STATE DRIVING UNDER THE INFLUENCE OF DRUGS LAWS

Alexandra N. Origenes, Sarah A. White, Emma E. McGinty, and Jon S. Vernick

Abstract:
Drug-impaired driving is a growing problem in the U.S. States regulate drug-impaired driving in different ways. Some do not name specific drugs or amounts. Others do identify specific drugs and may regulate cannabis separately. We provide up-to-date information about these state laws.

Introduction

Driving under the influence of drugs (DUID) or cannabis (DUIC) is a growing public health problem. Among the effects of driving under the influence of drugs are slowed reaction times, impaired distance judgement, recklessness and aggressive driving, impaired cognitive functioning, and more.[1]

From 1995 to 2016, the proportion of fatally injured drivers testing positive for opioids increased from 1% to 7%.[2] By 2020, that prevalence had risen to an estimated 12%.[3] In addition, in 2020 approximately 5% of the United States driving-age population reported driving under the influence of cannabis (DUIC) within the prior twelve months; prevalence was much greater among young adults, who reported an annual prevalence of nearly 30%.[4] Other research corroborates this: one study found that from 2002 to 2017, the prevalence of adult-population, past-year cannabis use (not necessarily while driving) went from 10.4% to 15.3%.[5] Further, cannabis is the most commonly identified drug in the blood of drivers following motor vehicle crashes when excluding alcohol.[6] Whether opioids, cannabis, or other drugs in the system of these drivers actually led to meaningful impairment in their ability to drive is unknown — and remains one of the challenges regarding enforcement of DUID and DUIC laws.

> The majority of U.S. states identify drugged driving as a salient public health concern[7]; however, the legal landscape of drugged driving laws remains inconsistent from state to state.

While all states have some form of impaired driving law that encompasses drug use[8], fewer have a more specific driving under the influence of drugs (DUID) law, and still fewer have a DUIC law. Cannabis is, of course, also a drug. But some states have chosen to regulate DUID and DUIC separately.

Since 2010, there has been a concerted effort to lobby states to amend their DUID/C laws to per se or zero tolerance laws in order to mitigate the complexities of enforcing driving under the influence of drugs.[9] Complicating the matter are the frequent changes in cannabis law and policy over the last decade, including the introduction of medical cannabis laws (MCL), decriminalization of cannabis, and legalization of cannabis for adult use (sometimes referred to as "recreational" use).[10]

Many drugs can impact driving ability, including schedule I controlled substances, prescription medications, and over-the-counter drugs accessible directly is not as straightforward as driving under the influence of alcohol (DUIA) laws. Though some of the end effects can be similar, measuring drug impairment and influence are more complex to determine than for alcohol. Drugs tend to have variable dose-response relationships between two drugs, and even within different portions of the population. Further, different drugs may require different types of measurements (i.e., there is unlikely to be one "breathalyzer" analog in the course of a traffic stop that can detect all drugs a person may have consumed).[11]

Much of the currently available analysis about drugged driving has been developed in conjunction with DUIA research. There have only recently been improved efforts to collect drug measurements when an individual is stopped for suspected impaired or under-the-influence driving. To facilitate DUID and DUIC research, there is a need for accurate data regarding existing state laws. Policy evaluations typically require up-to-date information about the relevant laws. The present research provides state DUID and DUIC laws, and their state statutory citations as of January 2023.

Methods
We conducted a multi-step approach to identifying, categorizing, and analyzing state DUID and DUIC laws, relying on a legal mapping methodology — part of the larger field of legal epidemiology. Legal mapping is a public health law method — also referred to as a "50 state survey" — to identify existing state laws.[12]

We began by identifying existing compilations of state DUID and DUIC laws. In particular, we initially relied on older compilations provided by the Governors Highway Safety Association[13] and a 2008 report from the National Highway Traffic Safety Administration.[14] Next, we employed traditional legal research techniques, using Westlaw Precision (Thomson Reuters), to confirm the accuracy of these compilations. Westlaw queries began with a natural language search of the state code, with filters applied for key sections or words. Natural language searches included "driving under the influence," "operating under the influence," "driving & under & the & influence," "driving under the influence /s drugs OR controlled substance*," "[state name] driving under the influence /p drugs OR controlled

substance*," "cannabis," "marijuana," "tetrahydrocannabinol," and combinations thereof. Additional searches for related sections, such as the state-level controlled substances acts, were conducted using similar Boolean search terms if the section was not directly linked in Westlaw. Westlaw filters for Statutes & Court Rules and jurisdiction (state) were applied when searching for the relevant driving under the influence sections. The existing compilations served as a starting point, but legal research was conducted for all 50 states to determine the most current version of all relevant laws, as of January 1, 2023.

For purposes of analysis, we divided the state laws into the following categories: (1) laws addressing cannabis-impaired driving (DUIC laws); (2) laws addressing driving while impaired by specific drugs other than cannabis (DUID laws); and (3) laws addressing impaired driving more generally, but which did not name specifically applicable drugs. DUID laws could be either per se laws, which specify a particular amount of a given drug that qualifies as impaired driving, or zero tolerance laws, which restrict driving with any measurable amount of a named drug. We excluded those state laws from further analysis which did not name a specific drug (category 3 above). This decision was made as zero tolerance or per se laws impose an enforceable standard, where general impairment/influence language, in the absence of actionable criteria in the statute, do not.

To ensure accuracy in the identified code sections, two of the authors conducted an iterative review process where the laws were coded by one author, and a second author validated the chosen code section. If the authors disagreed or were unsure, both authors met and resolved the matter via mutual agreement.

Results

As of January 1, 2023, 33 states and the District of Columbia had a DUID law applicable to at least one named drug other than cannabis. Twenty-nine states and D.C. had a law specifically applicable to cannabis (DUIC laws). All of the 29 states with a DUIC law also had a DUID law (see Table 1). Four states had a DUID law but no DUIC law. Seventeen states lacked either a DUID or DUIC law (not shown in Table).

DUID per se laws typically included language providing specific limits for named drugs. For example, Virginia's DUID law forbids driving with "… a blood concentration of any of the following substances at a level that is equal to or greater than: (a) 0.02 milligrams of cocaine per liter of blood, (b) 0.1 milligrams of methamphetamine per liter of blood, (c) 0.01 milligrams of phencyclidine per liter of blood, or (d) 0.1 milligrams of 3,4-methylenedioxymethamphetamine per liter of blood…"[15]

Other states refer to any measurable amount of specific substances (zero tolerance laws) and may crossreference to a separate list of "controlled substances." For example, Kentucky forbids driving "… (d) While the presence of a controlled substance listed in subsection (12) of this section is detected in the blood, as measured by a scientifically reliable test, or tests, taken within two (2) hours of cessation of operation or physical control of a motor vehicle …"[16] Kansas provides an example of one of the

17 states (not in Table) which criminalize impaired driving generally, but which do not list any specific drugs. In Kansas, it is unlawful to drive "under the influence of any drug or combination of drugs to a degree that renders the person incapable of safely driving a vehicle."[17]

Table 1
State Driving Under the Influence of Drugs (DUID) and Cannabis (DUIC) Laws (as of 1/1/2023)

State	Drugs generally (Per se / Zero tolerance)	Marijuana (Per se/ Zero tolerance)	State Code Section*
Alaska	Yes	Yes	Alaska Stat. Ann. § 28.35.030(a)(1)
Arizona	Yes	Yes	Ariz. Rev. Stat. Ann. § 28-1381(A)(3)
Colorado	Yes	Yes	Colo. Rev. Stat. Ann. § 42-4-1301(1)(a); § 42-4-1301(6)(a)(IV)
Connecticut	Yes	Yes	Conn. Gen. Stat. Ann. § 14-227a(a)
Delaware	Yes	Yes	Del. Code Ann. tit. 21 § 4177(a)(2), (6)
D.C.	Yes	Yes	D.C. Code Ann. § 50-2206.11(2)
Georgia	Yes	Yes	Ga. Code Ann. § 40-6-391(a)(6)
Idaho	Yes	Yes	Idaho Code Ann. § 18-8004(1)(a)-(c)
Illinois	Yes	Yes	625 Ill. Comp. Stat. Ann. 5/11-501(a)(6); 5/11-501(a)(7)
Indiana	Yes	Yes	Ind. Code Ann. § 9-30-5-1(c)
Iowa	Yes	Yes	Iowa Code Ann. § 321J.2(1)(c)
Kentucky	Yes	-	Ky. Rev. Stat. Ann. § 189A.010(1)(d), (12)(a)-(p)
Louisiana	Yes	Yes	La. Stat. Ann. § 14:98(c)
Maine	Yes	Yes	Me. Stat. tit. 29-A, § 2411(1-A)(A)(1)
Massachusetts	Yes	Yes	Mass. Gen. Laws Ann. ch. 90, § 24(1)(a)(1)
Michigan	Yes	Yes	Mich. Comp. Laws Ann. § 257.625(1)(a)
Minnesota	Yes	-	Minn. Stat. Ann. § 169A.20(2), (7)
Mississippi	Yes	Yes	Miss. Code Ann. § 63-11-30(1)(c)
Missouri	Yes	Yes	Mo. Ann. Stat. § 577.001, 010(1)
Montana	Yes	Yes	Mont. Code Ann. § 61-8-401(1)(b), (c); MCA § 61-8-411(1)(a)
Nevada	Yes	Yes	Nev. Rev. Stat. Ann. § 484C.110. 2(a); 484C.110.4(a)
New Jersey	Yes	Yes	N.J. Stat. Ann. § 39:4-50(a)
North Carolina	Yes	-	N.C. Gen. Stat. Ann. § 20-138.1(a)(3)
Ohio	Yes	Yes	Ohio Rev. Code Ann. § 4511.19(A)(1)(a); 4511.19(A)(1)(j)(vii)
Oklahoma	Yes	Yes	Okla. Stat. Ann. tit. 47, § 11-902(A)(3)
Oregon	Yes	Yes	Or. Rev. Stat. Ann. § 813.010(1)(b)
Pennsylvania	Yes	Yes	75 Pa. Stat. and Cons. Stat. Ann. § 3802(d)(1)(i)-(iii)
Rhode Island	Yes	Yes	R.I. Gen. Laws Ann. § 31-27-2(a)
South Dakota	Yes	Yes	S.D. Codified Laws § 32-23-1(2)
Utah	Yes	Yes	Utah Code Ann. § 41-6a-517(2)(a)
Virginia	Yes	-	Va. Code Ann. § 18.2-266(v)(a)-(d)
Washington	Yes	Yes	Wash. Rev. Code Ann. § 46.61.502(1)(c), (d); 46.61.502(1)(b)
West Virginia	Yes	Yes	W.Va. Code, § 17C-5-2(e)
Wisconsin	Yes	Yes	Wis. Stat. Ann. § 346.63(1)(am)

* States where only one code section citation is listed have only one statute that encompasses both DUID and DUIC laws. States where two code sections are listed have two separate statutes for DUID and DUIC. In states where there are two code sections listed, the DUID law is listed first.

Conclusion

Our research suggests several opportunities for states to improve their ability to address impaired driving. The 17 states lacking a DUID law which name specific drugs should consider enacting such a law. These states already have expressed their concern — through legislation — with drug impaired driving. However, failure

to name specific drugs is likely to make the laws more difficult to enforce. These laws may force courts and/or law enforcement to rely on potentially subjective indicators of impairment.

The rapidly changing landscape of cannabis regulation — including legalization of adult use — suggests the need to address cannabis-impaired driving as well. Yet 21 states lack a specific DUIC law.

There is an urgent need for additional evaluations of DUID and DUIC laws — including which components of the laws are most effective. By providing upto-date information for these state laws, our findings enable researchers to take advantage of robust study designs. With an increasing number of overall motor vehicle crash deaths in the U.S., particularly during the pandemic, identifying new interventions is more important than ever.

References

1. S. Azagba, L. Shan, and K. Latham, "Rural-urban differences in cannabis detected in fatally injured drivers in the United States," Preventive Medicine 132 (2020): 1–6; *Drug-Impaired Driving: Marijuana and Opioids Raise Critical Issues for States*, Governors Highway Safety Association, available at <https://www.ghsa.org/resources/DUID18> (last visited Nov. 17, 2023).

2. E. Beaulieu et al., "Impacts of alcohol and opioid polysubstance use on road safety: Systematic review," *Accident; Analysis and Prevention* 173 (2022): 106713.

3. National Highway Traffic Safety Administration, *Update to Special Reports on Traffic Safety During the COVID-19 Public Health Emergency: Fourth Quarter Data*, DOT HS 813 135 (June 2021).

4. C.P. Salas-Wright et al., "Prevalence and Correlates of Driving Under the Influence of Cannabis in the U.S.," *American Journal of Public Health* 60 no. 6 (2021): e251–e260.

5. David S. Fink et al., "Medical Marijuana Laws and Driving Under the Influence of Marijuana and Alcohol," *Addiction* 115 no. 10 (2020): 1944–1953.

6. *Drugged Driving DrugFacts* (December 2019), National Institutes of Health: National Institute on Drug Abuse, available at <https://nida.nih.gov/publications/drugfacts/drugged-driving> (last visited Nov. 17, 2023); Governors Highway Safety Association, *supra* note 1; T. Lensch et al., "Cannabis use and driving under the influence: Behaviors and attitude by statelevel legal sale of recreational cannabis," *Preventive Medicine* 141 (2020): 1–7.

7. Governors Highway Safety Association, *supra* note 1.

8. Salas-Wright, *supra* note 4.

9. R.L. DuPont et al., "The Need for Drugged Driving Per Se Laws: A Commentary,'" *Traffic Injury Prevention* 13 no. 1 (2012): 31–42.

10. Fink, *supra* note 5; Lensch, *supra* note 6; R.L. Haffajee and A. Mauri, *Cannabis Legalization In The US: Population Health Impacts* (July 1, 2021), Health Affairs, available at <https://www.healthaffairs.org/do/10.1377/hpb20210701.500845/full/> (last visited Nov. 17, 2023); E.L. Sevigny, "The effects of medical marijuana laws on cannabis-involved driving" *Accident; Analysis and Prevention* 118 (2018): 57–65; Fink, *supra* note 5.

11. DuPont, *supra* note 9.

12. A.C. Wagenaar, R.L. Pacula, S. Burris, ed. *Legal Epidemiology*, 2nd edition. (San Francisco, CA: Jossey Bass, 2023).

13. *Drug Impaired Driving*, Governors Highway Safety Association, available at <https://www.ghsa.org/state-laws/issues/drug%20impaired%20driving> (last visited Nov. 17, 2023).

14. National Highway Traffic Safety Administration, *A State-by-State Analysis of Laws Dealing With Driving Under the Influence of Drugs,* DOT HS 811 238 (December 2009); Governors Highway Safety Association, *supra* note 13.

15. Va. Code Ann. § 18.2-266(v)(a)-(d).

16. Ky. Rev. Stat. Ann. § 189A.010(1)(d), (12)(a)-(p).

17. K.S.A. § 8-1567(a)(4).

Alexandra N. Origenes, M.P.H., is a J.D. candidate at the New York University School of Law. Sarah A. White, M.S.P.H., is a research associate in the Department of Health Policy and Management at the Johns Hopkins Bloomberg School of Public Health. Emma E. McGinty, Ph.D., M.S., is the Chief of the Division of Health Policy and Economics at Weill Cornell Medical College. Jon S. Vernick, J.D., M.P.H., is a professor at the Johns Hopkins Bloomberg School of Public Health.