

Question:

How can Washington define what constitutes a 60-day supply of medical marijuana in such a way that adequately addresses the needs of all patients, while at the same time giving law enforcement clear guidelines to assist them in their service of the public?

Washington can and should, consistent with physician recommendations, allow patients to possess an amount of medical marijuana that serves the needs of all patients, allowing them to maintain an equitable quality of life. When setting weight and plant limits, the state's goal should be to minimize the impact of certain factors that make it difficult to set objective and easily-determined presumptive amounts. These factors include: the current patient protections afforded under Washington's medical marijuana law, the illness being treated, the method of administration/delivery, and the patient's ability to secure and maintain a reliable source of medicine.

Given the aforementioned factors, patients should be allowed to possess up to 71 ounces of medical marijuana and 99 plants. This will cover the needs of most patients and will be readily ascertainable by law enforcement, patients, and the courts.

Washington's current medical marijuana law provides flexibility for various methods of growing and administration/delivery, ultimately serving the needs of most patients. Even so, factors such as individual patient need, the type of illness being treated, horticultural experience, and the ability to find a suitable designated provider make it challenging for any patient to secure and maintain an adequate supply of medicine. Further complicating the patient's challenge of obtaining medical marijuana is that Washington's current law limits the designated provider/patient ratio to 1:1. The lack of pre-arrest protection for patients, as well as doctors, further adds to the inefficiency and uncertainty of the current law.¹

Patient well-being is the main goal, and any attempt to define what constitutes a 60-day supply of medicine should necessarily revolve around a desire to not only maintain, but to improve the current laws protecting Washington's medical marijuana patients. A secondary goal is to provide law enforcement with clear guidelines to assist them in their service of the public. While addressing patients' needs is primary, the two goals need not be in conflict and indeed should complement each other if the rules are drawn properly. There are two overarching patient issues: 1) how much medical marijuana patients need to possess in order to maintain an adequate supply of medicine for a period of 60 days and 2) how many plants are necessary to provide a continuous and adequate supply of medicine for all patients.

A complicating factor is that all patients are not alike. Patients' needs vary according to their illness/symptoms and the route of administration used. Police, however, should not be put in the position of having to evaluate the particulars of a

¹ Increasing patient/caregiver ratios would help facilitate better patient access to medical marijuana by giving patients options and alternate sources should one source become unavailable. Providing doctors and patients with the pre-arrest protection each of the other 11 medical marijuana states provide would save taxpayers money by freeing up police, prosecutorial, and court resources to deal with more pressing matters. Both of these issues were addressed in the original version of Washington Senate Bill 6032 but were later removed.

patient's medical condition — a task for which they are not trained and which would take up far too much of their time. Instead, the proper approach is to have one standard that meets the needs of all (or nearly) all patients, one that law enforcement personnel can easily understand and enforce.

The method used to administer/deliver medicine is one of the most important factors in determining how much medical marijuana will presumptively satisfy the needs of all patients. There are several ways patients can administer/deliver their medicine. Smoking, eating, and topical application are all recognized methods of delivery.² Vaporization — using devices that allow inhalation of the plant's therapeutic components (cannabinoids) without smoking — is another method that has gained popularity in recent years.

For nauseated chemotherapy patients unable to swallow a pill, much less eat medical marijuana, smoking or vaporizing is the most efficient method of delivery. Lung absorption delivers THC and other cannabinoids more quickly than gut absorption, providing relief in just a few minutes, compared to an hour or more when THC is swallowed.³ Swallowed medicine must move from the stomach to the small intestine, where it is then absorbed into the bloodstream. Upon absorption, consumed THC passes immediately to the liver, where a significant amount is lost due to metabolic activity of the liver. It is estimated that as much as 90 percent of swallowed THC is never even utilized by the body.⁴

The ease with which inhalation aids absorption is somewhat counterbalanced by the tendency of many physicians to recommend methods of administration other than smoking. While vaporization provides many of the benefits of smoking without the perceived associated risks, it requires more product than smoking. In addition, vaporization requires special equipment to which many patients many not have access. For those who can swallow or drink their medicine, most physicians are likely to recommend non-inhalation administration.

² Sidney Cohen, M.D., D.Sc., National Institute on Drug Abuse, Therapeutic Aspects. In: Peterson RC, ed. Marijuana Research Findings: 1980. NIDA Research Monograph 31, June 1980. Washington, DC: US Government Printing Office (1980).

³ Arguell, S. et al., "Pharmacokinetics and Metabolism of Delta-1-Tetrahydrocannabinol and Other Cannabinoids with Emphasis on Man." *Pharmacological Reviews* 38:21-43 (1986); Lemberger, L. et al., "Delta-9-Tetrahydrocannabinol: Temporal Correlation of the Psychologic Effects and Blood Levels After Varous Routes of Administration," *New England Journal of Medicine* 268: 685-88 (1972); Perez-Reyes, M. et al., "The Clinical Pharmacology and Dynamics of Marijuana Cigarette Smoking," *Journal of Clinical Pharmacology* 21:178-895 (1981); Wall, M.E. and Perez-Reyes, M., "The Metabolism of Delta-9-Tetrahydrocannabinol and Related Cannabinoids in Man," *Journal of Clinical Pharmacology* 21:178-895 (1981); Ohlsson A. et al., "Plasma Delta-9-THC Concentrations and Clinical Effects After Oral and Intravenous Administration and Smoking," *Clinical Pharmacology and Therapeutics* 28: 409-16(1980); Mason, A.P. and McBay, A.J., "Cannabis: Pharmacology and Interpretation of Effects," *Journal of Forensic Sciences* 30: 615-31 (1985).

⁴ Mattes, R.D. et al., "Cannabinoids and Appetite Stimulation," *Pharmacology Biochemistry and Behavior* 49: 187-95 (1994); Peat, M.A., "Distribution of Delta-9-Tetrahydrocannabinol and its Metabolites," *Advances in Analytical Toxicology* 2: 186-217 (1989); Wall, M.E. et al., "Metabolism, Disposition, and Kinetics of Delta-9-Tetrahydrocannabinol in Men and Women," *Clinical Pharmacology and Therapeutics* 34: 352-63 (1983); Agurell et al. (1986), see note (3).

The federal government provides medical marijuana to five U.S. patients. Each patient in this federal program receives between 5.6 and 7.23 lbs. of medical marijuana a year in the form of pre-rolled cigarettes.⁵ It has been documented that the federal single-patient dosage averages 8.24 grams/day, or about one-quarter ounce per day, which amounts to 6.63 lbs. of smoked medical marijuana per year.⁶ In order to administer an equivalent amount of marijuana through gut absorption, it is estimated that three to five times more marijuana is required.⁷ Applying an average multiplication factor of four (4) (which is between three and five) means that if the federal medical marijuana patients received a supply of marijuana intended for gut absorption in order to achieve pharmacologically-equivalent blood levels as achieved through lung absorption, an annual supply of 26.52 lbs. per patient (6.63 lbs. x 4) would be required. To determine a two-month supply, divide by six (6) (26.52 lbs./6), which equals 4.42 lbs., or 70.72 ounces per patient.⁶ This should be rounded up to 71 ounces.

Based on the federal dosing, patients should be allowed to possess up to 71 ounces of medical marijuana. This will cover the needs of most patients and will be readily ascertainable by law enforcement, patients, and the courts.

If a multiplication factor of five is used instead of four, the number becomes 88.4 ounces every 60 days. If the high end of what the government provides to their patients is used (7.23 lbs.) instead of the average (6.63 lbs.), the number becomes 96 ounces every 60 days. The recommendation of 71 ounces, therefore, seems very reasonable and is less than current federal practice could justify.

Moreover, a presumptive amount of 71 ounces is more desirable than asking law enforcement to determine how sick a patient is, what illness he or she is treating, and if he or she is eating, smoking, and/or vaporizing their medicine. While not every patient will need 71 ounces, many will, especially when one considers that some patients might prefer the option of alternating between eating or inhaling their medicine. An attempt to set different presumptive amounts for different groups of patients should be avoided as it would defeat the purpose of having an easily-ascertainable and objective standard for patients, law enforcement, and the courts.

Both patients and police will benefit from a standard that is relatively easy for all involved to understand. Thus, it is better for all not to burden law enforcement with

⁵ Russo E, Mathre M, Byrne A, et al., "Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis," *Journal of Cannabis Therapeutics* 2002;2:3-57; see also, Conrad C., "Cannabis Yields and Dosage: The Science and Reason Behind the Safe Access Now," In: Medical Marijuana Garden Guidelines. El Cerrito, Cal.: Creative Xpressions (2004), www.safeaccessnow.net/pdf/sanhandbook04.pdf.

⁶ Sunil K. Aggarwal, MS III, PhC, BS, BA; Muraco Kyashna-Tocha, PhD; Gregory T. Carter, MD, MS, "Dosing Medical Marijuana: Rational Guidelines on Trial in Washington State", Medscape (2007), http://www.medscape.com/viewarticle/562451_print.

⁷ Jones R. Human, Effects: An Overview. In: Peterson RC, ed. Marijuana Research Findings: 1980. NIDA Research Monograph 31, June 1980. Washington, DC: US Government Printing Office (1980).

multiple classifications and allotments and force them to sort which classification should apply to which patient. Additionally, there is no reason to further complicate law enforcement's job by charging them with the additional task of deciding who is eating and who is inhaling their medicine on any given day. Neither police nor prosecutors should have to make this distinction.

The only readily enforceable manner in which a two-tiered system could operate would be in cases where a physician specifically recommended only inhalation as a method of administration. Allowing physicians to indicate the suggested method of delivery on a recommendation is consistent with the *Conant* decision upholding physicians' First Amendment right to recommend the use of medical marijuana to a patient.⁸ Allowing physicians to indicate the suggested method of delivery is also in the spirit of the original law.⁹ But as a practical matter, most physicians are unlikely to recommend smoking as the sole means of delivery, which argues against having a multi-tiered presumptive level. And, as noted above, some patients may need to alternate between delivery methods, depending on circumstances.

In addition, any presumptive level should take into account individual needs and allow for a physician to recommend greater amounts based on the individual patient, the illness being treated, and patient desire – a consideration to which all patients are most certainly entitled. Physicians should at all times remain the sole medical authorities in patients' lives, not law enforcement. By serving the needs of patients first, the original intent of Washington's medical marijuana law can be honored.

The second overarching patient issue that needs to be addressed is how many plants are necessary to provide a continuous and adequate supply of 71 ounces every 60 days.

Experts on cannabis cultivation recommend 100 square feet of plant canopy (the amount of area shaded by growing plants) as the most scientifically sound definition of an appropriately-sized medical marijuana garden for one patient. Unfortunately, this standard does not give law enforcement clear instructions as to plant count and could ultimately lead to confusion.¹⁰ For example, if the plants are not all directly adjacent to each other, measurement could be difficult. For this reason, a standard that defines a number of plants may be easier for police to enforce and for patients to follow. But how many plants?

The following are just a few considerations that must be taken into account when determining how many plants are needed to produce an adequate supply of medical

⁸ *Conant v. McCaffrey*, 2000 WL 1281174 (N.D.Cal.), upholds a physician's right to make a recommendation. The Supreme Court declined to hear the government's appeal, thereby making this decision the ruling precedent. See, *Walters v. Conant*, 540 U.S. 946, 124 S.Ct. 387.

⁹ The purpose and intent of Washington's medical marijuana law is stated as such: "The people find that humanitarian compassion necessitates that the decision to authorize the medical use of marijuana by patients with terminal or debilitating illnesses is a personal, individual decision, based upon their physician's professional medical judgment and discretion." See, Wash. Rev. Code § 69.51A.005.

¹⁰ Chris Conrad, "Cannabis Yields and Dosage: A Guide to the Production and Use of Medical Marijuana." El Cerrito, Cal.: Creative Expressions (2005), www.safeaccessnow.net/pdf/cannabisyieldsdosage-rgb.pdf.

marijuana: outdoor plants grow larger than indoor plants; growing small plants requires more plants to produce the same amount of marijuana as large plants; outdoor growing can only be done during certain times of the year (especially in eastern Washington); some patients are located in areas that do not get as much sunlight as others; some patients are located in areas with better soil; some patients are limited to growing smaller plants because of a physical handicap; some patients are prohibited from growing due to housing restrictions or space availability; some patients cannot grow at all; some patients use both methods of growing; and the constant threat of drought, infestation, disease, mites, and power outages.

Many patients feel that until the state of Washington can guarantee the quality of their medicine, the Department should not be setting limits. While we agree with many of these patients, we also recognize the practical benefits of setting limits.

In the end, it is better to allow patients to have as many plants as are necessary to provide a constant and adequate supply of 71 ounces every 60 days, so long as the plant count does not rise above 99.

It is important to remember that a grower will automatically lose approximately half of their plants because they are male. Male plants are useless, as they do not produce meaningful quantities of cannabinoids.¹⁰ Allowing patients to have 99 plants at one time only ensures that, on average, less than 50 plants will be producing medicine at any given time.

Besides allowing patients and designated providers enough plants to account for the aforementioned issues that make successful medical marijuana growing difficult, setting the limit at 99 plants would also help patients avoid the federal mandatory minimum sentences that are triggered at 100 plants.¹¹ Again, this is a very easy number to remember. One could even imagine law enforcement collectively referring to the weight/plant rule as the “over/under” rule – one ounce over 70 and one plant under 100.

Using the “71/99 over/under” rule also does away with a very cumbersome and often impossible task that law enforcement in other states sometimes have – distinguishing between mature and immature plants. Having to make a case-by-case determination regarding what constitutes a mature plant, a seedling, a clone, etc., is not a viable law enforcement duty. Law enforcement officials are usually not trained horticulturists, and we should not expect them to be.

The most obvious benefit of an objective and easily-verifiable medical marijuana law is the freeing up of police resources. The less time law enforcement officers spend in a patient’s garden, the more time they are able to spend investigating unsolved murder, rape, assault, and burglary cases. This should be kept in mind when crafting rules that

¹¹ 21 U.S.C. § 841(b) (2006).

will impact the amount of time law enforcement officers will have to spend with medical marijuana patients in order to determine whether they are in compliance with the law.¹²

The requirement to define what constitutes a 60-day supply will help law enforcement officials make crucial determinations before having to intrude unnecessarily into a patient's life, giving both investigating officers and patients peace of mind. Because Washington does not currently protect medical marijuana patients from arrest, the clarification of what constitutes a 60-day supply of medicine is a welcomed change so long as all patients' needs are considered and adequately protected by setting the appropriate presumptive amounts – 71/99.

It is important to remember that some of Washington's qualifying patients are terminally ill and that their lives may literally depend on their ability to secure and maintain access to medical marijuana. In instances like these, it is imperative that patients have unfettered access to a reliable source of medicine at all times.

The position of one county drug task force member stated during the Vancouver workshop that “we don't care what the limits are, so long as they are set” represents a compassionate and realistic view of what law enforcement's role in a patient's life should be. In the end, this is a medical issue rather than a law enforcement issue and should be treated as such.

It is apparent that a lack of numerical guidelines to direct law enforcement, coupled with the fact that each officer will inherently have his or her own personal beliefs about medical marijuana, causes problems. Legitimate patients are sometimes arrested, jailed, their medicine confiscated, and property lost or destroyed forever. Unfortunately, patients sometimes suffer even when such intrusive action is ultimately found to be unwarranted.

It should be reiterated that providing law enforcement with guidelines is indeed a secondary goal — patients comes first, then law enforcement. Providing law enforcement guidelines is accomplished by first giving patients the amount of medicine they need — and not vice versa. If a doctor determines that his or her patient needs a certain amount of medical marijuana, this negates law enforcement concerns — be it 100 grams or 100 ounces. Just because a patient possesses what someone believes is a significant amount of medical marijuana does imply illegal possession for resale. Such reasoning equates to believing that people who own guns will commit murder. The presence of intimidating

¹² Washington Senate Bill 6032 § 5 amended Wash. Rev. Code § 69.51A.040 by allowing law enforcement to document the amount of medical marijuana a patient possesses and take a representative sample for purpose of testing. This practice allows for such action even after the patient is determined to be within legal limits. Why law enforcement would be interested in documenting legal amounts of a qualifying patient's medicine after determining that there is no violation of the law is unclear. It is obvious, however, that doing so might unnecessarily encourage state intrusion into patients' lives. It should be noted that although the Ninth Circuit's Eastern District of Washington recently quashed federal subpoenas seeking confidential patient information sought for purposes of a criminal investigation, the federal government has successfully prosecuted cases against patients in the past using cumulative amounts of marijuana grown and possessed over a number of years. See, *U.S. v. Schafer and Frye*, E. Dist. of Calif., CR S-05-0238 FCD (2005), <http://www.docfry.com/defense.html>. There is no reason to create these records, as they can and will be used against patients by the federal government.

agencies like the DEA at the workshops casts a nasty shadow over this entire rule-making process. If a medical marijuana patient is selling marijuana illegally, then he or she should and will be treated similarly to any other citizen – with arrest and possible imprisonment. Assuming in advance that patients will break the law is unfair, prejudicial, and violates one of the most basic principles of American jurisprudence – innocence is always presumed. An equal protection or due process argument could also be raised.

Oregon's medical marijuana law, the topic of some discussion during the workshops, is very different than Washington's law. Basing Washington's presumptive amounts on Oregon's law could create problems. Consider that Oregon caregivers can serve multiple patients – up to four. Because of this, many of the difficulties faced by Washington patients are not an issue in Oregon. Furthermore, Oregon's law – 24 ounces of usable marijuana, six mature marijuana plants, and 18 seedlings per patient jointly with his or her caregiver – is not the best example of clarity.¹³ For example, how should one define a "seedling"? One inch high? Two inches? Would police be expected to carry a tape measure with them to make such determinations? It is unrealistic to expect police officers untrained in the science of horticulture and statutory interpretation to be able to uniformly enforce a similar law in Washington.

Lastly, the belief that Oregon's limits and Washington's limits being the same would create some kind of synergy ignores the reality of the two states' laws: Neither state's medical marijuana law currently allows for reciprocity. What is permitted for medical marijuana patients in Oregon is legally irrelevant to Washington and vice versa, so nothing is gained by having matching plant or quantity limits.

Oregon law actually supports the concept of having over 90 plants in the possession of a single individual at a given time. Oregon law currently allows caregivers to provide medical marijuana to four patients at a time.¹³ Six plants and 18 seedlings equal 24 total plants. This means that at any given time an Oregon caregiver may have up to 96 plants and 96 ounces (24 plants x 4 patients), perhaps even more if they are a patient and caregiver for themselves.

The per person allotment under Oregon law is almost surely inadequate to constitute the sixty day supply mandated by Washington law. Oregon authorities, however, do not consider the possession of 94 or more plants by a single individual (acting as caregiver for multiple patients) to be problematic from either a law enforcement or program integrity perspective.

A 71/99 presumptive amount is not so far from the norm, especially when recalling that the federal medical marijuana allotment equals 96 ounces if the medicine is eaten. Interestingly, 96 ounces is the same amount Oregon caregivers with four patients can possess at any given time. Allowing Washington patients to possess up to 71 ounces is reasonable based upon scientifically sound evidence and the practices of at least one other state as well as the federal government.

¹³ Or. Rev. Stat. § 475.320.

It is incontrovertible that the federal government's own distribution practices support a weight limit of at least 96 ounces. Moreover, Oregon's experience has shown that allowing a person to possess 94 or more plants is practical and enforceable. A plant limit of 99 helps participants in Washington's medical marijuana program avoid federal mandatory minimum sentences. Additionally, 99% of all marijuana prosecutions are carried out at the state level, therefore making a 99-plant limit a practical and effective policy that protects Washington medical marijuana patients from federal prosecution, which is unlikely since federal prosecution only accounts for 1% of all marijuana prosecutions nationwide.

For all these reasons, it is suggested that the Department of Health write rules that set the presumptive amount of a 60-day supply of medical marijuana at 71 ounces and 99 plants, with the ability of physicians to specify a greater amount when they believe it to be necessary in their professional judgment.

Policy recommendation:

The Marijuana Policy Project believes that, given the boundaries of Washington's current medical marijuana law, patients should be allowed to possess up to 71 ounces of medical marijuana and 99 plants. These limits would cover the needs of most patients, would be objective and easy to verify, and avoid the federal mandatory minimum sentences that are triggered at 100 plants.