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State Medical Marijuana Laws: Understanding the Laws and their Limitations

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Abstract

Since the 1970s, numerous states have had medical marijuana laws. However, public policy makers, activists and the media have given significant attention to the debate regarding allowances for medical marijuana use since the 1996 California and Arizona ballot initiatives. Much of this on-going debate stems from confusion about the various ways states approach the issue. In this paper, we present original legal research on current state medical marijuana laws, identifying four different ways states statutorily enable the medical use of marijuana. Only one of these approaches (therapeutic research programs) is consistent with federal law. We discuss the implications of the other approaches in terms of tensions with federal statutes, and how the choice of statutory approach has important implications regarding patient impact. We utilize a three-dimensional policy framework for this effort, including provision type, illness/symptoms covered, and how patients can get marijuana (an important aspect of the medical provision of marijuana that is missing from the vast majority of current state laws). Additionally, we discuss the implications of various supply approaches on the enforcement of other state marijuana laws.

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Introduction

Although the federal government formally opposes the use of marijuana for medicinal purposes, twenty-six states and the District of Columbia had laws enabling the use of marijuana for medicinal purposes under specific circumstances as of December 31, 2000.[1] There is much confusion regarding the prevalence of medical marijuana laws, their history, and what the laws actually allow. This confusion is exacerbated by the level of variance in types of medical marijuana legislation supported by different medical, professional and policy advocate groups. For example, some medical groups promote state laws that allow physicians to discuss the medicinal value of marijuana with their patients and recommend it as a therapy (e.g., American Medical Association, American Society of Addictive Medicine). Other medical organizations support broader legislation that provides prescriptive access to medicinal marijuana (e.g., AIDS Action Council, American Public Health Association, and the American Academy of Family Physicians). Finally, there are policy advocate groups such as the Marijuana Policy Project and the National Organization for the Reform of Marijuana Laws (NORML) that only consider medical marijuana laws to be effective and real if they remove criminal penalties for patients who use, possess and grow marijuana with a doctor's approval. State legislation has evolved supporting each of these positions over the past twenty years, but has resulted in a patchwork of state approaches with varying degrees of breadth and recognition. Voters, policy makers and advocates of various policy positions are in need of a comprehensive review of the various types of provisions currently in use, as well as insights into the policy implications of those provisions. This paper attempts to provide such a review.

We first summarize the historical context of the medicinal marijuana debate and then present findings from original legal research conducted by The MayaTech Corporation on state medical marijuana laws in effect as of December 31, 2000. We identify three main policy dimensions that influence the ultimate scope of the state laws that have been passed to date: (1) type of provision, (2) illnesses and symptoms covered, and (3) supply of marijuana:

1. *Type of provision* refers to the major legislative provisions that enable medical marijuana use. We group state laws into four broad categories: therapeutic research programs, rescheduling laws, physician prescription laws, and medical necessity defense laws. These four categories stipulate who is protected from state prosecution and therefore have important implications regarding how many people are ultimately affected by a law's implementation.

2. *Illnesses and symptoms covered* refer to the specific medical conditions identified in state statutes that address treatment using marijuana. We identify the most common symptoms and illnesses specified and examine the variation in these conditions across states.

3. *Supply of marijuana* refers to the identified distribution mechanism through which patients who are allowed to use marijuana can obtain it. Until recently, many state statutes were silent as to where patients could obtain physician prescribed marijuana. We present information on how current state statutes are trying to deal with the issue of access in light of the federal prohibition on sale and distribution of marijuana, and we discuss the implications of these statutes on enforcement of other non-medical marijuana laws.

Finally, for each of the three policy dimensions, we discuss the tension between federal and state laws and how state statutes respond to federal challenges.

Historical Background

The first known introduction of marijuana to the United States was in 1611 when Jamestown settlers brought the plant to Virginia for use in hemp production (Belenko 2000). Marijuana cultivation remained a significant industry in the United States until after the end of the Civil War in 1865. During this time period, marijuana was widely dispensed by physicians and pharmacists for a variety of illnesses, including neuralgia, gout, rheumatism, tetanus, convulsions, and uterine hemorrhage. Cannabis was even entered in standard pharmaceutical reference works such as the *United States Pharmacopeia* in 1850 (Belenko 2000).

The beginning of the 20th century in the United States ushered in an era of societal reform focused on reducing the recreational use and abuse of many substances, including alcohol and opium (Belenko 2000). The 1906 Pure Food and Drug Act, the 1917 Harrison Act and the passage of the Eighteenth Amendment and Volstead Act in 1920 were all indications of such efforts. From 1910 to 1920, it became apparent that the recreational use of marijuana was also increasing. By the late 1920s, sensational reports of violence resulting from recreational marijuana use were common in the media. Motivated by fear, numerous local jurisdictions began passing laws prohibiting the use of marijuana. By 1927, fifteen states had enacted laws against any sale or possession of marijuana, and by 1931, another fourteen states passed similar bans on non-medical sale and use (Belenko 2000).

By the time the federal government passed the Marihuana Tax Act in 1937, every state had already enacted laws criminalizing the possession and sale of marijuana (Goode 1997). The federal law, which was structured in a fashion similar to the 1914 Harrison Act, maintained the right to use marijuana for medicinal purposes but required physicians and pharmacists who prescribed or dispensed marijuana to register with federal authorities and pay an annual tax or

license fee. Even though the Act maintained a physician's right to prescribe marijuana, the law was opposed by the American Medical Association on the grounds that (1) it would limit a physician's ability to truly control the non-medical use of marijuana, and (2) it would needlessly overburden physicians who wanted to prescribe marijuana, therefore making them less willing to do so. After passage of the Act, prescriptions of marijuana declined because doctors generally decided it was easier not to prescribe marijuana than to deal with the extra work imposed by the new law. The dramatic reduction in doctors' willingness to prescribe marijuana for medicinal purposes is perhaps best exemplified by the removal of cannabis from standard pharmaceutical reference texts (including the *United States Pharmacopeia*) by 1942 (Belenko 2000).

The strongly prohibitionist environment that sparked the 1937 Marihuana Tax Act continued to affect the passage of federal laws on drug trafficking and other offenses (including marijuana) throughout the 1950s. However, physicians still had the ability to legally prescribe marijuana until the 1970 Comprehensive Drug Abuse Prevention and Control Act (Pub. L. No. 91-513, 84 Stat. 1236, now known as the Federal Controlled Substance Act of 1970, 21 U.S.C. 811 et seq.). The Controlled Substance Act replaced both the Harrison Act and the Marihuana Tax Act and placed all controlled substances into five categories, or schedules, based on their relative potential for abuse as well as recognized medical usefulness. Because marijuana was no longer being prescribed for medicinal purposes, it was categorized as a Schedule I drug implying that it had no currently accepted medical use in the United States and making it illegal for doctors to medically prescribe it.

The resurgence of recreational marijuana use during the 1960s and 1970s, this time including millions of middle- and upper-class Americans whose use was associated with apparently little or no harm, caused several state and federal government officials to question the

wisdom of harsh laws against marijuana sale, possession, and medicinal use. In 1972, a petition was submitted to the Bureau of Narcotics and Dangerous Drugs (now known as the Drug Enforcement Agency, or DEA) to reschedule marijuana to Schedule II, enabling legal physician prescription. A series of court battles ensued pertaining to this petition for the next 22 years. A final decision was not rendered until February 18, 1994, by the U.S. Court of Appeals (D.C. Circuit) in which the DEA's decision to keep marijuana in Schedule I was upheld (Marijuana Policy Project 2001). While the petition eventually failed, it created an environment of uncertainty regarding the potential federal scheduling of marijuana that persisted throughout the 1970s and early 1980s.

In the same year that the rescheduling petition was submitted to the Bureau of Narcotics and Dangerous Drugs, the National Commission on Marihuana and Drug Abuse published their final report on the harmfulness of marijuana (National Commission on Marihuana and Drug Abuse 1972). In this report, the Commission stated that their review of the medical and scientific research suggested that previous beliefs regarding the harmfulness of marijuana were exaggerated, and that the incidence of dependence and psychosis among users was rare. They therefore advocated for both scientific exploration of marijuana for medicinal purposes and a reduction in criminal penalties for marijuana possession. Three years later, in 1975, a patient suffering from glaucoma (Robert Randall) was arrested for cultivating his own marijuana but won his case using a medical necessity defense. Due in large part to the conclusions of the National Commission and the unpublished Randall case, the federal government began an Individual Patient Investigational New Drug (IND) program exploring the medical use of marijuana in 1975. This federal program enabled participating physicians to prescribe marijuana to enrolled patients on a trial basis so long as strict scientific protocols were followed. Patients

participating in the program received their marijuana directly from the federal government so as to avoid the practice of personal home cultivation. While this created a legitimate opportunity for some patients to obtain marijuana for medicinal purposes under the auspices of a clinical trial, the process of enrollment was an arduous one and ultimately very few patients were accepted.[2]

States Take Matters Into Their Own Hands

Anticipating a change in the federal position on medical marijuana because of the government's willingness to investigate its medical usefulness and the petition to reschedule marijuana, several states began passing their own legislation in the late 1970s. By the end of 1982, thirty-one states and the District of Columbia had passed some sort of legislation that addressed the use of medical marijuana (see Table 1).

[insert Table 1 about here]

States took several different statutory approaches because of the uncertainty surrounding federal rescheduling. The vast majority of early state laws enabled the development of marijuana therapeutic research programs (TRPs). TRPs were federally approved programs structured similarly to the federal IND program. They enabled the establishment of clinical trials where participating physicians could distribute marijuana to qualified patients who were part of the research program. The advantage of setting up a state TRP was that a state's patient qualification review board (residing within the state Department of Health) could determine eligibility instead of a federal review board (generally viewed as more restrictive and less inclusive; see Schmitz and Thomas 2001). The marijuana used in these state programs was

supplied by the same federal agency (National Institute on Drug Abuse, or NIDA) that provided the marijuana to participants in the federal IND program. Between 1978 and 1981, twenty-two states enacted legislation enabling the development of TRPs (Markoff 1997). However, because the protocols for establishing a TRP were fairly strict and required federal oversight, only eight state TRPs became operable (Schmitz and Thomas 2001).

Given the complexity involved and the federal oversight required to establish a TRP, some states opted to pass legislation that allowed for the medicinal use of marijuana in other ways. Anticipating a change in the federal scheduling of marijuana, six states rescheduled marijuana out of Schedule I in their own state schedules. This action, at least in theory, enabled physicians to prescribe marijuana to qualified patients. A major limitation of this approach, however, was the fact that the federal government was, and still is, responsible for administering licenses for prescription of medicines. Thus, without a formal change in the federal scheduling of marijuana, physicians in a state that rescheduled marijuana were not protected from federal sanctions if they did indeed prescribe the substance. Given the limitations of these first two approaches, legislatures in nine other states chose to enact statutes that protected physicians from prosecution for prescribing marijuana (physician prescription laws) for medicinal purposes.

By the mid-1980s, much of the action at the state level to allow medical use of marijuana was halted and many laws were repealed or allowed to expire. The lull in new initiatives and expiration of earlier legislation can be attributed to two primary factors. First, there was increasing uncertainty that anything would come of the 1972 petition to reschedule marijuana federally. Numerous court battles were prolonging any outcome, and the Reagan Administration showed no signs that they were tolerant of such a position. Second, in 1986, the Food and Drug Administration approved Marinol, a brand-named drug containing the same active ingredient,

delta-9-tetrahydrocannbinol (THC), as marijuana (Dogwill 1998). Some advocates felt the introduction of Marinol eliminated the need to push for a change in the medical status of the marijuana plant.

In the late 1980s and early 1990s, it was discovered that smokable marijuana had a significant positive effect on patients suffering from nausea related to ailments affecting two growing populations: AIDS and cancer patients. Marinol was unable to help the ailments associated with AIDS wasting and chemotherapy because patients suffering from the severe nausea were unable to keep oral medications down. With the growing evidence of a positive medicinal effect, a new wave of medical marijuana legislation began in 1996.

Current Medical Marijuana Laws[3]

To date, research examining medical marijuana laws (Health Policy Tracking Service 1997; Schmitz and Thomas 2001) has tended to review the types of provisions solely from the context of what types of programs/provisions are in existence. Yet, there are nuances about each type of provision that make it possible to discern the coverage these provisions provide in terms of the number of people protected from state prosecution for the prescription, dispension, possession and/or use of marijuana for medicinal purposes.

As was explained previously, today's state medical marijuana laws vary in at least three important dimensions that have a tremendous impact on the ultimate scope of such law: (1) type of provision, (2) illnesses and symptoms covered, and (3) source of supply. The impact of a law is determined by how broadly it defines components in each of these three key areas. Any one dimension can significantly limit the applicability of the law, regardless of the breadth of the other two dimensions. For example, a state law may enable a physician to prescribe and provide a medical necessity defense for patients and/or their caregivers, but the law may only apply for

two or three narrowly defined illnesses. It is therefore important to understand how each of the dimensions influences the ultimate scope of current state laws.

Dimension One: Type of Provision

This dimension refers to the four major legislative provisions introduced previously that address medical marijuana: (1) therapeutic research programs (TRPs), (2) rescheduling provisions, (3) physician prescription provisions, and (4) medical necessity defense provisions. We have defined these categories based on a review of the state statutes as well as a review of secondary sources such as those produced by the Health Policy Tracking Service (1997) and the Marijuana Policy Project (Schmitz and Thomas 2001).

Therapeutic research programs (TRPs). TRPs protect only those physicians, pharmacies and patients who are formally involved in the program. These programs generally are administered by the state Department of Health or a Board of Pharmacy and require that TRP protocols be approved by the Food and Drug Administration as well as adhere to specific federal regulations. In addition, participating patients, physicians, and pharmacies must be approved by a review board prior to participating in the TRP and, in most instances, the patients must not be responding to conventional treatments for specific ailments.

In our review of the state statutes, we categorized any state law that specifically authorizes and/or requires the establishment of a research program or protocol to study the potential medicinal value of marijuana for specific categories of patients and/or diseases as a TRP. As can be seen in Table 2, fourteen states had authorized or required the establishment of a TRP as of December 31, 2000. According to information from the Marijuana Policy Project, however, only eight of the fourteen states that passed these statutes have received the necessary federal approval to operate their TRP, and only six of these states (CA, GA, NM, NY, VT and

WA) have TRPs that are currently operational (Schmitz and Thomas 2001). These type of provisions, therefore, can be interpreted as providing very narrow protection in that very few states that enable TRPs actually get them up and running. Those that do, protect only a small, select group of physicians, pharmacies, and patients from prosecution. Nonetheless, this is the only type of provision in which individuals are protected from both state *and* federal prosecution (because the TRPs are federally sanctioned).

[insert Table 2 about here]

Rescheduling provisions. Rescheduling provisions generally reclassify marijuana out of a Schedule I controlled substance within a state's Controlled Substance Act (CSA). Such laws theoretically enable any physician in the state to prescribe marijuana for medicinal purposes provided that marijuana's new CSA classification does not preclude such use. In addition, these laws indirectly protect patients who use marijuana provided they have a written prescription from their physician.

We classified a state as having a rescheduling provision if (1) marijuana itself is formally reclassified out of a state's CSA Schedule I to a lower schedule that recognizes its medicinal value, or (2) within the context of a medical marijuana law, marijuana is reclassified when used for medicinal purposes.[4] As Table 2 reveals, only three states currently reclassify marijuana, a fifty percent decrease from the early 1980s when federal rescheduling of marijuana was being debated (see Table 1). Included within this categorization are two locations (Alaska and the District of Columbia) where marijuana is scheduled below a Schedule I substance without mention of its potential harmful effects or lack of proven medicinal value.

These statutes appear to enable broad access to medicinal marijuana in the three states that have these laws; however, there are two reasons why their real impact is negligible. First, state CSAs are subordinate to the federal Controlled Substance Act, which still lists marijuana as a Schedule I drug. An attempt by NORML to challenge the federal scheduling of marijuana in court did not succeed; a district court found that sufficient evidence existed regarding the potential dangers of marijuana to justify its placement in Schedule I (*NORML v. Bell*, 488 F. Supp. 123 (D.D.C. 1980)). Second, and perhaps more important, the federal government is responsible for administering (and revoking) physicians' licenses for prescription of medicine, not a state. Thus, any physician who actually writes a prescription for marijuana outside of a federally-sanctioned TRP runs the risk of losing his or her license to write prescriptions. Physicians, therefore, have a strong incentive *not* to write marijuana prescriptions despite the rescheduling provisions. Without a written prescription, patients are left completely unprotected from state prosecution under rescheduling provisions.

Physician prescription laws. Physician prescription laws are similar to rescheduling provisions in that some protect physicians from state prosecution for writing a prescription for marijuana, but they can have a much broader effect because many also enable physicians to discuss the medicinal benefit of marijuana with their patients. In our review of the state laws, we classified a state as having a physician prescription law if it (1) enables physicians to prescribe marijuana for medicinal purposes, (2) provides physicians with an affirmative defense from state prosecution for prescribing marijuana, or (3) provides physicians with an affirmative defense from state prosecution for discussing the medicinal value of marijuana with their patients. Only states that make these allowances *outside* of a TRP are considered to have a

physician prescription law. Using this definition, we identified thirteen states that had enacted these types of provisions as of the end of 2000 (see Table 2).

Although physician prescription laws only provide protection from prosecution to physicians—not their patients—they are viewed as having a larger potential impact than rescheduling provisions because they explicitly allow physicians to discuss openly with their patients the potential merits of medicinal marijuana. Physicians still run a substantial risk writing a prescription for marijuana, but under these more general laws, they are protected if they choose to simply discuss the medicinal value of marijuana with their patients. This ability to discuss marijuana as a potential therapy was challenged by the federal government. However, in *Conant v. McCaffrey* (N.D. Cal., Sept. 7, 2000), the United States District Court for the Northern District of California permanently enjoined the federal government from revoking a physician's registration for recommending marijuana, or for initiating an investigation solely on that ground. The court recognized the legitimacy of the government's interest in controlling drugs, but found that this interest did not outweigh the fundamental right to free speech specifically as practiced by physicians and their patients in the arena of individual health and welfare.

Medical necessity laws. Medical necessity laws are in some ways a complement to physician prescription laws in that these provisions provide a defense from state prosecution to patients, and in some cases, their caregivers. We identify a state as having a medical necessity law if it either (1) provides patients and/or their caregivers with a defense from state prosecution for using and/or possessing marijuana for medicinal purposes, or (2) authorizes patients and/or their caregivers to obtain marijuana upon their physician's recommendation, authorization, certification, etc. Nine states had enacted medical necessity provisions as of December 31, 2000 (see Table 2). Interestingly, all of the states that had enacted medical necessity statutes also had

physician prescription laws (although not all states with physician prescription laws had medical necessity laws).

While the medical necessity defense has been established precedent for decades, it is based on case-by-case analysis and does not lend itself to broad application. A seminal case that highlights the necessary factors for the application of this defense to criminal prosecution of medical marijuana use is *Jenks v. State of Florida* (582 So. 2d. 676 (Fla. 1st Dist. Ct. App. 1991)). In this case, the Florida First District Court of Appeals held that medical necessity hinges upon three elements: (1) the circumstances that precipitated the unlawful act must not have been intentionally contrived, (2) there must not be any legal alternative to reach the same ends, and (3) the illegal act must be weighed in direct opposition to the circumstances that precipitated it. In the case of medical marijuana, the patient must be suffering from a medically recognized disease or illness, which is causing a symptom or symptoms for which there is no effective treatment other than marijuana.

So far, federal courts have not accepted the medical necessity exception. However, the cases that have dealt with this defense have been highly specific and have not invalidated the theory *per se.* Disputants in federal cases have tried to use the medical necessity defense when apprehended with large amounts of marijuana (*United States v. Belknap*, 4th Cir. Feb. 10, 1993), when there have been alternative viable treatments available (*United States v. Burton*, 894 F.2d 188 (6th Cir. 1990)), or as a form of protection for third party distributors (*United States v. Oakland Cannabis Buyer's Cooperative*, 532 U.S. ___(2001)). In these cases, the elements of medical necessity were not met, and the courts did not accept it as a defense. However, a recent United States Supreme Court decision (*United States v. Oakland Cannabis Buyer's Cooperative*, 532 U.S. ___(2001)) determined that the CSA's language is neither ambiguous, nor sufficiently

broad as to allow for a finding of a medical necessity exception to it in the case of third party marijuana distribution (No. 00-151, slip opinion at 6). Despite the strong language used in the majority decision, Justice Stevens wrote a concurring opinion stating that the use of a medical necessity defense in other circumstances where the defendant is a patient and/or caregiver was still open for consideration. The long-range effects of this case cannot accurately be predicted at this time. The case presented a narrow set of facts upon which the court based its decision, and whether or not the decision can be extrapolated past these narrow circumstances is unclear. As often is the case when courts are called upon to interpret statutory law, they show clear reticence toward putting words or concepts into the legislature's mouth, and the courts effectively put the onus back on the legislature to amend or enact laws that deal with the issue(s) at hand.

Dimension Two: Covered Illnesses and Symptoms

Advocates for the use of marijuana for medicinal purposes often cite its ability to provide relief from specific disease symptoms. In fact, in its 1999 report, *Marijuana and Medicine*, the Institute of Medicine (IOM) stated that "marijuana clearly seems to relieve some symptoms for some people—even if only as a placebo effect" (24). Yet, in its recommendations, the IOM strongly urged testing of the efficacy of medical marijuana within the context of controlled clinical trials because of the limited scientific evidence regarding marijuana's medical benefits as well as its potential harms. The IOM further noted that existing data do indicate a potential therapeutic value for cannabinoid drugs; however, use of synthetic forms of marijuana are preferable to use of the marijuana plant itself because usage of the former compound "permits a more precise evaluation of their effects, whether in combination or alone" (4). Interestingly, state laws tend to address marijuana generally or the marijuana plant specifically and do not explicate the plant from other synthetic substances.

The IOM report further addressed the "illness" issue by clarifying that "for the most part, the logical categories for the medical use of marijuana are not based on particular diseases but on symptoms...[that] can be caused by various diseases or even by treatments for diseases" (137-138). The five most prominent symptoms addressed by the IOM report included: pain, nausea and vomiting, wasting syndrome and appetite stimulation, neurological symptoms (including muscle spasticity), and glaucoma. Based on a review of available clinical evidence, the IOM concluded that cannabinoid drugs (1) potentially may offer "broad-spectrum" relief from severe pain, nausea, and appetite loss associated with AIDS or for chemotherapy patients; (2) offer moderate promise for alleviating symptoms associated with muscle spasticity, and (3) are "least promising" for movement disorders, epilepsy, and glaucoma (177).

When reviewing state statutes that were in effect as of December 31, 2000, the following symptoms and illnesses were the most frequently addressed: cancer, chronic disease and/or pain, glaucoma, and HIV/AIDS. Table 3 documents the number of states that make allowances for each of these specific illnesses/symptoms as well as other specific symptoms/illnesses (captured in the "other" category). Interestingly, four of the twenty-seven states with medical marijuana laws (DC, IA, NH and WI) do not explicitly specify any illness or symptom for which their statutes apply. Among those statutes that do specify an illness/symptom, cancer and glaucoma are the most frequently cited with twenty-one and nineteen states, respectively, having addressed them in their medicinal marijuana statutes. At the same time, only seven and eight states, respectively, address illnesses and symptoms related to HIV/AIDS and pain. These findings are particularly noteworthy given the IOM's conclusions that marijuana may offer the most potential relief for symptoms associated with HIV/AIDS, pain, and cancer but offer the least promise for glaucoma-related symptoms. Only three of the state laws (CO, HI and ME) containing illness-

related provisions were enacted in 1999 or later (i.e., the time of the IOM report publication). Thus, much of the scientific and medical evidence that contributed to the IOM's findings and conclusions may not yet have had time to be factored into legislative decisions in this area.

[insert Table 3 about here]

The variation in illnesses and symptoms covered in state laws provides some insights as to how liberal states are in their willingness to explore marijuana's therapeutic value. Seven states (AK, CA, CO, HI, ME, OR and WA) are very liberal in that their laws apply for all of the illnesses/symptom categories specified. Minnesota, however, is much more limiting in its allowances in that it only specifies one specific condition.[5] Most states appear to fall somewhere in the middle.

Even if future state statutes are more careful to heed the recommendations of the IOM report, these statutes are still in conflict with federal law by virtue of the fact that the federal Controlled Substances Act classifies marijuana as a Schedule I substance. With the exception of illnesses identified through federally-approved TRP programs, state laws enabling use for particular illnesses violate federal law because they enable use of marijuana (1) outside of clinical trials, and (2) for a broader class of illnesses than deemed scientifically necessary, particularly given the commercial availability of Marinol.

Dimension Three: Source of Supply

The supply of marijuana is a dimension of state laws that has only recently been explicitly addressed. Most early state laws either ignored the issue of supply entirely or specified NIDA as the primary agency from which patients could receive marijuana. However, NIDA has

always held the position that it will only distribute marijuana to patients participating in federally-qualified TRPs, so true access to marijuana through NIDA has always been severely limited.

Based on our review of the state statutes, we have collapsed the supply provisions of current laws into the following main categories: (1) NIDA/federal supply, (2) state supply including law enforcement seizures, (3) pharmacies that are authorized to dispense marijuana for medicinal purposes (excluding those operating only as part of a TRP), (4) home cultivation, and (5) any means appropriate (when specifically specified as such in the statute). State statutes that remain silent regarding how patients could obtain marijuana were grouped into a final sixth category.

Table 4 reveals that NIDA is still the most frequently identified source of marijuana among laws in existence as of December 2000 (eight out of twenty-seven statutes), although most of these are done under the auspices of a TRP. Out of the six TRPs that are actually operational, only two identify NIDA as a source of marijuana for patients. All the other states with operational TRPs specify some alternative source of supply, typically the state. Even the two states with operational TRPs that do specify NIDA also specify a secondary source of supply. The prevalence of NIDA as the primary source of marijuana for patients is perhaps an artifact of the age of some of these laws. Laws passed since 1995 are far more likely to specify a non-federal source for marijuana than laws passed prior to that year.

[insert Table 4 about here]

Four state statutes (CA, NY, VT and WA) specify the state as being responsible for supplying marijuana to patients, which generally involves the allocation of marijuana seized through local and state police enforcement activities. All of these statutes specifying the state as the source of supply are laws enabling TRPs. The state is therefore only providing marijuana to a limited number of patients that qualify for participation in the research program. Washington is the only state that specifies the state as a source of marijuana outside of a TRP (i.e., as part of a physician prescription provision).

Six state statutes authorize pharmacies to dispense marijuana. Two of these laws are in states with operational TRPs. The other four states have physician prescription laws. Although it is logically consistent for states that enable physicians to prescribe marijuana to also authorize a way for physicians to dispense it, these statutes are in effect meaningless because pharmacies have no way of obtaining marijuana from a legitimate distributor unless they are part of a federally-sanctioned TRP.

Because of the complexities of trying to establish legitimate supply chains similar to those employed with other medicines, the vast majority of laws passed since 1995 allow home cultivation of marijuana by patients and/or their caregivers. This is perhaps the most liberal approach for states to take in their efforts to provide patient access to marijuana. By enabling patients to grow marijuana in their own homes, states can get around federal laws prohibiting the manufacturing, distribution and sale of marijuana. These laws still violate federal law with respect to cultivation. However, all of the states that enable home cultivation (with the exception of California and Washington) set a maximum allowable number of plants that can be cultivated at any one time (typically three mature plants).[6] Although the Washington statute does not specify a specific number of plants that can be cultivated, it does state that a person cannot

possess more than a 60-day supply of marijuana at any one time. The California statute does not specify any quantity limits. By imposing quantity limits, states limit the risk patients face from federal prosecution both because the penalties associated with cultivating small amounts are relatively small, and the likelihood of being arrested is relatively low.

These quantity restrictions serve the additional purpose of discouraging abuses of the law and leakages from the medical market to the black market. However, in most states, they are superficial because no agency has the authority to monitor compliance with these quantity limits or verify patients' claims regarding their growing rights. These statutes therefore create a problem for law enforcement agencies that are responsible for enforcing both state and federal laws prohibiting the recreational use or cultivation of marijuana. Only three of the states allowing home cultivation require patients to register with state authorities (AK, HI, and OR), which facilitates the identification and monitoring of patients who are eligible to cultivate marijuana for medicinal purposes. Law enforcement agencies in states without a formal registration system have to decide on a case-by-case basis as to whether persons caught possessing and/or cultivating marijuana have a legitimate defense and are in compliance with state law.

Although the existence of a state registry has the advantage of assisting state law enforcement with the identification of legitimate users, it also has the potential disadvantage of identifying individuals who are in direct violation of federal law. It is possible, therefore, that federal prosecutors could try to use this information to prosecute patients under federal law. No such effort has yet been undertaken, but it is not at all clear whether patients' rights to privacy would be protected if such an effort were ever initiated.

Given the problems with the supply mechanisms discussed so far, it is perhaps not too surprising that nine of the remaining twenty-seven medical marijuana statutes do not explicitly identify a source of marijuana for patients. Four of these remaining statutes simply state that patients should obtain marijuana "by any means appropriate" while the remaining five statutes are completely silent on the issue. Such ambiguity leaves the issue of supply open to patients, law enforcement and state courts to interpret and resolve.

Laws that do not specify a source for medical marijuana create a problem for patients: they implicitly encourage patients to obtain marijuana through illegal channels. Patients' options include buying marijuana in the black market or growing it in their own home. Given that the state law does not certify or protect patients from using any of these sources, patients remain susceptible to both state and federal law enforcement and the risk of punishment.

Laws that are silent about medical marijuana sources also create a problem for law enforcement because officers are forced to use limited resources to pursue both legitimate and illegitimate users until such a point that the legitimate users can be correctly identified. In addition, these laws create a legitimacy for the black market supply of marijuana (a market police spend a tremendous amount of resources trying to discourage). Although any resulting influx to the black market of new buyers/patients may not be large enough to induce a supply response, the legitimacy created by the need of these patients is likely to reduce the risk associated with providing marijuana to markets located in states with enabling legislation, and can therefore influence equilibrium price.[7] This is perhaps best exemplified by the formulation of cannabis buyers' clubs in California and their ability to operate in open markets with the cooperation of local law enforcement until the recent federal crack-down on these suppliers. It is clear from the U.S. Supreme Court decision that not-for-profit third party distributors of medical

marijuana are not protected from federal prosecution under current law (*United States v. Oakland Cannabis Buyer's Cooperative*, 532 U.S. ___(2001)). This is the only federal case to date, however, that has challenged state approaches to supplying marijuana to patients.

Discussion and Conclusions

As we have illustrated in the above discussion, there is considerable variation in state approaches to medical marijuana issues, due in large part to the complexity involved in state efforts to get around the federal positions regarding marijuana's medicinal value and prohibitions on the distribution, manufacturing and sale of the drug. By looking across the three dimensions of medical marijuana policy (type of provision, illnesses/symptoms, and supply), one can identify groups of states that are taking a very cautious approach in their willingness to explore marijuana's medicinal value, and groups of states that are taking a much broader—and potentially risky—approach. It is perhaps not surprising that the eight states that marijuana reformers recognize as having effective marijuana laws (Schmitz and Thomas 2001) are those states that are taking the broadest approach: Alaska, Arizona, California, Colorado, Hawaii, Maine, Oregon and Washington. With the exception of Arizona, all of these states have physician prescription and medical necessity provisions, which provide the greatest potential coverage to patients and physicians, specify the most illnesses/symptoms, and allow for home cultivation.

Other states appear to be liberal along some of the dimensions specified but, when examining all three policy dimensions, such states are actually taking a more conservative and cautious approach. For example, Connecticut and Virginia have physician prescription and medical necessity provisions. However, these states limit the coverage of patients and

physicians in other ways, such as specifying pharmacies as the only source of marijuana or only providing coverage for particular illnesses.

Given the significant variation in the approaches employed in state medical marijuana laws and the fact that elements in each of these approaches could be subject to federal opposition, the ultimate viability of these laws will likely be determined on a case-by-case basis. Policy makers and advocates should note that the two biggest hurdles such laws will have to clear are the recognition of a medical necessity defense in state courts and the creation of a legitimate supply mechanism for patients that does not result in increasing the use of recreational marijuana.

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1 Nevada voters passed a constitutional amendment at the November 2000 general election that requires the state legislature to enact a law related to the medical use of marijuana. While the constitutional amendment became effective on November 29, 2000, we have not included it in this analysis because the state legislature had not enacted the law as of December 31, 2000.

2 Between 1976 and 1988, approximately six patients qualified for the IND program. By 1989, the FDA was overwhelmed with applications to the program due to the HIV/AIDS epidemic (Dogwill 1998). President Bush closed the program in 1992, and efforts to re-instate the program under the Clinton Administration failed in 1994. According to a report from the Marijuana Policy Project (2001), only eight patients currently remain in the program.

3 Data presented here on current marijuana laws were obtained through original legal research conducted by The MayaTech Corporation as part of the ImpacTeen State Illicit Drug Surveillance Project. The following discussion and analysis is based on the identification, collection, and analysis of statutes in effect in the 50 states and the District of Columbia (the states) as of December 31, 2000. The legal research was conducted by trained attorneys and legislative analysts with expertise in state statutory research who worked closely with policy analysts with expertise in the topical area.

4 Our decision rules regarding rescheduling provisions generate a different number of rescheduling provisions than that reported by either the Health Policy Tracking Service (1997) or the Marijuana Policy Project (Schmitz and Thomas 2001). The differences can be explained as follows. Both Arkansas and North Carolina schedule marijuana below a Schedule I substance; however, in each instance the state has recognized that there is (1) currently no acceptable

medical use for the substance, (2) that there is a potential for abuse based on current medical knowledge, or (3) a need for further study to ascertain the pharmacologic effects of the substance. Therefore, we have considered the scheduling in these two states to be comparable to a Schedule I substance. Tennessee also reschedules marijuana to a Schedule II substance but "only for the use of certified patients under the Controlled Substances Therapeutic Research Act" (TENN. CODE ANN. § 39-17-408). Because Tennessee's Controlled Substances Therapeutic Research Act was repealed in 1992, its rescheduling provision is no longer relevant. In both Maine and Massachusetts, the controlled substance schedules are based on penalty categories rather than on potential harms and/or medicinal value. In Maine, marijuana is considered to be in "Schedule Z" (based on a schedule ranging from Schedule W to Schedule Z), and in Massachusetts, it is considered a "Class D" substance (based on a schedule ranging from Class A to Class E). In neither instance do the schedules address the medicinal value or potential harms associated with the drug. Finally, we have not included provisions such as those noted in Montana that solely reschedule tetrahydrocannabinols (THC) from a Schedule I to a Schedule II substance (MONT. CODE ANN. § 50-32-224), because marijuana is not a derivative of this substance.

5 Rhode Island also is coded as only specifying illnesses/symptoms in the "other" category; however, the state's reference is to "life-threatening" or "sense-threatening" situations (RI GEN. LAWS § 21-28.4-1). Thus, the state law may apply to a broad group of illnesses and symptoms based on how such terms are defined.

6 Alaska, Colorado, and Maine specify that up to six plants can be possessed with no more than three mature at any one time. Oregon and Hawaii do not allow more than four plants to be possessed at one time, only three of which can be mature.

7 Given that marijuana can be produced fairly cheaply, the vast majority of the black market price of marijuana represents the legal risk of bringing the drug to market. To the extent that patients legitimize the need for black markets so that some markets are viewed more favorably then others (e.g. cannabis buyers clubs), it reduces the production cost of supplying the market and will thus reduce equilibrium price.

Table 1
Medical Marijuana Laws in Effect as of December 31, 1982

State	Medical Marijuana Law	Type of Provision			
		Research Program	Rescheduled	Prescription Law	Med. Necessity Law
AL	X	X			
AK					
AZ	X	X			
AR	X			X	
CA	X	X			
CO	X	X			
CT	X			X	
DE					
DC	X		X		
FL	X	X			
GA	X	X			
HI					
ID					
IL	X	X			
IN					
IA	X	X	X		
KS					
KY					
LA	X			X	
ME	X	X			
MD					
MA					
MI	X	X	X		
MN	X	X	X		
MS					
MO					
MT					
NE					
NV	X	X			
NH	X			X	
NJ	X	X			
NM	X	X	X		
NY	X	X			
NC	X			X	
ND					
OH	X	X			
OK					
OR	X			X	
PA					
RI	X	X			
SC	X	X			
SD					
TN	X	X	X		
TX	X	X			
UT					
VT	X			X	
VA	X			X	
WA	X	X			
WV	X	X			
WI	X			X	
WY					
N	32	22	6	9	0

Source: Markoff, Steven C (1997). "State-by-State Medicinal Marijuana Laws" published by the Marijuana Policy Project

Table 2
Medical Marijuana Laws in Effect as of December 31, 2000

State	Medical Marijuana Law	Type of Provision			
		Therapeutic Research	Rescheduled	Physician Prescription	Medical Necessity
AL	X	X			
AK	X		X	X	X
AZ	X			X	
AR					
CA*	X	X		X	X
CO	X			X	X
CT	X			X	X
DE					
DC	X		X		
FL					
GA	X	X			
HI	X			X	X
ID					
IL	X	X			
IN					
IA	X		X		
KS					
KY					
LA	X			X	
ME	X			X	X
MD					
MA	X	X			
MI					
MN	X	X			
MS					
MO					
MT					
NE					
NV					
NH	X			X	
NJ	X	X			
NM	X	X			
NY	X	X			
NC					
ND					
OH					
OK					
OR	X			X	X
PA					
RI	X	X			
SC	X	X			
SD					
TN					
TX	X	X			
UT					
VT	X	X			
VA	X			X	X
WA*	X	X		X	X
WV					
WI	X			X	
WY					
N	27	14	3	13	9

Shaded states indicate that the Therapeutic Research Program is actually operational according

Table 3
Illnesses/Symptoms Addressed in State Medical Marijuana Laws

State	Medical Marijuana Law	Illness-Related Provisions Enacted Pre-1999	Type of Illness/Symptom				
			Cancer	HIV/AIDS	Pain	Glaucoma	Other
AL	X	Yes	X			X	
AK	X	Yes	X	X	X	X	X
AZ	X	Yes			X		X
AR							
CA	X	Yes	X	X	X	X	X
CO	X	No	X	X	X	X	X
CT	X	Yes	X			X	
DE							
DC	X						
FL							
GA	X	Yes	X			X	
HI	X	No	X	X	X	X	X
ID							
IL	X	Yes	X			X	X
IN							
IA	X						
KS							
KY							
LA	X	Yes	X			X	X
ME	X	No	X	X	X	X	X
MD							
MA	X	Yes	X			X	X
MI							
MN	X	Yes	X				
MS							
MO							
MT							
NE							
NV							
NH	X						
NJ	X	Yes	X			X	
NM	X	Yes	X			X	
NY	X	Yes	X			X	X
NC							
ND							
OH							
OK							
OR	X	No	X	X	X	X	X
PA							
RI	X						X
SC	X	Yes	X			X	X
SD							
TN							
TX	X	Yes	X			X	
UT							
VT	X	Yes	X				X
VA	X	Yes	X			X	
WA	X	Yes	X	X	X	X	X
WV							
WI	X						
WY							
N	27		21	7	8	19	15

Table 4
Supply of Medical Marijuana by Type of Law

	Law Enacted Post-1995	NIDA	State Supply	Pharmacy Authorized to Dispense	Home Cultivation	Any Means Appropriate	Source not Mentioned
Therapeutic Research Program							
Alabama	No	X					
California	Yes	X	X				
Georgia	No	X		X			
Illinois	No						X
Massachussetts	No	X					
Minnesota	No	X					
New Jersey	No	X					
New Mexico	No			X		X	
New York	No		X			X	
Rhode Island	No						X
South Carolina	No					X	
Texas	No	X					
Vermont	No		X				
Washington	No		X			X	
Totals: n=14		7	4	2	0	4	2
Rescheduled							
Alaska	Yes				X		
Iowa	No						X
Washington, DC	No						X
Totals: n=3		0	0	0	1	0	2
Physician Prescription							
Alaska*	Yes				X		
Arizona	Yes						X
California*	Yes				X		
Colorado*	Yes				X		
Connecticut*	Yes			X			
Hawaii*	Yes				X		
Lousiana	No	X					
Maine*	Yes				X		
New Hampshire	No			X			
Oregon*	Yes				X		
Virginia*	No			X			
Washington*	Yes		X		X		
Wisconsin	No			X			
Totals: N=13		1	1	4	7	0	1

Shaded states indicate that the Therapeutic Research Program is actually operational, according to Marijuana Policy Project (2001).

* Indicates that state has both a physician prescription law and a medical necessity law

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