**Testimony of George Realmuto M.D. 2/21/2023**

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 My first experience with the harms of cannabis was in 1971 when my medical school friend and classmate jumped to his death from the roof of the basic science building. He progressed from a cannabis recreational user, to a functional addict to a terminal phase quickly by using every day and graduating to high potency THC concentrates. Since that time, I lost my daughter and in this room are two other families who lost their children. When some say that cannabis is not lethal it is hurtful, callus and wrong.

I was also the medical director of the Minnesota State Psychiatric Hospital where I treated several adolescents and young adults with cannabis induced psychosis Antipsychotics were particularly ineffective. Cannabis psychosis is misidentified as schizophrenia. Which it is not. Schizophrenia is genetic and involves the specific D2 receptor. I wrote the first scientific paper on the treatment of adolescent Schizophrenia with antipsychotics in 1981 I know the difference between schizophrenia and cannabis psychosis. Cannabis psychosis is due to alterations in the endocannabinoid system whose job is to regulate the space between nerve cells. Antipsychotics have no influence on this. This psychosis is due to the toxic effects of THC on the synapse. THC the psychoactive ingredient in cannabis sits on the cannabinoid receptor for hours not microseconds as in the normal condition. *The developing brain is vulnerable to alterations from stimulation by THC. This is the science despite the denial by some. To me protecting the developing brain is most important.  In a perfect world this health committee would set the legal age at 25- when the brain is mostly mature. But at the very least you must require the packaging material to say* ***“this product should not be used by people under 25.”*** *I know this won’t be popular with the industry interests, but it is the responsible thing to do for public health.*

MY second scientific point is potency. The higher the potency the longer THC remains on the endocannabinoid receptor. The longer the affinity to the endocannabinoid receptor the more damage to the flow of information between neurons at the synapse. What is a safe potency? Lets use what we know. The medical Cannabis program has products of different potency. Some as low as 8%, one as high as 19% Let’s say 15% is a good place to set the cap. Remember the higher you go with the cap the more damage to more people. We do not need everclear cannabis. The bills authors would like to leave this question to the cannabis board of 27 people. There is one public health addiction person on that committee. The other members will have conflicts of interest with a cap; If I can’t reach you with your open minds why would you think that the board will come up with a safe cap.

Finally, there is some movement in the authors thinking about moving the data collecting and research on the population effects of cannabis to the school of public health. I support that but here is what you need to know. There is no prohibition on studying cannabis at the population public health level. The problem is with clinical studies. IF you want an answer to what will treat cannabis psychosis then you need to open the door to the medical school to do clinical studies and if you want to understand what is going on neuroanatomically you need to include the basic science people at the university. IT is the clinical group that is restricted from studies because of the FDA controlled drug classification of Cannabis.

Then go a step further. The war on drugs created so much stigma around addiction and the addict that we need a sea change in our thinking. We need an ambitions and well funded high school education and early intervention program around how to manage addictive stimuli Including cell phones and social media.

Age limit messaging. Potency caps, Public health, clinical and basic scinece research, educating and treatment.

*Can answer questions.*