Date of Testimony 3/16 or 3/17 Topic Title: MEDICAL MARIJUANA Disposition: OPPOSED State one of the following: ORAL virtual Testimony CATHERINE ANTLEY MD 802 735 5478 boltonsprings@gmail.com Hello my name is Dr. Catherine Antley I am a Laboratory Director Vermont Dermatopathology. I also serve on the Board of Directors of the International Academy on the Science and Impact of Cannabis.

In 1979 Keith Stroup, head of NORML stated, "We will use [medical marijuana] as a red herring to give marijuana a good name." Thus legalization advocates admitted that "medical " marijuana is a pretext for legalization. Recently, advocates have pushed their agenda through "medicine by popular vote" rather that the rigorous scientific testing system devised in this country to protect Americans from quack medicine.

Where did big marijuana learn this trick? In the 1920s and 30s the tobacco industry relied on "Dr. Batty's asthma cigarettes" and later "Scientific Evidence of Effects of Smoking!.. Chesterfield Is Best For You" to sell their products. It worked.

More recently "medical marijuana " was approved in Colorado in 2001; a commercial scheme went into effect in July 2010. What was the result?

From 2001-2008 Colorado processed **6000 applications.** From 2009-2012 **161,690 applications** were processed. How did this affect teen use? In 2006 Colorado was close to the national average on past month teen marijuana use. By 2011, Colorado was one of the states at the top of the national average in teen marijuana use. Vermont saw a similar pattern.

From 2009 to 2012, drug related high school suspensions skyrocketed from 3,100 to 4,700, the very years of commercialization of "medical" marijuana.

By 2011, a third to a half of Colorado teens entering treatment for marijuana addiction were obtaining their marijuana from a "licensed user" (i.e. diverted medical marijuana) (Thurstone et al).

Dispensaries in Colorado and in Vermont are not staffed by licensed pharmacists, even though shop owners help or decide dose, frequency, potency, and apparently also regarding toxicity and contra indication. Shops cater to teens and young

adults with bikini clade young women in heels and lipstick on the walls of "medical " dispensaries.

Sixty nine percent of medical marijuana shop keepers "bud tenders" in one study recommended marijuana to pregnant women and many suggested that the women not consult their doctor.

During expansion of medical marijuana (and early recreational marijuana) in Colorado , teen arrests for marijuana use in Denver public schools increased by 6% from 2013 to 2014.

Regarding conditions which have been "approved" for medical marijuana:

The objective criteria diagnoses such as HIV, cancer, end of life, nausea from chemotherapy increased during commercialization by 11 times, but the <u>subjective</u> <u>diagnosis of "severe pain" increased by 30 times</u>. In 2012, 94% of medical marijuana was given for the subjective diagnosis of "severe pain", mostly to young men. HIV was 1%, glaucoma 1%, cachexia 1%, cancer 3%.

"Post-traumatic stress disorder" should not qualify as an indication for "medical marijuana". PTSD is not like AIDS or terminal cancer with a black and white diagnosis; it is a subjective diagnosis.

Studies show that marijuana used in cases of PTSD is linked to decreased recovery from substance abuse and increased aggression, endangering the people around the user and increasing self harm. Medical marijuana for PTSD will increase violence and suicide, adverse reactions in people with PTSD.

The Medical Director of the largest outpatient mental health facility in Chittenden County, Vermont, Dr. Sandy Steingard has observed., "Some people report dramatic benefits from marijuana that is in contrast to what I have directly observed. I have met with patients who appear to develop psychotic symptoms when using marijuana yet insist that this drug is highly beneficial.".."To include PTSD as a diagnosis you are essentially taking a back door to legalization under the guise of medical authority."

Vermont Health Department Reviewed the science in 2017 on PTSD reporting on new studies not included in their Health Impact Assessment last year): *"PTSD*: Johnson et al. (2016) reported on a study they conducted investigating the role of marijuana use and frequency of use in patients with PTSD. In a matched case-

control design (marijuana users versus non-users), they found that marijuana use did not reduce PTSD symptoms. In addition, they found that "there was also no association between PTSD scores and frequency of cannabis use" (p. 439). Gentes et al. (2016) investigated marijuana use in a sample of veterans who presented at a specialty outpatient PTSD clinic. After controlling for several potential confounding influences (age, race, service area, and combat exposure) they reported that marijuana use was associated with significantly greater PTSD symptom severity, other drug use, hazardous alcohol use, depressive symptoms, and suicidality. "

In addition, the report on marijuana from the National Academies of Sciences, Engineering, and Medicine, noted the Johnson et al. (2016) study found that "cannabis users were more likely to experience suicidal ideation." The NAS report found only one, small (20 subjects) study that showed an improvement in PTSD symptoms due to cannabis, but that was with Nabilone, an FDA-approved prescription medicine, not medical marijuana. It found a larger number of studies showing that PTSD was not improved or was made worse when cannabis was used. The report also reported on several studies indicating that having PTSD was a risk factor for developing cannabis dependence and for increased severity of cannabis withdrawal symptoms and the factors of cannabis craving (compulsivity, emotionality, and anticipation). The NAS concluded that more research on PTSD and cannabis was needed.

Not only is there no good evidence that cannabis is helpful for PTSD there is scientific evidence that cannabis leads to more aggression, more PTSD, and more substance use <u>https://www.ncbi.nlm.nih.gov/pubmed/26455669</u>

Medical marijuana is associated with an increase in marijuana use and with an increase in marijuana harms such as increased marijuana use disorder. Patients have taken marijuana with cancer treatment and become psychotic. <u>http://www.reuters.com/article/us-health-marijuana-</u>

idUSKBN17830J "Where medical marijuana is legal, illegal use climbs. " "Researchers found that illegal use of marijuana and rates of cannabis use disorder rose to a greater extent in U.S. states that adopted laws legalizing marijuana for medical purposes than in states that didn't adopt such laws."

Lastly it is not a regulated or pure product. Cannabis in state sanctioned shops still contains dangerous pesticides, heavy metals, mold. <u>https://www.westword.com/marijuana/in-random-mold-tests-80-percent-of-denver-marijuana-dispensaries-fail-11467203</u> State sanctioned shops still have molds heavy metals, Massachusetts Health Departments in attentive to patient complaints <u>http://www.smithsonianmag.com/science-nature/modern-marijuana-more-potent-often-laced-heavy-metals-and-fungus-180954696/</u>

Testing is inadequate Oregon was able to test only 3% of shop licensed product. Oregon Secretary of State. 2019,

https://sos.oregon.gov/audits/Documents/2019-04.pdf Only 33% of growers were monitored for safety and reliability.¹ 42.8 % of CBD products were under labeled by more than 10% for concentration. 26% over labeled. <u>30%</u> were accurately labeled. Bonn-Miller MO et al. Labeling Accuracy of Cannabidiol Extracts Sold Online. JAMA. 2017;318(17):1708-1709 Cannabis testing laboratory fraud has also been shown to contribute to unreliable product offered for sale to the public. https://www.nbcbayarea.com/news/local/Industry-Insiders-Warn-of- Fraud-at-Marijuana-Testing-Labs-458125743.html (Accessed August 25, 2019.)

Caution: *Laetrile* approved by state legislatures despite harmful profile, not helpful against cancer

LAETRILE, a federally banned, underground drug, has been inappropriately used for the prevention and treatment of cancer since 1952. Several state legislatures have passed bills legalizing its use. The drug has been proven to not cure cancer, can be poisonous. *Is state legislature the best place to evaluate an addictive, psychoactive drug?*

'Unfortunately, the lack of scientific evidence about the drug and the views of responsible, orthodox spokespersons on Laetrile issues were viewed as of no consequence by State legislators and the public. Consumer groups were notably and surprisingly silent on this major public health issue.'

Laetrile: The Regulatory Challenge of an Unproven Remedy STUART L. NIGHTINGALE, MD 10/17/1983

https://stacks.cdc.gov/view/cdc/66111/cdc_66111_DS1.pdf?

I urge a NO vote for medical marijuana in Kansas.