



California Society of Addiction Medicine  
*"The Voice for Treatment"*

# CSAM Statement on the Medical Aspects of Marijuana Legalization

Reasonable dialogue regarding marijuana use has historically proven extraordinarily difficult. Fortunately, scientific research has now uncovered a great deal about the effects of marijuana on the basic working of the brain that can form the foundation for a reasonable exchange.

The question of whether to legalize marijuana creates a difficult struggle between our longing for civil liberties and our need for public health, between desire and prudence, and between continuing policies of de facto legalization (via cannabis clubs) mixed with incarceration for others and the opportunity to identify a new tax revenue stream to help balance the state budget.

Each individual, each family, politician, and each community must struggle with these competing agendas. When the decision is made on the basis of scientific information as much as possible, rather than one side being able to overwhelm the other side by political strength alone, the end result achieves a better long-term and sustainable outcome.

The California Society of Addiction Medicine (CSAM) seeks to educate the public so that each voter can make an informed decision if asked to vote on legalization of marijuana. There are three basic facts that each voter should know about marijuana and the brain to be adequately informed:

1. The normal brain relies on the same cannabinoid chemistry found in marijuana to regulate much of the body's physiology. Marijuana mimics our brain's natural molecules and frequent use significantly disrupts the brain's delicate chemical balance.
2. Marijuana is addicting to approximately 9% of people who begin smoking it at 18 years or older. Withdrawal symptoms are subtle (irritability, anxiety, sleep disturbance), but are real and do contribute to relapse. Another way to say this is that at least 90% of those who begin smoking marijuana at 18 or older do not experience addiction.
3. Because the brains of adolescents are still undergoing significant structural development, onset of marijuana smoking earlier than 18 results in increasingly higher rates of addiction (up to 17% within 2 years) and disruption to an individual's life. The younger the use, the greater the risk.

Therefore, while the public should decide the issue of marijuana legalization through the legislative process, CSAM strongly recommends that any legislation legalizing the use of marijuana should contain the following essential components:

## **I. Effective restrictions need to be created to minimize access to marijuana for anyone under 21 years old.**

### **RATIONALE:**

1. Marijuana is a mood-altering drug that mimics the brain's own chemistry and causes dependency when used frequently in high doses.
2. Because brain development, including areas targeted by marijuana, is not complete until 24 years old, child and adolescent use of marijuana is accompanied by far higher risk than adult use. Therefore, adolescents should be strongly encouraged to avoid, or delay, use.<sup>1</sup>
3. The percentage of marijuana users who develop abuse or dependence within the first two years of their use is highest among those who begin using in early adolescence, falling from over 17% at 13 years old to 4.4% with those who start using at 21 years old.<sup>2</sup>
4. Cognitive function is abnormal up to 30 days into abstinence in adolescents who use marijuana heavily.<sup>3</sup>
5. Adolescents who have smoked more than 100 times leave school 5.8 times more often, enter college 3.3 times less often, and graduate from college 4.5 times less often.<sup>4</sup>

## **II. Treatment for adolescent marijuana abusers should be universally available, not punishment**

It would be inconsistent to legalize marijuana for those over 21 and continue a punitive approach for those under 21 when the rationale for restricting access for those under 21 is a public health concern. Roughly 17% of 18/19 year olds have smoked marijuana during the past month in the current atmosphere of marijuana's illegality.<sup>5</sup> CSAM strongly supports evidence-based treatment programs focused on helping individuals under 21 years of age discontinue, or at least reduce, their marijuana use. Punishment should only be used as an avenue to treatment. If California chooses to legitimize marijuana further for adults by voting for legalization and potentially make marijuana more available to adolescents, treatment for adolescents abusing marijuana should be universally available.

## **III. Revenue stream for treatment should be funded by fees and taxes from marijuana sales**

Of the 250,000 adolescents needing treatment for chemical dependence in California today,<sup>6</sup> only 1 in 10 currently receives any services.<sup>7</sup> Taxes on alcohol and tobacco have never paid for more than a small fraction of the damage caused by these two drugs. If the citizens of California choose to legalize another addictive substance, CSAM strongly urges all tax and fee revenue from the sale of marijuana to be placed in a "Drug Abuse Prevention and Treatment Funding Account", the proceeds of which should be dedicated to the prevention and treatment of physical and mental illnesses and substance abuse problems linked to the use of cannabis. Currently, 16% of admissions for substance abuse treatment are for marijuana dependence.<sup>8</sup>

## **IV. Warning labels on smokeable products**

Careful consideration needs to be given to the potential harm to the public's health that would be created by introducing a new legal smokeable product onto the market. Given the difficulty linking cancer to tobacco smoking and subsequently changing the public's attitude regarding tobacco smoking, we recommend caution regarding authorizing the advertising and sale of additional smokeable products. Guidelines regarding warning labels or dedication of tax revenues for smoking cessation programs need to be created before introduction of a new legal smokeable product.

## **V. Regulation of Marketing (Advertising), Distribution, and Sales**

Since research has already shown that children develop brand recognition for beer by age six, it is important to consider how to regulate advertising that children and adolescents will be exposed to. A mechanism for ongoing oversight of advertising and regulation of outlet location and density should be considered.

## **VI. Evaluation component to document impact of legalization**

It is not known whether legalizing marijuana would increase or decrease adolescents' access to marijuana. It is known that any increase would represent harm to public health. It is difficult to have confidence that relying on the same policies and procedures currently in force to limit underage drinking will effectively limit underage marijuana use. Any move to legalize marijuana for individuals over 21 should contain provisions to ascertain whether the rate of adolescent marijuana use increases, decreases, or remains stable after its passage. A substantial research component is required to document the current status of marijuana use and abuse among different demographic groups in California and then to follow changes after implementation of marijuana legalization. A stable funding stream for this research must be secured. Fees from the sale of marijuana are the logical source for such funding.

## **VII. Technical difficulties documenting driving under the influence**

The issue of prohibiting driving while under the influence of marijuana is technically complicated by the fact that urinary THC levels remain positive far longer than acute impairment. Guidelines for cutoff THC blood levels to determine whether an individual's impaired driving is due to marijuana intoxication require further definition and clarification. Other safety sensitive professions will also face difficult civil liberty issues for which there are no easy answers in attempting to regulate their workforce. Research to clarify these issues requires funding.

<sup>1</sup> - Gogtay, N., Giedd, J. N., Lusk, L., Hayashi, K. M., Greenstein, D., Vaituzis, A. C., Nugent, T. F., 3rd, Herman, D. H., Clasen, L. S., Toga, A. W., Rapoport, J. L. and Thompson, P. M. (2004) Dynamic mapping of human cortical development during childhood through early adulthood. *Proceedings of the National Academy of Sciences of the United States of America* 17, 17

<sup>2</sup> - Winters, Ken, and Lee, Chih-Yuan, Likelihood of developing an alcohol and cannabis use disorder during youth: Association with recent use and age, *Drug and Alcohol Dependence* 92 (2008) 99-247

<sup>3</sup> - Medina, K.L., Hanson, K., Schweinsburg, A.D., Cohen-Zion, M., Nagel, B.J., & Tapert, S.F. (2007). Neuropsychological functioning in adolescent marijuana users: Subtle deficits detectable after 30 days of abstinence. *Journal of the International Neuropsychological Society*, 13(5), 807-820

<sup>4</sup> - Fergusson, Horwood and Butrais: "Cannabis and educational achievement," *Addiction*, 98, 1681-1693, 2003

<sup>5</sup> - *Substance Abuse and Mental Health Data Archive* – 2007, <http://www.icpsr.umich.edu/SAMHDA/>

<sup>6</sup> - Estimate based on *UCLA DART*, 2001 in Little Hoover Report, 2003

<sup>7</sup> - Schwab Report, *The Need to Invest in Adolescent Treatment*, 2004

<sup>8</sup> - 2007 *Highlights: Treatment Episode Data Set (TEDS)*