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Re: SB 158 and SB 560

Chairman Olson and Committee Members,

My name is Dr. Bryon Adinoff and I am testifying as a proponent of SB 158 and SB 560.

I am an addiction psychiatrist, a Clinical Professor at the University of Colorado School of Medicine, and President of Doctors for Cannabis Regulation. I retired in 2018 as the Distinguished Professor of Alcohol and Drug Abuse Research at the University of Texas Southwestern Medical Center and as a psychiatrist for 30 years with the Department of Veterans Affairs, where I served as the director of substance use disorder treatment programs in Charleston SC and Dallas. I have published almost 200 articles, reviews, and book chapters on the biology and treatment of addiction (1). My research has been funded by the National Institute on Drug Abuse (NIDA), National Institute of Alcohol Abuse and Alcoholism (NIAAA), and Department of Veterans Affairs. I have been recognized as a Distinguished Fellow by the American Academy of Addiction Psychiatry and the American Psychiatric Association and am a Fellow in the American College of Neuropsychopharmacology. As Editor-in-Chief of *The American Journal of Drug and Alcohol Abuse* since 2012 (2), in 2019 I co-edited a Special Issue in our journal on "The Benefits and Consequences of Cannabis Legalization." I am also scientific advisor for the Kansas Cannabis Coalition. I receive no income from Doctors for Cannabis Regulation and have no financial interest in the cannabis industry.

I will first make some general comments about medical cannabis and then direct more specific comments to the bills being considered.

First, why medical cannabis? *The legislative process is an admittedly unusual pathway for providing legal access to a medication*. This approach is often cautioned against while we await the findings from additional research and FDA approval. The exploration of cannabis therapeutics is, indeed, a very exciting area of investigation and many pharmaceuticals that utilize the human body's cannabinoid receptors are in development. However, the pathway to FDA approval is a long and arduous process; it will likely be at least a decade before many of these compounds are available for use. And despite the clarion call for "more research," relatively little research in the U.S. is being funded for clinical trials of cannabis because of the Schedule I status of cannabis. Furthermore, bringing a medication through the FDA process is an arduous and expensive effort, upwards of $100,000,000 per drug. Cannabis is a plant, made up of over 100 cannabinoids (such as THC and CBD) as well as numerous flavonoids and terpenes. Each cannabis strain is different. It would therefore be extremely difficult to get even a single strain of cannabis approved by the FDA.

Meanwhile, there is an *urgent need* to increase the availability of botanical cannabis for those presently suffering. Although I myself was initially skeptical of many of the claims of medical cannabis advocates, I can no longer ignore the hundreds of personal and heart-felt testimonies of changed lives, not possible with present pharmaceuticals, that I have heard over the past several years. I hope that you are similarly touched.

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Of course, there are risks associated with all medications. Yet the risks associated with cannabis use, particularly when taken for medical reasons, are relatively minimal. There were approximately 500 drug overdose deaths in Kansas in 2020. In Kansas, over 4000 people die annually from tobacco-related illnesses, 1100 die from excessive alcohol use, and over 500 die from suicides. There are *no* reported deaths due to cannabis. So the question is…is cannabis safe enough to be regulated without FDA prior approval? Cannabis was first approved for medical use in 1996, 26 years ago. Since then, another 36 other states have legalized medical cannabis and over five million people in the U.S. have cannabis cards. *No* medical cannabis state has considered becoming a non-medical cannabis state. 91% of the US population now approves of legalized medical cannabis.

Let me now direct my comments to specific items in SB 158 and SB 560. I understand that many Senators want a *highly regulated* medical cannabis industry. You do not want a *highly regulated* industry! You want a regulatory framework that is thoughtful, efficient, effective, and evidenced-based. Remember, the purpose of your years of work on these bills is to provide a safe method for the citizens of Kansas to access the remarkable benefits of a plant that has been used medicinally for over five millennia. If regulations are not approached with care, then the process becomes too expensive and cumbersome for patients, for medical care providers, for cultivators, and for the dispensaries.

1. You have received testimony that advises that physicians recommend the dose, strain, and route of administration of cannabis. There is not the research required to make these determinations and there is presently no "standard of practice" with such specifications. There is no state that requires this kind of detail and I know of no cannabis physician who would endorse this approach.
2. The present bill requires pharmacists for each dispensary. The requirement for medical oversight is much needed and I am glad to see this included. However, the pharmacists' tasks are quite time-consuming and the pharmacists need to be available during all operating hours. Are there enough pharmacists in Kansas to fill these roles? Will medical dispensary pharmacists be recruited away from drugstores in already medically underserved rural areas? I would recommend that clinical nurse specialists be considered to also fill the position of medical oversight.
3. The more requirements for medical providers, the fewer the number of medical providers who will be willing to recommend cannabis. While it is important that physicians learn about cannabis before recommending, the legislature will want to be careful to not make the requirements overly burdensome.
4. There is no sound justification for limiting THC potency for medical cannabis and many arguments against it. To my knowledge, all of the research demonstrating potential long-term adverse effects of high-potency THC were conducted in illicit markets. There are no studies I am aware of that demonstrate adverse outcomes, such as persistent psychosis, in patients obtaining cannabis through a regulated medical cannabis market.
5. Multiple studies have conclusively demonstrated that adolescent use does *not* increase in either medical or adult use (recreational) cannabis states. Nora Volkow, the director of NIDA, has publicly stated *"I was expecting that the use of marijuana among adolescents would up and overall it hasn't."*
6. Previous testimony has advised that only indications previously approved by the FDA for THC be allowed for medical cannabis. These indications are extremely limited and do not begin to address the multiple illnesses that are known to benefit from cannabis, such as pain.

7. No smoking or vaping is allowed in the present bills. Although there are some downsides to smoking or vaping from a medical perspective, this route of administration has significant medical benefits, including rapid onset of action and the ability for patients to carefully titrate their dose to assure that too much medication is not taken.
8. The bills exclude those with felony convictions, even if cannabis-related, from participating in the industry. Those individuals with cannabis-related convictions have suffered the most from cannabis prohibition and should be allowed to participate in the newly legal industry.

Finally, although this regulatory issue falls outside of SB 158 and 560, I would like to alert the Senate that DFCR has developed a universal symbol for cannabis products to ensure the protection of public health and safety. The International Intoxicating Cannabis Product Symbol has been adopted by Montana, New Jersey, and Vermont and has been endorsed by ASTM International, one of the world's leading consensus standard organizations with over 30,000 members. The symbol is open source and there is no charge for its use. We hope that Kansas will adopt this product symbol to allow easy identify of cannabis products.

I appreciate the effort that the senators have put into developing these bills and look forward to medical patients in Kansas having the ability to utilize cannabis for the relief of their suffering.

Bryon Adinoff, M.D.

1. Adinoff publications
2. The American Journal of Drug and Alcohol Abuse