

Opiates and Medical Marijuana: Recent Developments in Science, Law and Policy

Dean Hashimoto, MD, JD

Partners HealthCare System

Mass. Dept. of Industrial Accidents

Boston College Law School



Issues

- Scientific report: **The National Academies of Sciences, Engineering, and Medicine** (January 2017): *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*
 - Chronic pain
 - Occupational accidents and injuries
 - Achieving abstinence in use of addictive substances
- Medical marijuana laws and the opioid epidemic



Legalization of marijuana

- 28 states and District of Columbia legalized cannabis for medical treatment;
- 8 states and the District of Columbia have also legalized for recreational use.
- 22.2 million have used in past month.



National Academies of Sciences report

- Comprehensive, in-depth review of existing evidence regarding the health effects and potential therapeutic uses.
- Arrived at nearly 100 research conclusions and categorized the weight of evidence (conclusive, substantial, moderate, limited, no or insufficient).
- Provided recommendations regarding ways to improve research quality.

Examples of NAS conclusions, relevant to employment context

Conclusive/substantial support:

- Improvement in chronic pain in adults;
- Increased risk of motor vehicle crashes;
- Development of schizophrenia and other psychoses.

Moderate support:

- Improvement in short-term sleep outcomes for fibromyalgia, chronic pain;
- Increased impairment of learning, memory, and attention;
- Increased substance dependence on alcohol, tobacco, and illicit drugs.

Potential therapeutic role to treat chronic pain

- Relief from chronic pain is by far the most common condition cited by patients for the medical use.
- **Substantial evidence** that cannabis is an effective treatment for chronic pain in adults based on well-controlled clinical trials.
- Very little is known about the efficacy, dose, routes of administration, or side effects of commonly used and commercially available cannabis products.



Association between cannabis use and occupational injury?

- Analyzed six primary literature articles, including several that found an association.
- Conclusion: There are limitations in the available studies, and it currently is **not possible to determine** whether general, non-medical cannabis use is statistically associated with occupational accidents or injuries.



Effective treatment for achieving abstinence from addictive substance?

- Did not identify clinical research studies evaluating effectiveness in reducing dependency on opioids.
- Conclusion: **No evidence** to support or refute the conclusion that cannabinoids are an effective clinical treatment for achieving abstinence in the use of addictive substances.



Medical marijuana laws reduce opioid addiction and deaths

- M. Bachhuber, B. Saloner, C.O. Cunningham, C. Barry. *Medical cannabis laws and opioid analgesic overdose mortality in the United States, 1999-2010*. JAMA Internal Medicine, 2014; 174(10):1668-1673.
 - Cannabis laws and state-level death certificate data from 1999-2010
- D. Powell, R.L. Pacula, M. Jacobson. RAND BING Center for Health Economics, WR-1130, Nov. 2015.
 - Treatment admissions for addiction to pain relievers (1992-2012);
 - State-level overdose deaths (1999-2013)



M. Bachhuber et al, JAMA Internal Medicine, 2014

- Lower mean annual opioid overdose mortality rate:
 - -24.8% (95% CI, -37.5% to -9.5%)
- Association in each year after implementation of law strengthened over time.
 - -19.9% in year 1 (95% CI, -30.6% to -7.7%)
 - -33.3% in year 6 (95% CI, -44.7% to -19.6%)
- Conclusion: Medical cannabis laws are associated with significantly lower state-level opioid overdose mortality rates.



D. Powell et al., RAND report 2015

- Focus on 18 states that allow for dispensaries
- States permitting medical marijuana dispensaries experience:
 - 49% decrease in substance abuse treatment admissions
 - 18% reduction in opioid overdose deaths.



Conclusions

- Strongest scientific support for expanding coverage by WC:
 - Chronic pain;
 - An alternative to chronic opioid prescriptions.
- Substantial medically based obstacles to WC coverage:
 - Standardizing prescription practices;
 - Acceptance by medical treatment guidelines.
- Substantial legal obstacles to WC coverage:
 - Federal law, FDA and other financial statutes;
 - State WC statutes and regulations.