A photograph of a man and a woman inside a car. The man is in the driver's seat, wearing a blue denim jacket, and has his eyes closed and his hand near his mouth, suggesting he is drowsy or asleep. The woman is in the passenger seat, looking towards the driver. The car is dark-colored, and the background shows a wooden wall.

***High on our Highways:
Addressing the Emerging Threat of
Drug and Polysubstance-Impaired
Driving***

***Mark Stodola
APPA Probation Fellow
April 29, 2021***

Overview

- State of DUI in America
- Magnitude of the DUID problem
- Marijuana-impaired driving
- Complexities and challenges:
 - Policy
 - Enforcement
 - Testing
- Supervision solutions/
recommendations







Boy, 4, Found in SUV With Adults Who Allegedly Passed Out on Heroin; Ohio Police Post Pics



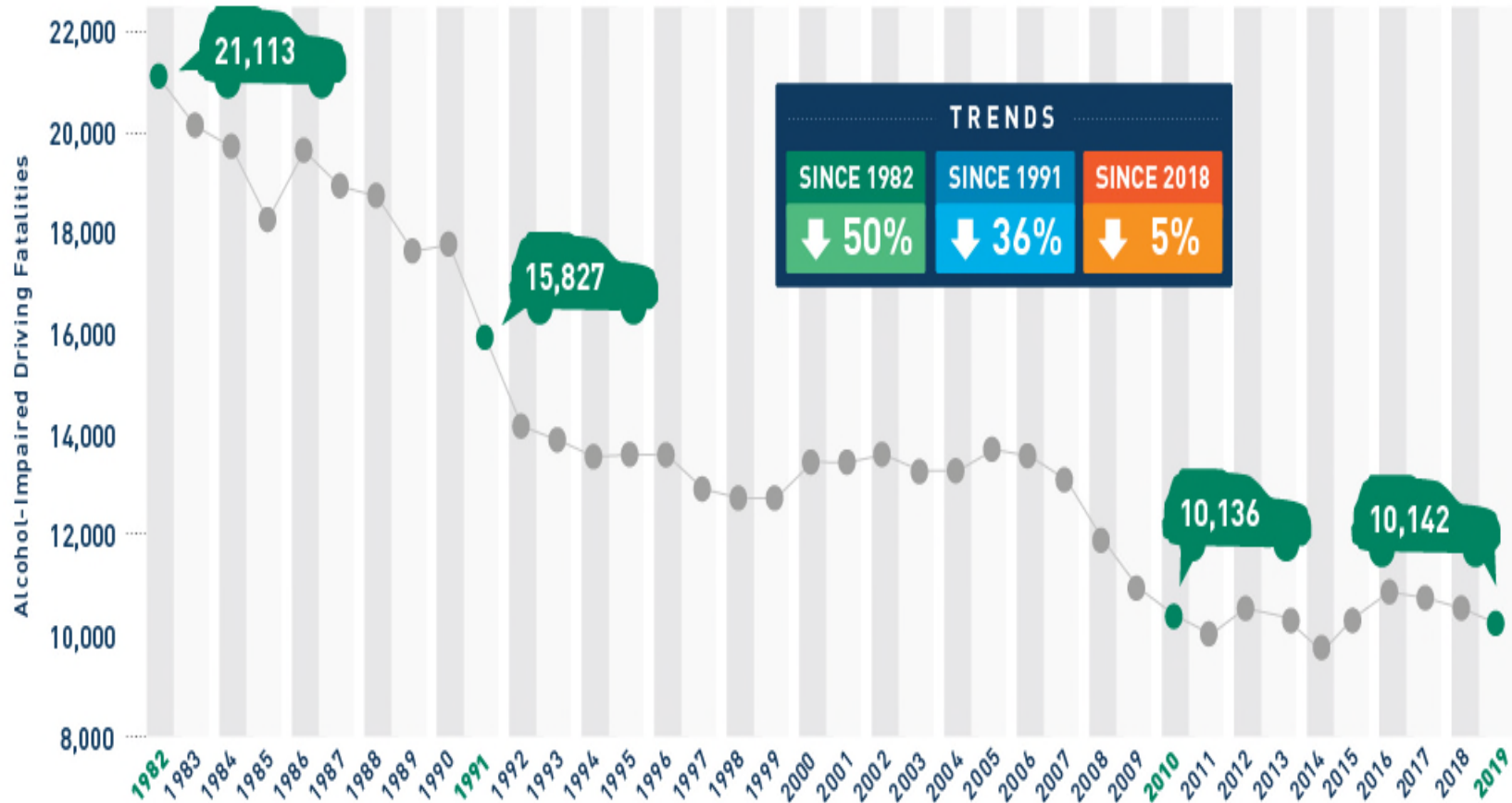
STATE OF DUI IN AMERICA

Drunk Driving by the Numbers...

- In 2019, there were 1,024,508 drivers arrested for DUI.
- An alcohol-impaired driving fatality occurs every **48 minutes**.
- In 2019, there were **10,421** alcohol-related traffic fatalities.
 - **68%** were in crashes where one driver had a BAC of .15>
- In 2018, the most frequently recorded BAC among drinking drivers in fatal crashes was **.16**
- **111 million** drunk driving episodes occurred in 2018.



Drunk Driving Deaths Decreased in 2019



And we are committed to lead this fight until we reach zero.



RESPONSIBILITY.ORG

Data Source: NHTSA, FARS, 12/20

Why have we made progress?

- **Passage of laws to target multiple facets of the problem**
- **Sustained and high visibility enforcement efforts**
- **Identifying the countermeasures that work; evaluation and strengthening of programs**
- **Targeting high-risk offenders**
- **Assessment and treatment**
- **Public education and awareness**
- **Changing societal norms**



Wisconsin DUI Arrests

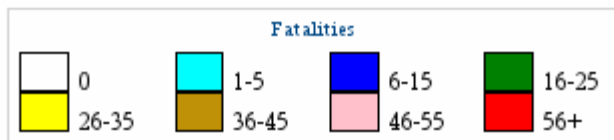
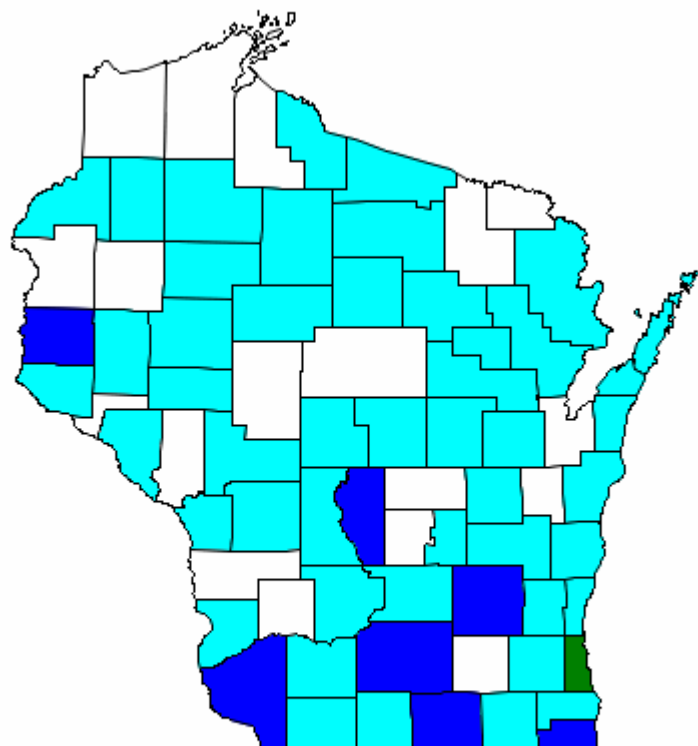
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Alcohol-Impaired Driving Fatalities (BAC=.08+)*	24,558	24,795	23,541	24,368	23,934

Arizona DUI Fatalities

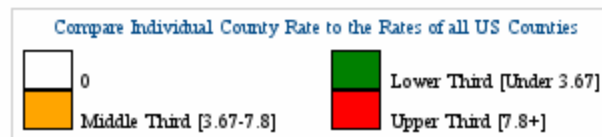
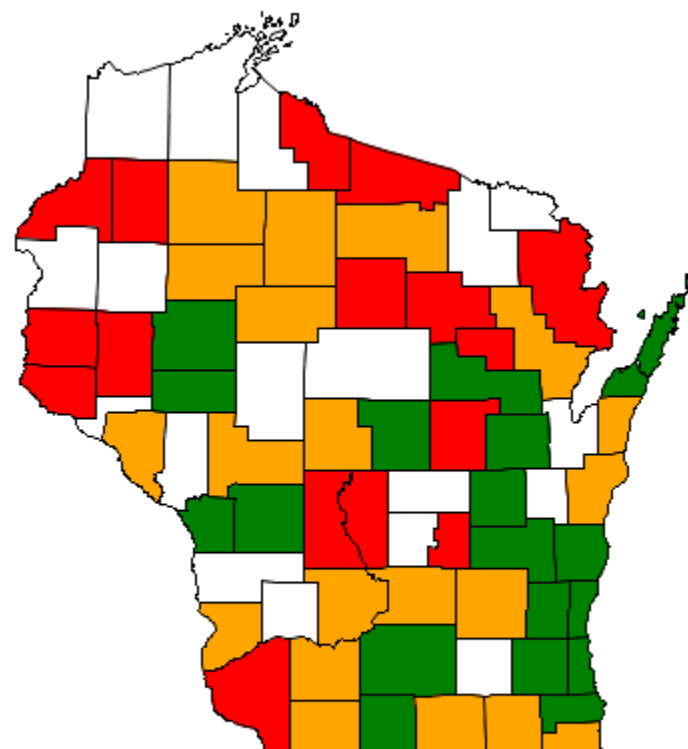
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Alcohol-Impaired Driving Fatalities (BAC=.08+)*	188 (33%)	199 (33%)	185 (30%)	206 (35%)	183 (32%)

Fatalities in Crashes Involving an Alcohol-Impaired Driver (BAC = .08+) by County for 2019

Fatalities in Crashes Involving an Alcohol-Impaired Driver (BAC = .08+)



Fatalities in Crashes Involving an Alcohol-Impaired Driver (BAC = .08+) per 100,000 Population





DRUG-IMPAIRED DRIVING

What do DUIs look like in your jurisdiction in 2021?





DUID - THE MAGNITUDE OF THE PROBLEM

Limitations in crash data

- **States vary considerably in how they collect DUID data:**
 - How many drivers are tested?
 - What tests are used?
 - How are test results reported?
- **The rate at which states test drivers involved in fatal crashes ranges from less than 10% to over 90%.**
- **FARS data merely reflects drug presence; it does not identify drug concentrations.**

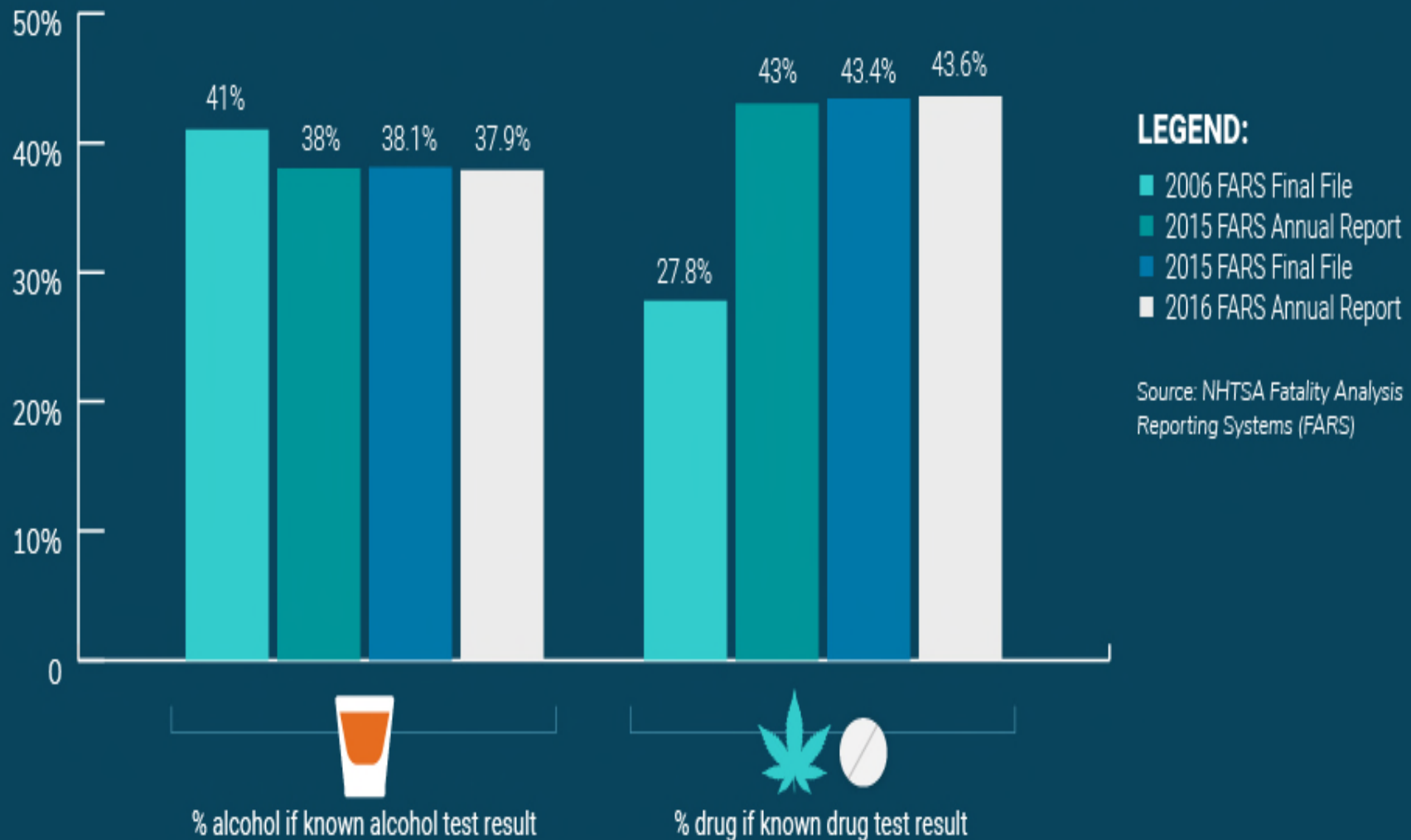


Drug-Impaired Driving



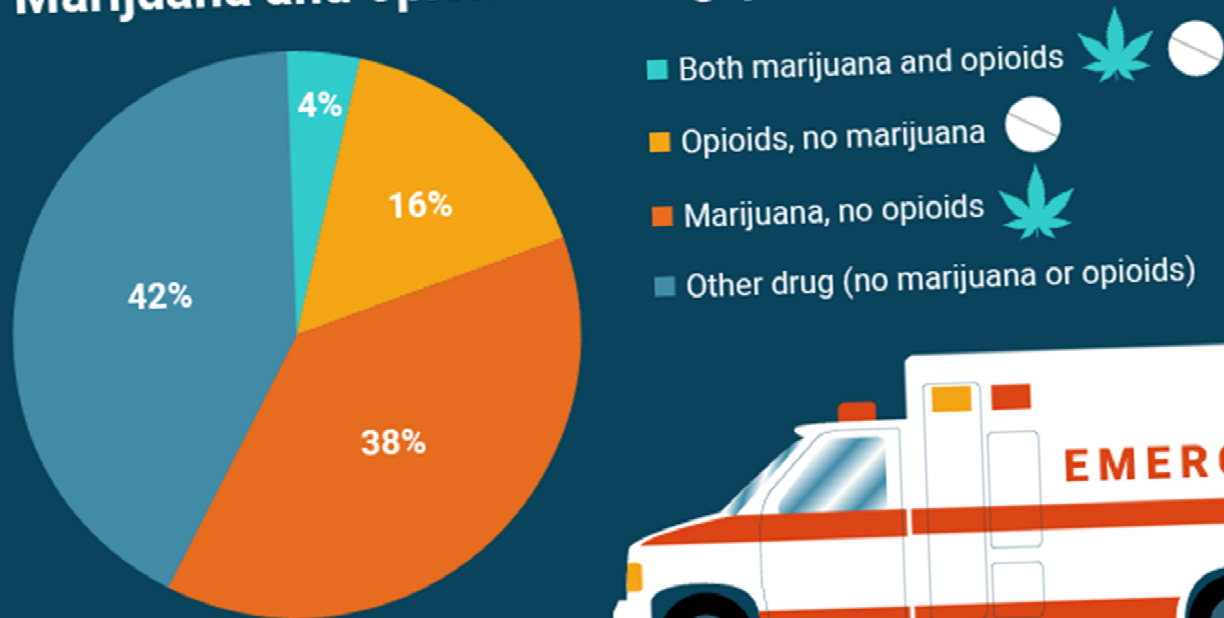
RESPONSIBILITY.ORG

Drug and alcohol, percentage of fatally-injured drivers, known test results



Drug-Impaired Driving

Marijuana and opioids in drug-positive fatally-injured drivers,



Source: NHTSA FARS



ROADSIDE SURVEYS:

	Weekday Days	Weekend Nights
Tested positive for some drug or medication	22.4%	22.5%
Illegal drugs, including marijuana	12.1%	15.2%
Medication	10.3%	7.3%
Marijuana	11.7%	12.6%
Alcohol	1.1%	8.3%

Source: Berning et al. (2015). Results of the 2013-2014 National Roadside Survey of Alcohol and Drug Use by Drivers. DOT HS 812 118.

The challenge of polysubstance use



1+1=3

DUID crash risk

TABLE 3. CRASH RISK ASSOCIATED WITH DRUG USE IN EUROPEAN STUDIES

Risk level	Relative risk	Drug category
Slightly increased risk	1-3	marijuana
Medium increased risk	2-10	benzodiazepines cocaine opiods
Highly increased risk	5-30	amphetamines multiple drugs
Extremely increased risk	20-200	alcohol together with drugs

Shulze et al., 2012; Griffiths, 2014

Capturing polysubstance use

- In the Miami-Dade study (Logan et al., 2014), 39% of drivers who were found to have a BAC above .08 also tested positive for the presence of drugs.
- In the Dane County, WI study (Edwards et al., 2017), nearly 40% of the subjects with BACs exceeding .10 screened positive for one or more drug categories in both oral fluid and blood.
- These are individuals who likely would have only been prosecuted for drunk driving.

Why does this matter?



Traditional impaired driving enforcement

- **DUI is the *ONLY* crime where the investigation stops after obtaining a minimum amount of evidence.**
- Current protocols prevent drug testing once a suspect registers an illegal BAC.
- Implications:
 - » Hinders the ability to measure the true magnitude of the drug-impaired driving problem.
 - » Many DUI arrests are inaccurately attributed to alcohol alone.





Why does it matter?

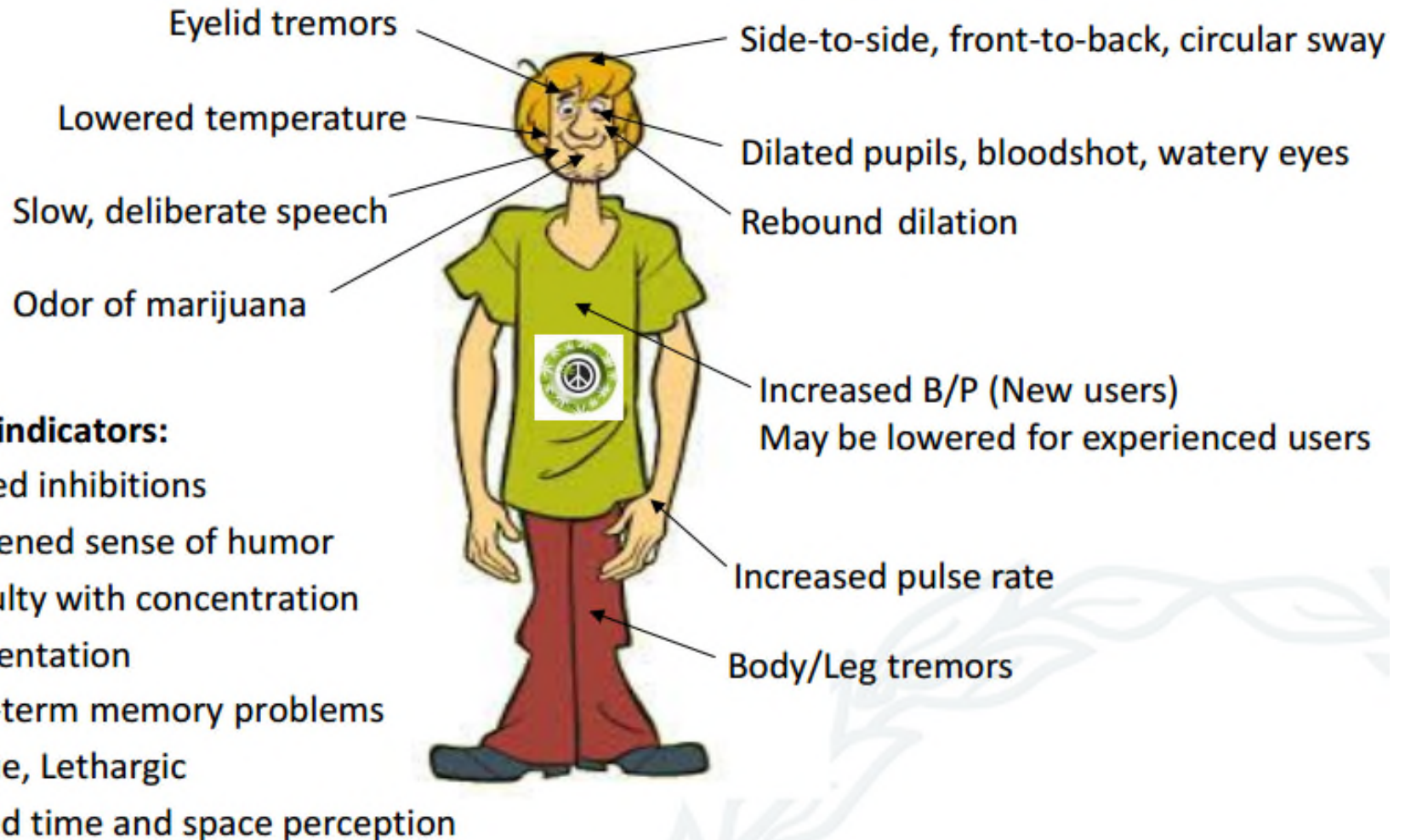
- If we fail to identify polysubstance-impaired drivers, they are unlikely to be sentenced, supervised, or treated appropriately.
- It is not surprising that they come back into the system multiple times.



EFFECTS OF DRUGS ON DRIVING

Class of drug	Effects on driving
Cannabis	Poor attention to tasks; time and distance perception; slower reaction time/slower braking; poor lane tracking/more steering corrections; poor speed maintenance
Depressants	Slower reaction time; poor attention to task; poor lane positioning; poor speed maintenance; fail to obey traffic signs
Dissociative anesthetics	Poor attention to task; poor reaction time
Hallucinogens	Slower reaction time; perceive things that are not there and react to them
Inhalants	Slower reaction time; fall asleep at wheel
Narcotic analgesics	Slower reaction time; poor lane positioning; drive slowly; fall asleep at wheel
Stimulants	May increase reaction time; may increase erratic/aggressive driving; possible rebound effect (sleepiness)

Signs of cannabis impairment



Other indicators:

- Relaxed inhibitions
- Sharpened sense of humor
- Difficulty with concentration
- Disorientation
- Short-term memory problems
- Fatigue, Lethargic
- Altered time and space perception

Image source: Chuck Hayes, 2016.

Cannabis and driving

- **Poor attention to tasks**
- **Time and distance perception**
- **Slower braking/reaction time**
- **Poor speed maintenance**
- **Poor lane tracking/more steering corrections**
- **Drivers impaired by marijuana may compensate by driving slower and increasing following distance**
- **Level of impairment increases with dose**



Sources: Compton and Berning, 2015; Hartman and Huestis, 2013; Kelly-Baker, 2014.



DRUG-IMPAIRED DRIVING POLICYAND CHALLENGES

“Cannabis Plant”





Business has changed since 2012...



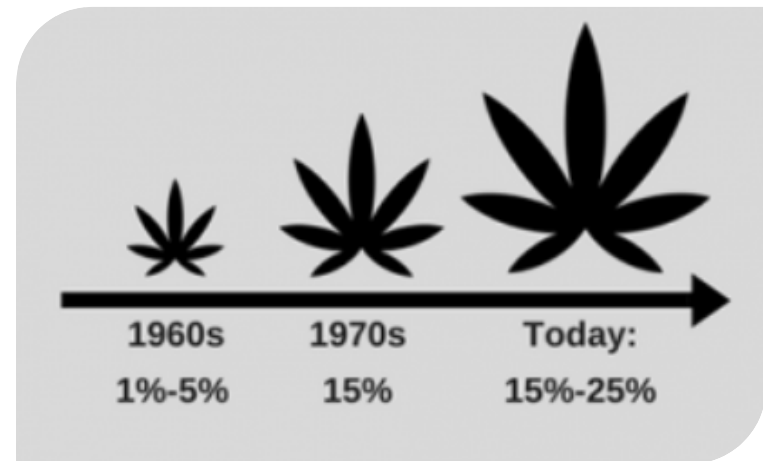
Designer dispensaries







*And so has the
product...*





Presence vs. Impairment

- Relationship between a drug's presence in the body and its impairing effects is complex and not well understood.
- **Presence of a drug \neq impairment**
 - Some drugs/metabolites may remain in the body for days or weeks after initial impairment has dissipated.
 - Individuals differ considerably in the rate of absorption, distribution, and elimination of drugs.
 - Some people are more sensitive to the effects of drugs, particularly first-time or infrequent users.
 - Wide ranges of drug concentrations in different individuals produce similar levels of impairment in experimental situations.

Presence vs. Impairment: Marijuana

- Marijuana metabolites can remain in the body for 30+ days.
- THC concentrations fall to about 60% of their peak within 15 minutes after smoking; 20% of their peak 30 minutes after smoking; while impairment can last 2-4 hours.
- There is no DUID equivalent to .08 BAC.
 - It is currently impossible to define DUID impairment with an illegal limit as drug concentration levels cannot be reliably equated with a specific degree of driver impairment.



“There is no BAC for THC”



Method of
ingestion
matters!

Cannabis Ingestion Methods

Inhaling - Pulmonary



Oral - Digestive



Trans mucosal – sublingual, intranasal, rectal, ocular



Transdermal



CANNABIS CONCENTRATES



CRUMBLE

Dried oil with a honey-comb like consistency



BADDER/BUDDER

Concentrates whipped under heat to create a cake-batter like texture



SHATTER

A translucent, brittle, & often golden to amber colored concentrate made with a solvent



DISTILLATE

Refined cannabinoid oil that is typically free of taste, smell & flavor. It is the base of most edibles and vape cartridges



CRYSTALLINE

Isolated cannabinoids in their pure crystal structure



DRY SIFT

Ground cannabis filtered with screens leaving behind complete trichome glands. The end-product is also referred to as kief



ROSIN

End product of cannabis flower being squeezed under heat and pressure



BUBBLE HASH

Uses water, ice, and mesh screens to pull out whole trichomes into a paste-like consistency



Edibles

No More of These...



Stoner Things

COLORADO EDIBLES GET A NEW LOOK

10 mg THC
serving



CONSUMING CAN CAUSE CRASHING.



It takes up to two hours for an edible to affect you.
Don't be behind the wheel when your high hits.

IF YOU'RE HIGH, DON'T DRIVE.



COLORADO
Department of
Transportation



MOVING TOWARDS
ZERO
DEATHS



DUID ENFORCEMENT

**What about this
scenario?**



***Tobacco
or THC?***



Enforcement challenges

- Many officers are not trained to identify the signs/symptoms of drug impairment.
- Delays in collecting a sample may allow drugs to metabolize; driver's concentration levels may not reflect levels at time of arrest.
- Warrant requirement for blood draws.
- Drug testing is expensive and time-consuming (lab backlogs).



Law Enforcement Training



SFSTs



ARIDE

DREs

Officers need more tools

- Not all officers receive specialized training.
- Availability of DREs is limited.
- Polysubstance impaired driving is becoming increasingly common.
- Drugs metabolize quickly.
- Warrants take time.





ORAL FLUID TESTING

Oral fluid is not a silver bullet

- **Oral fluid results in and of themselves CANNOT determine whether a driver is impaired.**
- The best use of oral fluid is as a corroborative test for drug ingestion in situations where a trained officer has observed signs and symptoms of impairment.
- Officers must rely on observations and information obtained from SFSTs, ARIDE training, or DRE evaluations when making determinations about impairment. A positive result can assist in confirming suspicions.
- **Oral fluid is another investigative tool!**



— PROBATION —



SUPERVISING THE DRUG-IMPAIRED DRIVER



What does the problem look like in your state?

- **Assess your state's drugged driving issues**
 - What drugs are you most commonly seeing (fatal crashes, arrested drivers)?
 - Are there regional differences?
 - Are there high-risk segments of the population?
- **Collect baseline data**
 - Test more drivers for drugs
 - Track DUID and DUI separately in crash, arrest, and court data for better analysis



**What tools are
available?**

- **Assessment**
- **Supervision**
- **Technology**
- **Testing**

Approximately 25% of individuals arrested and 30% of individuals convicted of DUI are repeat offenders.

Contact with the criminal justice system in and of itself, does not deter at least 1/4 of all offenders.

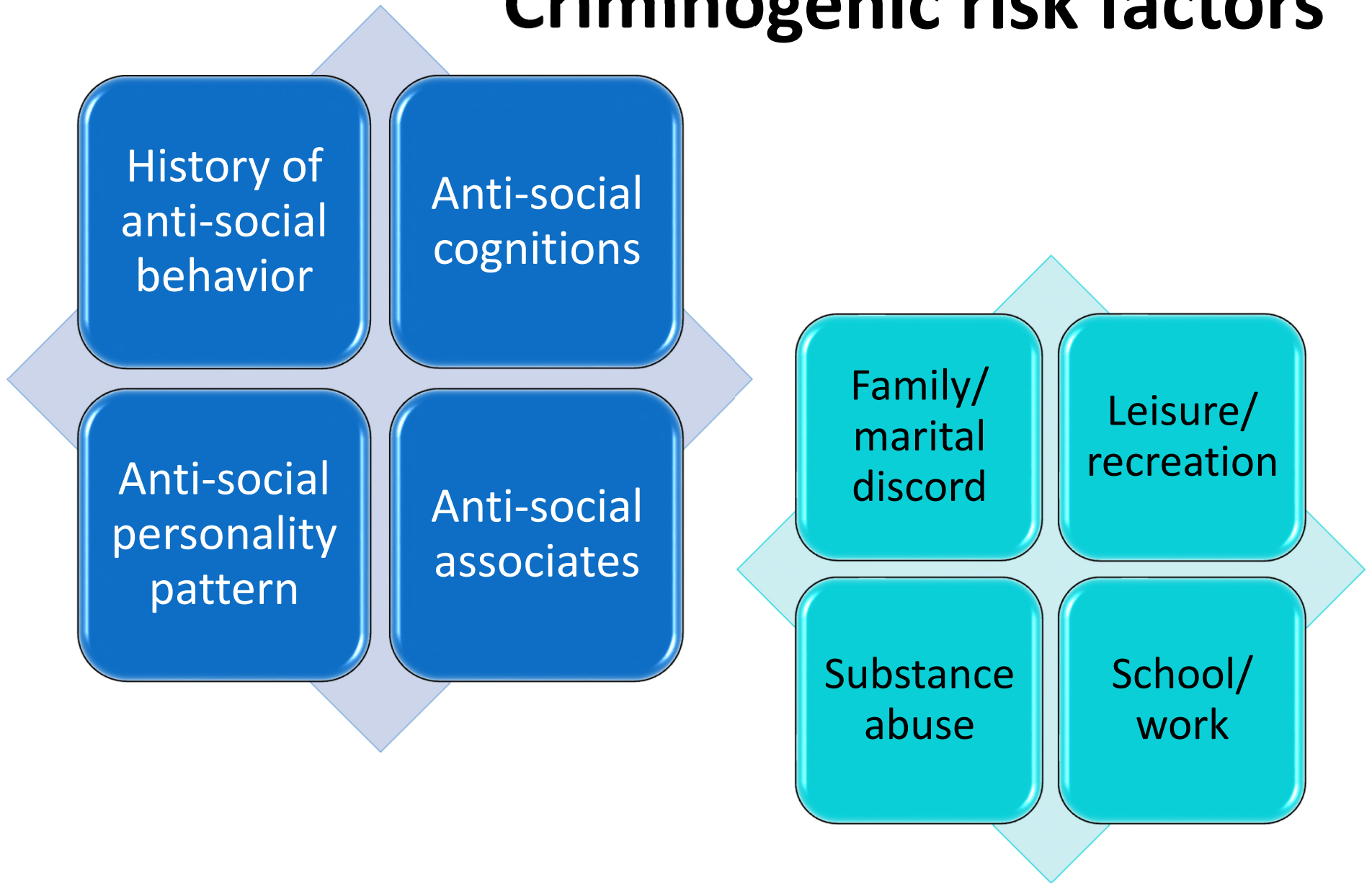
Major Risk Areas of DUI Recidivism

- Prior involvement in the justice system specifically related to impaired driving.
- Prior non-DUI involvement in the justice system.
- Prior involvement with alcohol and other drugs.
- Mental health and mood adjustment problems.
- Resistance to and non-compliance with current and past involvement in the justice system.

Are risk factors the same for drugged drivers?



Criminogenic risk factors





Assessments

- **ADS** (Alcohol Dependence Scale)
- **ASUDS-R** (Alcohol Substance Use and Driving Survey – Revised)
- **ASI** (Alcohol Severity Index)
- **AUDIT** (Alcohol Use Disorders Identification Test)
- **IDTS** (Inventory Drug-Taking Situations)
- **DAST** (Drug Abuse Screening Test)
- **LSI-R** (Level of Service Inventory-Revised)
- **MAST** (Michigan Alcoholism Screening Test)
- **SASSI** (Substance Abuse Subtle Screening Inventory)
- **RIASI** (Research Institute on Addiction Self Inventory)
- **IDA** (Impaired Driver Assessment)
- **CARS** (Computerized Assessment and Referral System)



Assessments should drive decision-making

- Using traditional assessment tools, DUI/DUID offenders are commonly identified as low risk due to a lack of criminogenic factors.
- DUI/DUID offenders often have unique needs and are resistant to change on account of limited insight into their behavior.
- Specialized instruments should be used to accurately assess risk and needs of impaired drivers.
- Validated risk and needs assessment instruments are available – some specific to DUI population (e.g., IDA; CARS).



PROS

CONS



Testing considerations

- Test for both alcohol and drugs
- Broad testing panel
- Mix up your protocol
- Are there ways to capture synthetic drugs?
- Pay attention to technological advances
- Resources



**Could apply to both DUI/DUID offenders...
you never know if your DUI client is actually a
polysubstance-impaired driver.**



Broad Field Testing TASC recommends testing for-

Alcohol

Amphetamine

Barbiturates

Benzodiazepines

Buprenorphine

Cocaine

EtG

Fentanyl

Heroin,

MDMA

Methadone

Opiates

Oxycodone

Phencyclidine

Propoxyphene

THC

Tramadol

And in a perfect world,

Ketamine

Synthetic Cannabinoids
(Spice/K2)

Synthetic Cathinones (Bath
Salts)

Tramadol



*Where do we
place these
people?*



DWI offenders engage
in **behavior** that is
dangerous and
frequently causes
serious injury or
fatalities.

Focus on the behavior – it's more than just drug use!







QUESTIONS?

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