

Cannabis and Cars-Addressing the Challenges of the Marijuana Impaired Driver

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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



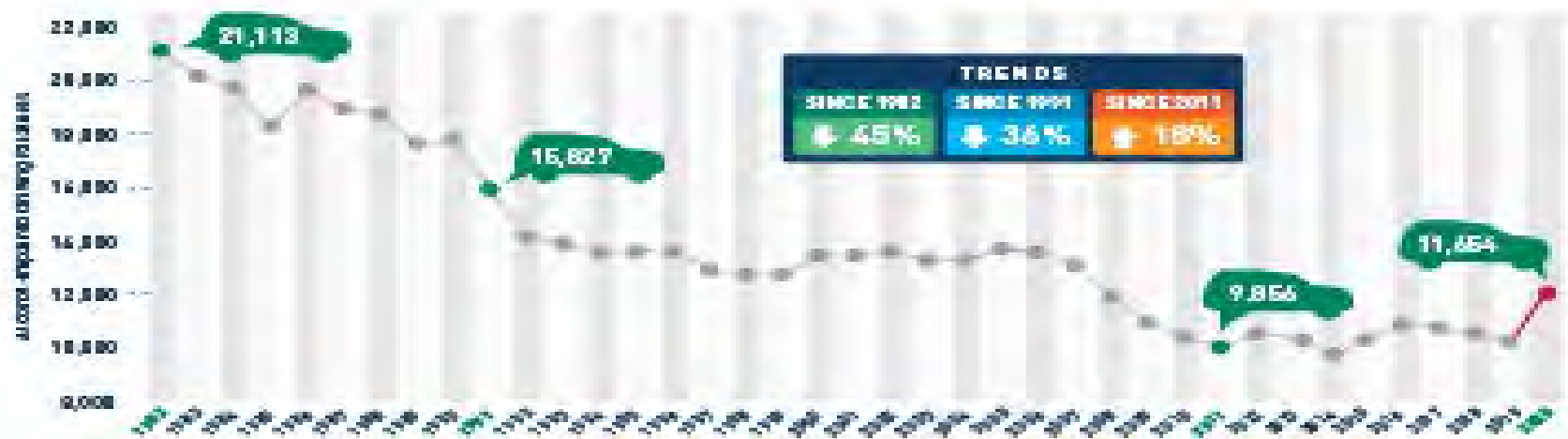
STATE OF DUI IN AMERICA

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 2022, there were **11,641** 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**
- **121 million** drunk driving episodes occurred in 2019.



Drunk Driving Deaths Increased 14% in 2020



Together, we can end impaired driving, and it will take everyone and effective and proven solutions.



Wisconsin DWI Arrests

Impaired Driving Arrests
(BAC=.08+)*

2016
24,795

2017
23,541

2018
24,368

2019
23,934

2020
20,135

Wisconsin DWI Fatalities

Alcohol-Impaired Driving
Fatalities (BAC=.08+)*

2016

199
(33%)

2017

135
(30%)

2018

206
(35%)

2019

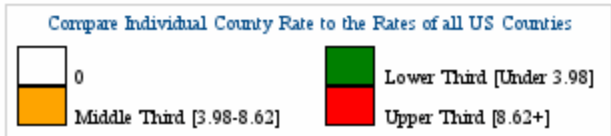
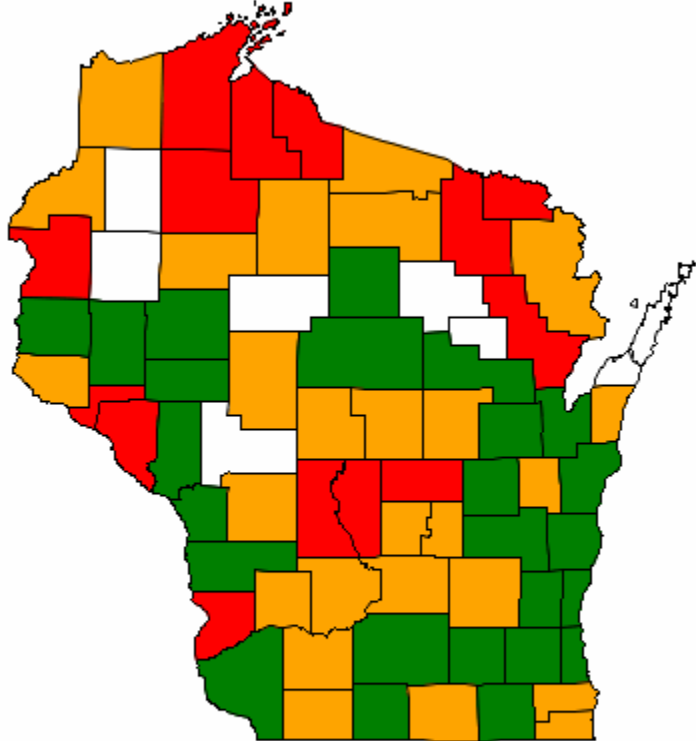
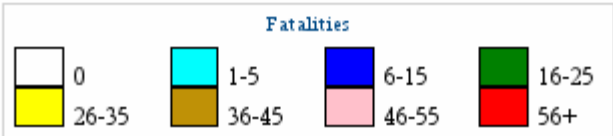
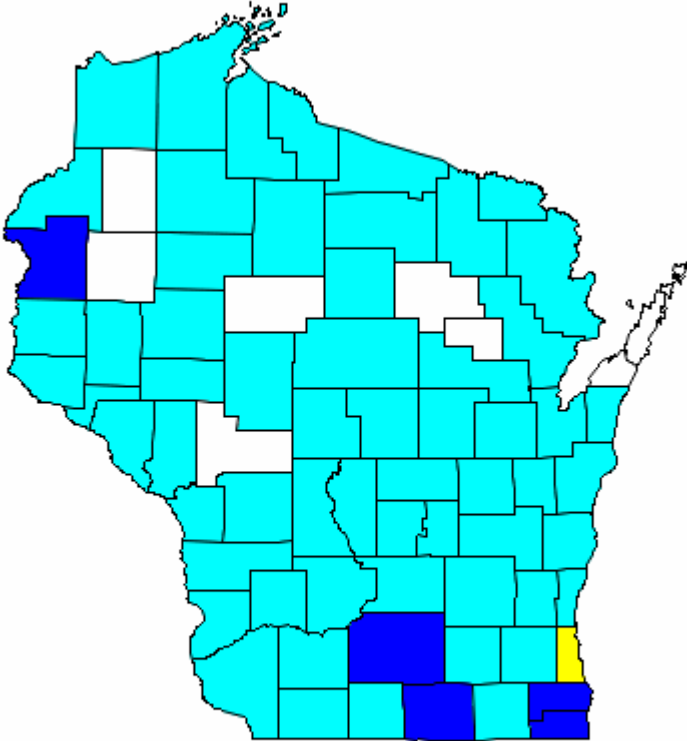
186
(33%)

2020

210
(34%)

Fatalities in Crashes Involving an Alcohol-Impaired Driver (BAC = .08+) by County for 2020

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



Why have we made progress?

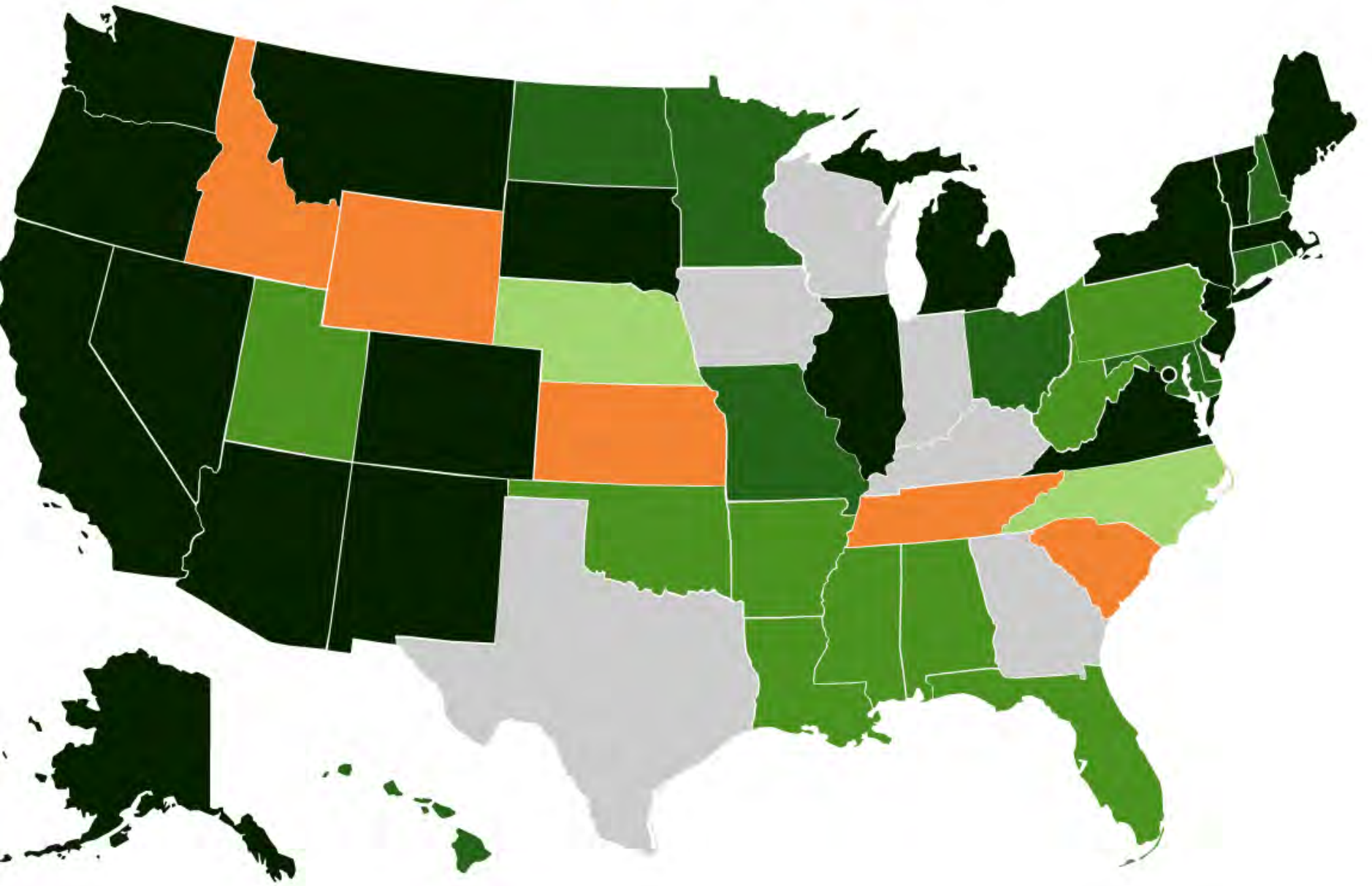
- **Passage of laws to target multiple facets of the problem**
- **Sustained and high visibility enforcement efforts**
- **Identifying the countermeasures that work; evaluation and strengthening of programs**
- **Targeting high-risk offenders**
- **Assessment and treatment**
- **Public education and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





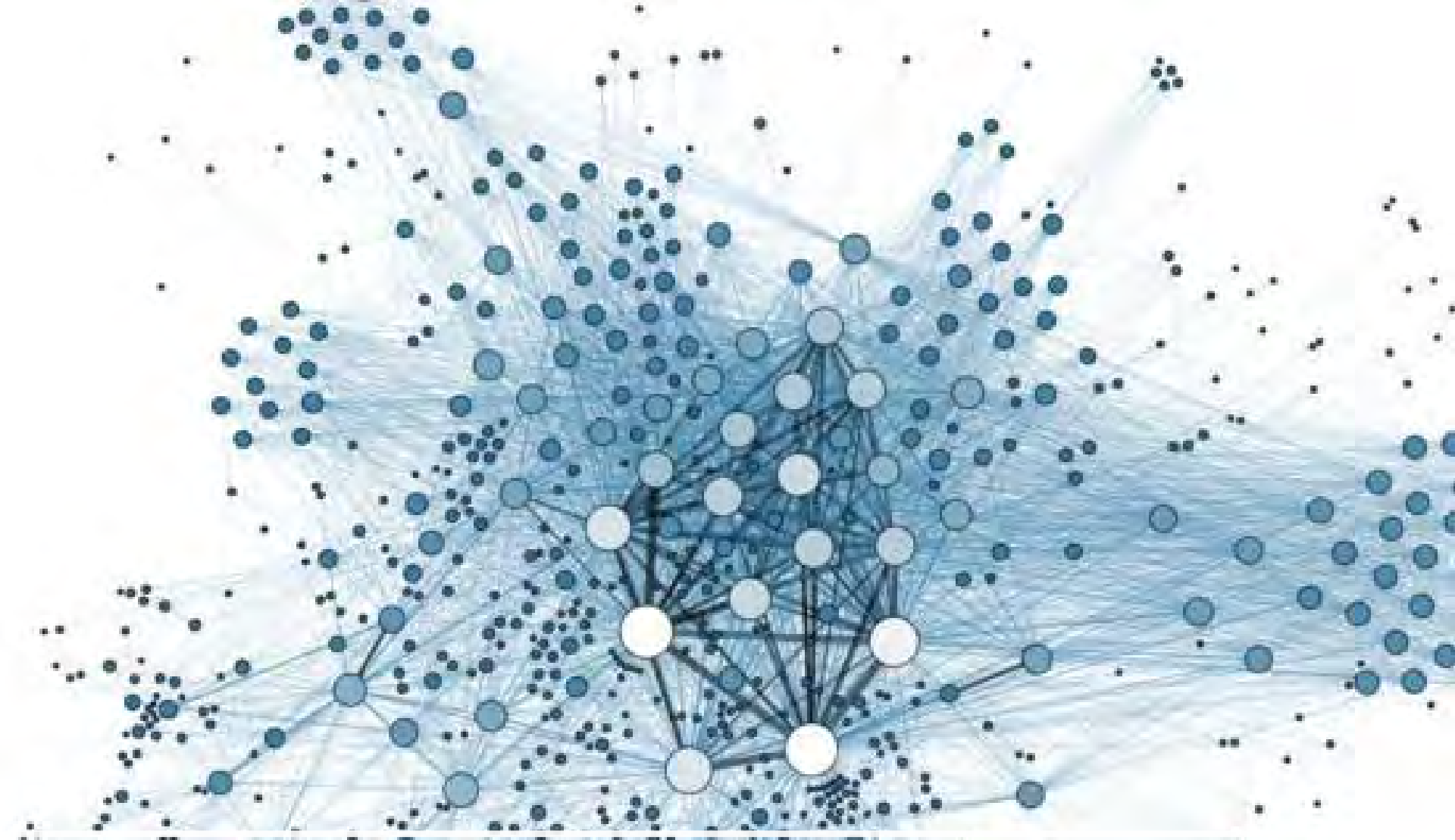
DRUG-IMPAIRED DRIVING

Legalized Medical and Decriminalized Medical Decriminalized CBD Only Fully Illegal



What do DUIs look like in your jurisdiction in 2022?





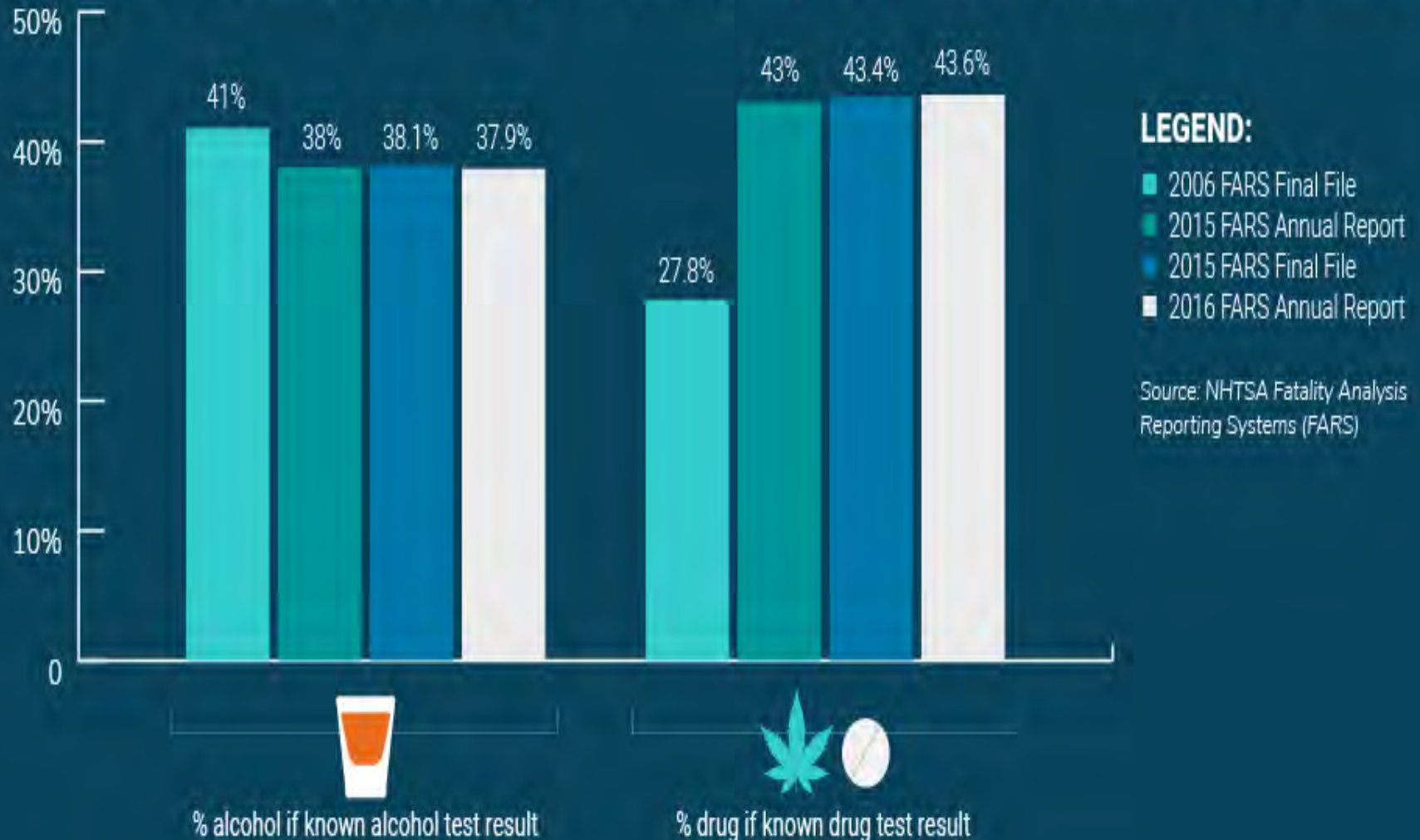
DUID - THE MAGNITUDE OF THE PROBLEM

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.**



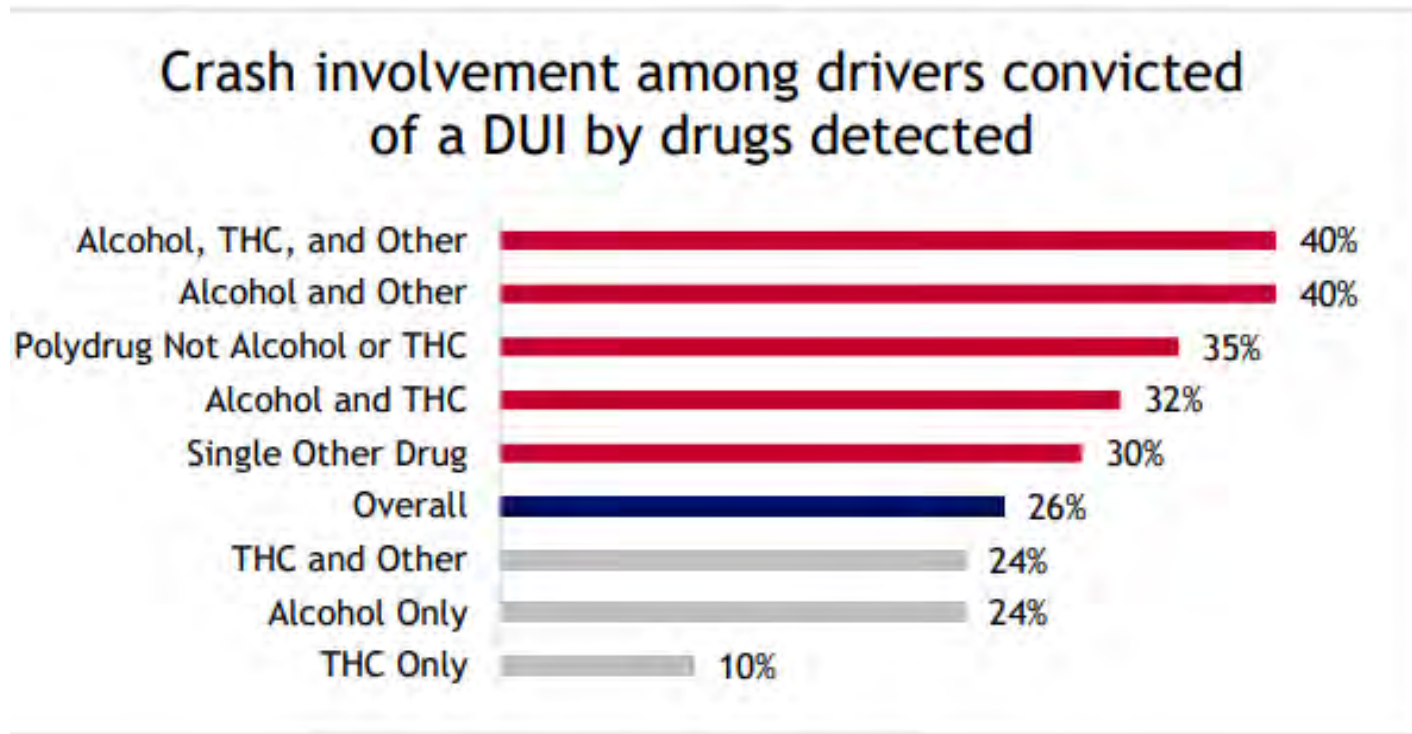
Drug and alcohol, percentage of fatally-injured drivers, known test results



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%

Crash Involvement and Toxicology- Colorado



Data Sources: Office of Behavioral Health. Analyzed by the Office of Research and Statistics, Division of Criminal Justice, Colorado Department of Public Safety.

Other Challenges

- **MJ related impairment is now 2nd to alcohol in impaired driving stats**
- **MJ has a very short detection window**
- **Inconsistency of States, IE- adopting certain concentrations versus zero tolerance.**
- **In 2019, an estimated 13.6 million drivers aged 16 and older in the U.S. self-reported driving under the influence of illicit drugs, including cannabis, in the past year.**

MJ and the Pandemic

- A 2019-2020 NHTSA-funded study found a significant increase in the prevalence of drugs detected in blood among seriously and fatally injured drivers, from 50.8% before the pandemic to 64.7% and 61.4%, during the two pandemic periods
- More drivers tested positive for active THC than alcohol during the pandemic
- Of all the enforcement evaluations performed by Drug Recognition Experts (DREs) in 2019, about 42% concluded driver impairment was the result of polydrug use.

And if that wasn't enough....

- One third of MJ users consume on a daily basis.
- 20% of MJ users account for 80% of product consumption.
- MJ prices have dropped by 50%

Toxicology Issues

- About half of the Toxicology Labs test for drugs if an individual has .10 BAC or higher.....
- No clear evidence that MJ alone causes an increase in crashes

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?

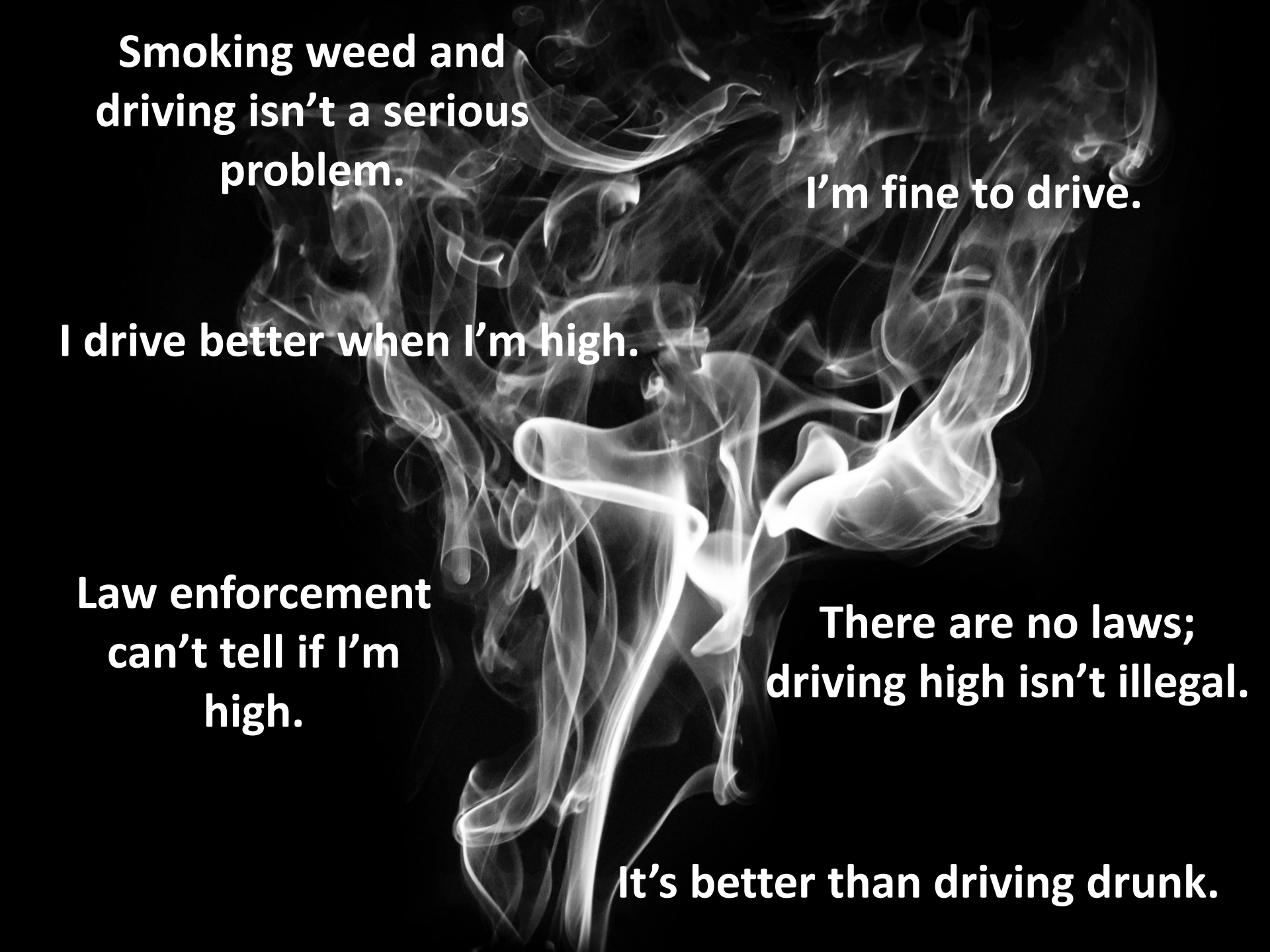
- If we fail to identify polysubstance-impaired drivers, they are unlikely to be sentenced, supervised, or treated appropriately.
- It is not surprising that they come back into the system multiple times.



PUBLIC AWARENESS & PERCEPTIONS

(MIS)PERCEPTIONS





**Smoking weed and
driving isn't a serious
problem.**

I'm fine to drive.

I drive better when I'm high.

**Law enforcement
can't tell if I'm
high.**

**There are no laws;
driving high isn't illegal.**

It's better than driving drunk.

MJ Perception – 1960's



Sabrina
HOLISTIC HEALTH

**DOES
MEDICAL
MARIJUANA
CURE
EVERYTHING?**



**NEWS
9**

**CAN CANNABIS
CURE COVID-19?**



How can a person
get the fastest
relief for migranes
using cannabis?



**MARIJUANA
AND
SCHIZOPHRENIA**



**Marijuana &
Your Metabolism**





EFFECTS OF DRUGS ON DRIVING

Signs of cannabis impairment

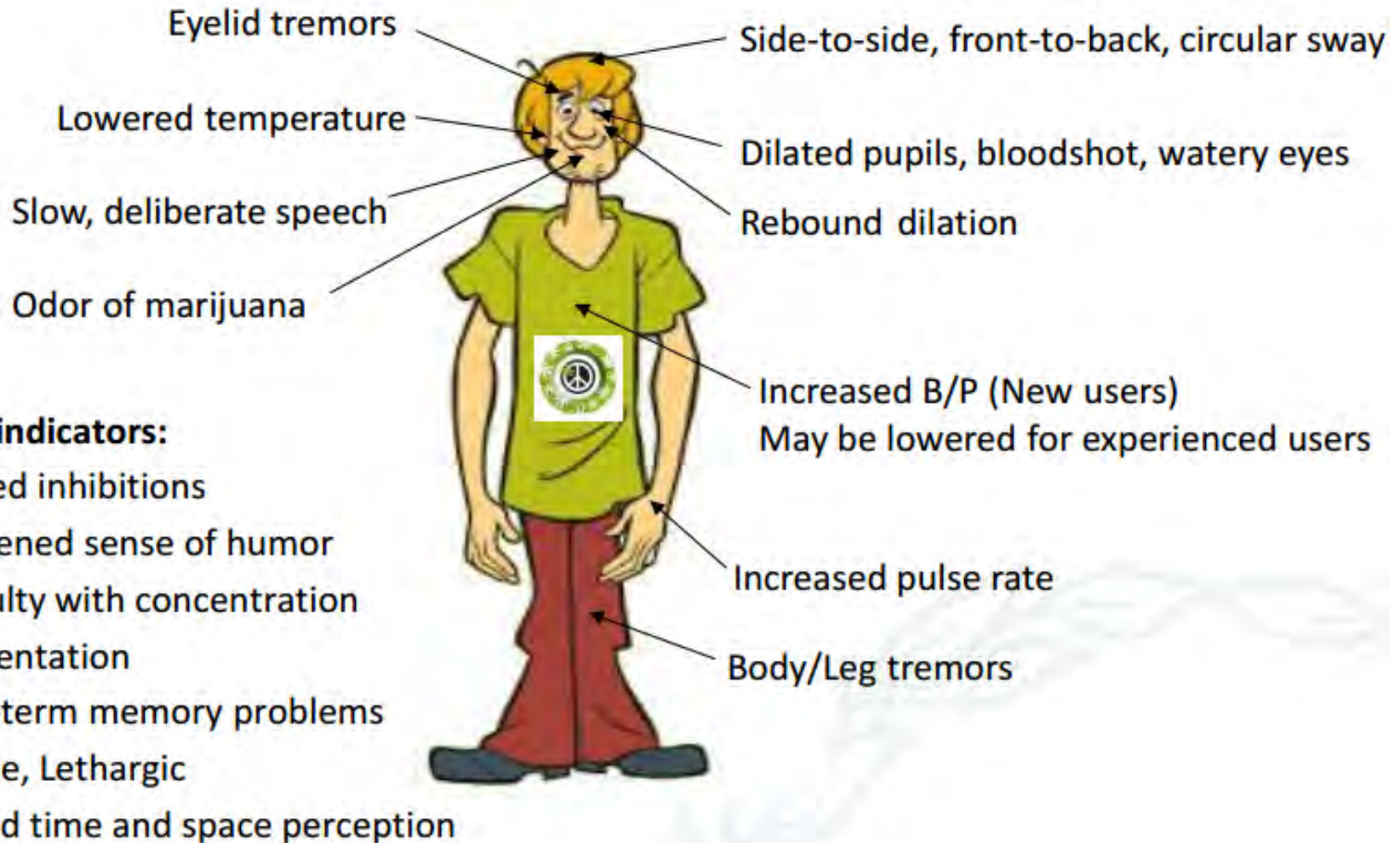


Image source: Chuck Hayes, 2016.

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.

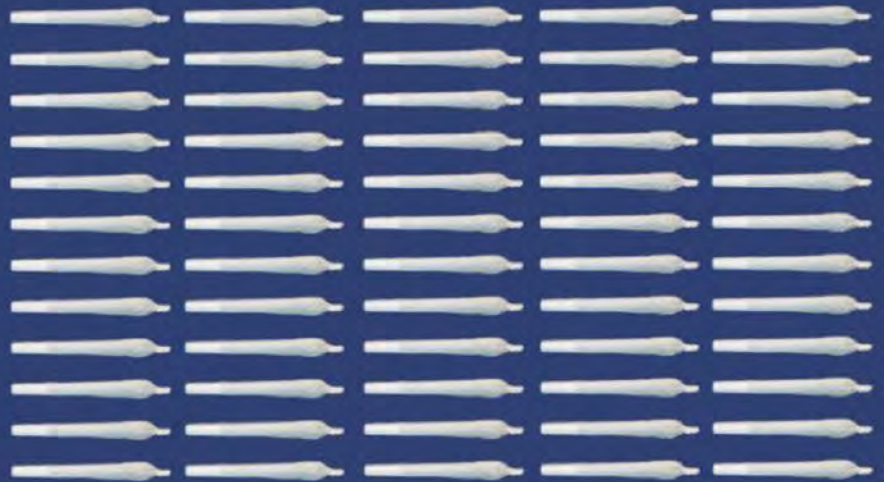


DRUG-IMPAIRED DRIVING POLICYAND CHALLENGES

www.drugpolicycenter.com



1 OUNCE



60 JOINTS

“Cannabis Plant”





Business has changed since 2012...



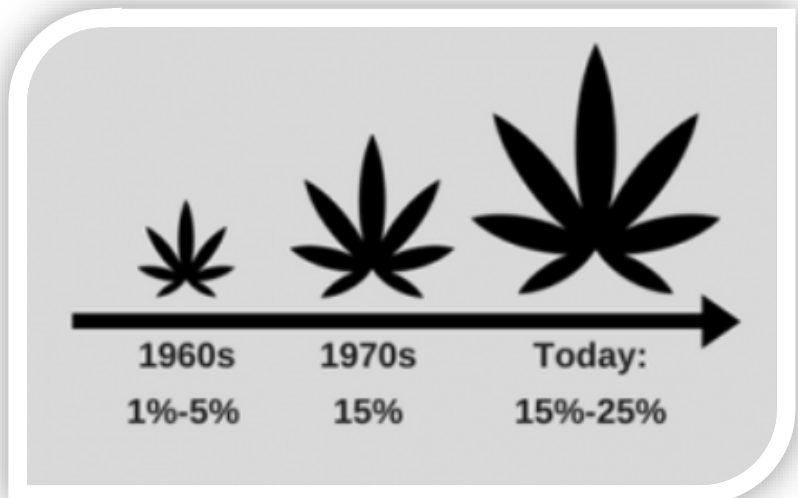
Designer dispensaries







*And so has the
product...*



Sativa and Indica



Drugged driving is more complicated than drunk driving.

DRUGGED DRIVING

DRUNK DRIVING

Number: Hundreds of drugs

Alcohol is alcohol

Data on Use by Drivers & Crashes: Limited

Abundant

Use by Drivers: Increasing

Decreasing

Impairment: Varies by type

Well-documented

Crash Risk: Varies by type

Precise

Beliefs & Attitudes: No strong attitudes –
public indifferent

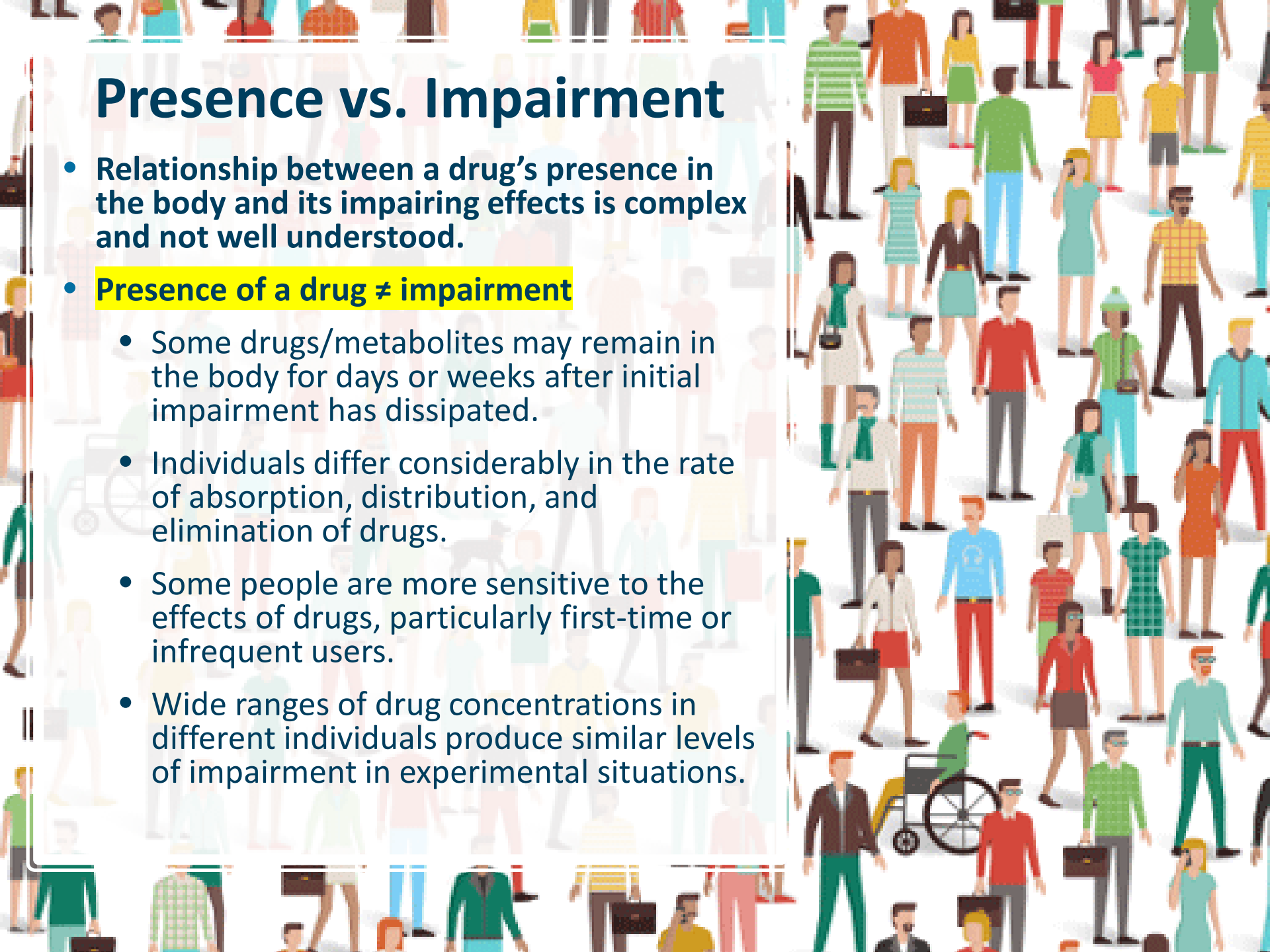
Socially unacceptable



RESPONSIBILITY.ORG

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”

Other Strains of Cannabis

- CBD-Pure CBD oil will not show up in testing and won't make you high*
- Delta 8-is legal in most states and is an analog of THC though it has lower potency and can be detected in testing
- Delta 10-Legal allegedly gives you more energy
- THC-O Legal- is a stronger analog of [delta 9 THC](#). It takes longer to kick in but produces effects that are roughly three times as strong as conventional THC.
- Rick Simpson Oil-Very high level of 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...



EDIBLES DOSING CHART

THC CONTENT PER DOSE

WHAT TO EXPECT

WHO'S IT FOR?

● 1 - 2.5 mg THC

- Mild relief of pain, stress, anxiety, and other symptoms
- Improved focus and creativity

- First-time consumers
- Microdosers

● 2.5 - 15 mg THC

- Stronger symptom relief
- Euphoria
- May impair coordination and alter perception

- Patients with persistent problems
- Restless sleepers
- Social butterflies

● 15 - 30 mg THC

- Strong euphoria or unwanted effects in unaccustomed consumers
- May impair coordination and alter perception

- Well-seasoned consumers
- Medical patients with developed tolerances
- Experienced consumers seeking to sustain sleep

● 30 - 50 mg THC

- Very strong euphoria in unaccustomed consumers
- Likely to impair coordination and alter perception

- Consumers who have poor GI absorption of cannabinoids
- People with significant tolerance to THC

● 50 - 100 mg THC

- Can cause extreme side effects such as rapid heart rate, nausea, and pain
- Highly likely to impair coordination and alter perception

- For experienced THC individuals only
- Patients with cancer, inflammatory disorders, or conditions that necessitate high doses

Always begin at the lowest recommended dose. Gradually increase by 1 or 2mg per dose, if necessary, to find your optimal dose. For more information go to Healer programs: www.healer.com/programs

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 technology



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!**



Future testing methods



Cannabis breathalyzers

Intelligent fingerprinting



— PROBATION —



SUPERVISING THE DRUG-IMPAIRED DRIVER

8003

19¢



Stabby the Kitten

BRO! YOU'RE ON PROBATION!





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**

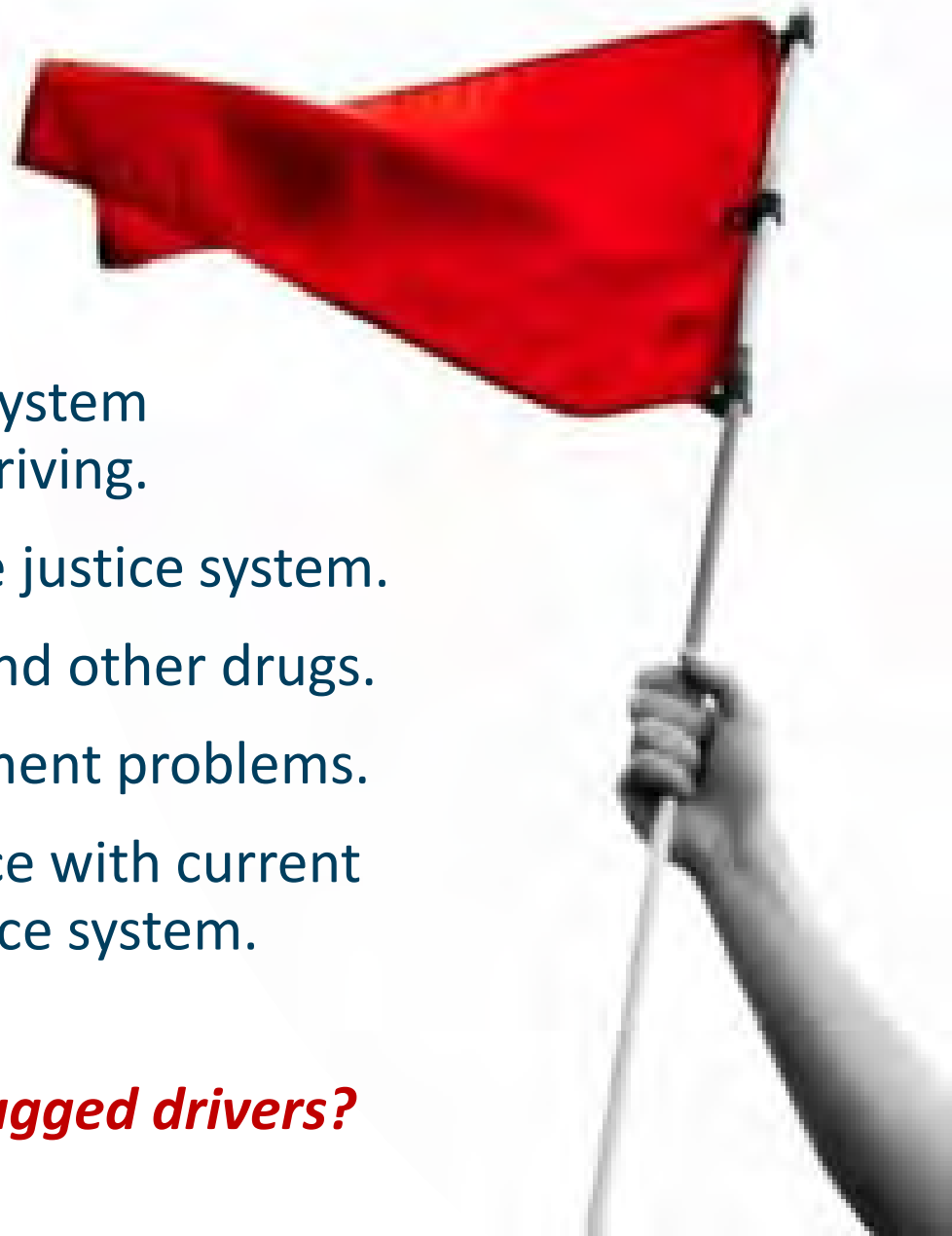
**Approximately 25%
of individuals
arrested and 30% of
individuals convicted
of DUI are repeat
offenders.**

**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

History of anti-social behavior

Anti-social cognitions

Anti-social personality pattern

Anti-social associates

Family/
marital
discord

Leisure/
recreation

Substance
abuse

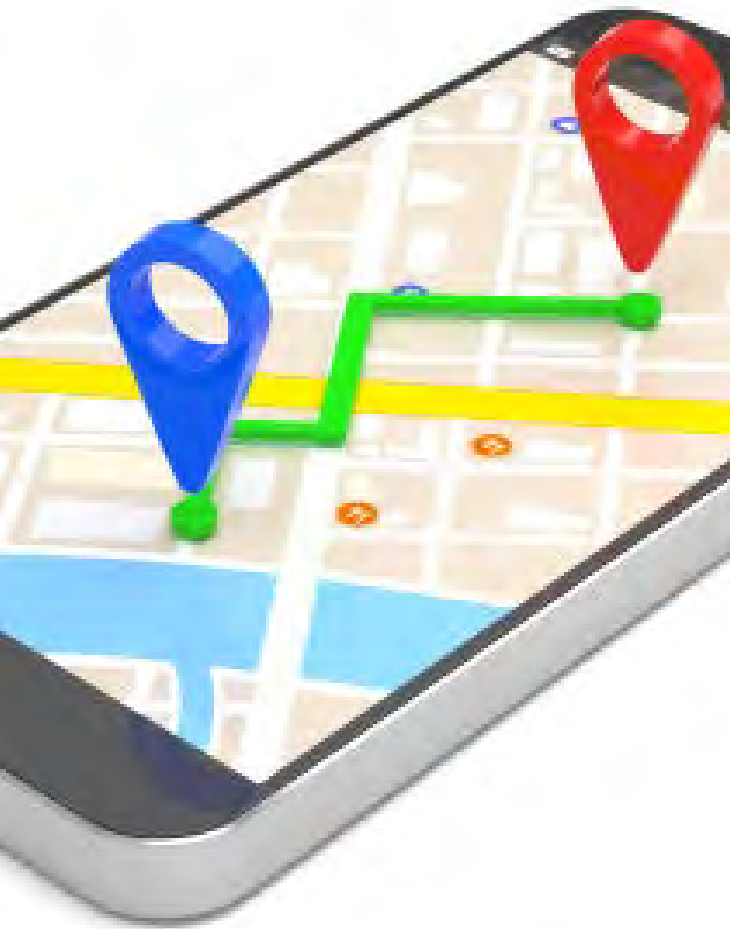
School/
work



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).



With impaired drivers, don't assume!

The drunk driver before you could actually be a polysubstance user.

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	MDMA	And in a perfect world,
Amphetamine	Methadone	
Barbiturates	Opiates	Ketamine
Benzodiazepines	Oxycodone	Synthetic Cannabinoids (Spice/K2)
Buprenorphine	Phencyclidine	Synthetic Cathinones (Bath Salts)
Cocaine	Propoxyphene	Tramadol
EtG	THC	
Fentanyl	Tramadol	
Heroin,		



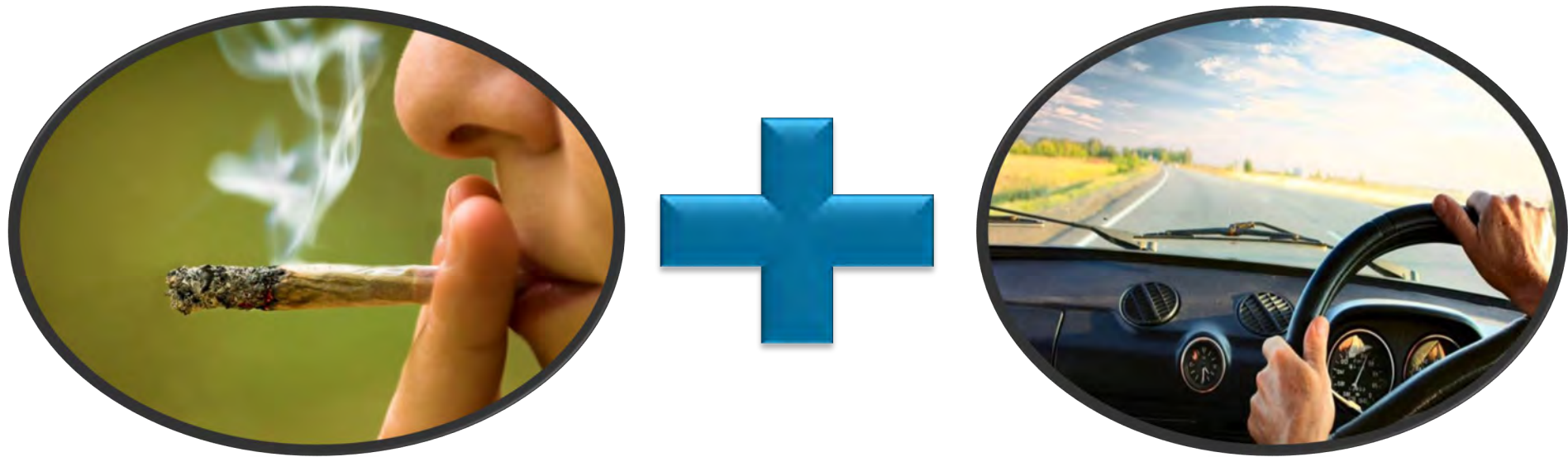


*Where do we
place these
people?*



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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