlling epileptic seizures. As a result, CBD is not available in Canada.

Parker argued that the prohibition on the cultivation and possession of marihuana is unconstitutional. He claimed that the legislation infringes his rights as guaranteed by s. 7 of the *Canadian Charter of Rights and Freedoms* (i.e. the right to life, liberty and security of the person and the right not to be deprived of those rights except in accordance with the principles of fundamental justice). Put simply, Parker claims that he needs to grow and smoke marihuana as medicine to control his epilepsy. Because of the marihuana laws, he faces the threat of imprisonment to keep his health. A statute that has this effect does not comport with fundamental justice, according to Parker. At trial, he led a great deal of scientific and other evidence to demonstrate the therapeutic value of marihuana for treating a number of very serious conditions including epilepsy, glaucoma, the side effects of cancer treatment and the symptoms of AIDS.

The government countered with its own evidence at trial. It argued that Parker does not need marihuana to control his seizures and that he has a number of other legal therapeutic alternatives; such as better treatment with conventional epilepsy medication or obtaining a prescription for Marinol, which is a synthetic form of THC (another active ingredient in marihuana).

At trial, Sheppard J. concluded that Parker requires marihuana to control his epilepsy and that the prohibition against marihuana infringes his rights under s. 7 of the *Charter*. Sheppard J. stayed the cultivation and possession charges. In order to protect Parker and others like him who need to use marihuana as medicine the trial judge read into the legislation an exemption for persons possessing or cultivating marihuana for their "personal medically approved use".

On appeal, the Crown argued that the trial judge made a factual error in finding that Parker requires marihuana for medical purposes. The Crown also argued that the legislation is valid and that there are legal means by which Parker can obtain marihuana. It said that the legislation is not unconstitutional simply because no drug company has attempted to have marihuana or CBD licensed for sale through prescription. It also argued that Parker could have applied for a special exemption from the Minister of Health under s. 56 of the *CDSA*. It pointed to fresh evidence that the Minister has granted such exemptions to other persons who need marihuana for therapeutic purposes. Finally, the Crown claimed that the remedy granted by the trial judge was wrong and he should not have, in effect, amended the legislation, as that is a matter for Parliament.

Justice Rosenberg, writing for the court, concludes that the trial judge was right in finding that Parker needs marihuana to control the symptoms of his epilepsy and also that the prohibition on the cultivation and possession of marihuana is unconstitutional. Based on principles established by the Supreme Court of Canada, particularly in *R. v. Morgentaler*, where the court struck down the abortion provisions of the *Criminal Code*, and *Rodriguez v. British Columbia (Attorney General)*, where the court upheld the assisted suicide offence in the *Criminal Code*, this court concludes that the prohibition on possessing marihauna in the *CDSA* has deprived Parker of his right to security of the person and his right to liberty in a manner that does not accord with the principles of fundamental justice. If the cultivation prohibition of the *CDSA* had been before the court, the court would also have held that it infringes Parker's s. 7 rights. The possibility of an exemption under s. 56 that is dependent upon the unfettered and unstructured discretion of the Minister of Health is not consistent with the principles of fundamental justice.

The trial judge's decision to stay the charges against Parker is upheld. However, the court disagreed with Sheppard J.'s remedy of reading in a medical use exemption into the legislation. This is a matter for Parliament. Accordingly, the prohibition on the possession of marihuana in the *CDSA* is declared to be of no

force and effect. That declaration of invalidity is suspended for a year. During this period, the marihuana law remains in full force and effect. Parker, however, cannot be deprived of his rights during this year and is, therefore, entitled to a personal exemption from the possession offence under the *CDSA* for possessing marihuana for his medical needs. Since the *NCA* has already been repealed, there is no need to declare it unconstitutional. If necessary, the court would have found that Parker was entitled to a personal exemption from the cultivation offence for his medical needs.

DATE: 20000731
DOCKET: C28732

COURT OF APPEAL FOR ONTARIO

CATZMAN, CHARRON and ROSENBERG JJ.A.

B E T W E E N :	)	
	)	**Kevin R. Wilson,**
HER MAJESTY THE QUEEN	)	**for the appellant**
	)	
Appellant	)	**Richard P. Macklin and**
	)	**Aaron B. Harnett,**
- and -	)	**for the respondent**
	)	
TERRANCE PARKER	)	**Ed Morgan,**
	)	**for the Intervener,**
Respondent	)	**Epilepsy Association of Toronto**
	)	
	)	**Heard: October 6, 7 and 8, 1999**
	)	

On appeal against the stay of proceedings granted to the respondent by The Honourable Judge Patrick Sheppard on December 10, 1997

ROSENBERG J.A.:

[1] This is one of two appeals heard by this court concerning the constitutionality of the marihuana prohibition in the former *Narcotic Control Act*, R.S.C. 1985, c. N-1 and the *Controlled Drugs and Substances Act*, S.C. 1996, c. 19. The appeal in *R. v. Clay* concerns the use of the criminal law power to penalize the possession of marihuana. This Crown appeal concerns the medical use of marihuana.

OVERVIEW

[2] It has been known for centuries that, in addition to its intoxicating or psychoactive effect, marihuana has medicinal value. The active ingredients of marihuana are known as cannabinoids. The cannabinoid that gives marihuana its psychoactive effect is tetrahydrocannabinol (THC). While less is known about the other cannabinoids, the scientific evidence is overwhelming that some of them may have anti-seizure properties. The most promising of these is cannabidiol (CBD). Smoking marihuana is one way to obtain the benefit of CBD and other cannabinoids with anti-seizure properties.

[3] The respondent Terrance Parker has suffered from a very severe form of epilepsy since he was a young child. For close to 40 years he has experienced frequent serious and potentially life-threatening seizures. He has attempted to control these seizures through surgery and conventional medication. The surgery was a failure and the conventional medication only moderately successful. He has found that by smoking marihuana he can substantially reduce the incidence of seizures. Since he has no legal source of marihuana, he has been growing it himself. On two occasions, the police searched his home and seized the marihuana. He was first charged with cultivating marihuana under the *Narcotic Control Act*. By the time of the second investigation, that Act had been repealed and he was charged with possession of marihuana under the new *Controlled Drugs and Substances Act*.

[4] The former *Narcotic Control Act* and the *Controlled Drugs and Substances Act* prohibit under threat of imprisonment the possession and cultivation of marihuana. That prohibition is theoretically not absolute. Both statutes contemplate that drugs like marihuana may have medicinal value and therefore should be available through a regulatory process. If a drug receives the necessary regulatory approval, it can be made available to the public through a physician's prescription. A synthetic version of THC, known as Marinol, has been approved for use in Canada and is available by prescription. No drug company has applied for a licence to sell CBD and therefore it is not available in Canada.

[5] Parker decided to fight the charges against him by attempting to show that the prohibition on the cultivation and possession of marihuana in the two statutes is unconstitutional. Specifically, he claims that the legislation infringes his rights as guaranteed by s. 7 of the *Canadian Charter of Rights and Freedoms*. Section 7 guarantees that everyone has the right to life, liberty and security of the person and the right not to be deprived of those rights except in accordance with the principles of fundamental justice. Put simply, Parker claims that he needs to grow and smoke marihuana as medicine to control his epilepsy. Because Parliament has made cultivation and possession of marihuana illegal, he faces the threat of imprisonment to keep his health. Parker argues that a statute that has this effect does not comport with fundamental justice. To support his claim at trial, Parker led a great deal of scientific and other

evidence. That evidence demonstrated the therapeutic value of marihuana for treating a number of very serious conditions including epilepsy, glaucoma, the side effects of cancer treatment and the symptoms of AIDS.

[6] The government countered with its own evidence at trial. It argued that Parker does not need marihuana to control his seizures and that he has a number of other legal therapeutic alternatives; such as better treatment with conventional epilepsy medication or obtaining a prescription for Marinol.

[7] In reasons reported at (1997), 12 C.R. (5^{th}) 251, Sheppard J. of the Ontario Court of Justice concluded that Parker requires marihuana to control his epilepsy and that the prohibition against marihuana infringes Parker's rights under s. 7 of the *Charter*. Sheppard J. stayed the cultivation and possession charges against Parker. Further, in order to protect Parker and others like him who need to use marihuana as medicine the trial judge read into the legislation an exemption for persons possessing or cultivating marihuana for their "personal medically approved use".

[8] The Crown appeals from that judgment. It argues that the trial judge made a factual error in finding that Parker requires marihuana for medical purposes. The Crown also argues that the legislation is valid and that there are legal means by which Parker can obtain marihuana. It says that the legislation is not unconstitutional simply because no

drug company has attempted to have marihuana or CBD licensed for sale through prescription. It also argues that Parker could have applied for a special exemption from the Minister of Health under s. 56 of the *Controlled Drugs and Substances Act*. It points to fresh evidence placed before this court that the Minister has granted such exemptions to other persons who need marihuana for therapeutic purposes. Finally, the Crown says the remedy granted by the trial judge was wrong and he should not have, in effect, amended the legislation, that this is a matter for Parliament.

[9] Parker supports the decision of the trial judge. The Epilepsy Association of Toronto has intervened in this appeal and it also supports the trial judge's decision. In addition, the Association attempts to raise a new argument, that the statutes also violate the equality provisions of the *Charter*.

[10] I have concluded that the trial judge was right in finding that Parker needs marihuana to control the symptoms of his epilepsy. I have also concluded that the prohibition on the cultivation and possession of marihuana is unconstitutional. Based on principles established by the Supreme Court of Canada, particularly in *R. v. Morgentaler*, [1988] 1 S.C.R. 30, where the court struck down the abortion provisions of the *Criminal Code*, and *Rodriguez v. British Columbia (Attorney General)*, [1993] 3 S.C.R. 519, where the court upheld the assisted suicide offence in the *Criminal Code*, I have concluded that forcing Parker to choose between his health and imprisonment violates his right to liberty

and security of the person. I have also found that these violations of Parker's rights do not accord with the principles of fundamental justice. In particular, I have concluded that the possibility of an exemption under s. 56 dependent upon the unfettered and unstructured discretion of the Minister of Health is not consistent with the principles of fundamental justice. I have not dealt with the equality argument raised by the Epilepsy Association because that argument was not raised at trial.

[11] Accordingly, I would uphold the trial judge's decision to stay the charges against Parker and I would dismiss that part of the Crown's appeal. However, I disagree with Sheppard J.'s remedy of reading in a medical use exemption into the legislation. I agree with the Crown that this is a matter for Parliament. Accordingly, I would declare the prohibition on the possession of marihuana in the *Controlled Drugs and Substances Act* to be of no force and effect. However, since this would leave a gap in the regulatory scheme until Parliament could amend the legislation to comply with the *Charter*, I would suspend the declaration of invalidity for a year. During this period, the marihuana law remains in full force and effect. Parker, however, cannot be deprived of his rights during this year and therefore he is entitled to a personal exemption from the possession offence under the *Controlled Drugs and Substances Act* for possessing marihuana for his medical needs. Since the *Narcotic Control Act* has already been repealed by Parliament, there is no need to hold it unconstitutional. If necessary, I would have found that Parker was entitled to a personal exemption from the cultivation offence for his medical needs.

[12] Following are my reasons for these conclusions. Because a principal part of the Crown's attack on the trial decision was on the trial judge's findings of fact, I will deal at some length with the evidence. I will then review the trial judge's findings on the law before setting out my own analysis of the legal issues. Finally, I will explain why I would grant a different remedy from the remedy granted by the trial judge.

THE FACTS

(i) The facts of the offences

[13] Marihuana was seized from the respondent on two different occasions. On July 18, 1996, police officers executed a warrant at the respondent's home and seized 71 marihuana plants. He was charged with cultivating cannabis marihuana contrary to s. 6(1) of the *Narcotic Control Act* and possession of cannabis marihuana for the purpose of trafficking contrary to s. 4(2) of the *Act.* On September 18, 1997, the police again attended at the respondent's home and seized three growing marihuana plants. By this time, the *Narcotic Control Act* had been repealed. On this occasion, the respondent was charged with possession of marihuana contrary to s. 4(1) of the *Controlled Drugs and Substances Act.*

[14] A short note on terminology. Section 3 of the *Narcotic Control Act* prohibits the unauthorized possession of a "narcotic". The term "narcotic" is defined in s. 2 of the Act as anything included in the schedule to the Act. Section 3 of the schedule lists "*Cannabis*

sativa, its preparations, derivatives and similar synthetic preparations" including "Cannabis (marihuana)", "Cannabidiol" (CBD), and "Tetrahydrocannabinol" (THC). Section 6 prohibits the unauthorized cultivation of "marihuana". Section 2 defines marihuana as "*Cannabis sativa L.*" In the evidence, the terms cannabis and marihuana tended to be used interchangeably. For simplicity, I will try to use only the term marihuana when referring to the plant and the raw part of it that is smoked by users. This appeal does not deal with "refined" marihuana such as cannabis resin (hashish). I will refer to the two active ingredients about which there was considerable evidence by their initials THC and CBD. Marinol is a synthetic form of THC.

[15] The *Controlled Drugs and Substances Act* is slightly different in form from the *Narcotic Control Act.* Section 4 prohibits the unauthorized possession of "substances" listed in certain schedules, including "Cannabis (marihuana)" and CBD and THC. Section 7 of the Act prohibits the unauthorized production of substances in the schedules and thus Cannabis (marihuana). Again, for simplicity I will use the term marihuana to refer to the substance grown and used by Parker.

[16] To return to the facts, the charge of possession for the purpose of trafficking was based on Parker's admission to the police that he gives some of his marihuana to other persons who need it for their epileptic seizures. He was found guilty of that offence. The

Charter challenge does not relate to that offence and it played no part in the proceedings in this court.

[17] There was no dispute about the facts upon which the cultivation charge under the *Narcotic Control Act* and the possession charge under the *Controlled Drugs and Substances Act* were based. At one point in the proceedings, Parker had apparently considered relying on a defence of necessity. However, he did not pursue that defence and the only issue at trial was the constitutionality of the prohibition against possession and cultivation of marihuana where an accused claims that he or she requires the marihuana for medicinal purposes.

(ii) Parker's health and experience with marihuana

[18] When he was four and six years of age, Parker suffered two serious head injuries. He was diagnosed with epilepsy after the first accident and thus has had epilepsy for almost 40 years. He suffers from the whole range of seizures associated with epilepsy. These range from *petit mal* seizures, which are brief spells where he almost collapses, to *status epilepticus* when he suffers a series of *grand mal* seizures and requires immediate emergency medical attention. *Grand mal* seizures leave Parker unconscious, violently twitching and writhing on the ground. He will sometimes vomit, lose control of his bowels, choke on his own saliva and smash his head against the ground.

[19] Parker also has various other types of seizures including the following:

> Jacksonian: Limbs shake and vibrate uncontrollably, lasts for up to 45 seconds.
>
> Complex partial (psychomotor): Vivid hallucinations and problems in perception that last up to three minutes; during one of these episodes Parker mistook the end of a subway platform for the back of a truck and jumped off; he was brought to his senses by the sound of an approaching train and was able to scramble to safety.
>
> Partial continuous: Uncontrollable grinding of teeth and loss of control of left arm and leg for short bursts up to a minute. An episode can include dozens of attacks lasting more than a day.
>
> Akinetic: Parker drops to the ground and lies unconscious for up to five minutes. He often injures his head and face in the fall.

[20] Parker has been prescribed many drugs for the treatment of his epilepsy. The primary drugs in his plan are Phenytoin (Dilantin) and Primidone (Mysoline). Both drugs have various side effects to which I will refer below when reviewing the expert evidence.

[21] The seizures associated with Parker's epilepsy severely disrupted his school attendance. As a child and young teen, Parker grew increasingly despondent over his medical condition and the terror he experienced with seizures. Aggressive medical treatment with various drugs did not improve his condition.

[22] At the age of 14, in an attempt to control his seizures, Parker underwent a right temporal lobectomy at the Toronto Hospital for Sick Children. The operation involved the opening of his cranium and the removal of brain matter. The operation was a complete failure and Parker suffered a *grand mal* seizure in the recovery room. Parker became depressed and suicidal and was hospitalized in various psychiatric hospitals. At the age of 16, Parker agreed to further surgery. Only local anesthetic was used and thus Parker was awake while his skull was opened and further brain material was scraped away. The operation did not reduce the seizures.

[23] In the late 1960's, Parker was introduced to marihuana while an in-patient at a provincial institution. Parker's use was originally recreational. By 1974, he was a regular user and he had observed that while under the influence of marihuana, the frequency and intensity of his seizures sharply declined.

[24] In 1980, Parker reported his experience with marihuana to his physician and started to diarize his marihuana use and seizure frequency. Over a six-month period, he found that he experienced *grand mal* seizures when he did not take marihuana and experienced no seizures when he took marihuana in addition to his prescription medicine.

[25] In 1987, Parker's physician advised that the side effects of the prescription medications were so severe that higher dosages could not be used. Therefore, the

physician advised him to regularly use marihuana in conjunction with his prescription medicine to control his seizures. The physician provided a report in September 1987 that included the following:

> Mr. Parker has had many side effects over the years due to his anti-convulsant medications, which have prevented their perhaps more efficacious use in higher doses. These side effects are well-recognized in the medical literature. Hence, from a medical and quality-of-life point of view, I am of the opinion that it is medically necessary, in order to obtain optimal seizure control, that Mr. Parker regularly use marijuana in conjunction with his other anti-convulsant medications.

[26] In 1987, Parker was charged with possession of marihuana. He was acquitted on the basis of the common-law defence of necessity. A Crown appeal to the Ontario District Court was dismissed. Shapiro Dist. Ct. J. noted Parker's lengthy history of *grand mal* epilepsy and his attempts at treatment with drugs and through surgery and concluded that the trial judge could properly find that the necessity defence was made out.

[27] Parker continued to derive substantial benefit from smoking marihuana in conjunction with his prescription drugs. If he consumes marihuana on a daily basis, he experiences virtually no seizures. Without marihuana, within three days he experiences seizures again and will have three to five *grand mal* seizures a week and many more other lesser seizures. Parker is also able to use marihuana to avert oncoming seizures.

When he experiences a prodrome, a precursor to a *grand mal* seizure, and consumes marihuana, he is able to combat the oncoming seizure.

[28] The seizures associated with Parker's epilepsy constitute a serious threat to his health and safety. He has been hospitalized over 100 times due to injuries sustained from seizures. He has been robbed while unconscious and arrested as being drunk, although he does not drink alcohol. Because of the severity of his symptoms, Parker is unable to work and is on a government disability pension.

[29] From 1980 to 1996, Parker was not under the care of an epilepsy specialist. He was under the care of a specialist at the time of the trial in 1997, having first seen him about three weeks before the trial. Parker has had his blood levels monitored about twice a year. The only change in medication that has been recommended by a physician in the recent past was from an emergency room physician who suggested that he increase the dosage of Dilantin from 300 mg to 400 mg per day. Parker declined due to his concern about liver damage at the increased dosage. Crown counsel conducted an extremely brief cross-examination of Parker, which showed that Parker had not asked to have Marinol prescribed for him.

[30] Parker's mother filed an affidavit on the appeal to update his medical condition. She states that Parker's health has greatly improved since the trial and she attributes this to the lack of seizures due to his use of marihuana.

[31] At trial, some evidence was given about Parker's participation in a study at the Addiction Research Foundation in 1979. He testified that he was given some pills containing what he was later told was some form of synthetic THC, a placebo, and a plant that had been sprayed with THC. He had little information at trial about the study or its conclusions. He believed that the study concluded that the use of THC had neither a beneficial nor detrimental effect on his seizures.

[32] On appeal, counsel for Parker produced the results of the study. No objection was taken to this evidence and indeed the appellant relied upon this material. This study assumed considerable importance on the appeal and therefore I set out its findings in some detail. The study was undertaken to assess Parker's claim that marihuana was beneficial in controlling his seizures. The authors of the study noted that "recently cannabidiol [CBD], a marijuana constituent which lacks psychotropic effects in man, has been studied in a wide variety of both natural and experimentally induced epileptic models and has been shown, almost uniformly, to be anti-convulsant". However, the ARF study of Parker dealt only with THC, in part, because it was available in a purified form.

[33] It is important to set out the conclusions from the study:

> From the study it would appear that [THC] had neither beneficial nor detrimental effects on either the clinical or electroencephalographic features of this man's seizure disorder. Several factors however, make it difficult to correlate our findings with what actually happens while he is out of hospital smoking crude marijuana. The marked decrease in seizure frequency during hospitalization is a well recognized occurrence. Hospitalization also ensured anticonvulsant drug compliance to Dilantin particularly since it was subtherapeutic on admission and also after discharge. The use of pure [THC] is also open to criticism since the patient's experience had been with crude marijuana in which [THC] is only one of several cannabinoids including cannibidiol which may be more exclusively anticonvulsant. This patient however was followed at weekly intervals for four weeks after discharge with his anticonvulsants being supplied in weekly allotments. During this time he was regularly smoking crude marijuana obtained on the street. Seizure frequency remained low with only two seizures in the four weeks. The EEG's showed no significant difference from those done in hospital and the marijuana urine levels were just slightly below those measured in hospital. Dilantin levels were subtherapeutic but Tegretol and Mysoline remained within the therapeutic range.
>
> Much more extensive clinical investigation is needed with both crude marijuana and the individual cannabinoids before any definitive statement can be made concerning either harmful or beneficial effects in epileptics. Perhaps different types of seizure disorders respond differently and Feeney has also suggested that the response depends to some extent on the pre-drug baseline seizure frequency and intensity, seizures being activated in individuals with a low baseline frequency and attenuated in those with a high baseline frequency. Until more work is done, however, we feel it prudent to advise epileptics against the use of marijuana. [Footnotes omitted.]

[34] The parties drew completely opposite conclusions from this study. Parker relies on the study as further evidence in support of the trial judge's findings of fact. On the other hand, the Crown suggests that the study supports its submission that findings made by the trial judge concerning Parker's need for marihuana to control his seizures are unsupported by the evidence. I will set out those findings of fact in some detail after my review of the expert evidence. Suffice it to say at this stage that the trial judge found as a fact that synthetic THC (Marinol) is not effective for Parker since it does not contain CBD, that Parker had shown control of seizures is best achieved through a combination of conventional medication and smoking marihuana, and that he had been reasonably diligent in attempting to control his seizures through conventional treatment.

[35] In my view, the ARF study confirms Parker's belief that THC does not have a therapeutic effect on him. The Crown overstates the case that the ARF study shows that if Parker properly monitored his intake of conventional medications he would not need to resort to marihuana use. As the authors point out, "marked decrease in seizure frequency during hospitalization is a well recognized occurrence". There was no suggestion that Parker's continued hospitalization was a reasonable alternative to his use of marihuana to control his seizure activity outside the hospital. It may be that hospitalization also ensured anticonvulsant drug compliance. However, the issue of Parker's use of

conventional medication and compliance with that regime was squarely before the trial judge. It was open to the trial judge to accept Parker's evidence that he took his medication as prescribed. The ARF study also confirms that Parker's decision not to seek a prescription for Marinol was a reasonable one. In addition, no physician has apparently suggested that Parker use Marinol. As counsel for Parker aptly pointed out in oral argument, the only person who has "prescribed" Marinol for Parker is Crown counsel. Finally, the ARF study marginally supports the theory that it is CBD rather than THC that is the medicinal ingredient in marihuana at least in respect of control of seizures. It therefore supports the trial judge's finding in that regard in respect of Parker.

(iii) The harmful and therapeutic effects of marihuana

[36] The parties placed a considerable body of evidence before Sheppard J. about the medicinal use of and claims about marihuana.[1] On consent, the parties filed the transcripts from the trial in *R. v. Clay*. The principal experts were Dr. Kalant, who had also testified for the Crown at the *Clay* trial, and Dr. Morgan, who testified on behalf of the defence. Both are highly qualified.

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[1] The parties also placed "fresh" evidence before this court. For the most part, this evidence falls within the category of legislative facts and, in my view, is properly admissible. See *Ford v. Quebec (Attorney-General)* (1988), 54 D.L.R. (4th) 577 (S.C.C.) at 624-26. The one category of evidence that may constitute adjudicative facts is an affidavit from the respondent's mother setting out the respondent's health since the judgment. The Crown objected to one paragraph of that affidavit as hearsay and I have ignored that paragraph.

[37] It appears to me that the differences between the Crown and defence experts lay mostly in the emphasis they placed on certain facts and the inferences they drew. One fact looms very large in this case, as it did in the *Clay* case. The experts agreed that there is a need for better studies about the long-term effects of regular marihuana use and for better studies about the therapeutic value of marihuana.

[38] As I have indicated, the transcripts from the trial in *R. v. Clay* were filed on consent in this trial. That evidence set the background for the issues in this case as it set out the existing state of knowledge about the harmful health effects of marihuana. Sheppard J. adopted the findings of fact made by McCart J. in the *Clay* trial. Since those findings are fully set out in my reasons in the *Clay* appeal, I will only briefly summarize the findings of particular relevance to this appeal.

[39] Consumption of marihuana is relatively harmless compared to the so-called hard drugs and including tobacco and alcohol and there is no "hard evidence" that even long-term use can lead to irreversible physical or psychological damage. Marihuana use is not criminogenic (i.e. there is no causal relationship between marihuana use and criminality) and it does not make people more aggressive or violent. There have been no recorded deaths from consumption of marihuana. Marihuana does have an intoxicating effect and it would not be prudent to drive while intoxicated. As with tobacco smoking, marihuana smoking can cause bronchial pulmonary damage, especially in heavy users. There may

be other side effects from the use of marihuana and its effects are probably not as benign as was thought some years ago. However, these other effects are not acute except in very narrow circumstances, for example, people with schizophrenia. I will return to the question of the harmful effects of marihuana when discussing the objectives of the marihuana prohibition in the legal analysis.

[40] On this appeal, the Crown disputes some of the findings by McCart J. and hence their acceptance by Sheppard J. The Crown relies upon evidence that Dr. Kalant gave at the trial in commenting on the findings by McCart J.[2] Dr. Kalant's reservations about the findings made in the *Clay* trial are minor and, in any event, do not seriously affect the constitutional analysis in this case, which is concerned with the medical use of marihuana.[3] For example, Dr. Kalant repeated the testimony he gave at the *Clay* trial that if the level of use went up "dramatically", the amount of harm produced by "heavy use" would undoubtedly also go up. For the purposes of this case, I would accept that common-sense observation, but there is no indication that the medicinal use of marihuana would lead to a dramatic use in marihuana generally.

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2 The reasons of McCart J. are reported at (1997), 9 C.R. (5th) 349 (Ont. Ct. (Gen. Div.)).

3 I note that Howard Prov. Ct. J., who heard similar evidence in *R. v. Caine*, [1998] B.C.J. No. 885 came to almost the same conclusions as did McCart J. The accused in *Caine* appealed from that decision. The British Columbia Court of Appeal heard that appeal with another appeal raising the same issues. A majority of the court upheld the trial decisions in reasons cited as *R. v. Malmo-Levine* 2000 BCCA 335. I have made extensive reference to this decision in my reasons in *R. v. Clay*. *Malmo-Levine* does not deal with the therapeutic use of marihuana.

[41] Dr. Kalant also pointed out that the phrase "hard evidence" was not defined in the reasons for judgment, and therefore the statement should not be accepted as a "statement of fact".. In my view, this is a matter of semantics and reflects the difficulty of reconciling scientific proof with proof in litigation. In short, scientists can continue to study a problem until it is resolved. They find facts through continual testing, experimentation and research. A finding will only be accepted as a fact when it can be replicated under carefully controlled circumstances by many different researchers. This is a particularly onerous standard where, as with the harmful effects of marihuana, what is sought to be demonstrated is a negative, that marihuana does not cause serious physical or mental harm. The fact that on the current state of the research no such negative conclusion can be reached is not a statement for scientists that there is no harm, only that more studies may have to be done. Trial judges do not have that luxury. They are required to reach a conclusion on the basis of the record placed before them by the parties. When McCart J. said that there was no hard evidence of irreversible organic mental damage from the consumption of marihuana, he was making a finding that he was satisfied that no such harm had been demonstrated on the evidence presented in his courtroom. This finding was in any event qualified by the finding, accepted by Sheppard J., that there was a satisfactory body of evidence that heavy smoking of marihuana can cause bronchial pulmonary damage.

[42] I will now turn to the evidence concerning the medicinal use of marihuana. There are a number of active ingredients, cannabinoids, in marihuana. The main ingredient in marihuana that gives it the psychoactive effect is THC. As indicated earlier, THC is available in synthetic form and is available in pill by prescription under the trade name Marinol. There is a dispute between the parties as to whether Marinol is effective in treating seizures associated with epilepsy or any of the other symptoms of diseases for which patients have resorted to marihuana such as glaucoma and AIDS.

[43] Other cannabinoids may have anti-seizure properties. One of the most promising may be cannabidiol (CBD). CBD does not have a psychoactive side effect. It is not available by prescription. The studies that have been done indicate that the cannabinoids increase the effectiveness of conventional drugs used to treat epilepsy and are not a replacement for those drugs. The goal for effective treatment of epilepsy is to maintain a steady blood level of medication.

[44] The Crown's witness, Dr. Kalant, did, in general, provide strong support for the respondent's position that marihuana does have therapeutic properties for treating epilepsy and other illnesses. He testified, for example, that "there is a lot of evidence showing a variety of cannabinoids, that is the pure compounds contained in and extracted from cannabis, do have anti-seizure activity". Most of this evidence has come from animal studies. He testified that of the various cannabinoids tested the most promising

one was CBD. It has at least as much anti-convulsant effect as THC but is free of the psychoactive effects. Further, research shows that tolerance to the anti-convulsant action of THC occurs very quickly, "in a matter of days", so it loses its effect. This does not happen with CBD. As well, there is a simpler dose response relationship with CBD, meaning the more that is given, the greater the effect. With THC, while low doses may be good at controlling seizures, high doses can produce seizures. As he pointed out, this makes smoking marihuana that contains both THC and CBD a problematic delivery system, especially since smoked marihuana contains more THC than CBD. He emphasized that not enough human studies had been done. One good human study done by the Cunha group found that pure CBD taken with patients' regular medication improved the condition of all but one of the epileptic patients.

[45] Dr. Kalant also highlighted one of the paradoxical consequences of the drug laws. Marinol, which has these various side effects, especially that it causes the psychoactive effects of marihuana, is available in Canada while CBD, which does not have these side effects, is not. As he said:

> I'm not sure why not because since it is essentially free of psycho-active effect and it has a well demonstrated anti-epileptic activity, I should think that it would be well worthwhile to do clinical trials and I really just don't understand why there has been no further clinical testing since the 1980 [Cunha] study.

[46] The defence witness, Dr. Morgan, testified that marihuana has been found useful for treatment of acute nausea and vomiting, as results, for example, from chemotherapy, and Marinol was originally approved for this purpose by the government. Smoking marihuana has been found to be effective in lowering fluid pressure in the eyes of patients with glaucoma. Marihuana is also effective in promoting weight gain and increase of appetite, which is particularly important, for example, for patients with AIDS who are suffering from HIV Related Wasting Syndrome. Marihuana was found to give relief to patients with pathologically elevated muscle tone such as patients with multiple sclerosis or spinal cord damage leading to spastic paralysis of the limbs. Marihuana is also an analgesic. Finally, marihuana has been found to have anti-seizure properties and thus is used by persons with epilepsy, like Parker. According to Dr. Morgan, there were a number of studies showing that THC or CBD have quite pronounced anti-epileptic activity. Dr. Morgan referred to the Cunha study and other literature suggesting that CBD was as effective as or more effective than THC in this respect. Dr. Morgan also referred to anecdotal reports of the effectiveness of marihuana for epileptics. In his view, marihuana is an effective anti-epileptic medication for some individuals.

[47] Dr. Morgan reviewed the side effects of the conventional medication that the respondent was taking. Dilantin, one of the most common drugs used to treat epilepsy, can produce sedation and drowsiness so the police have arrested patients because the police believe they are intoxicated. As well, the dose that produces the therapeutic effect

is very close to the toxic dose. In chronic use, it can produce gingival hyperplasia, overgrowth of the gums, which requires surgery to correct. It has also been known to produce damage to the brain and liver. In general, it is a dangerous drug. Another drug used by Parker, Primidone, metabolizes in the body to Phenobarbital and has the same side effects, namely, drowsiness, sedation and severe dysfunction. Another drug, Depakene, can produce outright failure of the liver and patients have been known to die from its effect. It also has adverse effects on the foetus of a pregnant woman.

[48] On the other hand, marihuana, although it has a variety of effects in humans, has no overdose liability. There has never been a proven overdose death caused by marihuana in humans. Unlike the conventional medications, marihuana has an extremely wide safety margin. There is no reliable evidence that even chronic use of marihuana has an adverse impact on cognition or memory. Marihuana is not known to harm the foetus. Since marihuana and tobacco smoke are similar in character, it can harm the lungs. However, a regular marihuana smoker, even a therapeutic marihuana smoker, smokes much less than a tobacco smoker (three to five marihuana cigarettes a day compared to 30 to 50 tobacco cigarettes) and therefore inhales much less smoke. There is, therefore, reason to believe that the marihuana user will not suffer as much pulmonary harm as tobacco smokers. There are no reports of marihuana-only smokers developing emphysema or lung cancer.

[49] According to Dr. Morgan, Marinol is not very effective because the THC is destroyed the first time it passes through the liver. Thus, only about 5% reaches the blood stream. Much more of the smoked marihuana becomes available to the body. Marinol is also essentially useless for acute situations. Smoked marihuana, on the other hand, can be used by persons who feel nausea coming over them, because it delivers the THC quickly and more effectively than Marinol. Marihuana gives acute relief of nausea and vomiting. Marinol is also very expensive. Marihuana is more effective, more efficient and much cheaper. Finally, Marinol, since it only contains THC, is of no use to individuals, particularly epileptic patients, who benefit from CBD.

[50] In summary, Dr. Kalant was wary of smoking as a way of delivering the therapeutic benefits of cannabis. He demonstrated greater concern about the risks from smoking marihuana, was concerned that smoking marihuana was a very inexact way to deliver the drug and that a very large amount of marihuana would have to be smoked to keep a therapeutic level of CBD in the patient's bloodstream. He was, in general, more cautious about the long-term effects of marihuana use because of the absence of research. Dr. Morgan was less concerned about the possible harmful side effects of smoking marihuana. He tended to discount the risks and dangers and thus could see little, if any, reason for refusing patients who need access to the drug.

[51] Dr. Morgan filed a further affidavit on the appeal and Dr. Kalant filed an affidavit in response. In his affidavit,[4] Dr. Morgan states that there have been no striking pharmacological advances in the treatment of epilepsy since the trial and that the respondent remains among the minority of sufferers who "are clearly not fully responsive to conventional pharmacological treatment for his condition". As to the use of marihuana to treat epilepsy, Dr. Morgan referred to studies released since the trial. A study by the British Medical Association entitled "Therapeutic Uses of Cannabis" concluded that cannabinoids appear to be effective for a number of ailments including epilepsy and as an anti-nauseant and while further research was needed, "cannabinoids have a margin of safety superior to many conventional drugs". In his affidavit, Dr. Kalant fairly points out that the BMA study referred to the therapeutic benefits of pure cannabinoids and that the study does not recommend the use of smoked marihuana except for terminally ill patients. Of course, this overlooks the fact that there is no legal source for the cannabinoids, other than THC (Marinol).

[52] Dr. Morgan also referred to the status of research specifically concerning CBD. He stated that animal studies and a few human studies have indicated that CBD, not THC, may be the therapeutically active cannabinoid for treating epilepsy and this is a reason why Marinol does not answer the needs of some patients. He referred to a report

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[4] The Crown objected to certain parts of the Morgan affidavit that referred to material that could have been produced at trial. I have not found it necessary to rely upon any of the objected-to material.

by the United States Institute of Medicine. In general, that report recommended much more extensive study of the possible therapeutic effect of marihuana and the cannabinoids on a long list of illnesses. With respect to CBD, the report noted that the few human studies that had been done were likely too small to demonstrate efficacy and concluded that to date the potential anti-epileptic activity of CBD is not promising. The study emphasized that smoked marihuana is not recommended because of the risk factors (from smoking) but the authors also made these reasonable observations:

> The goal of clinical trials of smoked marijuana would not be to develop marijuana as a licensed drug, but rather as a first step towards the possible development of nonsmoked, rapid-onset cannabinoid delivery systems. However, it will likely be many years before a safe and effective cannabinoid delivery system, such as an inhaler, will be available for patients. In the meantime, there are patients with debilitating symptoms for whom smoked marijuana might provide relief. The use of smoked marijuana for those patients should weigh both the expected efficacy of marijuana and ethical issues in patient care, including providing information about the known and suspected risks of smoked marijuana use.

And

> Until a non-smoked, rapid-onset cannabinoid drug delivery system becomes available, we acknowledged that there is no clear alternative for people suffering from *chronic* conditions that might be relieved by smoking marijuana, such as pain or AIDS wasting. One possible approach is to treat patients as n-of-1 clinical trials, in which patients are fully informed of their status as experimental subjects using a harmful drug delivery system, and in which their condition is closely monitored and documented under medical supervision, thereby increasing the knowledge base of the risks and

> benefits of marijuana use under such conditions. [Emphasis added.]

[53] Dr. Morgan also discussed other studies of more general application. He referred to a symposium of the Society for Neuroscience on "Marijuana and Analgesia" which presented strong evidence that cannabinoids had direct diminishing effects on pain signals in animals. Dr. Kalant reasonably points out that the analegisic effect of cannabinoids described in the study is "well demonstrated, but it does not require the smoking of cannabis". Of course, again, this does not seem to meet the problem that these other cannabinoids are apparently not available in Canada.

[54] At trial, the defence called evidence from persons suffering from glaucoma and epilepsy who have used marihuana to treat their systems. The defence also called Dr. John Goodhue, a general practitioner doing primary care in Toronto for persons who are HIV positive. Some of his patients have developed AIDS. He testified that some of his patients have successfully used smoked marihuana to treat the side effects from the many drugs AIDS patients must take.

[55] Based on the evidence adduced at trial, the trial judge found that the defence had established that smoking marihuana has a therapeutic effect in the treatment of nausea and vomiting particularly related to chemotherapy, intraocular pressure from glaucoma,

muscle spasticity from spinal cord injuries or multiple sclerosis, migraine headaches, epileptic seizures and chronic pain. He accepted Parker's evidence as to the therapeutic effect of smoking marihuana in controlling his seizures. He also accepted that Parker's cultivation of marihuana was incidental to his need to possess marihuana for its therapeutic use for the treatment of his epilepsy. By cultivating marihuana he could control its quality. It was also an economic necessity since he has only disability benefits from the Canada Pension Plan to live on. He cannot afford to pay illicit street prices to obtain marihuana. The trial judge found as a fact that Parker had established he could best control his epileptic seizures through a combination of prescribed medications and the smoking of marihuana.

[56] At trial, the Crown argued that Parker had not shown that other legal means were not available to control his seizures. Crown counsel argued that Parker failed to seek sufficient medical attention, failed to request a prescription for Marinol, and failed to have his blood levels monitored by regular blood tests. The trial judge stated that he could "not accept" any of these failures as being supported by the evidence. He held that Parker had been receiving regular medical supervision for his prescribed drugs since 1969. He found that Parker had not sought a Marinol prescription because synthetic THC was not effective for him as demonstrated in the Addiction Research Foundation study. The drug reaches his blood stream much faster when it is inhaled. Further, Marinol does not contain CBD, which appears to have additional therapeutic value for him. Finally,

the trial judge concluded that Parker does have regular blood work done during numerous emergency hospital admissions and regular medical visits. The trial judge concluded that he "found no basis on which to fault Mr. Parker for his management of his serious medical condition".

[57] The trial judge found that smoking marihuana is more efficient and at least five times faster in delivering THC and CBD to the blood stream than oral medication and, for people like Parker, more effective.

(iv) The regulation of drugs in Canada: Legal means for obtaining marihuana as medicine

(a) The evidence at trial

[58] As indicated, there was evidence that Marinol is available in Canada by prescription. Leslie Rowsell, the director of the Bureau of Drug Surveillance, a division of Health Canada, testified at the trial about the lawful means of obtaining marihuana. There is no person authorized to distribute raw marihuana. Mr. Rowsell testified that, while it would be open to a physician to prescribe marihuana, the Canadian government would not look favourably upon a physician who did so and, in any event, no pharmacy could legally fill the prescription.

[59] Mr. Rowsell gave evidence as to the method by which a new drug may be approved by the Bureau. A protocol to expedite the availability of new drugs formerly

called the Emergency Drug Release Programme, now the Compassionate Use Programme, by which certain drugs were made available for the treatment of AIDS, would not be available since the programme does not apply to narcotics.[5]

[60] The other alternatives were for a person, usually a large drug company, to apply for a Drug Identification Number (D.I.N.) or for a physician to request permission to conduct a clinical trial. It is fair to say that neither alternative was a practical solution for Parker. Even the less costly clinical trial method would still require expenditure of hundreds of thousands of dollars and depend on a clinician willing to set up a clinical trial and the respondent then being selected as one of the participants. No one has applied for a D.I.N. to market marihuana and apparently no one has applied to do a clinical study of marihuana. Since marihuana does not have a D.I.N., it is not approved for dispensing by pharmacists. Other more dangerous narcotics such as heroin can be prescribed by a physician and dispensed by a pharmacy, albeit heroin can only be used in a hospital setting. The Bureau has not investigated the potential medicinal benefits of marihuana.

[61] At trial, neither Mr. Rowsell nor anyone else mentioned the possibility of an exemption from the marihuana prohibition through an application for a ministerial

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[5] The Crown submits that Mr. Rowsell is in error in this respect and it would be possible for someone to obtain a licence under the Regulations for the purposes of the programme. The Crown nevertheless concedes that no firm has been licensed to produce and distribute marihuana.

exemption under s. 56 of the *Controlled Drugs and Substances Act*. The trial judge accordingly made no findings in relation to that section.

(b) The evidence on appeal

[62] Parker filed an affidavit from Eugene Oscapella, a director of the Canadian Foundation for Drug Policy. Mr. Oscapella had testified at the *Clay* trial. In the affidavit, he provides information about Health Canada's use of the exemption in s. 56 of the *Controlled Drugs and Substances Act*. In May 1999, Health Canada released the Interim Guidance Document that outlines the process for Canadians to obtain exemptions under s. 56. This document is attached as an exhibit to Mr. Oscapella's affidavit. Among other things, the applicant must identify:

> [The] name and address of the fabricator or distributor who is licensed under *CDSA*, the *Narcotic Control Regulations* and the *Food and Drug Regulations* and who has the capacity to fabricate and distribute in accordance with international drug treaties, if applicable.

[63] Mr. Oscapella also attached a recent government document entitled "Marijuana for Medicinal Purposes: A Status Report". This report states that "the safety and efficacy of marijuana as a medicine has not been demonstrated in any country of the world" and therefore the first step is to gather scientific information and conduct clinical trials. The document states that the government is considering a proposal from a pharmaceutical company to conduct trials on inhaled cannabinoids. There was no indication when and if

this proposal would be approved. The document also refers to the Compassionate Use Programme, but points out that there is no "licit, licensed, non-governmental supplier anywhere from whom research-grade marijuana can be obtained" under that programme. This document indicates that as of June 3, 1999, just over 30 requests have been made under s. 56 for marihuana for medical purposes. According to the document:

> After all of the required information has been submitted, the Department aims to review the request within 15 working days. The Minister's decision to exercise discretion for each case is made in the context of the recommendation formulated as part of the review and the circumstances of each individual applicant.

[64] In addition, the document indicates that Health Canada, "will determine, on a case-by-case basis, the necessity of imposing other terms and conditions, particularly for use within the research context".

[65] According to Mr. Oscapella, the Minister of Health had granted two cannabis exemptions under s. 56. It was unclear what had happened to the other applicants or the 15 working day guideline for processing applications, except that the Minister may have required further information, notwithstanding that according to Health Canada 15 applications were said to have been sufficiently well-detailed to be assessed as of August 26, 1999. Mr. Oscapella was cross-examined on his affidavit on September 21,

1999. He was told by officials at Health Canada that as of that date no further exemptions had been granted by the Minister.

[66] The day prior to the hearing of this appeal, the Minister issued a press release concerning the granting of further s. 56 exemptions. At the opening of the appeal we asked Crown counsel if he wished to apply for an adjournment to file fresh evidence on the operation of s. 56. He declined the invitation.

THE TRIAL JUDGE'S FINDINGS ON THE LAW

[67] The trial judge held that Parker had shown that there was a risk of deprivation of his right to life, liberty or security of the person by the marihuana prohibition. Most obviously, there was the risk of deprivation of liberty should Parker be convicted of an offence under the former *Narcotic Control Act* or the *Controlled Drugs and Substances Act*. There was an additional risk of injury or death to Parker because he would not have access to marihuana in the prison setting to prevent seizures. Thus, prison would be a particularly dangerous place for Parker because of his medical condition. The anxiety about worrying about a seizure would "be a cruel and unusual punishment in itself". In terms of s. 7, jail not only would result in a deprivation of liberty, but also would put his life at risk and threaten the security of his person.

[68] The trial judge was satisfied that the possibility of Parker's obtaining Marinol in prison was not an answer since he was satisfied on the evidence that synthetic THC was not effective for Parker and he would need to receive CBD. He was also of the view that due process through the trial procedure did not afford Parker sufficient protection. Barring a medical discovery, Parker has a chronic need for marihuana and is therefore subject to arrest, search and seizure, and detention every day. The fact that he might succeed in defending a prosecution on the basis of a necessity defence, as he had in 1987, was no answer since each prosecution entailed financial cost, stress, uncertainty, arrest and loss of his stock of marihuana and marihuana plants thus interfering with his security of the person. The evidence established that Parker was traumatized by the police raids on his home.

[69] The trial judge was satisfied that the deprivation of life, liberty or security of the person was contrary to the principles of fundamental justice. He held that it is an aspect of fundamental justice that a person "possess an autonomy to make decisions of personal importance", including decisions as to health. Serious decisions regarding the management of illness and medical disability in consultation with a physician fall within this area of personal autonomy. Parker has made such a decision respecting his use of marihuana, the use of marihuana has allowed him to control his illness with some success and his decision has been supported by his physicians over the years. The trial judge made this critical finding:

> I find he has established that this control is best achieved through a combination of prescribed medications and the smoking of marihuana. For this Applicant/Accused to be deprived of his smokable marihuana is to be deprived of something of fundamental personal importance.

[70] The trial judge found that the marihuana prohibition is overbroad because the legislation does not provide a procedural process for an exemption for an individual in Parker's circumstances. It does not accord with fundamental justice to criminalize a person suffering a serious chronic medical disability for possessing a vitally helpful substance not legally available to him in Canada. While the purpose of the *Narcotic Control Act* and the *Controlled Drugs and Substances Act* is to safeguard the health of Canadians, that legislation has the dramatically opposite effect for Parker. The legislation prevents him from having access to a relatively safe drug that has demonstrated therapeutic benefit to him.

[71] In response to the Crown's argument that a continued marihuana prohibition was required so that Canada fulfilled its international obligations, the trial judge pointed out that, for example, the United Nations *Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances* provides that the measures adopted by the contracting states to criminalize marihuana possession and prevent illicit cultivation must be "necessary" and respect fundamental human rights.

[72] The Crown conceded before the trial judge that if he found a violation of Parker's rights under s. 7, the violation could not be saved by s. 1 of the *Charter.*

[73] The trial judge adopted the following remedy. He concluded that rather than striking down the prohibition the proper remedy was to read in, pursuant to s. 52 of the *Constitution Act, 1982,* an exemption for "persons possessing or cultivating *Cannabis* (marihuana) for their personal medically approved use". This exemption applied to the marihuana possession and cultivation provisions of the former *Narcotic Control Act* and the *Controlled Drugs and Substances Act*, being ss. 3(1) and 6(1) of the former Act and ss. 4(1) and 7(1) of the latter. Parker was also entitled to the personal remedy, under s. 24(1) of the *Charter of Rights,* of a stay of proceedings of the charges laid against him and the return of the plants seized during the September 1997 arrest.

THE ISSUES

[74] The Crown makes the following arguments:

> 1. The conduct in respect of which Parker seeks *Charter* protection is outside the scope of s. 7 of the *Charter.*
>
> 2. The trial judge erred in finding that Parker had no legal alternative to control his epilepsy. This submission identifies two errors: (i) that Parker had not shown that Marinol could not treat his epilepsy and (ii) that Parker had not shown that if he maintained a proper regime of conventional medication and regular attendance at a specialist he could not control his epilepsy. The Crown argues that the trial judge erred by reversing the burden of proof by requiring it to establish that

Parker's rights were not infringed and that any infringement was consistent with the principles of fundamental justice.

3. The trial judge erred in finding the legislation was overbroad because there was a possibility for legally obtaining marihuana. The fact that no one had taken the steps to have marihuana approved through the legal procedure set out in the legislation did not render the legislation unconstitutional.

4. The trial judge erred in finding that the *Controlled Drugs and Substances Act* violated Parker's rights because Parker could have applied for an exemption under s. 56 of the Act but had failed to do so and that the process for granting exemptions under s. 56 conforms with the principles of fundamental justice.

5. Assuming there was a breach of s. 7, the trial judge erred in his choice of remedy.

ANALYSIS

Introduction

[75] In the course of these reasons, I intend to address the arguments made by the Crown. However, it will be more convenient to deal with those arguments through an analysis that is structured around s. 7. Accordingly, I will consider these issues under the following headings. These headings should be understood as dealing with the therapeutic use of marihuana, not the broader claims dealt with in the *Clay* case.

1. The context

2. The right to liberty implicated by the marihuana prohibition

3. The right to security of the person implicated by the marihuana prohibition

4. Does the marihuana prohibition deprive Parker or persons similarly situated of their rights to liberty and security of the person?

5. The principles of fundamental justice and the right to liberty and security of the person

6. Is there a different analysis of fundamental justice under the *Controlled Drugs and Substances Act?*

7. Can any violations be saved by s. 1?

8. The appropriate remedy for any violations

1. The context

[76] This case depends upon the interpretation and application of s. 7 of the *Charter*:

> 7. Everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice.

[77] In the companion case of *R. v. Clay*, I have already dealt with the submission that, broadly speaking, the marihuana prohibition violates s. 7 because it criminalizes people who have done nothing wrong. This case raises the narrower issue of the impact upon individuals claiming a need for marihuana as a matter of medical necessity, not recreational use.

[78] This aspect of the case raises an issue akin to the standing issue that I have touched upon in the *Clay* case. The Crown's approach to this appeal was to try to demonstrate that as a matter of fact Parker did not need marihuana to control his epilepsy. I deal with that issue below. However, it is also open to Parker to challenge the validity of the legislation on the basis that it was overbroad or unconstitutional in some other way in its application to other persons. The Crown respondent appeared to concede this in the *Clay* appeal. In any event, that conclusion follows from the decisions of the Supreme Court of Canada in *R. v. Big M Drug Mart Ltd.*, [1985] 1 S.C.R. 295 and *R. v. Morgentaler*. In both cases, the accused were held to have standing to challenge the law under which they were charged although the alleged infringement of the *Charter* concerned the rights of some other person.

[79] The decision of the Supreme Court of Canada in *Morgentaler* is of particular assistance because the issues in that case were similar to the issues here. The accused physicians relied upon s. 7 of the *Charter* to challenge a criminal offence based upon the interference with the health of pregnant women seeking abortions. In his dissenting reasons at p. 133, McIntryre J. suggested that the question of the s. 7 violation was hypothetical since, "[t]here is no female person involved in the case who has been denied a therapeutic abortion". However, Dickson C.J.C. was satisfied that the accused physicians had standing. As he said at p. 63:

> As an aside, I should note that the appellants have standing to challenge an unconstitutional law if they are liable to conviction for an offence under that law even though the unconstitutional effects are not directed at the appellants *per se*: *R. v. Big M Drug Mart Ltd.*, at p. 313. The standing of the appellants was not challenged by the Crown.

[80] Therefore, it is open to Parker to challenge the validity of the marihuana prohibition not only on the basis that it infringes his s. 7 rights because of his particular illness, but that it also infringes the rights of others suffering other illnesses.

[81] The trial judge identified a number of ways in which Parker's liberty and security interests were affected by the marihuana prohibition. In one sense, it would have been sufficient to identify the clearest of those infringements, the possibility of imprisonment upon conviction for the offence. This interference with Parker's liberty interest would conceivably be sufficient to require a determination of whether the deprivation was in accordance with the principles of fundamental justice.

[82] However, in my view, this would not adequately capture the defects in the legislation and would fail to come to grips with the context in which the issue arises. As Wilson J. said in *Edmonton Journal v. Alberta (Attorney General)*, [1989] 2 S.C.R. 1326 at 1355-56 a right or freedom may have different meanings in different contexts. "The contextual approach attempts to bring into sharp relief the aspect of the right or freedom

which is truly at stake in the case as well as the relevant aspects of any values in competition with it." Thus, the importance of the right or freedom must be assessed in context rather than in the abstract and its purpose must be ascertained in context.

[83] Although Wilson J. was particularly concerned about the importance of context for the s. 1 analysis, context is important for analyzing a right, such as s. 7, that to some extent contains its own balancing test and which may or may not be amenable to further balancing under s. 1. The dominant aspect of the context in this case is the claim by Parker and other patients that they require access to marihuana for medical reasons. They do not, like the appellant in the *Clay* case, assert a desire for marihuana for recreational use. Parker does not claim a right to use marihuana on the basis of some kind of abstract notion of personal autonomy. The validity of the marihuana prohibition must be assessed in that particular context. The context here is not simply that the marihuana prohibition exposes Parker, like all other users and growers, to criminal prosecution and possible loss of liberty. Rather, Parker alleges that the prohibition interferes with his health and therefore his security interest as well as his liberty interest.

[84] Related to this aspect of the case is that Parker does not seek to avoid the marihuana prohibition to assist in the treatment of some mild discomfort. If it is not properly controlled, his seizure activity can be life-threatening. Further, the evidence concerning the use of marihuana to assist in the treatment of other illnesses centred on

patients with profound symptoms: AIDS patients suffering from wasting disease, cancer patients receiving chemotherapy and patients suffering from glaucoma, to name just a few.

[85] Having said that, it must be acknowledged that the scope of the liberty and security interests protected by s. 7 is still a matter of considerable debate. See for example, *New Brunswick (Minister of Health and Community Services) v. G. (J.)* (1999), 177 D.L.R. (4th) 124 (S.C.C.), per Lamer C.J.C. at 146. As I will explain, it is important for the purposes of this case that, although Parker raises important concerns about health and access to drugs for therapeutic purposes, those concerns are raised in the criminal context.

[86] As framed by the appellant, the question of whether Parker's conduct attracts s. 7 protection is intertwined with its assertion that Parker had a legal alternative to marihuana, either Marinol or better management through conventional medication, and thus his choice to smoke marihuana is nothing more than a personal preference. Thus, the Crown asserts that the marihuana prohibition does not affect Parker's physical or mental integrity in any fundamental way and so his security of the person is not engaged.

[87] I cannot agree with this characterization of the issues for a number of reasons. I am satisfied that the trial judge had ample evidence from which he could conclude that

Parker was not asserting a mere preference for an illegal treatment over a legal one. I will deal with that below. The Crown's focus on the evidence respecting Parker also fails to come to grips with the compelling evidence placed before the trial judge that marihuana is of therapeutic benefit to other patients.

2. The right to liberty implicated by the marihuana prohibition

[88] The leading decision on the *Charter* implications where medical treatment and the criminal law intersect is *R. v. Morgentaler*. In that case, three judges wrote for the five-person majority, each adopting different reasons for finding that the abortion provisions of the *Criminal Code* infringed the guarantee to liberty or security under s. 7 of the *Charter*. Wilson J. took the broadest view as she found that the decision of a woman to terminate her pregnancy is protected by the right to liberty. She held, at p. 166, that the right to liberty, "properly construed, grants the individual a degree of autonomy in making decisions of fundamental personal importance" and again, at p. 171, that the right to liberty "guarantees to every individual a degree of personal autonomy over important decisions intimately affecting their private lives". The woman's decision to terminate a pregnancy is within this protected zone of personal autonomy, since, as she wrote at p. 171, it "will have profound psychological, economic and social consequences" for her. Dickson C.J.C., writing for himself and Lamer J., found it unnecessary to consider this aspect of liberty since he preferred to rest his decision on the right to security of the person. Beetz J., writing for himself and Estey J., also based his decision on security of

the person. He noted, however, at p. 112 in his discussion of the principles of fundamental justice that certain aspects of the law that he found did comport with fundamental justice, such as a second opinion as to the need for the abortion, "would need to be reevaluated if a right of access to abortion is founded upon the right to 'liberty' in s. 7 of the *Charter*".

[89] In subsequent cases, a majority of the Supreme Court of Canada has accepted that liberty includes a degree of personal autonomy over fundamental personal decisions. The most restrictive view is that of Lamer C.J.C., and summarized in his reasons in *B. (R.) v. Children's Aid Society of Metropolitan Toronto*, [1995] 1 S.C.R. 315 at 341: "the principle that must be adopted is that generally speaking s. 7 was not designed to protect even fundamental individual freedoms if those freedoms have no connection with the physical dimension of the concept of 'liberty'". He reiterated this view in his reasons in *New Brunswick (Minister of Health and Community Services) v. G. (J.).* Also see his earlier reasons in *Reference Re ss. 193 and 195.1(1)(c) of the Criminal Code (Man.)*, [1990] 1 S.C.R. 1123, especially at 1174-75.

[90] The broader view was adopted by La Forest J., writing for himself, L'Heureux-Dubé, Gonthier and McLachlin JJ. on this issue in *B. (R.)* at p. 368:

> Freedom of the individual to do what he or she wishes must, in any organized society, be subjected to numerous constraints for the common good. The state undoubtedly has

> the right to impose many types of restraints on individual behaviour, and not all limitations will attract *Charter* scrutiny. On the other hand, liberty does not mean mere freedom from physical restraint. In a free and democratic society, the individual must be left room for personal autonomy to live his or her own life and to make decisions that are of fundamental personal importance. [Emphasis added.]

[91] L'Heureux-Dubé J., writing for herself and Gonthier and McLachlin JJ. in *G. (J.)* at para. 117, again adopted this position in the context of a mother's right to legal representation at a hearing that would give the Minister of Health and Community Services custody of her children for a further six months. She also noted that Bastarache J.A., as he then was, had taken a broader approach in his dissenting opinion in the Court of Appeal. Bastarache J.A. wrote as follows at (1997), 145 D.L.R. (4th) 349 (N.B.C.A.) at 368:

> No clear majority exists on the question of the applicability of s. 7 to parental control. I have already indicated that I personally favor a more generous interpretation of the "liberty" interest than that proposed by Chief Justice Lamer. I would however restrict the scope of the "liberty" interest in s. 7 to essential personal rights that are inherent to the individual and consistent with the essential values of our society, as suggested by La Forest J. at p. 389 [in *B. (R.) v. Children's Aid Society of Metropolitan Toronto*]. I would hold that this is a case where a close analogy can be made with the application of s. 7 to the criminal law and where an extension of the traditional interpretation of the "liberty" interest advocated by Lamer C.J. is required.

[92] Accordingly, I believe that I am justified in considering Parker's liberty interest in at least two ways. First, the threat of criminal prosecution and possible imprisonment itself amounts to a risk of deprivation of liberty and therefore must accord with the principles of fundamental justice. Second, as this case arises in the criminal law context (in that the state seeks to limit a person's choice of treatment through threat of criminal prosecution), liberty includes the right to make decisions of fundamental personal importance. Deprivation of this right must also accord with the principles of fundamental justice. I have little difficulty in concluding that the choice of medication to alleviate the effects of an illness with life-threatening consequences is such a decision. Below, I will discuss the principles of fundamental justice that would justify state interference with that choice.

3. The right to security of the person implicated by the marihuana prohibition

[93] This case also clearly implicates the right to security of the person of Parker and others who claim to need marihuana for therapeutic purposes. In *Morgentaler*, Dickson C.J.C. held at p. 56 that "state interference with bodily integrity and serious state-imposed psychological stress, at least in the criminal law context, constitute a breach of security of the person". Beetz J. held in the same case at p. 90 that security of the person "must include a right to access to medical treatment for a condition

representing a danger to life or health without fear of criminal sanction". Wilson J. held at p. 173 that the security of the person guarantee protects "both the physical and psychological integrity of the individual".

[94] In *R. v. Monney* (1999), 133 C.C.C. (3d) 129 (S.C.C.) at 156, Iacobucci J. held, relying upon *Singh v. Canada (Minister of Employment and Immigration)*, [1985] 1 S.C.R. 177, that "state action which has the likely effect of impairing a person's health engages the fundamental right under s. 7 to security of the person".

[95] In *G. (J)*, Lamer C.J.C. writing for all members of the court on this issue held, at p. 147 that, "the right to security of the person does not protect the individual from the ordinary stresses and anxieties that a person of reasonable sensibility would suffer as a result of government action". However, he held at p. 147 that it does protect against "serious and profound effect on a person's psychological integrity". The effects of the state interference "must be assessed objectively, with a view to their impact on the psychological integrity of a person of reasonable sensibility" (at p. 147).

[96] The Supreme Court also had to deal with s. 7 in the context of the criminal law and medical treatment in *Rodriguez v. British Columbia (Attorney General)*, a case concerning the validity of the assisted suicide provisions of the *Criminal Code* and their

impact on a terminally ill woman. Sopinka J., speaking for the majority of the court at pp. 587-88, summarized security of the person in that context as follows:

> In my view, then, the judgments of this Court in *Morgentaler* can be seen to encompass a notion of personal autonomy involving, at the very least, control over one's bodily integrity free from state interference and freedom from state-imposed psychological and emotional stress. In *Reference re: ss. 193 and 195.1(1)(c) of Criminal Code (Man.), supra*, Lamer J. (as he then was) also expressed this view, stating at p. 106 that "[s]ection 7 is also implicated when the state restricts individuals' security of the person by interfering with, or removing from them, control over their physical or mental integrity". There is no question, then, that personal autonomy, at least with respect to the right to make choices concerning one's own body, control over one's physical and psychological integrity, and basic human dignity are encompassed within security of the person, at least to the extent of freedom from criminal prohibitions which interfere with these. [Emphasis added.]

[97] In view of these very broad statements, I conclude that deprivation by means of a criminal sanction[6] of access to medication reasonably required for the treatment of a medical condition that threatens life or health constitutes a deprivation of security of the person. Such a deprivation fits easily within any of the above statements. It falls squarely within the holding by Beetz J. in *Morgentaler*. Depriving a patient of

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[6] The much more difficult question whether security of the person would be engaged if the lack of access is due not to a criminal sanction but government inaction is not before the court and should be left to another day. It is raised only in passing in this case by the Minister's s. 56 approval, which requires the applicant to disclose the legal source for the marihuana.

medication in such circumstances, through a criminal sanction, also constitutes a serious interference with both physical and psychological integrity.

4. Does the marihuana prohibition deprive Parker or persons similarly situated of their rights to liberty and security of the person?

(i) Introduction

[98] In my view, Parker demonstrated at trial that the prohibition on the possession and cultivation of marihuana for personal use to treat his epilepsy deprived him of his rights to liberty and security of the person.

[99] The appellant argues that the trial judge's findings are tainted by error because he placed the burden on the Crown to prove that there was no deprivation of his rights. This submission appears to be based, in part, on a statement by the trial judge that he could not "accept" the Crown's submissions that Parker failed to seek sufficient medical attention, failed to request a prescription for Marinol and failed to have his blood levels monitored on a regular basis. The trial judge's reasons for judgment, read as a whole, do not disclose any error as to the burden of proof. The trial judge began his analysis of s. 7 by noting that the onus to establish the violation rested with Parker. He then went on to make the factual and legal findings I have set out above. I have undertaken the factual review to also show that the trial judge's findings are supported by the evidence. It

remains to situate those findings within the legal analysis of liberty and security of the person.

[100] Before doing so, I would make this comment. Much of the Crown's submissions in this court were an attempt to isolate various parts of the evidence. Thus, Mr. Wilson referred to individual pieces of the expert evidence and contrasted them with Parker's evidence. As I have indicated, he placed a great deal of weight on the ARF study to demonstrate that Parker had a legal alternative. However, the trial judge was required to consider all of the evidence. He had the benefit of the testimony of Parker and the other witnesses who gave *viva voce* testimony. That evidence established to the trial judge's satisfaction that Marinol was not a viable alternative for Parker and that he has received a clear benefit from smoking marihuana that is unavailable to him through conventional treatment alone. These factual findings, for which there is support in the evidence, are entitled to deference by this court and I would not interfere with them.

(ii) Right to liberty

[101] I agree with the trial judge that the onus of establishing a violation of the right to liberty is easily satisfied because upon conviction Parker is liable to imprisonment. The trial judge went on to hold that the impact of incarceration was particularly severe for Parker since, deprived of access to marihuana in the jail setting, he was at a real risk of death or injury from seizures. Since any form of incarceration is sufficient to trigger this

aspect of the right to liberty, I do not think it necessary or advisable to attempt to quantify the severity of the deprivation. Like the trial judge, I would consider this collateral consequence of deprivation of liberty, if necessary, as an aspect of security of the person.

[102] In my view, Parker has also established that the marihuana prohibition infringed the second aspect of liberty that I have identified—the right to make decisions that are of fundamental personal importance. As I have stated, the choice of medication to alleviate the effects of an illness with life-threatening consequences is a decision of fundamental personal importance. In my view, it ranks with the right to choose whether to take mind-altering psychotropic drugs for treatment of mental illness, a right that Robins J.A. ranked as "fundamental and deserving of the highest order of protection" in *Fleming v. Reid* (1991), 4 O.R. (3d) 74 (Ont. C.A.) at 88.

[103] To intrude into that decision-making process through the threat of criminal prosecution is a serious deprivation of liberty. For the purposes of this appeal, it is unnecessary to decide whether the decision-making must meet some objective standard to fall within this aspect of liberty. The evidence established that Parker's choice was a reasonable one. He has lived with this illness for many years. He has tried to treat the illness through highly invasive surgery and continues to take conventional medication notwithstanding the significant side effects. He has studied his illness, he has studied the effects of marihuana, and he has produced a reasonable explanation for why Marinol is

not an effective form of treatment. He has found relief from some of the debilitating effects of the illness through smoking marihuana, a drug that, aside from the psychotropic effect, has limited proven side effects in a mature adult. That drug helps protect him from the serious consequences of seizures—consequences that could threaten his life and heath. In those circumstances, a court should not be too quick to stigmatize his choice as unreasonable.

[104] In view of my conclusion with respect to Parker's liberty rights, it is not strictly necessary to consider the situation of other persons seeking to use marihuana to alleviate their symptoms from other serious, even terminal, disease. Suffice it to say that Parker presented sufficient evidence that marihuana is a reasonable choice for those persons that I would have found that their liberty interests are infringed by the marihuana prohibition.

(iii) Right to security of the person

[105] In his reasons, the trial judge focused on the impact of the criminal justice system in considering Parker's assertion that he was deprived of his security of the person. As I mentioned, he noted the serious risk to Parker's health if he were incarcerated without access to marihuana. He also noted the psychological stress from the police raids upon his home, the questioning, the arrest and the ultimate loss of his marihuana. I would accept that protection from some of these stresses may constitute an aspect of security of the person. However, concentrating only on these effects may miss the context in which

this case arises and lead to a narrow, solely procedural, view of the principles of fundamental justice. For example, the powers to search and to arrest upon reasonable and probable grounds have generally been considered to accord with the principles of fundamental justice. The exercise of those powers will have a different impact depending upon the individual. However, as of yet, it has not been suggested that the principles of fundamental justice require distinctions to be made depending on the personal make-up of the suspect. Similarly, if this case were only about criminal procedure, the Crown could argue that the right to a fair trial, including access to the common law necessity defence, could provide Parker with fundamental justice. Accordingly, I would prefer to rest my analysis upon security of the person as it was explained in *Morgentaler*, *Rodriguez* and the other cases I have discussed above.

[106] In *Morgentaler*, Beetz J. summarized the right to security of the person as a right to access to medical treatment for a condition representing a danger to life or health without fear of criminal sanction. As he said at p. 90:

> Generally speaking, the constitutional right to security of the person must include some protection from state interference when a person's life or health is in danger. The *Charter* does not, needless to say, protect men and women from even the most serious misfortunes of nature. Section 7 cannot be invoked simply because a person's life or health is in danger. The state can obviously not be said to have violated, for example, a pregnant woman's security of the person simply on the basis that her pregnancy in and of itself represents a

> danger to her life or health. There must be state intervention for "security of the person" in s. 7 to be violated.
>
> If a rule of criminal law precludes a person from obtaining appropriate medical treatment when his or her life or health is in danger, then the state has intervened and this intervention constitutes a violation of that man's or that woman's security of the person. "Security of the person" must include a right of access to medical treatment for a condition representing a danger to life or health without fear of criminal sanction. If an Act of Parliament forces a person whose life or health is in danger to choose between, on the one hand, the commission of a crime to obtain effective and timely medical treatment and, on the other hand, inadequate treatment or no treatment at all, the right to security of the person has been violated. [Emphasis added.]

[107] That holding applies in this case. The state has not violated Parker's rights simply because epilepsy in and of itself represents a danger to his life or health. However, to prevent his accessing a treatment by threat of criminal sanction constitutes a deprivation of his security of the person. Based on the evidence, the marihuana laws force Parker to choose between commission of a crime to obtain effective medical treatment and inadequate treatment.

[108] In his reasons in *Morgentaler*, Dickson C.J.C. described the infringement of security of the person in these terms at pp. 56-7:

> At the most basic physical and emotional level, every pregnant woman is told by the section that she cannot submit to a generally safe medical procedure that might be of clear

> benefit to her unless she meets criteria entirely unrelated to her own priorities and aspirations. Not only does the removal of decision making power threaten women in a physical sense; the indecision of knowing whether an abortion will be granted inflicts emotional stress. Section 251 clearly interferes with a woman's bodily integrity in both a physical and emotional sense. Forcing a woman, by threat of criminal sanction, to carry a foetus to term unless she meets certain criteria unrelated to her own priorities and aspirations, is a profound interference with a woman's body and thus a violation of security of the person. Section 251, therefore, is required by the *Charter* to comport with the principles of fundamental justice. [Emphasis added.]

[109] The same may be said of the marihuana prohibition in this case. That prohibition tells Parker that he cannot undertake a generally safe medical treatment that might be of clear benefit to him. Under the former *Narcotic Control Act* there was no procedure that he could effectively access that would allow him to grow or possess marihuana without threat of criminal sanction. Under the *Controlled Drugs and Substances Act*, the Crown submits that there are lawful means by which he can possess marihuana. I will deal with this aspect of the case below in considering the principles of fundamental justice and s. 1 of the *Charter*. It is sufficient to say that those procedures involve criteria unrelated to Parker's own priorities and aspirations. They involve criteria concerned with much larger questions of drug policy and controls unrelated to Parker's own needs.

[110] Finally, the marihuana prohibition infringes Parker's security of the person in the same way as explained by Sopinka J. in *Rodriguez*. That holding, similar to the holding

of Beetz J. in *Morgentaler*, protects the right to make choices concerning one's own body and control over one's physical and psychological integrity free from interference by criminal prohibition. Preventing Parker from using marihuana to treat his condition by threat of criminal prosecution constitutes an interference with his physical and psychological integrity.

[111] Accordingly, Parker established that the marihuana prohibition in the two statutes deprived him of his right to security of the person. Again, in light of this finding it is unnecessary to consider the impact upon other patients seeking to use marihuana to treat their illnesses. However, as with the right to liberty I would have found that Parker established that the marihuana prohibition deprives other persons of their security of the person because it prevents them on pain of criminal prosecution from using medication found to be effective to treat the symptoms of their very serious illnesses.

5. The principles of fundamental justice

(i) Introduction

[112] In *Re B.C. Motor Vehicle Act*, [1985] 2 S.C.R. 486 at 503, Lamer J. held that the principles of fundamental justice "are to be found in the basic tenets of our legal system". According to Sopinka J. in *Rodriguez* at p. 591, they must not be so broad "as to be no more than vague generalizations about what our society considers to be ethical or moral". This is an important qualification because it would be too easy to resolve this case simply

by imposing a moral or ethical standard from one side or the other. Many would consider it immoral to keep medicine from a patient with a serious illness. Others might consider it unethical to expose anyone to the potential harm from a drug where the expert opinion is unanimous that further research is required. Therefore, to quote Sopinka J. in *Rodriguez* at p. 591, the principles of fundamental justice "must be capable of being identified with some precision and applied to situations in a manner which yields an understandable result". They must be "legal principles".

[113] In *Rodriguez*, Sopinka J. identified a principle of fundamental justice that, in my view, has particular application to this case. He held at p. 594 that, "Where the deprivation of the right in question does little or nothing to enhance the state's interest (whatever it may be), it seems to me that a breach of fundamental justice will be made out, as the individual's rights will have been deprived for no valid purpose." Thus, in determining whether there has been a breach of the principles of fundamental justice, it is necessary to consider the state interest. As McLachlin J. said in *Cunningham v. Canada*, [1993] 2 S.C.R. 143 at 151-52:

> The principles of fundamental justice are concerned not only with the interest of the person who claims his liberty has been limited, but with the protection of society. Fundamental

> justice requires that a fair balance be struck between these interests, both substantively and procedurally...[7]

[114] In *Rodriguez*, at p. 595, Sopinka J. characterized the issue as "whether the blanket prohibition on assisted suicide is arbitrary or unfair in that it is unrelated to the state's interest in protecting the vulnerable, and that it lacks a foundation in the legal tradition and societal beliefs which are said to be represented by the prohibition". He then engaged in a comprehensive review of the history of criminalization of assisted suicide, the common-law right to refuse medical care and a review of legislation in other countries in order to identify the state interest, the nature of the legal tradition and societal beliefs at stake. From this analysis, he was able to determine whether the deprivation of Ms. Rodriguez's rights enhanced the state interests.

[115] In *Morgentaler*, Dickson C.J.C. identified a number of procedural deficiencies in the therapeutic abortion provisions that may assist in understanding the principles of fundamental justice that apply in this case. The therapeutic abortion committee could issue a certificate to permit a therapeutic abortion if the continuation of the pregnancy would be likely to endanger the life or "health" of the woman. Dickson C.J.C. held at p. 69 that the absence of any clear legal standard to be applied by the committee in

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[7] The need to take into account state or societal interests under s. 7, especially where the court is asked to conduct substantive review of legislation, is discussed more fully in this court's decision in *R. v. Pan* (1999), 134 C.C.C. (3d) 1 (leave to appeal to S.C.C. granted January 27, 2000) at para. 177 – 187.

making the determination as to whether the continuation of the pregnancy would endanger the health of the woman was a "serious procedural flaw". After reviewing several other problems with the legislative scheme that contributed to unnecessary delay, at pp. 72-3 he concluded that while Parliament must be given latitude to design an appropriate procedural structure, if that structure is "so manifestly unfair, having regard to the decisions it is called upon to make, as to violate the principles of *fundamental* justice" [emphasis added by Dickson C.J.C.], that structure must be struck down. This was the problem with the therapeutic abortion provisions of the *Code*. It contained so many potential barriers to its own operation that "the defence it creates will in many circumstances be practically unavailable to women who would *prima facie* qualify for the defence, or at least would force such women to travel great distances at substantial expense and inconvenience in order to benefit from a defence that is held out to be generally available".

[116] While Beetz J. did not agree that the health criterion created an unworkable standard, at pp. 109-10 he too found a breach of the principles of fundamental justice in the nature of the administrative structure mandated by the legislation. Adopting the same test of "so manifestly unfair, having regard to the decisions it is called upon to make",[8] he found that the scheme was made up of "unnecessary rules, which result in an additional

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[8] From *R. v. Jones*, [1986] 2 S.C.R. 284 at 304, per La Forest J.

risk to the health of pregnant women". It was thus manifestly unfair and did not conform to the principles of fundamental justice. This unfairness was manifested in two ways: some of the procedural requirements had no connection whatsoever with Parliament's objectives and others were manifestly unfair because they were not necessary to assure that the objectives were met.

[117] To summarize, a brief review of the case law where the criminal law intersects with medical treatment discloses at least these principles of fundamental justice:

> (i) The principles of fundamental justice are breached where the deprivation of the right in question does little or nothing to enhance the state's interest.
>
> (ii) A blanket prohibition will be considered arbitrary or unfair and thus in breach of the principles of fundamental justice if it is unrelated to the state's interest in enacting the prohibition, and if it lacks a foundation in the legal tradition and societal beliefs that are said to be represented by the prohibition.
>
> (iii) The absence of a clear legal standard may contribute to a violation of fundamental justice.
>
> (iv) If a statutory defence contains so many potential barriers to its own operation that the defence it creates will in many circumstances be practically unavailable to persons who would *prima facie* qualify for the defence, it will be found to violate the principles of fundamental justice.
>
> (v) An administrative structure made up of unnecessary rules, which result in an additional risk to the health of the person, is manifestly unfair and does not conform to the principles of fundamental justice.

[118] Before turning to the application of these principles, I wish to make a few comments about the relationship between s. 1 and s. 7 of the *Charter*. There was some doubt whether a violation of s. 7 could be upheld as a reasonable limit under s. 1, absent extraordinary circumstances such as war. However, in several recent cases the Supreme Court of Canada has signalled that it may be possible to apply s. 1 in less exceptional circumstances. For example, in *R. v. Mills* (1999), 139 C.C.C. (3d) 321 (S.C.C.) at 359-60 McLachlin and Iacobucci JJ. writing for the majority held as follows:

> [65] It is also important to distinguish between balancing the principles of fundamental justice under s. 7 and balancing interests under s. 1 of the *Charter*. The s. 1 jurisprudence that has developed in this Court is in many respects quite similar to the balancing process mandated by s. 7. As McLachlin J. stated for the Court in *Cunningham v. Canada*, [1993] 2 S.C.R. 143 at p. 152, 80 C.C.C. (3d) 492, regarding the latter: "The . . . question is whether, from a substantive point of view, the change in the law strikes the right balance between the accused's interests and the interests of society." Much the same could be said regarding the central question posed by s. 1.
>
> [66] However, there are several important differences between the balancing exercises under ss. 1 and 7. The most important difference is that the issue under s. 7 is the delineation of the boundaries of the rights in question whereas under s. 1 the question is whether the violation of these boundaries may be justified. <u>The different role played by ss. 1 and 7 also has important implications regarding which party bears the burden of proof. If interests are balanced under s. 7 then it is the rights claimant who bears the burden of proving that the balance struck by the impugned legislation violates s. 7. If interests are balanced under s. 1 then it is the state that</u>

> bears the burden of justifying the infringement of the Charter rights.
>
> [67] Because of these differences, the nature of the issues and interests to be balanced is not the same under the two sections. As Lamer J. (as he then was) stated in *Re B.C. Motor Vehicle Act, supra*, at p. 503: "the principles of fundamental justice are to be found in the basic tenets of the legal system." In contrast, s. 1 is concerned with the values underlying a free and democratic society, which are broader in nature. In *R. v. Oakes*, [1986] 1 S.C.R. 103, 24 C.C.C. (3d) 321, 26 D.L.R. (4th) 200, Dickson C.J. stated, at p. 136, that these values and principles "embody, to name but a few, respect for the inherent dignity of the human person, commitment to social justice and equality, accommodation of a wide variety of beliefs, respect for cultural and group identity, and faith in social and political institutions which enhance the participation of individuals and groups in society". In *R. v. Keegstra*, [1990] 3 S.C.R. 697 at p. 737, 61 C.C.C. (3d) 1, Dickson C.J. described such values and principles as "numerous, covering the guarantees enumerated in the *Charter* and more". [Emphasis added.]

[119] Thus, the difference between the s. 1 and the s. 7 analysis is important not only because of the different interests to be considered but also because of the shift in the burden of proof. For example, the Crown argued that in considering whether the law struck the right balance between the accused's interests and the interests of the state under s. 7, the court should consider Canada's international treaty obligations. It may be, however, that such interests are more properly a matter for consideration under s. 1, in which case the Crown would bear the onus of demonstrating that the violation of s. 7 was necessary to uphold Canada's treaty obligations. See *R. v. Malmo-Levine* 2000 BCCA 335 at para. 151.

[120] Further, an important aspect of the Crown's defence of the *Controlled Drugs and Substances Act* was the availability of a Ministerial exemption under s. 56 of the Act. Again, it may be that the availability of such an exemption is more properly dealt with under s. 1, in which cases the burden would be on the Crown to demonstrate that the availability of such an exemption could save the *prima facie* violation of s. 7. This is of some importance in view of the paucity of evidence on the operation of s. 56.

[121] However, this case was argued by both parties on the basis that all of these issues were part of the s. 7 analysis and that the burden was therefore on the respondent throughout. I have dealt with the case on that basis. The fact that I have taken into account a broader range of state interests in the s. 7 analysis, if an error, would benefit the Crown, since at the s. 7 stage the burden was on the respondent. I will return to the relationship between ss. 1 and 7 after the s. 7 analysis.

(ii) History of use and prohibition of marihuana

[122] It will be seen that at the core of the analysis of the principles of fundamental justice that apply in this case is the state interest in enacting the prohibition. Identifying the state interest informs the analysis in both the *Morgentaler* and *Rodriguez* cases. In *Rodriguez*, in particular, the issues were more complex than here. In that case, the court had to contend with the dilemma posed by the applicant's claim to choose the time and manner of her death as an aspect of security of the person protected by s. 7 of the

Charter, and the public interest in sanctity of life that also finds expression in s. 7 of the *Charter*. At the heart of that dilemma was the apparently arbitrary distinction in the blanket statutory prohibition on assisted suicide on one hand and, on the other hand, the common law that allows a physician to withhold or withdraw life-saving or life-maintaining treatment on the patient's instructions and to administer palliative care, which has the effect of hastening death.

[123] While this appeal does not present the same level of complexity nor the need to make the same kinds of agonizing distinctions, the form of analysis engaged in by Sopinka J. in *Rodriguez* will assist in applying the principles of fundamental justice to this case. It is only by considering the history of the use of and prohibition on marihuana, the common law respecting patients' rights, law reform and legislative initiatives, and legislation in other countries that the court can put some legal content into the application of the principles of fundamental justice that I have identified above.

[124] For reasons that will become apparent, the Crown does not now support the marihuana prohibition on the basis of its historical roots. In the *Clay* trial and appeal, the Crown expressly renounced any reliance on the theories that marihuana is a "gateway" drug to harder drugs; that it provokes criminal activity; that marihuana use leads to lack of motivation; or causes psychosis. The Crown argues that the objectives of the prohibition are first to prevent the harms associated with smoking marihuana, including

harm to human health. In addition, it claims the prohibition is necessary to control the domestic and international trade in illicit drugs and to satisfy Canada's international treaty obligations.

[125] The parties filed an abundance of evidence about the history of marihuana use. I have found of greatest assistance the 1998 report of the House of Lords Select Committee on Science and Technology, "Cannabis, the Scientific and Medical Evidence". Like many other herbs, marihuana has been used in Asian and Middle Eastern countries for at least 2600 years for medicinal purposes. It first appeared in Western medicine in 60 A.D. in the Herbal (i.e. pharmacopoeia) of Dioscorides and was listed in subsequent herbals or pharmacopoeia since that time. Marihuana was widely used for a variety of ailments, including muscle spasms, in the nineteenth century. In the 1930's, the advent of synthetic drugs led to the abandonment of many ancient herbal remedies including marihuana, although an extract of cannabis and a tincture of cannabis remained in the British Pharmaceutical Codex of 1949.

[126] In *R. v. Clay* at pp. 356-57, McCart J. provided a summary of the early history of regulation of marihuana in Canada. That history shows that, unlike the regulation of assisted suicide, for example, regulation of marihuana has a very short history and lacks a significant foundation in our legal tradition. It is, in fact, an embarrassing history based upon misinformation and racism. As McCart J. observed, the marihuana prohibition was

enacted in a climate of "irrational fear" based upon wild and outlandish claims that its users are driven completely insane, immune from pain and, while in this state of maniacal rage, kill or indulge in other forms of violence using the most savage methods of cruelty.

[127] In 1961, the United Nations *Single Convention on Narcotic Drugs* was adopted by many countries including Canada and the United Kingdom and this led to new legislation in both countries, the *Narcotic Control Act* in Canada and the *Dangerous Drugs Act 1965* in the United Kingdom. Under the *Dangerous Drugs Act 1965*, physicians could still prescribe marihuana. In the *Narcotic Control Act*, marihuana was put in the same category as heroin and its possession was prohibited. Theoretically, a physician could prescribe marihuana under the *Narcotic Control Act*, but since no firm has ever been licensed to produce marihuana, there is no pharmacy to fill such a prescription and thus it is practically not possible to legally possess marihuana pursuant to a prescription.

[128] In *R. v. Hauser* (1979), 46 C.C.C. (2d) 481, the Supreme Court of Canada held that the *Narcotic Control Act* should be classified as legislation enacted under the general residual federal power. In reviewing the history of the legislation, Pigeon J. noted that the Act appeared to have been a response to Canada's signing of the *Single Convention of Narcotic Control 1961*. At p. 497, he compared the Act with the preamble to the *Convention*:

The conditions under which narcotics may be sold, had in possession, or otherwise dealt in, are now determined by regulations. A large number of those drugs are authorized for sale or administration under medical prescription. In fact, a certain number are enumerated in the list of drugs to be supplied at Government expense which list was published in the *Quebec Official Gazette*, December 13, 1978, pp. 6737 to 6982, pursuant to the *Quebec Health Insurance Act*, 1970 (Que.), c. 37. These include among others, codeine, cocaine, morphine and opium.

It does not appear to me that the fact that the specific drugs with which we are concerned in this case are completely prohibited, alters the general character of the Act which is legislation for the proper control of narcotic drugs rather than a complete prohibition of such drugs. In the preamble of the 1961 convention one reads:

> *The Parties*,
>
> > *Concerned* with the health and welfare of mankind,
> >
> > *Recognizing* that the medical use of narcotic drugs continues to be indispensable for the relief of pain and suffering and that adequate provision must be made to ensure the availability of narcotic drugs for such purposes,
> >
> > *Recognizing* that addiction to narcotic drugs constitutes a serious evil for the individual and is fraught with social and economic danger to mankind,
> >
> > *Conscious* of their duty to prevent and combat evil,
> >
> > *Considering* that effective measures against abuse of narcotic drugs require co-ordinated and universal action.

> *Understanding* that such universal action calls for international cooperation guided by the same principles and aimed at common objectives ... [Emphasis added.]

[129] In this case, the Crown asserts that one of the objectives of the marihuana prohibition is to satisfy Canada's international treaty obligations with respect to the control of illicit drugs. It is ironic then that the preamble of the international convention that led to the enactment of the *Narcotic Control Act* recognizes what Parker asserts—that "the medical use of narcotic drugs continues to be indispensable for the relief of pain and suffering and that adequate provision must be made to ensure the availability of narcotic drugs for such purposes".

[130] In 1971, the United Nations adopted the *Convention on Psychotropic Substances*. Cannabis appeared in Schedule I to the Convention and parties were therefore obliged to ban marihuana "except for scientific and very limited medical purposes by duly authorized persons" (House of Lords Select Committee report at para. 2.9). This led to new legislation in the United Kingdom, the *Misuse of Drugs Act 1971*. Cannabis was moved to a new schedule and subject to an absolute ban thereby prohibiting its medical use altogether.

[131] In 1988, the United Nations adopted the *Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances*. A party to the Convention is, *inter alia*,

required to adopt measures "subject to its constitutional principles and the basic concepts of its legal system" to prohibit the possession of cannabis and the cultivation of cannabis for personal use. In 1997, Parliament repealed the *Narcotic Control Act* and enacted the *Controlled Drugs and Substances Act*. Marihuana has now been removed from the same category of drugs such as heroin (Schedule I) and is included in Schedule II. The effect is to lower the maximum penalty for possession and cultivation of marihuana. As under the *Narcotic Control Act*, it is theoretically possible for a physician to prescribe marihuana but since there is no legal source for the drug, the prescription could not be filled.

[132] While the marihuana prohibition is not firmly rooted in our history, there is a well-established history of regulation of drugs in this country. However, of all of the drugs with potential therapeutic effects, marihuana stands out because it is subject to a complete prohibition. This prohibition results from the web of legislation that makes it impossible as a practical matter for a physician to prescribe marihuana and therefore for a patient to legally possess it pursuant to a prescription.

[133] Far more dangerous drugs such as morphine and heroin are subject to regulation, not outright prohibition, and a patient can obtain these drugs through a physician's prescription, although in the case of heroin, there are added safeguards. One telling piece of history is that Marinol, which contains THC and has the psychoactive effects

associated with smoked marihuana, has been approved for use in Canada and can be obtained by prescription. In 1999, the House of Commons overwhelmingly passed a motion, M-381, urging the government to legalize the medicinal use of marihuana and to establish clinical trials and a legal supply of the drug.

[134] It seems to me that a reasonable conclusion to draw from this history is that a blanket prohibition including medical use of marihuana does not have a long-standing foundation in our legal tradition and societal beliefs. I recognize that the Quebec Court of Appeal drew a somewhat different conclusion in *R. v. Hamon* (1993), 85 C.C.C. (3d) 490 at 494 in meeting an argument that marihuana is less dangerous than alcohol and yet alcohol use is not absolutely prohibited. In that context, Beauregard J.A. held that "we do not have a cultural tradition which would prevent the state from acting". That is not, however, the same as a finding that marihuana prohibition is part of our cultural tradition. As McCart J. demonstrated, it is of recent origin and then was based on a very fragile foundation.

(iii) Common law access to treatment

[135] We were not directed to any common law history of entitlement to drug therapy. The closest analogue is the doctrine of informed consent, which makes it a civil wrong to impose treatment without the consent of the patient. The patient may also demand that treatment, once commenced, be withdrawn or discontinued. See *Rodriguez* at

pp. 598-99. While there is obviously a difference between a right to refuse treatment and a right to demand treatment, they can also be seen as two points on a continuum rooted in the common-law right to self-determination with respect to medical care. This includes the right to choose to select among alternative forms of treatment. Robins J.A. summarized the common law in *Malette v. Shulman* (1990), 67 D.L.R. (4th) 321 (Ont. C.A.) at 328:

> The right of self-determination which underlies the doctrine of informed consent also obviously encompasses the right to refuse medical treatment. A competent adult is generally entitled to reject a specific treatment or all treatment, or to select an alternate form of treatment, even if the decision may entail risks as serious as death and may appear mistaken in the eyes of the medical profession or of the community. Regardless of the doctor's opinion, it is the patient who has the final say on whether to undergo the treatment. The patient is free to decide, for instance, not to be operated on or not to undergo therapy or, by the same token, not to have a blood transfusion. If a doctor were to proceed in the face of a decision to reject the treatment, he would be civilly liable for his unauthorized conduct notwithstanding his justifiable belief that what he did was necessary to preserve the patient's life or health. The doctrine of informed consent is plainly intended to ensure the freedom of individuals to make choices concerning their medical care. For this freedom to be meaningful, people must have the right to make choices that accord with their own values regardless of how unwise or foolish those choices may appear to others ... [Emphasis added.]

[136] Some common-law support for access to drugs with a therapeutic value, notwithstanding a legal prohibition, can also be found in the defence of necessity. In

Perka v. The Queen, [1984] 2 S.C.R. 232 at 250, Dickson J. described the moral and legal basis for the defence:

> At the heart of this defence is the perceived injustice of punishing violations of the law in circumstances in which the person had no other viable or reasonable choice available; the act was wrong but it is excused because it was realistically unavoidable.

[137] Using a criminal prohibition to bar access to a drug for a person, such as Parker, who requires it to treat a condition that threatens his life and health, is antithetical to our notions of justice. It is inconsistent with the principle of sanctity of life which, according to Sopinka J. in *Rodriguez* at p. 605, as a general principle "is subject to limited and narrow exceptions in situations in which notions of personal autonomy and dignity must prevail".

[138] Permitting access to medicine that may relieve debilitating symptoms of illness is consistent with the common understanding about the purpose of proper medical care. In *Airedale N.H.S. Trust v. Bland*, [1993] A.C. 789 at 857, Lord Keith of Kinkel stated that the object of medical treatment and care is to benefit the patient. Where illness can neither be prevented nor cured, "efforts are directed towards preventing deterioration or relieving pain and suffering".

[139] To summarize, the common-law treatment of informed consent, the sanctity of life and commonly held societal beliefs about medical treatment suggest that a broad criminal prohibition that prevents access to necessary medicine is not consistent with fundamental justice.

(iv) Legislation in other countries

[140] A survey of legislation in other countries shows an increasing tolerance for possession of marihuana for personal use, although no country has fully decriminalized possession. There is some movement towards actual decriminalizing of marihuana for medical uses. In the United States, 34 states have legislation that recognizes the medical value of marihuana and theoretically makes the substance available as a medicine. Only a few states, such as California and Hawaii, have actually enacted legislation to implement these initiatives. I have attached as appendices to these reasons the *California Compassionate Use Act of 1996*, which added s. 11362.5 to the *Health and Safety Code*, and the recent Hawaiian legislation. The matter is also complicated in the United States because of the federal government's position on legalization. Federal legislation still makes the possession, use, prescription or sale of marihuana illegal regardless of the state medical exemptions. However, even at the federal level there is now some change. In March 2, 1999, a Bill was introduced in Congress titled *Medical Use of Marijuana Act*. This Act would allow state laws to become fully operative and exempt medical marihuana from federal drug legislation.

[141] The House of Lords report, mentioned earlier, recommended that the government transfer cannabis from Schedule 1 to Schedule 2 of the *Misuse of Drugs Regulations* to permit physicians to prescribe it and pharmacists to supply it as an unlicensed medicine. The U.K. government has refused to do so, although it has agreed to approve clinical trials of cannabis for treatment of MS and chronic pain.

[142] In *Rodriguez,* Sopinka J. placed some reliance on the fact that the official position of various medical associations was against decriminalizing assisted suicide. I have earlier reviewed Dr. Morgan's testimony concerning recent studies by the British Medical Association and the United States Institute of Medicine. These studies strongly support the view that marihuana has medicinal value and urge more study of the medical use of marihuana. There is no apparent support for a blanket prohibition on medicinal use of marihuana and to the contrary some recognition that at the moment there may be no alternative than to permit patients to smoke marihuana to relieve the symptoms for certain serious illnesses. For example, the House of Lords Select Committee on Science and Technology in its Report on "Cannabis: The Scientific and Medical Evidence" provided this comment at para. 8.7:

> [P]eople who use cannabis for medical reasons are caught in the front line of the war against drug abuse. This makes criminals of people whose intentions are innocent, it adds to the burden on enforcement agencies, and it brings the law into disrepute. Legalising medical use on prescription, in the way that we recommend, would create a clear separation between

> medical and recreational use, under control of the health care professions. We believe it would in fact make the line against recreational use easier to hold.

(v) Conclusion on the principles of fundamental justice and the blanket prohibition on marihuana possession and cultivation

[143] In the companion case of *R. v. Clay*, I have reviewed at greater length the state's objectives in prohibiting marihuana. First, the state has an interest in protecting against the harmful effects of use of that drug. Those include bronchial pulmonary harm to humans; psychomotor impairment from marihuana use leading to a risk of automobile accidents and no simple screening device for detection; possible precipitation of relapse in persons with schizophrenia; possible negative effects on immune system; possible long-term negative cognitive effects in children whose mothers used marihuana while pregnant; possible long-term negative cognitive effects in long-term users; and some evidence that some heavy users may develop a dependency. The other objectives are: to satisfy Canada's international treaty obligations and to control the domestic and international trade in illicit drugs. It remains to consider whether the deprivation of Parker's rights to liberty and security of the person enhance these objectives.

[144] The blanket prohibition on possession and cultivation, without an exception for medical use, does little or nothing to enhance the state interest. To the extent that the state's interest in prohibiting marihuana is to prevent the harms associated with

marihuana use including protecting the health of users, it is irrational to deprive a person of the drug when he or she requires it to maintain their health. As in *Morgentaler,* the court must consider the actual effect of the legislation. While the exemption for therapeutic abortions was designed to preserve the pregnant woman's health, it had the opposite effect in some cases by imposing unreasonable procedural requirements and delays.[9] If the purpose of the marihuana prohibition is to protect the health of users and thereby eliminate the related costs to society,[10] the overbroad prohibition preventing access to the drug to persons like Parker, who require it to preserve their health, defeats that objective. Other harms, such as impaired driving, must be considered in context. For example, prohibiting the small number of seriously ill patients who require it from having access to marihuana does little to enhance the state interest in the safety of the highways.

[145] It is also fair to take into account the extent of harm the marihuana prohibition is designed to protect against. As McLachlin J. said in *Cunningham v. Canada* at pp.151-52, fundamental justice requires that a fair balance be struck between the interest of the person who claims his liberty or security interest has been limited and the protection of society. If the harm against which society must be protected is relatively limited, less limitation on the liberty and security interests will be tolerated especially when the

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9 See *R. v. Keegstra* (1990) 61 C.C.C. (3d) 1 (S.C.C.) per McLachlin J. dissenting at 114.

10 See the discussion of those issues in *R. v. Malmo-Levine supra,* at para. 142-43.

infringement on the person's rights is grounded in a risk to life and health. The evidence at trial demonstrated that the side effects of marihuana use are almost trivial compared to the side effects of the conventional medicine Parker also takes. As pointed out, no one has ever died from ingestion of marihuana.

[146] As to Canada's international treaty obligations with respect to the control of illicit drugs, I have already referred to the decision of the Supreme Court of Canada in *R. v. Hauser* and its reliance on Canada's being a party to the *Single Convention of Narcotic Control 1961*. As I noted, the first objective of that Treaty, as set out in the preamble, recognizes that "the medical use of narcotic drugs continues to be indispensable for the relief of pain and suffering and that adequate provision must be made to ensure the availability of narcotic drugs for such purposes". The former *Narcotic Control Act*, which made no provision for the legal medical use of marihuana, does not further this objective.

[147] Subsequent Conventions have tightened the control on all narcotics and psychotropic substances, including marihuana. The 1971 Convention permitted use of marihuana for limited medical purposes by duly authorized persons. The 1988 Convention requires states to prohibit possession, purchase and cultivation of marihuana for personal use, subject to the country's "constitutional principles and the basic concepts of its legal system". It is self-evident that if under our Constitution, namely s. 7 of the

Charter of Rights and Freedoms, the prohibition of possession and cultivation of marihuana for medical purposes is unconstitutional, it would be open to Parliament to enact such an exemption and still comply with its treaty obligations.[11] Prohibiting possession or cultivation of marihuana for personal medical use does nothing to enhance the state's interest in fulfilling its international obligations. In *R. v. Clay* at p. 357, McCart J. noted that in their hard-line approach to marihuana possession, the United States (and Canada) appear "somewhat out of step with most of the rest of the western world". The fact that state and federal lawmakers in the United States now seem to favour making marihuana available for medical use suggests that such a move in Canada would not be inconsistent with our international obligations.

[148] Finally, in considering Canada's treaty obligations, it should be borne in mind that Canada is also a party to the *International Covenant on Economic, Social and Cultural Rights*, (1976), 993 U.N.T.S. 3.[12] Article 12 of the Covenant includes the following:

> 1. The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.
>
> 2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for:
>
> ...

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[11] In any event, the Constitution takes precedence over any treaty obligations: *Attorney-General for Canada v. Attorney General for Ontario and Others*, [1937] A.C. 326 (P.C.).

[12] Canada acceded to the Covenant on May 19, 1976 and it came into force in Canada on August 19, 1976.

> (d) The creation of conditions which would assure to all medical service and medical attention in the event of sickness. [Emphasis added.]

[149] I have already noted the Crown's argument that the trial judge "expressly" reversed the onus of proving that the legislation was in accord with the principles of fundamental justice. This is based in part on the emphasized excerpt from the following portion of the trial judge's reasons:

> However, these schedules include also numerous narcotic drugs which are possessed and used by Canadians with medical approval. The Convention therefore, is not a prohibition against all possession or distribution. As article 3(2) states, the Convention must be read subject to Canada's constitutional principles and it is up to Canada to "adopt such measures, AS MAY BE NECESSARY" (Court emphasis) to criminalize the possession of marihuana. The respondent/Crown, on these facts and based on any of the tests of the principles of fundamental justice, has not demonstrated the necessity of a legislative enactment so broad as to prevent therapeutic use of this non-manufactured grown plant product. [Emphasis added.]

[150] In my view, when read in context, this part of the reasons only refers to the discussion about Canada's international obligations. Resolution of that issue did not depend on the burden of proof. In this passage, the trial judge is making the common-sense observation, not disputed at trial or on appeal, that a medical exemption is consistent with international obligations. By this point in his reasons, the trial judge has already held that a blanket prohibition does not accord with the principles of fundamental

justice since it does little or nothing to enhance the state interest. Given the Crown position that a medical exemption is possible under the Conventions, the apparent reversal of the burden is of no consequence.[13]

[151] The Crown also supports the legislation as necessary to control the domestic and international trade in illicit drugs. While such an objective suggests a need for some form of control on the distribution of marihuana, the complete prohibition on the possession or cultivation of marihuana for personal therapeutic use does little to enhance this state interest. The Crown has never asserted that the number of persons who could legitimately claim access to marihuana for medical purposes is very large. They could have little impact on the huge market for illicit marihuana. Prohibiting these patients access to marihuana does little to enhance these state interests. What is required is regulation of this drug, as with tranquilizers, morphine and other much more dangerous and addictive drugs, for which there is also no doubt a large illicit market.

[152] To conclude, the deprivation of Parker's rights to liberty and security of the person because of the complete prohibition on the possession or cultivation of marihuana in the former *Narcotic Control Act* does little or nothing to enhance the state's interest. In my view, Parker established that his rights under s. 7 were violated by the absolute

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13 The Crown, of course, claims that the legislation already contains sufficient exemptions. In any event, if treaty obligations are a matter more properly considered under s. 1, the Crown did bear the burden of proof on that issue.

prohibition on cultivation of marihuana in the *Narcotic Control Act*. Parker has no other practical means of obtaining the drug for his medical needs. I did not understand the Crown to suggest that we should distinguish between the possession and cultivation for personal medical use, for the purpose of the s. 7 analysis. Since the cultivation offence is the only provision at issue under that Act, strictly speaking I need not consider the validity of the possession offence. However, it is obvious from this discussion that were that provision before this court, I would have found that it also violates Parker's rights under s. 7.

[153] I am also of the view that, subject to the availability of a s. 56 exemption, Parker has established that the similar prohibition on possession and cultivation of marihuana in the *Controlled Drugs and Substances Act* violates his rights under s. 7 of the *Charter*. Again, since, strictly speaking, the possession offence is the only provision at issue under that Act, it is unnecessary to consider the validity of the cultivation offence. Before turning to s. 56, it will be convenient to deal with other principles of fundamental justice.

(vi) Does the practical unavailability of a defence under the legislation infringe the principles of fundamental justice?

[154] In *Morgentaler,* Dickson C.J.C. rested his finding that the abortion prohibition was unconstitutional on the practical unavailability of the defence that was theoretically available through the therapeutic abortion committee procedure. He reviewed the

extensive evidence that demonstrated that therapeutic abortions were unavailable in many parts of the country and that even where it was available the delays created by the administrative structure often required physicians to use a riskier procedure when the abortion was finally approved. He explained at pp. 72-3, in a passage that I have previously quoted, why this was inconsistent with the principles of fundamental justice. To summarize, he held that it was manifestly unfair to create a defence that contained so many barriers to its operation that it was practically unavailable to women who would *prima facie* qualify for the defence. Dickson C.J.C. also explained at p. 76 why this violation of s. 7 could not be saved under s. 1:

> I conclude, therefore, that the cumbersome structure of s-s. (4) not only unduly subordinates the s. 7 rights of pregnant women but may also defeat the value Parliament itself has established as paramount, namely, the life and health of the pregnant woman. As I have noted, counsel for the Crown did contend that one purpose of the procedures required by subs. (4) is to protect the interests of the foetus. State protection of foetal interests may well be deserving of constitutional recognition under s. 1. Still, there can be no escape from the fact that Parliament has failed to establish either a standard or a procedure whereby any such interests might prevail over those of the woman in a fair and non-arbitrary fashion. [Emphasis added.]

[155] The same may be said of the theoretical defence available in the *Narcotic Control Act* and the *Controlled Drugs and Substances Act.* Under s. 3 of the *Narcotic Control Act* and s. 4 of the *Controlled Drugs and Substances Act* it is an offence to have possession of

any narcotic or scheduled substance respectively including marihuana except as authorized by the Act or regulations. While the regulations theoretically contemplate that a physician could prescribe marihuana, the evidence from the government witness was that since there is no legal source for marihuana, no pharmacist could fill the prescription and that the government would not look favourably upon a physician who purported to write such a prescription. That witness also established the practical impossibility of Parker obtaining a legal source of marihuana. For example, the process for approval of a new drug involves the expenditure of hundreds of thousands of dollars. For most of his life, Parker has been on government assistance as a result of his disability.

[156] The Crown says that it is not the fault of the legislation, but the fact that no one has come forward to attempt to comply with the legislation to obtain new drug approval. The practical unavailability of marihuana due to the administrative structure prevents Parker and people like him who require the drug for medical purposes from obtaining a prescription for the drug because of the absence of a legal supply. Put simply, the expense for Parker in obtaining a legal source of the drug through the new drug approval procedure established by the state makes the defence held out under the legislation practically unavailable.

[157] Although we heard little argument on the point, I do not doubt the importance of the state interest in ensuring that new drugs meet stringent standards before they are made

widely available to the public. One only has to remember the tragedy of Thalidomide to understand the need for the regulatory structure. However, the problem facing this court is different. I have found that Parker established that the criminal prohibition against possession of marihuana infringed his security of the person. He requires marihuana to treat his epilepsy and without it, his life and health are endangered. He has also established that the side effects of his use of marihuana are minor, compared to the side effects from the prescription drugs he is required to take as part of his conventional treatment. The state interest in strict regulation of new drugs must be balanced against the risk to Parker's life and health posed by the administrative structure established by Parliament and the government. The state cannot hold out as a generally available defence the possibility of possessing the drug in accordance with a prescription when Parker is practically precluded from availing himself of the defence.

[158] In *Morgentaler,* the Crown made essentially the same argument. As summarized in the reasons of Dickson C.J.C. at p. 61, the Crown argued that any impairment to the physical or psychological interests of individuals caused by the abortion provisions of the Code "does not amount to an infringement of security of the person because the injury is caused by practical difficulties and is not intended by the legislator".

[159] Dickson C.J.C. rejected the argument for two reasons. First, as a practical matter it was not possible to erect a rigid barrier between the purposes of the section and the

administrative procedures established to carry those purposes into effect. For example, the delay resulted not simply from the practical problems, but was inherent in the cumbersome operating requirements of the section itself. Second, even if it were possible to dissociate purpose and administration, the Supreme Court had previously held that both purpose and effect must be considered. As Dickson C.J.C. said at pp. 62-3:

> Even if the purpose of legislation is unobjectionable, the administrative procedures created by law to bring that purpose into operation may produce unconstitutional effects, and the legislation should then be struck down. It is important to note that, in speaking of the effects of legislation, the court in *R. v. Big M Drug Mart Ltd.* was still referring to effects that can invalidate legislation under s. 52 of the Constitution Act, 1982 and not to individual effects that might lead a court to provide a personal remedy under s. 24(1) of the Charter. In the present case, the appellants are complaining of the general effects of s. 251. If s. 251 of the *Criminal Code* does indeed breach s. 7 of the Charter through its general effects, that can be sufficient to invalidate the legislation under s. 52. [Emphasis added.]

[160] I need only consider the second reason referred to by Dickson C.J.C. Even if the purpose of the regulatory scheme created by the *Narcotic Control Act* and the *Controlled Drugs and Substances Act* and Regulations is valid, the administrative procedures created to bring the purpose into operation produce unconstitutional effects for the group of people like Parker who require marihuana for medical purposes.[14]

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[14] I will deal with the question of remedy, raised in the passage quoted above, later in my reasons. Suffice it to say that I do not consider the defect in the legislation to be merely an individual effect requiring simply a remedy under s. 24(1) alone.

[161] Even if I am wrong on this aspect of the case, the theoretical availability of marihuana through the new drug programme does not answer Parker's claim that the prohibition infringes his right to liberty. I have described that right as the right to make decisions that are of fundamental personal importance, which includes the choice of medication to alleviate the effects of an illness with life-threatening consequences. There may be circumstances in which the state interest in regulating the use of new drugs prevails over the individual's interest in access. This, however, is not one of those circumstances. The evidence establishes that the danger from the use of the drug by a person such as Parker for medical purposes is minimal compared to the benefit to Parker and the danger to Parker's life and health without it. It may be that the state is entitled to require the approval of the patient's choice by a physician in much the same way that in *Morgentaler*, Beetz J. contemplated that even if there was a right of access to abortion founded upon the right to liberty, a second medical opinion as to the mother's health could be justified in some circumstances (Wilson J. suggested the second trimester) because of the state interest in the protection of the foetus. However, the current legal and administrative structure completely deprives Parker of any choice, even with the approval of his physician.[15]

[162] In summary, like the defence for women who required an abortion because the continuation of the pregnancy would endanger their health, the defence in the *Narcotic*

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[15] Subject to a possible s. 56 exemption discussed below.

Control Act and the *Controlled Drugs and Substances Act* is practically unavailable to Parker and others like him who require marihuana for conditions threatening their life or health. This constitutes a violation of the principles of fundamental justice. Again, as Dickson C.J.C. said in *Morgentaler* at p. 70:

> One of the basic tenets of our system of criminal justice is that when Parliament creates a defence to a criminal charge, the defence should not be illusory or so difficult to attain as to be practically illusory. The criminal law is a very special form of governmental regulation, for it seeks to express our society's collective disapprobation of certain acts and omissions. When a defence is provided, especially a specifically-tailored defence to a particular charge, it is because the legislator has determined that the disapprobation of society is not warranted when the conditions of the defence are met. [Emphasis added.]

[163] Parliament has created a defence to the possession and cultivation offences if the person can comply with the regulations. Those regulations, for example, permitted a person to legally possess the drug under prescription from a physician. The government's own witness established that this defence or exemption is illusory. This is not consistent with the principles of fundamental justice.

6. Is there a different analysis of fundamental justice under the *Controlled Drugs and Substances Act?*

(i) Introduction

[164] The Crown argues that even if Parker has established a deprivation of his right to liberty or security of the person (as opposed to a mere preference for an illegal form of

treatment), the *Controlled Drugs and Substances Act* does comply with the principles of fundamental justice because of the three legal means by which Parker could possess marihuana. They are:

> (i) The Health Canada procedure for approval of new drugs,
>
> (ii) The Emergency Drug Release (Compassionate Use) Programme,
>
> (iii) An application to the Minister of Health under s. 56 of the Act.

[165] I have already briefly dealt with the Health Canada procedure for approval of new drugs. As to the Emergency Drug Release Programme or Compassionate Use Programme under the *Narcotic Control Regulations*, the theoretical availability of this programme to Parker runs up against the practical and, for Parker, insuperable barrier that there is no licensed source of marihuana because it is a controlled substance. Thus, while the Programme allows applications to be made for access to otherwise non-marketed drugs, marihuana is not available because Health Canada has not licensed any firm to produce and distribute it. The Crown says this is because no one has come forward seeking a licence. The same considerations that applied to my discussion of the new drug approval process apply. Parker simply does not have the means to become a licensed dealer in marihuana and therefore no means of taking advantage of the Compassionate Use Programme.

(ii) Section 56 of the Controlled Drugs and Substances Act

[166] The third alternative source for legal possession of marihuana is through s. 56 of the *Controlled Drugs and Substances Act*. That section provides as follows:

> 56. The Minister may, on such terms and conditions as the Minister deems necessary, exempt any person or class of persons or any controlled substance or precursor or any class thereof from the application of all or any of the provisions of this Act or the regulations if, in the opinion of the Minister, the exemption is necessary for a medical or scientific purpose or is otherwise in the public interest.

[167] The trial judge held that there was no provision under the former *Narcotic Control Act* or the *Controlled Drugs and Substances Act* for an exemption for a person requiring marihuana for medical purposes. This statement is true about the *Narcotic Control Act*. It is not the case under the *Controlled Drugs and Substances Act*. In fairness to the trial judge, s. 56 was never drawn to his attention and Mr. Rowsell, the government witness, who should have known about s. 56, made no mention of it in his evidence. In summary, at trial, the Crown did not advance the availability of an exemption under s. 56 as a basis for upholding the legislation.

[168] Counsel for Parker argues that the Crown should not now be permitted to rely upon s. 56. This court is reluctant to permit litigants to raise constitutional arguments for the first time on appeal, even where the argument is to support a defence for an accused.

Thus, at the opening of the appeal we indicated to the intervener Epilepsy Association of Toronto that it would not be permitted to challenge the validity of the Act under s. 15 of the *Charter*, notwithstanding the potential force of such a submission, because no such challenge was made at trial.[16]

[169] There are important institutional and practical reasons underlying our reluctance to allow constitutional arguments to be raised for the first time on appeal. If the matter is not raised at trial, the necessary adjudicative facts may not be before the court to enable the court to adequately address the new issue. An appellate court also does not have the benefit of findings of fact by the trial judge concerning disputed adjudicated and legislative facts. Where the Crown raises a new issue for the first time on appeal, double jeopardy concerns may arise. See *R. v. Varga* (1994), 90 C.C.C. (3d) 484 (Ont. C.A.) at 494.

[170] The Crown's new-found reliance on s. 56 involves many of these considerations. We have only a sparse record concerning the operation of s. 56, especially since the Crown declined this court's offer to adjourn the hearing of the appeal to obtain further evidence. What information there is comes from the decisions of LaForme J. of the Superior Court of Justice in *Wakeford v. Canada* (1998), 166 D.L.R. (4th) 131 and

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16 The Association argues that the marihuana prohibition discriminates on the basis of disability.

(1999), 173 D.L.R. (4th) 726 to which I will refer and the fresh evidence put forward by Parker through the affidavit and cross-examination of Mr. Oscapella.

[171] Nevertheless, in my view, it is necessary for this court to consider the application of s. 56. Although there was no evidence about s. 56 at trial, the section was part of the statute under consideration and in that sense the issue was before the court. Failure to consider, even on this sparse record, the application of s. 56, which has become central to the government's defence of the legislation, could undermine the legitimacy of this court's judgment.

[172] I have reviewed the fresh evidence concerning s. 56 applications earlier. In summary, in May 1999, Health Canada released the Interim Guidance Document that outlines the process for Canadians to obtain exemptions under s. 56. At the time of Mr. Oscapella's cross-examination, two exemptions had been granted for cannabis possession. This trial took place in 1997 and, as I have indicated, there was no practical way for Parker to have obtained an exemption under s. 56. Parker submits that the government's new-found interest in s. 56 is the result of the *Wakeford* decisions. It is worth examining those decisions.

[173] Mr. Wakeford suffers from AIDS. His illness and the various drugs he must take to control it leave him with many debilitating side effects including nausea and loss of

appetite. He tried using Marinol, but this only made him sicker. He began to use marihuana under a physician's supervision in 1996. He found that the marihuana controlled his nausea and stimulated his appetite and countered many of the side effects he experienced from the prescription drugs. In 1998, he applied to the Ontario Court (General Division) (now the Superior Court of Justice) for a constitutional exemption. His submissions were similar to those made in this case, although he also relied upon s. 15 of the *Charter*. In his first judgment released September 8, 1998, LaForme J. held that Wakeford's s. 7 rights were not infringed because he had not demonstrated that he could not obtain an exemption under s. 56 of the Act. However, he also held at pp. 150-51 that if there was no real process or procedure whereby an individual could apply for an exemption, he would "have no hesitation in granting, perhaps even all, the relief Mr. Wakeford seeks".

[174] In March 1999, Mr. Wakeford applied to re-open the original application. The evidence adduced on the new hearing demonstrated that in fact there was no process by which Mr. Wakeford could have obtained a s. 56 exemption. As LaForme J. put it, the availability of the exemption was illusory. At the time of the new hearing, the process for obtaining s. 56 exemptions was under development but it was unknown how the process would work, how long it would take to process an application and when Mr. Wakeford's application would be dealt with. Accordingly, on the new hearing, LaForme J. granted

Mr. Wakeford an interim constitutional exemption from the operation of the possession and cultivation offences under the Act until the Minister decided upon his application.

[175] The Crown submits that if this court were to find that Parker's right to liberty or security of the person is infringed by the marihuana prohibition, that infringement is in accordance with the principles of fundamental justice because of the availability of the s. 56 exemption. Mr. Wilson submits that the fresh evidence shows that there is now a process in place for the Minister to consider such applications. He submits that the Minister would have to comply with the dictates of the *Charter* in considering such applications and further should there be a refusal of the exemption in any particular case, the applicant's remedy is to judicially review the Minister's decision, not strike down the legislation.

[176] Before dealing with the Crown's submissions concerning s. 56, it is important to make some preliminary comments. I do not wish the following reasons to be misinterpreted. I do not doubt that the present Minister of Health takes the issue of medical use of marihuana seriously nor do I question his good intentions. On June 9, 1999, in response to a question from a member, the Minister informed the House that he

was exercising his power under s. 56 for "two very sick people to use marijuana for medical purposes".[17] In doing so he said the following:

> Let us remember what this is about. This is about showing compassion to people, often dying, suffering from grave and debilitating illness. I want to thank the member and all the members here for pushing this issue so that we behave properly on behalf of those who are sick and dying.

[177] The question remains; does this unfettered discretion meet constitutional standards? In my view, notwithstanding the theoretical availability of the s. 56 process, the marihuana prohibition does not accord with the principles of fundamental justice. In *Morgentaler*, Dickson C.J.C. found the therapeutic abortion scheme invalid in part because the provincial Ministers of Health could impose so many restrictions as to make therapeutic abortions unavailable in the province and because there was no standard provided in the section for the committee to use in determining whether the woman's health was in danger. He held as follows at pp. 67-8:

> The requirement that therapeutic abortions be performed only in "accredited" or "approved" hospitals effectively means that the practical availability of the exculpatory provisions of subs. (4) may be heavily restricted, even denied, through provincial regulation. In Ontario, for example, the provincial government promulgated O. Reg. 248/70 under *The Public Hospitals Act*, R.S.O. 1960, c. 322, now R.R.O. 1980, Reg. 865. This regulation provides that therapeutic abortion

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[17] One of those people was Mr. Wakeford.

committees can only be established where there are ten or more members on the active medical staff (Powell Report, at p. 13). A minister of health is not prevented from imposing harsher restrictions. During argument, it was noted that it would even be possible for a provincial government, exercising its legislative authority over public hospitals, to distribute funding for treatment facilities in such a way that no hospital would meet the procedural requirements of s. 251(4). Because of the administrative structure established in s. 251(4) and the related definitions, the "defence" created in the section could be completely wiped out.

A further flaw with the administrative system established in s. 251(4) is the failure to provide an adequate standard for therapeutic abortion committees which must determine when a therapeutic abortion should, as a matter of law, be granted. Subsection (4) states simply that a therapeutic abortion committee may grant a certificate when it determines that a continuation of a pregnancy would be likely to endanger the "life or health" of the pregnant woman. It was noted above that "health" is not defined for the purposes of the section. The Crown admitted in its supplementary factum that the medical witnesses at trial testified uniformly that the "health" standard was ambiguous, but the Crown derives comfort from the fact that "the medical witnesses were unanimous in their approval of the broad World Health Organization definition of health". The World Health Organization defines "health" not merely as the absence of disease or infirmity, but as a state of physical, mental and social well-being.

I do not understand how the mere existence of a workable definition of "health" can make the use of the word in s. 251(4) any less ambiguous when that definition is nowhere referred to in the section. There is no evidence that therapeutic abortion committees are commonly applying the World Health Organization definition. Indeed, the Badgley report indicates that the situation is quite the contrary... [Emphasis added.]

[178] The same must be said about s. 56. It reposes in the Minister an absolute discretion based on the Minister's opinion whether an exception is "necessary for a medical ... purpose", a phrase that is not defined in the Act. The Interim Guidance Document issued by Health Canada to provide guidance for an application for a s. 56 exemption sets out factors that the Minister "may" consider in deciding whether an exemption is necessary for a medical purpose. This document does not have the force of law and, in any event, merely sets out examples of factors the Minister may consider. It does not purport to exhaustively define the circumstances. In fact, the document explicitly states that the Minister may take into account considerations unrelated to medical necessity such as "the potential for diversion".[18] The document also suggests that the power under s. 56 is only to be exercised in "exceptional circumstances", a qualification not found in the statute itself.

[179] Even if the Minister were of the opinion that the applicant had met the medical necessity requirement, the legislation does not require the Minister to give an exemption. The section only states that the Minister "may" give an exemption. The Crown did not suggest that "may" should be interpreted as "shall".

[180] The problem is not unlike the issue confronting the court in *Committee for the Commonwealth of Canada v. Canada*, [1991] 1 S.C.R. 139. That case concerned

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[18] Presumably, into the illicit market.

freedom of expression and the validity of s. 7 of the Government Airport Concession Operations Regulations, SOR/79-373, which prohibited the conducting of any business or undertaking, commercial or otherwise, and any advertising or soliciting at an airport, "except as authorized in writing by the Minister". There were several sets of reasons and only some members of the court reached the constitutional issue. The comments of L'Heureux-Dubé J., concurred in in this respect by Gonthier and Cory JJ., are instructive, even taking into account that the case involved a fundamental freedom under s. 2 rather than a guaranteed right under s. 7 and that the relevant part of the discussion comes in the s. 1 analysis.

[181] L'Heureux-Dubé J. held that the violation of freedom of expression could not be saved because an applicant could apply for authorization. At p. 214, she wrote as follows:

> Rights and freedoms must be nurtured not inhibited. Vague laws intruding on fundamental freedoms create paths of uncertainty onto which citizens fear to tread, fearing legal sanction. Vagueness serves only to cause confusion and most people will shy from exercising their freedoms rather than facing potential punishment.
>
> In addition, the Regulations provides that "except as authorized in writing by the Minister, no person shall ...". It is clear that the Minister is given a "plenary discretion to do whatever seems best". That in itself may create a standard which is so vague as to be incomprehensible. In any event, vagueness by virtue of the lack of a comprehensible standard

> does not accord with the requirement that a limit on a right or freedom be "prescribed by law". [Emphasis added.]

[182] Further, in concluding that the regulation did not meet the *Oakes* test under s. 1, she held at pp. 225-26 as follows:

> This particular provision does not even come close to meeting that standard. As a result of its vagueness and overbreadth, there is no foreseeability as to what activity is in fact being proscribed. Furthermore, the unfettered discretion vested in the Minister itself undermines the reasonableness and predictability of the provision's application. Those affected by the Regulation cannot be left to speculate or surmise how or in what circumstances it will be implemented. Such conjecture is incompatible with the spirit, purposes and goals of our *Charter*, and will not pass constitutional muster: it has not been demonstrably justified in a free and democratic society. [Emphasis added.]

[183] McLachlin J. reached a similar conclusion in her consideration of s. 1. She held at pp. 246-47 that the limit on the right should contain sufficient safeguards to ensure that as the law is applied the right will not be infringed more than necessary. This latter danger may occur "if too much discretion is granted to administrators charged with applying the limit or law in question".

[184] In view of the lack of an adequate legislated standard for medical necessity and the vesting of an unfettered discretion in the Minister, the deprivation of Parker's right to security of the person does not accord with the principles of fundamental justice.

[185] In effect, whether or not Parker will be deprived of his security of the person is entirely dependent upon the exercise of ministerial discretion. While this may be a sufficient legislative scheme for regulating access to marihuana for scientific purposes, it does not accord with fundamental justice where security of the person is at stake.[19]

[186] The problem is not unlike that faced by the court in *R. v. Smith (Edward Dewey)*, [1987] 1 S.C.R. 1045 in considering the validity of the seven-year minimum term of imprisonment for importing narcotics under the former *Narcotic Control Act*. The Crown argued that violations of the right to protection against cruel and unusual punishment under s. 12 of the *Charter* could be avoided by prosecutorial discretion. At pp. 1078-1079 Lamer J. explained why this could not save the provision:

> In its factum, the Crown alleged that such eventual violations could be, and are in fact, avoided through the proper use of prosecutorial discretion to charge for a lesser offence.
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> In my view, the section cannot be salvaged by relying on the discretion of the prosecution not to apply the law in those cases where, in the opinion of the prosecution, its application

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[19] Section 56 also gives the Minister the power to impose "such terms and conditions" as he deems necessary. It would thus be possible for a Minister of Health to impose conditions that would make the exemption illusory. The fact that the present application requires the applicant to name the source of his or her supply gives some reason for concern when the government must know that at present there is no legal source for marihuana in Canada.

> would be a violation of the *Charter*. To do so would be to disregard totally s. 52 of the *Constitution Act, 1982* which provides that any law which is inconsistent with the Constitution is of no force or effect to the extent of the inconsistency and the courts are duty-bound to make that pronouncement, not to delegate the avoidance of a violation to the prosecution or to anyone else for that matter. Therefore, to conclude, I find that the minimum term of imprisonment provided for by s. 5(2) of the *Narcotic Control Act* infringes the rights guaranteed by s. 12 and, as such, is a *prima facie* violation of the *Charter*. Subject to the section's being salvaged under s. 1, the minimum must be declared of no force or effect. [Emphasis added.]

[187] In my view, this is a complete answer to the Crown's submission. The court cannot delegate to anyone, including the Minister, the avoidance of a violation of Parker's rights. Section 56 fails to answer Parker's case because it puts an unfettered discretion in the hands of the Minister to determine what is in the best interests of Parker and other persons like him and leaves it to the Minister to avoid a violation of the patient's security of the person.

[188] If I am wrong and, as a result, the deprivation of Parker's right to security of the person is in accord with the principles of fundamental justice because of the availability of the s. 56 process, in my view, s. 56 is no answer to the deprivation of Parker's right to liberty. The right to make decisions that are of fundamental personal importance includes the choice of medication to alleviate the effects of an illness with life-threatening consequences. It does not comport with the principles of fundamental justice to subject

that decision to unfettered ministerial discretion. It might well be consistent with the principles of fundamental justice to require the patient to obtain the approval of a physician, the traditional way in which such decisions are made. It might also be consistent with the principles of fundamental justice to legislate certain safeguards to ensure that the marihuana does not enter the illicit market. However, I need not finally determine those issues, which, as I will explain in considering the appropriate remedy, are a matter for Parliament.

[189] I have one final concern with the availability of the s. 56 process. An administrative structure made up of unnecessary rules that results in an additional risk to the health of the person is manifestly unfair and does not conform to the principles of fundamental justice. We were provided with little evidence as to the operation of the s. 56 procedure as established by the government. The Oscapella affidavit includes the Interim Guidance Document, that is, as I have indicated, to provide guidance for a s. 56 application. The document envisages a detailed application and entitles the Minister to request further information. Since the Crown declined the opportunity to present further fresh evidence about s. 56, the only evidence as to the actual operation of the programme comes from the cross-examination of Mr. Oscapella, which was hearsay based on information he had obtained from government employees, presumably persons who could

have provided evidence for the Crown.[20] Mr. Oscapella testified that, despite the statement by the Minister in the House of Commons that he intended there be a "15-day turnaround period", only two exemptions had been granted as of June 9, 1999. As of August 26, 1999, a further 15 applications were complete but had still not been dealt with by the Minister as of the date of the cross-examination on September 14th. These kinds of delays, which may be due to the administrative procedure, would further endanger the health of a person like Parker.

[190] To conclude, in my view, Parker has established that the prohibition on possession of marihuana in the *Controlled Drugs and Substances Act* has deprived Parker of his right to security of the person and right to liberty in a manner that does not accord with the principles of fundamental justice. Since Parker was not charged with the cultivation offence, that offence is not expressly before this court. However, it is apparent from these reasons and the reasons dealing with the cultivation offence under the *Narcotic Control Act* that if the cultivation provision had been before this court, I would hold that it too infringes Parker's s. 7 rights. Since there is no legal source of supply of marihuana, Parker's only practical way of obtaining marihuana for his medical needs is to cultivate

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[20] As Cory J. said in *MacKay v. Manitoba* (1989), 61 D.L.R. (4th) 385 (S.C.C.) at 388, in light of the importance and impact that some Charter decisions may have, "the courts have every right to expect and indeed to insist upon the careful preparation and presentation of a factual basis in most Charter cases". While the burden was on the respondent to demonstrate the violation of s. 7, given the importance the Crown placed upon the s. 56 exemption it would have been helpful if the Crown produced expert evidence from the officials in Health Canada in charge of the s. 56 programme.

it. In this way, he avoids having to interact with the illicit market and can provide some quality control.

7. Can any violations be saved by s. 1?

[191] The onus was on the Crown to establish that the violations of Parker's rights could be saved under s. 1 of the *Canadian Charter of Rights and Freedoms.* The Crown did not suggest that the violations could be saved by s. 1. In any event, many of the defects in the legislation that contribute to the deprivations of Parker's rights practically preclude the legislation from meeting the proportionality test under s. 1.

[192] In particular, one of the purposes of the law is to prevent harm to the health of Canadians and the resulting costs to society. However, the broad nature of the marihuana prohibition has the effect of impairing the health of Parker and others who require it for medical purposes. In this sense, the legislation works in opposition to one of the primary objectives and thus could be described as "arbitrary" or "unfair": *R. v. Keegstra* (1990) 61 C.C.C. (3d) 1 (S.C.C.) per Dickson C.J.C. at 53 and per McLachlin J. (dissenting) at 114.

[193] The only possible basis for holding that the provision of the *Controlled Drugs and Substances Act* constituted a reasonable limit is that s. 56 tempers the facial overbreadth of the prohibition. However, for the reasons of L'Heureux-Dubé J. and McLachlin J. in

Committee for the Commonwealth of Canada v. Canada, the plenary discretion vested in the Minister precludes a finding that this is a reasonable limit. Thus, whether the s. 56 exemption is considered under s. 1 or s. 7, it cannot save the legislation.

[194] Finally, the broad prohibition means that the section fails the minimal impairment test: *R. v. Heywood* (1994), 94 C.C.C. (3d) 481 (S.C.C.) at 523. There is no need to prosecute people like Parker who require marihuana for medical purposes to achieve any of the three objectives identified by the Crown: preventing harm, international treaty obligations, and control of the trade in illicit drugs. Less intrusive means are available to meet these objectives. The Californian and Hawaiian legislative schemes are but two examples of how these objectives might be reconciled with the needs of patients requiring access to marihuana.

8. The appropriate remedy for the violations

[195] The trial judge granted remedies through the combination of s. 24(1) of the *Charter* and s. 52 of the *Constitution Act, 1982.* He stayed the charges against Parker and declared that the marihuana possession and cultivation prohibitions in both the *Narcotic Control Act* and the *Controlled Drugs and Substances Act* be read down to exempt "persons possessing or cultivating cannabis marihuana for the personal medically approved use". The trial judge also ordered that the plants seized from Parker on September 18, 1997 be returned to him.

[196] I cannot agree with the trial judge's choices of remedies. First, in my view, it was inappropriate to require the police to return the plants as there was no evidence that these perishable items were still available. I would strike out that part of the judgment.

[197] I also cannot agree that it was open to the trial judge to grant a declaration in relation to the possession offence under the *Narcotic Control Act* or the cultivation offence under the *Controlled Drugs and Substances Act.* The trial judge's jurisdiction to deal with the constitutional issues before him was dependent upon the criminal charges in issue. He did not have the jurisdiction a superior court would have had on an application for a declaration. I would therefore also set aside those parts of the judgment.

[198] I also do not agree with the trial judge that it was appropriate to read a medical exemption into the legislation. In this respect, I agree with the submissions of the Crown. In light of the leading decisions on remedy in *Schachter v. Canada*, [1992] 2 S.C.R. 679, *Corbiere v. Canada (Minister of Indian and Northern Affairs)*, [1999] 2 S.C.R. 203 and *Rodriguez*, the Crown submits that, should this court find a violation of s. 7 because the legislation fails to provide adequate exemptions for medical use, the "only available remedy" is to strike down those provisions and suspend the finding of invalidity for a sufficient period of time to allow Parliament to craft satisfactory medical exemptions.

[199] Since the federal Crown takes this position in defending its own legislation, it is only necessary for me to briefly indicate my reasons for reaching the same conclusion with respect to the *Controlled Drugs and Substances Act*. Since the *Narcotic Control Act* has been repealed by Parliament, it is unnecessary to strike down the offending provision.

[200] In *Schachter,* Lamer C.J.C. extensively reviewed the various remedies available to a court that finds legislation violates a *Charter* provision. Reading in is a remedial option under s. 52 of the *Constitution Act, 1982*, which requires the court to strike down any law that is inconsistent with the Constitution, but only "to the extent of the inconsistency". The purpose of reading in "is to be as faithful as possible within the requirements of the Constitution to the scheme enacted by the Legislature": *Schachter* at p. 700. Reading in is also sometimes required in order to respect the purposes of the *Charter*.

[201] In *Schachter*, Lamer C.J.C. reviewed the factors to be considered in determining whether or not reading in is an appropriate remedy by reference to the factors developed by the Court in *R. v. Oakes*, [1986] 1 S.C.R. 103. Reading in is particularly appropriate where the legislation fails because it is not carefully tailored to be a minimal intrusion or it has effects that are disproportionate to its purpose. The defects in the *Controlled Drugs and Substances Act* fall within this rationale and thus reading in is a potential remedy. Even so, reading in will not be appropriate if "the question of how the statute ought to be extended in order to comply with the Constitution cannot be answered with a sufficient

degree of precision on the basis of constitutional analysis": *Schachter* at p. 705. To read in an exemption in such circumstances would "amount to making *ad hoc* choices from a variety of options, none of which was pointed to with sufficient precision by the interaction between the statute in question and the requirements of the Constitution. This is the task of the legislature not the courts": *Schachter* at p. 707.

[202] In its factum, the Crown has listed a number of problems with the reading in remedy adopted by the trial judge. They include the following:

> (a) what constitutes "medically approved use"?
>
> (b) who may grant medical approval? on what basis? on whose onus? to what standard of proof?
>
> (c) given that this is a constitutional protection (i.e. the highest form of protection allowed by our law), what degree of illness is required to engage it? must it be life-threatening? chronically disabling? disruptive? generally inconvenient? merely bothersome?
>
> (d) what quantities of marijuana may an authorized person possess? enough for one day? a week? a year? should there be a presumption that any amount in excess of immediate need is not covered by the exemption? If so, who decides what the threshold amount should be?
>
> (e) what quantities of marijuana may an authorized person cultivate? how much of the plant should be considered useable for the purpose of that determination? just the flowers? the flowers and the leaves? who decides?
>
> (f) does the exemption extend in any way to roommates, family members or caregivers? if an unauthorized individual cares for an otherwise 'exempt' plant while its authorized

> owner is away, is that individual insulated from prosecution for cultivation? on what basis, if the exemption is personal?

[203] I do not necessarily accept that all of these problems necessarily flow from the remedy chosen by the trial judge.[21] I do accept, however, that the Crown has raised matters of sufficient complexity that reading in is not an appropriate remedy. For these reasons, I agree with the Crown that the prohibition on simple possession of marihuana in s. 4 of the *Controlled Drugs and Substances Act* must be struck down.

[204] I point out, however, that this is not a case like *Rodriguez* where creating an exception might frustrate the purpose of the legislation because adequate guidelines to control abuse are difficult or impossible to develop. Rather, refusing to read in an exemption demonstrates a recognition of and respect for the different roles of the legislature and the courts. There is, in my view, no question that a medical exemption with adequate guidelines is possible. The fact that such exemptions exist in some states in the United States is testament to that. However, there are many options to consider and this is a matter within the legislative sphere. There is also a particular problem in the

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[21] I also do not accept all of the Crown's submissions, based on *Schachter*, for refusing the reading-in remedy. For example, the Crown argues that a medical exemption would undermine the "comprehensive code" governing right of access to controlled substances for medical purposes or would constitute judicial intrusion into the very core of Parliament's legislative authority over criminal law to decide what conduct should be criminalized. This significantly overstates the issue. The *Controlled Drugs and Substances Act* already contains a significant number of exemptions for medical use of drugs. It is obvious that absolute prohibition is not at the core of the power to criminalize conduct. The "comprehensive code" rationale for refusing to read in is based on the theory that reading in would so markedly change the legislation that it could not be safely assumed that Parliament would have enacted the non-offending provisions. Given the various existing exemptions for medical use of other more dangerous drugs, this theory hardly seems credible.

case of marihuana because of a lack of a legal source for the drug. This raises issues that can only be adequately addressed by Parliament.

[205] There is one other factor that is also worth considering. To avoid an undue intrusion into the legislative sphere, any exemption crafted by a court should probably be the minimum necessary to cure the constitutional defect. However, faced with the need to open up the *Controlled Drugs and Substances Act* to address the constitutional defect, Parliament has the resources to address the broader issue of medical use. By way of example only, people without the means to grow marihuana themselves may be dependent upon caregivers to obtain the drug. This is a complex matter that, while not necessarily implicating *Charter* rights (although it may), is not something a court is equipped to deal with. Put another way, Parliament is not bound to legislate to the constitutional minimum. It can adopt the optimal and most progressive legislative scheme that it considers just.

[206] Finally, I believe it is appropriate to sever the marihuana possession prohibition from the other parts of s. 4. That section is central to the control of many dangerous drugs and there was no suggestion by any of the parties that severance in this limited respect was inappropriate.

[207] I also agree with the Crown that the declaration of invalidity should be suspended to provide Parliament with the opportunity to fill the void. Such a declaration is required where striking down a provision "poses a potential danger to the public": *Schachter* at p. 715. I would suspend the declaration of invalidity for 12 months.

[208] I do not accept the submissions of the intervener that the appropriate remedy is a constitutional exemption for persons requiring marihuana for medical purposes. In *Corbiere* at p. 225, the court held that the remedy of a constitutional exemption has only been recognized in a very limited way, "to protect the interests of a party who has succeeded in having a legislative provision declared unconstitutional, where the declaration of invalidity has been suspended".[22] Thus, Parker is entitled to a constitutional exemption from the possession offence under the *Controlled Drugs and Substances Act* during the period of the suspended invalidity for possession of marihuana for his medical needs. I have also made it clear in these reasons that if the cultivation offence under that Act were before this court, I would have held that provision to be invalid. I expect that the authorities would not subject Parker to further prosecution under that section in view of these reasons.

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[22] Also see Lamer C.J.C. dissenting in *Rodriguez* at p. 577. This part of his reasons was adopted by the court in *Corbiere*.

[209] Finally, Parker is entitled to the personal remedies granted to him by the trial judge under s. 24(1) of the *Charter*. Thus, I would uphold the trial judge's order staying the proceedings for cultivation under the former *Narcotic Control Act* and for possession under the *Controlled Drugs and Substances Act*.

DISPOSITION

[210] Accordingly, I would vary the remedy granted by the trial judge and declare the marihuana prohibition in s. 4 of the *Controlled Drugs and Substances Act* to be invalid. I would suspend the declaration of invalidity for a period of twelve months from the release of these reasons. The respondent is exempt from the marihuana prohibition in s. 4 of the *Controlled Drugs and Substances Act* during the period of suspended invalidity for possession of marihuana for his medical needs. I would set aside those parts of Sheppard J.'s judgment reading in a medical exemption into the former *Narcotic Control Act* and the *Controlled Drugs and Substances Act* and ordering the return of the plants seized in the September 1997 search. In all other respects, I would dismiss the Crown appeal.

RELEASED: July 31, 2000

APPENDIX I

California Compassionate Use Act of 1996

11362.5. (a) This section shall be known and may be cited as the Compassionate Use Act of 1996.

(b) (1) The people of the State of California hereby find and declare that the purposes of the Compassionate Use Act of 1996 are as follows:

(A) To ensure that seriously ill Californians have the right to obtain and use marijuana for medical purposes where that medical use is deemed appropriate and has been recommended by a physician who has determined that the person's health would benefit from the use of marijuana in the treatment of cancer, anorexia, AIDS, chronic pain, spasticity, glaucoma, arthritis, migraine, or any other illness for which marijuana provides relief.

(B) To ensure that patients and their primary caregivers who obtain and use marijuana for medical purposes upon the recommendation of a physician are not subject to criminal prosecution or sanction.

(C) To encourage the federal and state governments to implement a plan to provide for the safe and affordable distribution of marijuana to all patients in medical need of marijuana.

(2) Nothing in this section shall be construed to supersede legislation prohibiting persons from engaging in conduct that endangers others, nor to condone the diversion of marijuana for nonmedical purposes.

(c) Notwithstanding any other provision of law, no physician in this state shall be punished, or denied any right or privilege, for having recommended marijuana to a patient for medical purposes.

(d) Section 11357, relating to the possession of marijuana, and Section 11358, relating to the cultivation of marijuana, shall not apply to a patient, or to a patient's primary caregiver, who possesses or cultivates marijuana for the personal medical purposes of the patient upon the written or oral recommendation or approval of a physician.

(e) For the purposes of this section, "primary caregiver" means the individual designated by the person exempted under this section who has consistently assumed responsibility for the housing, health, or safety of that person.

APPENDIX II

STATE OF HAWAII
A Bill for an Act relating to Medical Use of Marihuana

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that modern medical research has discovered a beneficial use for marijuana in treating or alleviating the pain or other symptoms associated with certain debilitating illnesses such as cancer, glaucoma, human immunodeficiency virus, acquired immune deficiency syndrome, multiple sclerosis, epilepsy, and crohn's disease. There is sufficient medical and anecdotal evidence to support the proposition that these diseases and conditions may respond favorably to a medically controlled use of marijuana.

The legislature is aware of the legal problems associated with the legal acquisition of marijuana for medical use. However, the legislature believes that medical scientific evidence on the medicinal benefits of marijuana should be recognized. Although federal law expressly prohibits the use of marijuana, the legislature recognizes that a number of states are taking the initiative in legalizing the use of marijuana for medical purposes. Voter initiatives permitting the medical use of marijuana have passed in California, Arizona, Oregon, Washington, Alaska, Maine, and the District of Columbia.

The legislature intends to join in this initiative for the health and welfare of its citizens. However, the legislature does not intend to legalize marijuana for other than medical purposes. The passage of this Act and the policy underlying it does not in any way diminish the legislature's strong public policy and laws against illegal drug use.

Therefore, the purpose of this Act is to ensure that seriously ill people are not penalized by the State for the use of marijuana for strictly medical purposes when the patient's treating physician provides a professional opinion that the benefits of medical use of marijuana would likely outweigh the health risks for the qualifying patient.

SECTION 2. Chapter 329, Hawaii Revised Statutes is amended by adding a new part to be appropriately designated and to read as follows:

"PART .

MEDICAL USE OF MARIJUANA

§329-A Definitions. As used in this part:

"Adequate supply" means an amount of marijuana that is not more than reasonably necessary to assure, throughout the projected course of treatment, the uninterrupted availability of marijuana for purposes of treating or alleviating the pain or other symptoms associated with a qualifying patient's debilitating medical condition or the treatment of such condition; provided that an "adequate supply" shall be between 1 ounce and 10.5 ounces, but no more than a sixty-day supply.

"Debilitating medical condition" means:

(1) Cancer, glaucoma, positive status for human immunodeficiency virus, acquired immune deficiency syndrome, or the treatment of these conditions;

(2) A chronic or debilitating disease or medical condition or its treatment that produces one or more of the following:

(A) Cachexia or wasting syndrome;

(B) Severe pain;

(C) Severe nausea;

(D) Seizures, including those characteristic of epilepsy; or

(E) Severe and persistent muscle spasms, including those characteristic of multiple sclerosis or crohn's disease; or

(3) Any other medical condition approved by the department of health pursuant to administrative rules in response to a request from a physician or qualifying patient.

"Marijuana" shall have the same meaning as "marijuana" and "marijuana concentrate" as provided in sections 329-1 and 712-1240.

"Medical use" means the acquisition, possession, cultivation, use, distribution, or transportation of marijuana or paraphernalia relating to the administration of marijuana to alleviate the symptoms or effects of a qualifying patient's debilitating medical condition.

"Physician" or "treating physician" means a person who is licensed under chapters 453 and 460.

"Primary caregiver" means a person, other than the qualifying patient and the qualifying patient's physician, who is eighteen years of age or older who has agreed to undertake significant responsibility for managing the well-being of no more than three qualifying patients at any one time with respect to the medical use of marijuana. In the case of a minor or an adult lacking legal capacity, the primary caregiver shall be a parent, guardian, or person having legal custody.

"Qualifying patient" means a person who has been diagnosed by a physician as having a debilitating medical condition.

"Written certification" means the qualifying patient's medical records or a statement signed by a qualifying patient's physician, stating that in the physician's professional opinion, the qualifying patient has a debilitating medical condition and the potential benefits of the medical use of marijuana would likely outweigh the health risks for the qualifying patient.

§329-B Medical use of marijuana; conditions of use.

(a) Notwithstanding any law to the contrary, the medical use of marijuana by a qualifying patient, or the furnishing of marijuana for medical use by the qualifying patient's primary caregiver pursuant to this chapter, shall be permitted only if:

(1) The qualifying patient has been diagnosed by a physician as having a debilitating medical condition;

(2) The qualifying patient's physician has certified in writing that, in the physician's professional opinion, the potential benefits of the medical use of marijuana would likely outweigh the health risks for the particular qualifying patient; and

(3) The amount of marijuana does not exceed an adequate supply.

(b) Subsection (a) shall not apply to a qualifying patient under the age of eighteen years, unless:

(1) The qualifying patient's physician has explained the potential risks and benefits or the medical use of marijuana to the qualifying patient and to a parent, guardian, or person having legal custody; and

(2) A parent, guardian, or person having legal custody consents in writing to:

(A) Allow the qualified patient's medical use of marijuana;

(B) Serve as the qualifying patient's primary caregiver; and

(C) Control the acquisition of the marijuana, the dosage, and the frequency of the medical use of marijuana by the qualifying patient.

(c) The authorization for medical use of marijuana in this section shall not apply to:

(1) Medical use of marijuana that endangers the health or well-being of another person;

(2) Medical use of marijuana:

(A) In a school bus, public bus, or any moving vehicle;

(B) In the workplace of one's employment;

(C) On any school grounds;

(D) At any public park, public beach, public recreation center, recreation or youth center; or

(E) Other place open to the public; and

(3) Use of marijuana by a qualifying patient, parent, or primary caregiver for purposes other than medical use permitted by this chapter.

§329-C Registration requirements.

(a) The qualifying patient shall register with, and provide a copy of the written certification to, the department of health within ten working days of receipt of the written certification by the treating physician. The department of health shall issue to the qualifying patient a registration certificate, and may charge a reasonable fee, not to exceed $25.

(b) Upon an inquiry by a law enforcement agency, the department of health shall verify whether the particular qualifying patient has registered with the department and may provide reasonable access to the registry information for official law enforcement purposes.

§329-D Insurance not applicable. This part shall not be construed to require insurance coverage for the medical use of marijuana.

§329-E Protections afforded to a qualifying patient or primary caregiver.

(a) A qualifying patient or the primary caregiver may assert medical use of marijuana as an affirmative defense to any prosecution involving marijuana under this chapter or chapter 712; provided that the qualifying patient or the primary caregiver strictly complied with the requirements of this part.

(b) No person shall be subject to arrest or prosecution for being in the presence or vicinity of the medical use of marijuana as permitted under this part.

§329-F Protections afforded to a treating physician. No physician shall be subject to arrest or prosecution, penalized in any manner, or denied any right or privilege for providing written certification for the medical use of marijuana for a qualifying patient; provided that:

(1) The physician has diagnosed the patient as having a debilitating medical condition, as defined in section 329-A;

(2) The physician has explained the potential risks and benefits of the medical use of marijuana, as required under section 329-B; and

(3) The certification is based upon the physician's professional opinion after having completed a full assessment of the patient's medical history and current medical condition made in the course of a bona fide physician-patient relationship.

§329-G Protection of marijuana and other seized property. Marijuana and any property used in connection with the medical use of marijuana shall not be subject to search and seizure. Marijuana, paraphernalia, or other property seized from a qualifying patient or primary caregiver in connection with claimed medical use of marijuana under this part shall be returned immediately upon the determination by a court that the qualifying patient or

primary caregiver is entitled to the protections of this part, as evidenced by a decision not to prosecute, dismissal of charges, or an acquittal; provided that law enforcement agencies seizing live plants as evidence shall not be responsible for the care and maintenance of such plants.

329-H Fraudulent misrepresentation; penalty. Notwithstanding any other law to the contrary, fraudulent misrepresentation to a law enforcement official of any fact or circumstance relating to the medical use of marijuana in order to avoid arrest or prosecution under this part or chapter 712 shall be a petty misdemeanor and subject to a fine of $500.

SECTION 3. Section 453-8, Hawaii Revised Statutes, is amended by amending subsection (a) to read as follows:

"(a) In addition to any other actions authorized by law, any license to practice medicine and surgery may be revoked, limited, or suspended by the board at any time in a proceeding before the board, or may be denied, for any cause authorized by law, including but not limited to the following:

(1) Procuring, or aiding or abetting in procuring, a criminal abortion;

(2) Employing any person to solicit patients for one's self;

(3) Engaging in false, fraudulent, or deceptive advertising, including, but not limited to:

(A) Making excessive claims of expertise in one or more medical specialty fields;

(B) Assuring a permanent cure for an incurable disease; or

(C) Making any untruthful and improbable statement in advertising one's medical or surgical practice or business;

(4) Being habituated to the excessive use of drugs or alcohol; or being addicted to, dependent on, or a habitual user of a narcotic, barbiturate, amphetamine, hallucinogen, or other drug having similar effects;

(5) Practicing medicine while the ability to practice is impaired by alcohol, drugs, physical disability, or mental instability;

(6) Procuring a license through fraud, misrepresentation, or deceit or knowingly permitting an unlicensed person to perform activities requiring a license;

(7) Professional misconduct, hazardous negligence causing bodily injury to another, or manifest incapacity in the practice of medicine or surgery;

(8) Incompetence or multiple instances of negligence, including, but not limited to, the consistent use of medical service which is inappropriate or unnecessary;

(9) Conduct or practice contrary to recognized standards of ethics of the medical profession as adopted by the Hawaii Medical Association or the American Medical Association;

(10) Violation of the conditions or limitations upon which a limited or temporary license is issued;

(11) Revocation, suspension, or other disciplinary action by another state or federal agency of a license, certificate, or medical privilege for reasons as provided in this section;

(12) Conviction, whether by nolo contendere or otherwise, of a penal offense substantially related to the qualifications, functions, or duties of a physician, notwithstanding any statutory provision to the contrary;

(13) Violation of chapter 329, the uniform controlled substances act, or any rule adopted thereunder[;] except as provided in section 329-B;

(14) Failure to report to the board, in writing, any disciplinary decision issued against the licensee or the applicant in another jurisdiction within thirty days after the disciplinary decision is issued; or

(15) Submitting to or filing with the board any notice, statement, or other document required under this chapter, which is false or untrue or contains any material misstatement or omission of fact."

SECTION 4. Section 712-1240.1, Hawaii Revised Statutes, is amended to read as follows:

"§712-1240.1 Defense to promoting.

(1) It is a defense to prosecution for any offense defined in this part that the person who possessed or distributed the dangerous, harmful, or detrimental drug did so under authority of law as a practitioner, as an ultimate user of the drug pursuant to a lawful prescription, or as a person otherwise authorized by law.

(2) It is an affirmative defense to prosecution for any marijuana-related offense defined in this part that the person who possessed or distributed the marijuana was authorized to possess or distribute the marijuana for medical purposes pursuant to part of chapter 329."

SECTION 5. This Act shall not affect rights and duties that matured, penalties that were incurred, and proceedings that were begun, before its effective date.

SECTION 6. If any provision of this Act, or the application thereof to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of the Act which can be given effect without the invalid provision or application, and to this end the provisions of this Act are severable.

SECTION 7. In codifying the new sections added section 2, and referred to in sections 3 and 4 of this Act, the revisor of statutes shall substitute the appropriate section numbers for the letters used in designating the new sections of this Act.

SECTION 8. Statutory material to be repealed is bracketed. New statutory material is underscored.

SECTION 9. This Act shall take effect upon its approval.