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Education and promoting effective laws to reduce Driving Under the Influence of Drugs (DUID) – We provide a science-based perspective from DUID Victims.

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Senate Bill 26 should be rejected because it would make Ohio's OVI problems worse.

Senator Manning correctly identified one of the many flaws in Ohio's OVI law: the use of THC metabolite as a *per se* level to enforce Ohio's ban on drug impaired driving. He also referred to NHTSA's finding that blood levels of marijuana's THC and crash risk do not correlate well. From that finding, he claimed that there is "no acceptable limit of marijuana that automatically makes a person impaired." But he failed to mention the necessary corollary to that statement which is, "There is no acceptable limit of THC that proves a person is NOT impaired."

Therein lies the crux of the problem. SB 26 would make it more difficult to convict impaired drivers below the blood and urine legal limits in the bill. Half or more of THC-positive drivers arrested for driving under the influence have less than 5 ng/mL of THC in whole blood. All THC-positive drivers have less than 25 ng/mL in urine. I'll treat the two issues of whole blood and urine separately for reasons that will become apparent.

1 Blood testing neither proves nor disproves impairment

Colorado is the only state with a 5 ng THC whole blood permissible inference law similar to SB 26. It does not work there, and it won't in Ohio. Especially since Colorado has the benefit of two separate impaired driving offenses. Ohio has only one. That's important. Let me explain.

Colorado defines DWAI as impairment to the slightest degree so the driver is less able than he ordinarily would be to drive safely. DUI is defined as the substantial inability to drive safely. Colorado's 5 ng law applies only to DUI; there is no THC permissible inference for the lesser DWAI offense. Colorado's inconsistent application of permissible inference allows us to compare conviction rates for marijuana-impaired driving with and without a whole blood 5 ng/mL permissible inference level. Nowhere else in the world has this been done.

Below are two Colorado data tables for THC and alcohol convictions published by the Department of Public Safety¹ (Appendix J). Each shows two offenses: DUI in the top two rows,

¹ Rosenthal A, Reed J. Driving Under the Influence of Drugs and Alcohol. Colorado Department of Criminal Justice, Jan 2022
https://cdpsdocs.state.co.us/ors/docs/reports/2021-DUI_HB17-1315_r.pdf

DWAI in the bottom two rows. For each offense you can see charges and convictions for drivers above and below the respective legal limits: 5 ng for THC and .08 gm/dL for alcohol. The THC levels are in blood.

Now observe the following:

1. First, DUI convictions for stoned drivers above THC's legal limit was only 70% vs 93% for drunk drivers above alcohol's legal limit. It appears that the permissible inference structure does indeed ensure that there are no convictions of drivers based simply on toxicology results. That is as it should be.
2. Second, look at the THC conviction rates for those testing below the 5-ng level. There was a negligible 8% conviction rate for DUI but a 93% conviction rate for DWAI. Clearly a 5-ng inference level makes it extremely difficult to convict those drivers of DUI. But the 93% conviction rate for DWAI where the inference level does not apply, tells us that those drivers were indeed impaired. By having two offenses, DUI and DWAI, Colorado can still convict impaired drivers below the 5-ng level. Ohio could not do that under the current or proposed OVI law with its single offense structure. Supporters of a 5 ng THC *per se* law claim that impaired drivers testing below 5 ng can be convicted under an impairment claim, but these results belie that claim.
3. Third, 72% of the THC convictions were for DWAI, not DUI. 422 vs 163. This tells us that prosecutors have all but given up on relying upon the 5-ng law. They may charge both DUI and DWAI, but charging DUI only is uncommon.
4. Fourth, the extremely high THC conviction rate for DWAI – 99% and 93% tells us that a THC inference level is not needed to achieve a conviction.
5. Lest you think the THC DWAI convictions imply those drivers are only modestly impaired, consider that DWAI is more of a plea bargain tool than it is a definition of degree of impairment, despite the legal definitions. We see that clearly by studying the lower table. Nearly half of all alcohol cases were convicted of DWAI, including 45% of all alcohol cases above the *per se* limit. All those drivers would have been convicted of the more serious offense of DUI *per se* had it not been for plea bargains.

THC only 2019	Charge		Charges	Convictions	% Convictions
	DUI	5 ng+	221	155	70%
	DUI	< 5 ng	98	8	8%
	DWAI	5 ng+	372	370	99%
	DWAI	< 5 ng	56	52	93%

Alcohol only 2019	Charge		Charges	Convictions	% Convictions
	DUI	BAC .08+	5,397	5,032	93%
	DUI	BAC <.08	91	24	26%
	DWAI	BAC .08+	4,096	4,094	100%
	DWAI	BAC <.08	790	670	85%

These data should not be too surprising. Scientific evidence shows no correlation between forensically determined blood level of THC and the level of impairment. None whatsoever. The brain is impaired. Not the blood. One can be just as impaired at 1 ng as at 5 ng or more². And unlike alcohol-impaired drivers, the blood level of THC tells us absolutely nothing about the level of intoxicant in the brain because, as Mr. Katter pointed out, THC is fat soluble. It is very quickly redistributed from blood to the brain and other fatty tissues and organs.

² See DRUID culpability study in Attachment.

Further data published by Colorado's forensic toxicology lab tell us that only about half of all stoned drivers have a THC level above 5 ng (51% in 2019, 53% in 2020). Pennsylvania had 69% of over 10,000 THC-positive cases testing below 5 ng³.

So, from these data we can infer that half or more of Ohio's THC-positive OVI defendants would fall below SB 26's THC blood inference level and most likely would not be convicted of their crime, simply because of a lab number that has little meaning.

2 Urine testing is irrelevant for OVI purposes

SB 26 proposes a 25 ng/mL inference level for THC in urine. But urine testing does not measure THC content, only the concentration of THC's inactive metabolite 11-nor-9-carboxy THC (the *ashes* in Mr. Huey's terms). The carboxy THC level, whether it be in blood or urine is irrelevant and is not used for impaired driving enforcement in most states, nor should it be. For some inexplicable reason, SB 26 changes Ohio's legal limit in urine from 10 ng/mL marijuana to 25 ng/mL Delta-9-THC. But delta-9-THC is not even found in urine except in trace amounts. Ask your crime labs. Miami Valley is the only Ohio OVI lab that claims to be able to test for THC in urine, and they will only report its presence, not its ng/mL levels. They won't report THC levels because, in their published words, "THC exists in the urine in trace amounts."

THC isn't soluble in urine, so almost no one tests for it. All THC-positive OVI defendants would fall below SB 26's THC urine inference level. They would not be convicted of their crime, simply because a badly written bill ensures they could not be. If you're going to stop using inactive carboxy THC to enforce OVI laws, you must stop using urine testing to enforce OVI laws. Urine testing has no place in competent drugged driving legislation.

Summary

SB 26 is guaranteed to make matters worse, not better. Ohio's OVI law requires improvement. That can be done with amendments based on science, justice, intelligence, a concern for both public safety and for victims of drug-impaired driving. SB 26 does not check any of those boxes. We urge a no vote on SB 26. Then we can discuss ways of improving the current law that deals with the other eight flaws in SB 26 described in the attachment.

Why have I not referred to Ohio statistics in my comments? They aren't available. Ohio does not measure, analyze, and publish impaired driving data. Start there. Find out what Ohio's OVI problems are and what they are not. Get the data as shown above. It's not rocket science. When you come back with a better reasoned approach than SB 26 to fix Ohio's OVI law, you will have credibility with a knowledgeable citizenry when you have the data to back up your claims.

See attachment for a description of other critical flaws in SB 26 and Ohio's OVI law.

Sincerely,



Ed Wood

³ See histogram from NMS Labs in Attachment.

Attachment:

Other critical flaws in SB 26

3 *Polydrug impairment invalidates the concept of per se drug limits:*

Over two-thirds of Colorado's THC-positive drivers arrested for impaired driving or involved in crashes, fatal or otherwise, are polydrug offenders⁴. They have more than one impairing drug on board. Other states report even higher polydrug rates. For example, 91% of Wisconsin's THC-positive crash involved arrests were polydrug offenders⁵. Polydrug impairment is a far larger problem than impairment by THC alone. Polydrug drivers are more dangerous, and their numbers are growing more rapidly than impaired drivers from any other cause including alcohol and marijuana⁶. Even if it were possible to find a scientifically valid THC *per se* limit, a driver below the politically determined *per se* or inference levels of multiple drugs could be impaired but could not be convicted under those same *per se* or inference laws.

4 *There is no scientific basis for per se or inference levels:*

Senator Manning stated that, "...there is no acceptable limit of marijuana that automatically makes a person impaired." That means that neither he nor SB 26 proponents can scientifically justify changing the 2 ng/mL "marihuana" *per se* limit in blood to 5 ng/mL THC inference level, or changing the 10 ng/mL "marihuana" *per se* in urine to a 25 ng/mL THC inference level. The current *per se* levels are not scientifically based. Neither are the proposed levels. Changing legal limits upwards simply compounds Ohio's willful ignorance of science. The lack of a scientific basis for THC blood *per se* limits is supported by the National Safety Council⁷, American Automobile Association⁸, and additional recent research^{9 10}.

5 *Drug levels are different in blood vs plasma or serum:*

It makes no sense to have the same level for all three matrices. Serum and plasma levels of drugs are significantly higher than blood levels because drugs are distributed in the plasma, not within red cells. Drugs remain in the plasma when red cells are centrifuged out, permitting the plasma to be expressed out of the blood. After red cells are removed, the same quantity of drugs is distributed within the ~65% of the blood volume that is plasma. Simple arithmetic shows that the concentration number would be higher in plasma than in blood. Laboratory tests confirm that.

6 *Delta-9-tetrahydrocannabinol is one of several impairing cannabinoids:*

Limiting the inference level to Delta-9-THC ignores impairing THC derivatives that are becoming more common since passage of the 2018 Farm Bill. Derivatives such as Δ 8-THC, Δ 10-THC, Δ 9-THC-O-Acetate, and HHC (hexahydrocannabinol). The reference should be to tetrahydrocannabinols, its isomers, and its derivatives, not simply to THC or Delta-9-tetrahydrocannabinol.

7 *Users of marijuana edible products avoid conviction under SB 26:*

The blood THC level from THC edibles does not rise above 3 ng/mL, even after 5 times the normal 10 mg dose of edible marijuana¹¹. A 5 ng/mL THC inference level in blood ensures that users of THC edibles would be able to drive while impaired with impunity.

⁴ Rosenthal *op.cit.* See pie chart "From Colorado's DUI Report" in Appendix

⁵ Alcohol, Other Drug, and Multiple Drug Use Among Drivers. National Transportation Safety Board, SRR-22-02 Dec 13, 2022 <https://www.nts.gov/safety/safety-studies/Documents/SRR2202.pdf>

See table "From NTSB Report" in Appendix

⁶ See "Washington Traffic Safety Commission Data" in Appendix

⁷ National Safety Council Position on Cannabis (Marijuana) and Driving Regarding THC *Per Se* Legislation 2018-01

⁸ Green M. Fatal Road Crashes Involving Marijuana Double After State Legalizes Drug. AAA Public Relations press release May 10, 2016

⁹ Arkel TR, Spindle TR, Kevin RC, Vandry R, GmGregor IS. The failings of per se limits to detect cannabis-induced driving impairment: Results from a simulated driving study. *Traffic Injury Prevention*. (2021) No 2, 102-107

¹⁰ Wood E, DuPont R. Cannabis-Impaired Driving: The Evidence and the Role of Toxicology Testing, chapter in *Cannabinoids in Medicine*. Springer 2020

¹¹ Vandry R, Herrmann ES, Mitchell JM. Pharmacokinetic profile of oral cannabis in humans: blood and oral fluid disposition and relation to pharmacodynamic outcomes. *J Anal Tox* 2017 41 83-99

8 *SB 26 ignores state-of-the-art test methods:*

For impaired driving enforcement, urine testing must be avoided, blood testing is the gold standard, but oral fluid testing is being adopted by some jurisdictions because it is less invasive and lab samples can be obtained more quickly at the roadside before drugs either redistribute in the body or metabolize. Oral fluid testing is done in Indiana, Alabama, California and is being considered in 2023 legislation in New York, Montana, Minnesota, and North Dakota.

9 *SB 26 may be unconstitutional:*

Courts may find SB 26 unconstitutional on the grounds that it requires a class of defendants to prove their innocence. Colorado’s permissible inference approach is similar but avoids the SB 26 problem by advising that courts may infer impairment based on the presence of THC, but only if sufficient other evidence supports that inference. A prosecutor must prove guilt, and a defendant can always rebut offered proof. Colorado’s construction accomplishes SB 26’s objectives without risking a ruling that the law is unconstitutional.

10 *Ohio’s OVI law does not define OVI:*

Ohio does not statutorily define OVI. That could lead to inconsistencies between courts and jurisdictions and make it difficult to achieve convictions when warranted. Fifteen other states use Ohio’s practice, but most states statutorily define DUI/OVI/OWI, DWAI, DUII or whatever their acronym is.

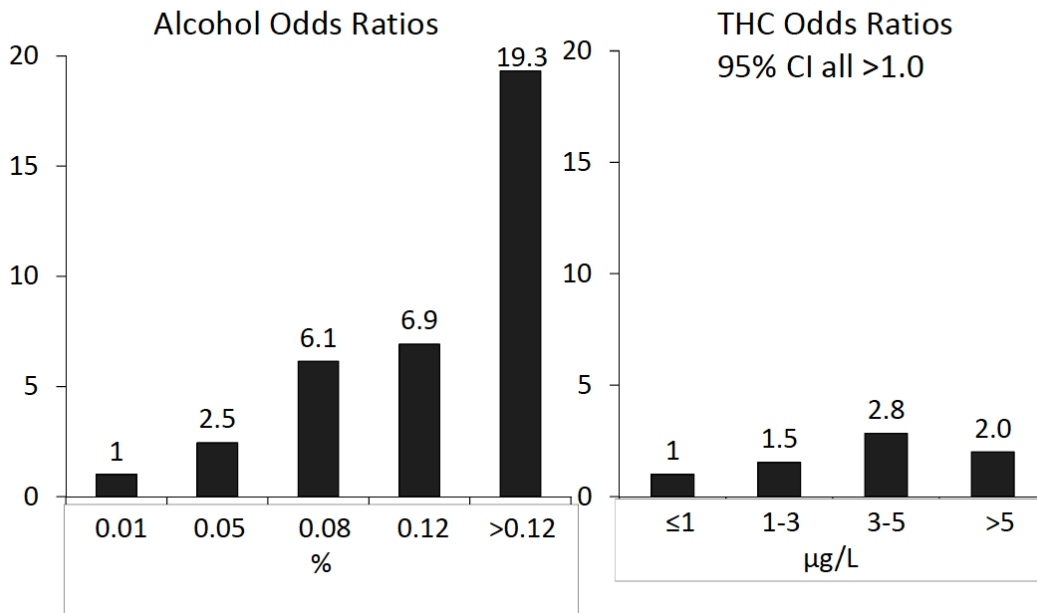
Category	Definition	No. of states
1	Not statutorily defined	16
2	Incapable of safe driving	12
3	Impaired, less capable	22

Ohio should define what it means by OVI, preferably like 22 other states do – impaired, less capable. Defining the offense as incapable of safe driving risks making it exceptionally difficult to convict drivers impaired by drugs since the symptoms of drug impairment are usually less overt than the symptoms of drunk driving.

DRUID chart:

Drivers below 5-ng/mL THC are just as dangerous as drivers above 5-ng/mL.

DRUID Culpability Study (N = 7455)

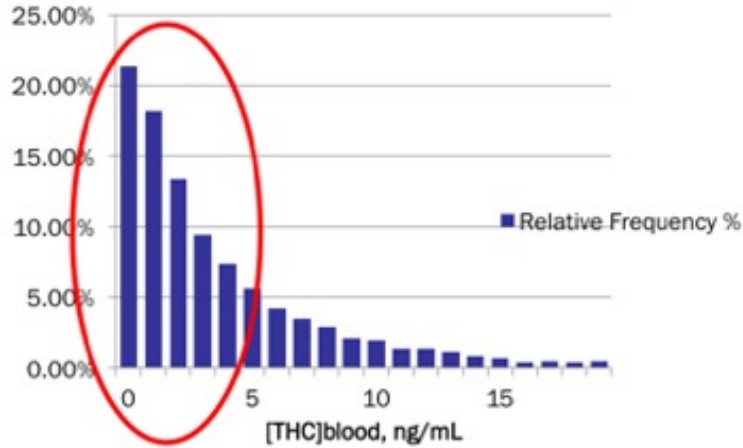


From NMS Labs:

Most THC-positive drivers test below 5-ng/mL.

Impact of 5ng/mL THC *per se* Law

10,144 Marijuana DUID /DRE cases testing positive for THC and/or metab.



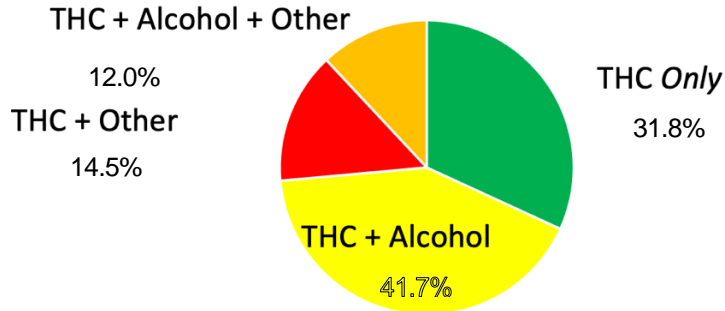
From NTSB report:

The vast majority of THC-positive subjects were polydrug users.

Drug Category	Orange County Laboratory	Wisconsin Laboratory (Crash-Involved Impaired Driving Arrests)	Wisconsin Laboratory (Crash-Involved Fatally Injured Drivers)	San Francisco Laboratory	New York Laboratory
Cannabis Only	4.9%	2.9%	5.2%	5.5%	8.8%
Cannabis and Alcohol Only	14.4%	15.6%	6.7%	16.1%	17.1%
Cannabis, Alcohol, and Other Drugs	5.0%	6.8%	3.2%	6.6%	5.5%
Cannabis and Other Non-Alcohol Drugs	8.6%	7.0%	4.9%	7.0%	5.1%
Cannabis Total^a	32.9%	32.3%	20.0%	35.2%	36.4%

From Colorado's DUI report:

Over 2/3 of THC-positive defendants were polydrug users.



Washington Traffic Safety Commission data:

Polydrug fatalities were more frequent and growing faster than those of marijuana, other drugs, or alcohol.

