

## **REPORT TO THE BOARDS OF HEALTH**

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### **Decriminalization of Recreational Marijuana - Public Health Considerations**

The estimated lifetime prevalence of cannabis use in the United States for people 16 years of age and over is 42.4%. New Zealand is a close second at 41.9%. However, after that, the highest rate is 19.8% and the majority of other countries are at or below 10% (1). Currently in Michigan, there are two separate petitions circulating the state in an attempt to get legislation to the ballot November 2016 allowing the public to decide on the issue of legalization of recreational cannabis use. The Michigan Cannabis Coalition (MCC) and the Michigan Comprehensive Cannabis Law Reform Committee (MCCLRC) are both attempting to collect 252,523 signatures to allow a vote on the legalization of the possession or use of recreational marijuana by adults 21 years of age or older and allow for sales at retail shops. Recent polling suggests roughly 50% of Michigan voters would support such a concept at this time (2). Four other states currently have legalized recreational marijuana: Washington and Colorado began their program in 2013; Alaska and Oregon started in 2014.

Initiating laws such as these are great challenges. Many feel cannabis, or marijuana, is no different than alcohol or tobacco and should be treated in a similar way. However, there are too many differences to discuss all of them in this brief report. A major difference is that tobacco and alcohol is manufactured and packaged in a regulated factory that is overseen by the FDA and the Alcohol and Tobacco Tax and Trade Bureau. The production, packaging and labeling of those products is very carefully regulated. While it is possible to grow your own tobacco or make your own beer or wine, this is generally the exception.

On the contrary, there are hundreds of different strains of cannabis at this time. Some are treated with pesticides and fertilizers and others are not. In the past 15 years, the THC potency of cannabis has tripled. Since 1960, it has gotten 5 times stronger (3) and different strains have different concentrations. THC, or tetrahydrocannabinol, is the psychoactive compound in marijuana. Having marijuana taken over by the tobacco companies to be better regulated, however, would likely lead down the same path we went with cigarette smoking such as marketing to kids and covering up of research. States that have legalized recreational marijuana have had to develop ways to have 3<sup>rd</sup> party labs test marijuana for potency, microbial, toxins and other contaminants as well as somehow regulate the endless variety of cannabis containing products and edibles.

Another difference between marijuana and many other addictive substances is there is no proven treatment for cannabis use disorder at this time other than counselling. There are 2 FDA approved medications for alcohol use disorder, 7 FDA approved treatments for smoking cessation and 3 FDA approved medications for opioid use disorder, including heroin. It is estimated that it will take up to 10 years to see the full social and psychophysical effects of legalization of marijuana (4). The cost of treating those struggling with cannabis use disorder will be challenging.

Some still believe marijuana is safe and non-addictive. About 1 in 6 adolescents and 1 in 10 adults who try marijuana (i.e., have one expose to it) will become addicted (5). Adolescents and young adults that even just occasionally use marijuana have a higher risk of using alcohol, tobacco and other drugs such as cocaine, ecstasy, opioids and methamphetamines in the future (6,7,8,9). After commercial sale of medical marijuana started in Colorado in 2009, there was a decline in the number of adolescents and young adults that viewed cannabis use as risky; they reported increased ease of access to cannabis and higher rates of cannabis use and dependence (10). 74% of Denver-area teens in treatment for marijuana use said they used somebody else's medical marijuana an average of 50 times (11).

Colorado did see a significant increase in marijuana related ED visits and hospitalizations in the first 6 months after legalization of retail marijuana. The number of marijuana related calls to their statewide poison control center has been slowly increasing over the past 10 years but it doubled in the first year of legalization of recreational cannabis. Colorado State Patrol DUI citations involving marijuana increased initially but have returned to baseline. There

was an increase in THC positive drivers involved in accidents as well as accidents causing fatalities compared to the previous year (12).

There is a belief that states desire legalization in order to profit from tax income. Money recovered in taxes is typically exhausted by the costs of the program, that is, education to keep children and adolescents from using marijuana, enforcement of policies, testing of facilities, etc. (13). With time, costs will increase. For comparison, the total national tax and fee revenue for alcohol and tobacco is \$39 billion/year. However, the total legal, health, social and regulatory costs for both tobacco and alcohol use is at least \$449 billion/year (13, 14). A recently published study has found that the costs from excessive alcohol use alone are up to \$249 billion/year in the nation (14). Marijuana, like tobacco and alcohol, has many health and societal consequences (15, 16 for excellent reviews). Society will have the added cost of treating drug use disorders, memory and learning problems, decreased IQ and poor academic achievements. We may see increased rates of school drop outs, unemployment and dependence on state aid programs. Health care cost will need to be used to address the increased rates of psychosis, schizophrenia and lung disease. Costs of these issues will likely surpass any income for taxation.

Another concern states face is possible federal intervention. In a statement from the US Attorney General (17), “enforcement of state law by state and local law enforcement and regulatory bodies should remain the primary means of addressing marijuana-related activity. If state enforcement efforts are not sufficiently robust to protect against the harms (of marijuana listed previously in the document), the federal government may seek to challenge the regulatory structure itself in addition to continuing to bring individual enforcement actions, including criminal prosecutions, focused on those harms”. Some of the harms listed in the document include distribution to minors, drugged driving and the exacerbation of other adverse public health consequences associated with marijuana use and preventing marijuana possession or use on federal property. Many states with legalization of recreational and/or medical marijuana have already seen an increase of these harms. Even if current legislatures do not choose to enforce federal law, future politician may decide to so.

As providers of public health services, legalization of recreational marijuana will create challenges, costs and additional work. There will be new regulations to follow. Potential concerns are listed below.

### **Things We May Face If Legalization Occurs**

- Inspection of Retail Marijuana Testing Facilities
- Inspection of kitchens/shops used to make edible products
- Time and money spent on educating of teens and adults re: responsible use
- Time and money spent on educating tourists re: responsible use
- Time and money spent on educating staff re: new law and policies
- Concern regarding loss of federal funding or grants due to being a “pot state”
- Increase demand for public health services due to unemployment, mental illness, learning disorders, drug addiction
- Further decrease in budget for public health
  - State money diverted to issues discussed above
- Increased obesity rates likely
- Dealing with new, developing marijuana issues and the public health issues related to them
  - Butane hash oil for example\*
- Prevention of growing marijuana on public land
  - Environment impact of marijuana growth
- Prevention of marijuana possession or use on federal property
- Public Health employee use/intoxication
  - Need for random drug screening policy?
- Others not thought of or realized yet as no state has had legalization long enough to identify all areas of concern

\* Dabbing butane hash oil is the inhalation of a concentrated tetrahydrocannabinol (THC) product created through butane extraction, THC concentration may be up to 80%; high flame/explosion risk (the “crack” of marijuana)

## **Suggested Recommendations of the Boards of Health**

1. Work with leaders in the community to publically and formally oppose legalization of marijuana from a public health standpoint
2. Consider supporting a 3<sup>rd</sup> option; rather than being legal or illegal, focusing attention and money on reform of current system, such as development of drug treatment courts rather than incarceration and stigmatization of users.
3. For a scientific based approach, refer to Smart Approaches to Marijuana (SAM) at [www.learnaboutsam.org](http://www.learnaboutsam.org).

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