## New Report: US Adult Illicit Cannabis Use, Cannabis Use Disorder, and Medical Marijuana Laws 1991-1992 to 2012-2013

27 April 2017

Publication Date: April 26, 2017

US Adult Illicit Cannabis Use, Cannabis Use Disorder, and Medical Marijuana Laws1991-1992 to 2012-2013

<u>Deborah S. Hasin, PhD<sup>1,2,3</sup></u>; <u>Aaron L. Sarvet, MPH<sup>1,2</sup></u>; <u>Magdalena Cerdá, DrPH<sup>4</sup></u>; et al <u>Katherine M. Keyes, PhD<sup>1,3</sup></u>; <u>Malka Stohl, MS<sup>2</sup></u>; <u>Sandro Galea, MD, DrPH<sup>5</sup></u>; <u>Melanie M. Wall, PhD<sup>1,2,6</sup></u> Author Affiliations <u>Article Information</u>

JAMA Psychiatry. Published online April 26, 2017. doi:10.1001/jamapsychiatry.2017.0724

Editorial

Medical Marijuana Laws and Cannabis Use

Wilson M. Compton, MD, MPE; Nora D. Volkow, MD; Marsha F. Lopez, PhD, MHS Key Points**Question** Are US state medical marijuana laws one of the underlying factors for increases in risk for adult cannabis use and cannabis use disorders seen since the early 1990s?

**Findings** In this analysis using US national survey data collected in 1991-1992, 2001-2002, and 2012-2013 from 118 497 participants, the risk for cannabis use and cannabis use disorders increased at a significantly greater rate in states that passed medical marijuana laws than in states that did not.

**Meaning** Possible adverse consequences of illicit cannabis use due to more permissive state cannabis laws should receive consideration by voters, legislators, and policy and health care professionals, with appropriate health care planning as such laws change.

Abstract **Importance** Over the last 25 years, illicit cannabis use and cannabis use disorders have increased among US adults, and 28 states have passed medical marijuana laws (MML). Little is known about MML and adult illicit cannabis use or cannabis use disorders considered over time.

**Objective** To present national data on state MML and degree of change in the prevalence of cannabis use and disorders.

**Design, Participants, and Setting** Differences in the degree of change between those living in MML states and other states were examined using 3 cross-sectional US adult surveys: the National Longitudinal Alcohol Epidemiologic Survey (NLAES; 1991-1992), the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC; 2001-2002), and the National Epidemiologic Survey on Alcohol and Related Conditions–III (NESARC-III; 2012-2013). Early-MML

states passed MML between NLAES and NESARC ("earlier period"). Late-MML states passed MML between NESARC and NESARC-III ("later period").

**Main Outcomes and Measures** Past-year illicit cannabis use and *DSM–IV* cannabis use disorder.

**Results** Overall, from 1991-1992 to 2012-2013, illicit cannabis use increased significantly more in states that passed MML than in other states (1.4-percentage point more; SE, 0.5; P = .004), as did cannabis use disorders (0.7-percentage point more; SE, 0.3; P = .03). In the earlier period, illicit cannabis use and disorders decreased similarly in non-MML states and in California (where prevalence was much higher to start with). In contrast, in remaining early-MML states, the prevalence of use and disorders increased. Remaining early-MML and non-MML states differed significantly for use (by 2.5 percentage points; SE, 0.9; P = .004) and disorder (1.1 percentage points; SE, 0.5; P = .02). In the later period, illicit use increased by the following percentage points: never-MML states, 3.5 (SE, 0.5); California, 5.3 (SE, 1.0); Colorado, 7.0 (SE, 1.6); other early-MML states, 2.6 (SE, 0.9); and late-MML states, 5.1 (SE, 0.8). Compared with never-MML states, increases in use were significantly greater in late-MML states (1.6percentage point more; SE, 0.6; P = .01), California (1.8–percentage point more; SE, 0.9; P = .04), and Colorado (3.5-percentage point more; SE, 1.5; P = .03). Increases in cannabis use disorder, which was less prevalent, were smaller but followed similar patterns descriptively, with change greater than never-MML states in California (1.0–percentage point more; SE, 0.5; P = .06) and Colorado (1.6-percentage point more; SE, 0.8; P = .04).

**Conclusions and Relevance** Medical marijuana laws appear to have contributed to increased prevalence of illicit cannabis use and cannabis use disorders. State-specific policy changes may also have played a role. While medical marijuana may help some, cannabis-related health consequences associated with changes in state marijuana laws should receive consideration by health care professionals and the public.

http://jamanetwork.com/journals/jamapsychiatry/fullarticle/2619522

**FULL REPORT**