My very best of greetings to all of you our elected representatives and this committee,

My name is Dr. Noel Casiano and I am a Licensed Marriage and Family Therapist with the State of CT. I also hold a doctorate degree in clinical psychology where my area of research is in the neurobiology of substance use. I have been working in the field of mental health and substance abuse since 2006. I submit this testimony to record my opposition to the legalization of recreational marijuana or cannabis in which I will detail in the following.

As a front-line behavioral health treatment provider for over 14 years, I have seen how marijuana use and abuse has not only impacted the user but also their family and our community.

First, I would like to highlight the complexity and the many unknown scientific components about the marijuana drug itself. The research and the impacts of marijuana are still ongoing and there is still a lot to study and find about marijuana. For example, there are 483 different identifiable chemical constituents known to exist in the cannabis plant. The most distinctive and specific class of compounds are the cannabinoids in which make up 66 known components out of the 483 chemical components. Cannabidiol is the medical component that has been found by science to have some benefits for patients. On the other hand, the negative chemical component where science has found of concern when it comes to recreational marijuana is tetrahydrocannabinol (THC) which has high psychoactive components and is a cause for addiction and psychiatric concerns. THC quickly passes from the lungs into the bloodstream, which carries it to organs throughout the body, including the brain. As it enters the brain, THC attaches to cells, or neurons, with specifically attaches to the cannabinoid receptors. Also, the cannabis that was used and abused in the 1970’s had an average THC level of 1.3%. Cannabis being used and abused now currently has an THC level of 32% which is a great cause for severe psychiatric and addiction concern.

THC in chronic users which are considered to be individuals who smoke cannabis 5 of 7 days a week, had been found to have significant damage to their brain’s white matter which helps enable communication among neurons. Also, damaged white matter has been correlated with higher impulsive behavior among cannabis users. Cannabis and THC has been found to negatively affect the volume and gray matter density in the brain which has also been found to be a concern in the process of addiction. Other areas affected by cannabis use is the nucleus accumbens which plays a role in motivation, pleasure and reward processing and the amygdala a region involved in memory, emotion and decision-making. Other long-term negative affects of cannabis and THC use are psychiatric concerns for hallucinations, paranoia and disorganized thinking of users. This has also been found to worsen psychiatric symptoms of individuals with mental health conditions of depression, bipolar disorder and schizophrenia.

Now let us look at some physiological negative impacts of marijuana and cannabis use. There have been negative impacts on the motor and physical functioning of individuals in the area of coordination. This is because THC affects the cerebellum, the area of our brain that controls balance and coordination, and the basal ganglia, another part of the brain that helps control
movement. These effects can influence performance such employment, sports and driving which is a public safety concern. Also, cannabis use has been found to increased heart rate. A normal and healthy hearts has a 70 to 80 beats per minute process, but users of cannabis may increase their heartbeat by 20 to 50 beats per minute. The increased heart rate forces the heart to work extra hard to keep up and over-time place users at higher risk of heart health concerns.

Another area of professional concerns is the impacts on the struggles of our communities of color when it comes to social and legal injustice. Due to law enforcement officers and agencies not having a road-side testing procedure or tool, I have seen more clients come to treatment due to being arrested and given a summons for DUI offenses. Many of these clients reported that they felt targeted because when pulled over by law enforcement officers they were arrested for suspicion of driving under the influence, but not having a testing procedure to document for sure that their suspected marijuana use could be found. I urge you to look at the increase arrests of marijuana users on the basis of suspicion of use or abuse without having a legal way to prove their inability to operate a vehicle by just reasonable suspicion or visual inspection by our law enforcement officers.

I hope that with my testimony you have been able to appreciate the cause for great concerns and negative impacts that recreational marijuana has on our society and its users by impacting their mental health, physical health and social injustice in a negative manner. I have personally and professionally seen how marijuana has been a gateway drug that not only causes addiction, mental health conditions, but also a gateway for users to be involved with the legal system. As lawmakers and representatives of the citizens our great state of Connecticut, we need to find solutions to allow our communities to be healthier and safer. Recreational marijuana does not help us accomplish this goal, it will only continue to provide negative consequences in so many ways. I urge you to not pass any bill that can have such a negative societal impact.

Respectfully,

Dr. Noel Casiano
Director of Research and Quality Assurance
Youth Challenge of CT, Inc
15-17 May Street
Hartford, CT 06105