Experiencing déjà vu? A "Groundhog Day" approach to Impaired Driving is not the Answer





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PROFESSIONAL











Partners & Collaboration























































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Complexity of Impaired Driving and Public Perception

	DRUGGED DRIVING	DRUNK DRIVING
Number:	Hundreds of drugs	Alcohol is alcohol
Use by Driver, Presence in Crashes:	Limited Data	Abundant Data
Use by Drivers:	Increasing	Decreasing (at time of survey)
Impairment:	Varies by type	Well-documented
Beliefs & Attitudes:	No strong attitudes/public indifferent	Socially unacceptable

NHTSA National roadside survey: ~1-4 drivers tested positive for drugs 22.4% daytime weekday drivers and 22.5% weekend nighttime drivers (20% increase from 2007).

Percentage of drivers with cannabis in their system increased 50% (8.6% in 2007 to 12.6% in 2013-14).



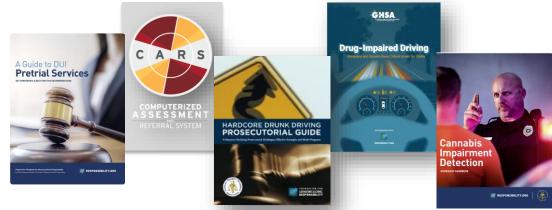


What does Impairment look like in your state?



IMPAIRED DRIVING

- High-Risk Impaired Driving
- Multiple substance impaired driving
- State grants with GHSA and Sheriffs
- DUI training guides
- CLE credit online prosecutor course
- Screening and assessment tools
- Ignition interlocks for all DUI offenders and other policy countermeasures









































https://www.responsibility.org/toolkit

Data Drives the Narrative

- 50.5% of fatally injured drug-positive drivers (with known drug test results) were positive for two or more drugs and 40.7% were found to have alcohol in their system (NHTSA FARS as cited in Hedlund, 2018)
- Preliminary data from the National Highway Traffic Safety Administration (NHTSA) shows the steepest rise in total traffic deaths since 2007, with a 7 percent increase in 2020 due to impaired driving, speeding, not wearing a seatbelt, and other risky driving behaviors.
- Police-reported alcohol-involved fatalities jumped by 9 percent, and trauma center data from NHTSA shows an increase in serious injuries and deaths involving drivers at high blood alcohol concentration levels and multiple drug combinations. This 9 percent increase does not include drugged driving fatality crashes; therefore, the impaired driving data is underreported, and is one area we need to improve to clearly understand the scope of this problem.
- Among drug-positive drivers killed in crashes, 4% tested positive for both marijuana and opioids, 16% for opioids only, 38% for marijuana only, and 42% for other drugs (Governors Highway Safety Association, 2017)





Drug Categories and Their Common Effects



DEPRESSANTS

Alcohol Valium Prozac Xanax Soma

PUPIL SIZE REACTION TO LIGHT

COMMON

EXAMPLES

BODY TEMPERATURE

MUSCLE TONE OTHER INDICATORS

(users will not typically show all indicators) CNS

Rohypnol (roofies) **GHB**

Normal

Slow

Normal

Flaccid

•Euphoria

 Depression Laughing/crying for

no reason

 Reduced ability to divide attention

Disoriented

Sluggish

 Thick, slurred speech

Drunk-like behavior

Droopy eyes

Fumbling

Relaxed inhibitions

 Slowed reflexes Uncoordinated

Drowsv

CNS **STIMULANTS**

Cocaine Crack Methamphetamine Adderall Ritalin Dexedrine

MDPV (bath salts)

Dilated Slow

Up

Rigid

Restlessness

 Body Tremors Excitement

•Euphoria

 Talkative Exaggerated

reflexes

Anxiety Redness to nasal

area

•Runny nose Loss of appetite

 Increased alertness Dry mouth

Irritability Grinding teeth **HALLUCINOGENS**

LSD (acid) MDMA (ecstasy) Pevote Psilocybin mushrooms

Dilated

Normal

Up Rigid

Hallucinations

·Paranoia Nausea

Perspiring Dazed appearance

Flashbacks

 Body tremors Disoriented

 Memory loss Uncoordinated

 Synesthesia (transposition of

senses) Difficulty in speech

Huge pupils (MDMA)

DISASSOCIATIVE **ANESTHETICS**

PCP Ketamine DXM (cough medicine)

Normal

Normal

Up

Riaid Blank stare

Confused

 Cyclic behavior Perspiring

Chemical odor

 Hallucinations Possibly violent and

combative •Warm to the touch Increased pain

threshold •Incomplete verbal

responses •Repetitive speech

NARCOTIC ANALGESICS

Heroin Hydrocodone Vicodin Morphine Oxycontin Percodan Methadone

Constricted

Little or none

Down

Flaccid

Droopy eyelids

•On the nod Drowsiness

Depressed reflexes

Dry mouth ·Low, raspy slow

speech •Euphoria

•Fresh puncture marks

Itching Nausea

•Track marks

INHALANTS

Solvents (gasoline, paint thinner, cleaning fluid, model glue) Aerosols (spray cans) Anesthetic gases (chloroform, whipped cream spray cans, nitrous oxide)

Normal

Slow

Up/Down/Normal

Normal or Flaccid

Confusion Flushed face

 Intense headaches Bloodshot, watery

eyes Lack of muscle

control •Odor of substance

 Non-communicative Disoriented

 Slurred speech •Possible Nausea Residue of substance

around mouth and nose

CANNABIS

Marijuana Hash Hash oil Marinol Dronabinol Spice

Dilated

Normal

Normal

Normal

•Odor of marijuana Marijuana debris in

the mouth Body tremors

Increased appetite

 Relaxed inhibitions Disoriented

•Possible paranoia

 Eylid tremors Reddened eves

POLY DRUG USE

The use of two or more drugs of different categories will cause the body to display a combination of effects. This is because each drug works independently. The results of poly drug use may be unpredictable but will generally show some indicators of each drug used. Alcohol and cannabis are the most common mixers with other drugs.

A project of the Northwest Washington Target Zero Coalition - thewisedrive.com

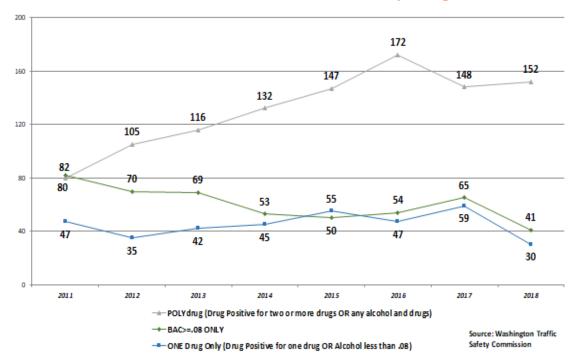


Multi-substance impaired driving enforcement

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.

Number of Drivers in Fatal Crashes in Washington State
Under the Influence of Alcohol and/or Drugs



Responsibility.org Position Statements



Oral Fluid Screening for Impaired Drivers

Increases in drug and multi-substance impaired driving call for expanded drug testing on the roadside. For officers who are not specially trained in drug impairment detection, oral fluid screening can aid in identifying drivers that may have recently consumed drugs who would otherwise escape detection.

How oral fluid field screening works. Oral fluid screening detects recent drug use but does not detect impairment. It is collected and analyzed in under 10 minutes which is important as drug levels dissipate quickly while impairment remains. Oral fluid screening devices typically include an oral fluid collection system consisting of a collection device and test cartridge and an analyzer. Law enforcement officers obtain samples using the collection device and insert them into the analyzer which determines drug presence by an objective reading of the test strip.



Oral fluid test devices screen for specific drugs or drug classes that commonly appear among impaired drivers [cannabis (Tetrahydrocannabinol (THC)], cocaine, methamphetamine, amphetamine, opioids, and benzodiazepines]. A positive result indicates recent drug use which alongside the officer's esulation of impairment, can aid in detecting recent consumption of drugs (i.e., not several days or weeks prior to arrest).

Oral fluid screening devices are preliminary screening tests that can be used to establish probable cause in combination with other evidence. At the time of testing, the officer has concluded that a driver is impaired using the SFST and is subsequently unable to safely operate a motor vehicle. The on-site oral fluid screen is used to identify what drug class(es) Is/are likely causing the observed impairment. The devices indicate drug presence above established cut-off levels. They do not detect quantifiable drug levels and are not admissible in court as evidence. Only a confirmation sample analyzed in a forensic laboratory, such as a blood test or a secondary oral fluid sample, can used for evidentiary purposes.

Oral fluid screening device performance is variable and depends on the quality of the instrumentation. Therefore, agencies must be careful when determining which instruments to deploy in the field. Pilot testing is one option available to assess the overall accuracy of devices and obtain officer feedback about performance and usability. The Society of Forensic Toxicologists (SOFT) offers guidelines for establishing oral fluid pilots.

Oral fluid screening offers the following advantages:

- Identifies recent drug use (within 24 hours);
- · Easy, fast, gender neutral collections that are minimally invasive;
- · No warrant required to collect samples;
- · Demonstrated accuracy, sensitivity, and specificity;
- · Results may support search warrant requests for additional chemical samples;
- Quick identification of both drug and multi-substance impaired drivers (including those with a BAC above .08);
- Admissible in certain hearings (e.g., probable cause);



Increase Drug Testing in Impaired Driving Cases

As more drivers are tested for drugs, it has become apparent that many alcohol-impaired drivers are actually multi-substance impaired drivers who avoid detection (see WA and CO data in Grondel, 2018 and Bui & Reed, 2019). Driving under the influence (DUI) is the only crime where the investigation stops after minimal evidence is obtained due to standard operating procedure. If a law enforcement officer observes impairment and detects a blood alcohol concentration (BAC) above the legal limit, the investigation typically ends, saving time and money. Many laboratory policies prohibit drug testing if a BAC is above .08 or .10 unless a request for additional testing is made, allowing drivers impaired by multiple substances to avoid accountability. If drug use is not identified, it cannot be monitored or treated and multi-substance impaired driving, which poses a much higher crash risk, remains significantly underreported. Every impaired driving investigation – whether it involves alcohol, drugs, or both — is a race against the clock.

When DUI cases involve drugs, time delays are significant, and the most compelling evidence (i.e., drug levels in the blood) dissipates quickly. In most states, blood tests confirm drug presence in a DUI suspect's system. However, due to delays in obtaining blood draws, test results often do not reflect drug concentration levels at the time of driving on account of rapid metabolization. When a suspect refuses to voluntarily submit to a breath test or a blood draw, a warrant must be obtained. Additionally, in most jurisdictions, a certified healthcare professional must perform the blood draw in a medical facility. This process can add up to two additional hours, possibly more in rural areas. To guard against the loss of evidence, officers must efficiently collect blood or other chemical samples that are then analyzed to confirm drug presence in DUI cases. Four strategies are being implemented in a growing number of jurisdictions to increase the efficiency of this process:

- <u>Electronic warrant systems (e-warrants)</u> that facilitate timely blood sample collection in DUI cases when
 people refuse to voluntarily submit to testing.
- Law enforcement phlebotomy programs that reduce time required to obtain a blood sample and safeguard against other issues.
- Oral fluid drug testing for DUI suspects, regardless of BAC level, to identify drug presence at roadside
 and determine the need for a blood draw.
- Building laboratory capacity to ensure toxicology labs can handle testing demands, are adequately staffed, and using advanced technology.

Electronic warrant systems (e-warrants) help officers quickly obtain a search warrant for blood to accurately determine BAC or toxicology results and streamline the arrest process. Other benefits of e-warrants include reduced workloads, fewer errors, stronger DUI cases, speedier case resolutions, fewer burdens on the system, reduced refusal rates, and public deterrence. Minnesota's e-Charging platform reduced error rates from 30% to nearly zero and practitioners report increased ease in obtaining warrants. With an e-warrant system, submissions can be prepared in under 10 minutes and the review, approval, and return process can be completed in 15-20 minutes. Implementation recommendations and examples of robust systems can be found in our <u>Guide to Implementing Electronic Warrants</u>. Both the International Association of Chiefs of Police [IACP]



Multi-substance Impaired Driving

Multi-substance impaired driving is the operation of a motor vehicle while impaired by drugs and alcohol or a combination of drugs. Research has continually shown that drugs used in combination or with alcohol produce greater impairment than substances used on their own (Compton, et al., 2009; Romano et al., 2014; Schulze et al., 2012). In describing this increased level of impairment, the analogy of 1+1=3 is often used to convey the higher risk associated with using multiple substances at the same time. This multiplicative impairment effect poses a higher crash risk on our roadways.

Research & Data Highlights:

- In 2016, 50.5% of fatally injured drug-positive drivers (with known drug test results) were positive for two or more drugs and 40.7% were found to have alcohol in their system (NHTSA FARS as cited in Hedlund 2018)
- The Driving under the Influence of Drugs, Alcohol and Medicines (DRUID) project of the European Commission found that individuals who drive under the influence of alcohol and drugs are up to 200 times more likely to be involved in a crash (Shulze et al., 2012; Griffiths, 2014).
- Washington State data revealed that multi-substance impairment was the most common type of
 impairment found among drivers involved in fatal crashes between 2008 and 2016. Among
 drivers involved in fatal crashes during this timeframe, 44% tested positive for two or more
 substances with alcohol and Tetrahydrocannabinol (THC) being the most common combination
 (Grondel et al., 2018).
- The National Survey on Drug Use and Health (NSDUH) revealed that of the 19.3 million individuals age 18 and over who had a substance use disorder in 2018, 12.9% (2.5 million) struggled with the use of both illicit drugs and alcohol (SAMHSA, 2019).

Current Detection Challenges:

Multi-substance impaired driving is underreported. Most law enforcement officers are trained to identify alcohol-impaired drivers, but unfortunately, many do not receive specialized training to identify the signs and symptoms of drug impairment [e.g., Advanced Roadside Impaired Driving Enforcement (ARIDE) training or Drug Recognition Expert certification].



Inhaling - Pulmonary

Smoking



Vaporizing



Dabbing



Inhale



Oral - Digestive





Capsules



Raw Cannabis



Trans mucosal – sublingual, intranasal, rectal, ocula

Tincture



Spray - oral/nasal









Suppository



Transdermal









Synthetic Cannabinoids

K2

Spice

AK47

Bliss

Black Mamba

Fake Weed

Bombay Blue

Genie

Zohai

Red X

Potpourri

Demon

Black Magic

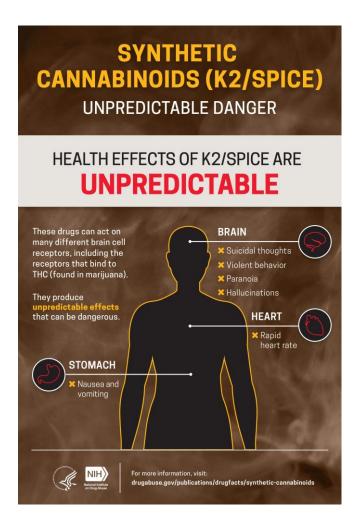
Ninja

Spike

Mr. Nice Guy

Yucatan







Synthetic Cannabinoids

- How is it consumed?
 - Smoked Joint
 - Pipes
 - E-cigarettes
 - Vape
 - Drink as a Tea



- How does it affect the body?
 - Paranoia
 - Short Term Memory Loss
 - Nausea
 - Anxiety
 - Panic Attacks
 - Hallucination
 - Giddiness
 - Increase in heart rate and blood pressure
 - Convulsions
 - Organ Damage
 - Death

Bolstering DUID Detection

- Standardized Field Sobriety Test (SFST)
 - Horizontal Gaze Nystagmus
 - Walk and Turn
 - One-Leg Stand
- Advanced Roadside Impaired Driving Enforcement (ARIDE)
 - 16-hour (2 day) classroom instruction
 - How to observe, identify, and articulate signs of alcohol and/or drug impairment
 - Widely deployable 13,832 trained in 2018

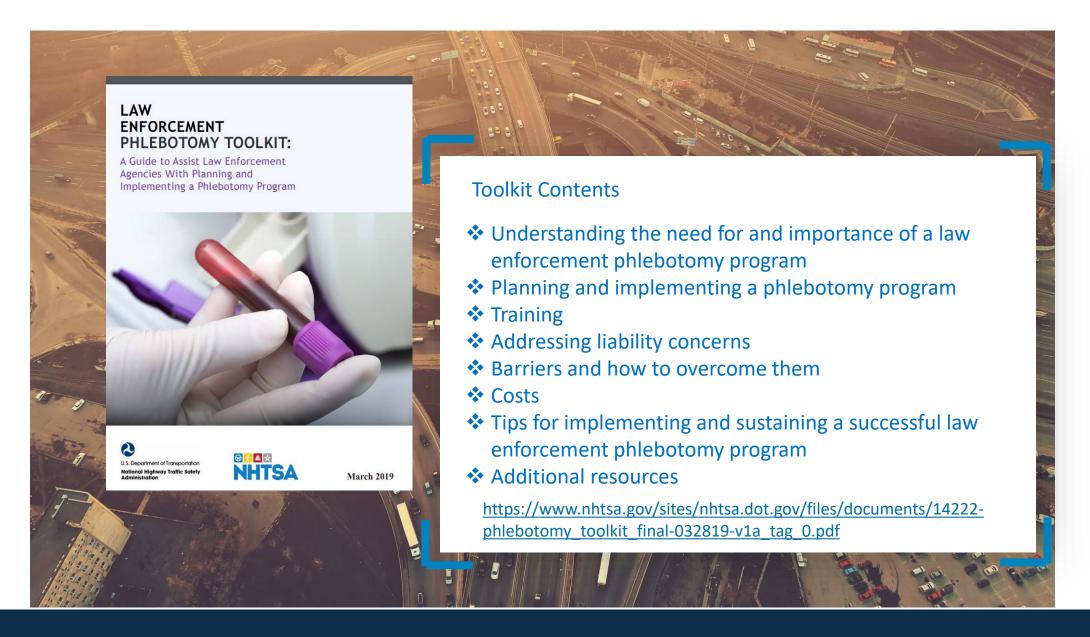
- Drug Enforcement Classification Program (DECP)
 - Trains Drug Recognition Experts (DREs)
 - 56-hour (8 day) classroom instruction + field certifications
 - Applies 12-step DRE evaluation protocol, offers expert opinion
 - Elite training: 1,613 trained in 2018

The 12-Step DRE Protocol

- **Breath Alcohol Test**
- Interview of Arresting Officer
- Preliminary Examination and First Pulse
- Eye Examination
- Divided Attention Psychophysical Tests
- Vital Signs and Second Pulse
- Dark Room Examinations
- **Examination for Muscle Tone**
- Check for Injection Sites and Third Pulse
- Subject's Statements and Other Observations
- Analysis and Opinion of Evaluator
- 12. Toxicological Examination

The 7 Drug Categories

- CNS Depressants
- **CNS Stimulants**
- Hallucinogens
- **Dissociative Anesthetics**
- Narcotic Analgesics
- Inhalants
- 7. Cannabis



Roadside Strategies



Electronic DUI packet

- Electronic Search Warrants
- Forensic Phlebotomy
 - Lakewood PD/Pierce County



WASHINGTON STATE
DUI ARREST REPORT
REPORT OF BREATH / BLOOD TEST FOR ALCOHOL AND/OR THC OR
DEFLICAL TO SUBMIT TO REPORTH TEST FOR ALCOHOL

REFUS	SAL TO SUBM	IT TO BE	REATH '	TEST	FOR AL	COHO	L	
SUBJECT'S NAME (LAST, FIRST, MI)			se	×		DATE OF	BIRTH	DATE / TIME OF ARREST
				M	□F			
STREET ADDRESS					re / ZIP CODE			
ORIVER'S LICENSE NUMBER	(CHECK IF YES)	STATE	COUNTY OF	ARRES	т		CASE / CITATIO	ON NUMBER
BAC Readings - DataMaste BAC Readings - Draeger	er 1 st Samp 1 st Sample (II 1 st Sample (E	R)	2 nd Sa 2 nd Sar		(IR)	Blood	ised Test _ I Alcohol _ lood THC _	

The subject was lawfully arrested. At that time, there were reasonable grounds to believe that the arrested person had been driving or was in actual physics control of a motor vehicle within this state while under the influence of intoxicating liquor or drugs, or both, or was under the age of twenty-one years and has been divided on the part of the par

After receipt of any applicable warmings required, the person returned to submit to a test of time or her breath, or a test was administered and the results insidiated that the adoction connectation of the persons is breath or blood was 0.00 or more, or the THC connectration of the person is breath or indicated that the adoction connectation of the person is blood was 0.00 or more, or the THC connectration of the person is aget breathy-one or over, or that the alcohol connectration of the person's blood was 0.00 or more, or the THC connectration of the person's blood was 0.00 or more, or the THC connectration of the person's blood was 0.00 or more, or the THC connectration of the person's blood was 0.00 or more, or the THC connectration of the person's blood was 0.00 or more, or the THC connectration of the person's blood was 0.00 or more, or the THC connectration of the person's blood was 0.00 or more, or the THC connectration of the person's blood was 0.00 or more, or the THC connectration of the person is used to the person is under the age of wheety-one.

Driver's Hearing Request Information was given to the arrested person.

Notice of Right to Hearing: I have been given written notice of my right to a hearing, including the steps required to obtain a hearing, and understand that the notice of suspension, revocation, or denial of license will be mailed to the address of record on file with the Department of Licensing.

SIGNATURE C	F DRIVER		DATE		
Complete this	box ONLY if the arre	sted person was drivin	g a commercial motor veh	icle as defined	in Chapter 46.25 RCW at the time of the incident.
Operating a	Vehicle Requiring a	Commercial Driver's Li	icense		
system or while from operating or more OR the when exigent o measurable an	under the influence of a commercial motor v person refused the b roumstances exist, or ount of THC concentr	of alcohol, marijuana, o ehicle under RCW 46.2 reath test OR a blood i under any other autho ration.	r any drug. The driver wa 25.090. A breath test was test was administered pur prity of law AND the blood	s informed that administered suant to a sear test indicated a	nile having alcohol, marijuana, or any drug in his or her refusing the breath test would result in disqualification and the result indicated an alcohol concentration of 0.0 ch warrant, a valid waiver of the warrant requirement, an alcohol concentration of 0.04 or more or any
VEH YEAR	MAKE	MODEL	LICENSE PLATE NUMBER	STATE	HAZARDOUS MATERIAL? YES NO

NOTE: If applicable, sign and date this page after toxicology report is receive

I certify (or declare) under penalty of perjury under the laws of the state of Washington that the foregoing and the accompanying reports/copies

LAW ENFORCEMENT AGENCY			ORI NO. (9 digits) OFFICER'S SIGNATURE		DATE SIGNE	:D
MAILING ADDRESS			PRINTED NAME OF OFF	ICER	BADGE NUM	ABER
				()	
СПУ	STATE	ZIP	PLACE SIGNED (city / county / state)	CONTA	(Include area code)	RING
OFFICER'S E-MAIL ADDRESS			Department of Licensing Driver Records			
OFFICERS: Fax or e-mail com and supplemental		It documen	SwornReports@DOL.WA.GOV Fax: (360) 570-7026	Number	of pages	-

USE THIS PAGE AS COVER SHEET



STATE OF W COUNTY	ASHINGTON COURT
STATE OF WASHINGTON,	NO.
Plaintiff,	SEARCH WARRANT FOR EVIDENCE OF A CRIME, TO WIT:
· ,	□ VEHICULAR HOMICIDE, RCW 46.61.520
Defendant.	□ VEHICULAR ASSAULT, RCW 46.61.522
	DRIVING WHILE UNDER THE INFLUENCE, RCW 46.61.502
	DRIVER UNDER TWENTY-ONE CONSUMING ALCOHOL OR
	MARIJUANA, RCW 46.61.503 PHYSICAL CONTROL OF VEHICLE WHILE UNDER THE INFLUENCE, RCW 46.61.504

TO ANY PEACE OFFICER IN THE STATE OF WASHINGTON:

WHEREAS, upon the sworn complaint heretofore made and filed and/or the testimonial evidence given in the above-entitled Court and incorporated herein by this reference, it appears to the undersigned Judge of the above-entitled Court that there is probable cause to believe that, evidence of intoxicating liquor, marijuana, or any drug as defined by RCW 46.61.540, in

- ☐ Reckless Manner ☐
- ☐ Disregard for the Safety of Others



RESPONSIBILITY.ORG

(R 12/15)

New Law Enforcement Tech Solutions





E-Warrants

Ocular Data Systems

Oral fluid testing



E-fingerprints



Roadside Drug Testing: Internationally accepted and adopted

Argentina, Australia, Austria

Belgium, Brazil

Canada, Chile, Columbia

France

Germany

Ireland, Italy

Netherlands, New Zealand

Poland, Portugal,

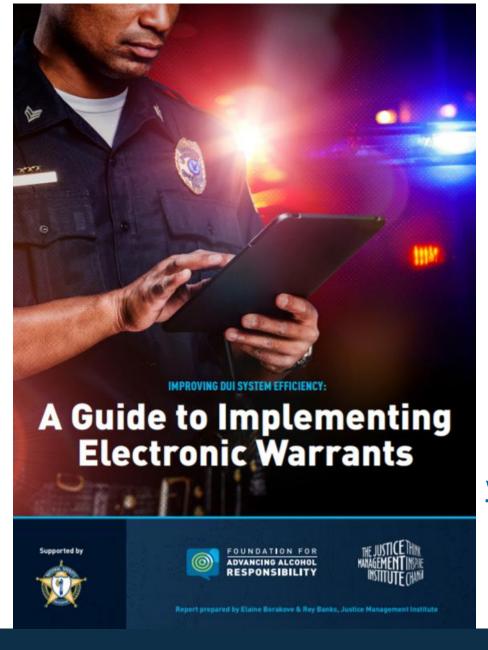
South Africa, South Korea, Spain, Sweden

Turkey

UAE, UK (arrests up 600% since implementation) Vietnam









www.responsibility.org/ewarrants



The National Alliance to Stop Impaired Driving

Mission

The National Alliance to Stop Impaired Driving (NASID) works to eliminate all forms of impaired driving, especially multiple substance impaired driving, through DUI system reform, DUI detection, data improvements and technology to effectively fight impaired driving. NASID is a broad coalition of stakeholders working in a public/private partnership to achieve these goals. We encourage collaboration between law enforcement, prosecutors, judges, toxicologists, academics, safety advocates, and industry to work together toward the goal of eliminating impaired driving.

Purpose

NASID provides national leadership to identifying and promoting solutions to impaired driving, including expanded chemical testing among impaired drivers, training for criminal justice practitioners, toxicology lab capacity, improvement and programs to increase the likelihood of recovery and reductions in recidivism. Our work includes state and federal advocacy efforts, public awareness and education, and state implementation of effective programs.

NASID Goals

Establish drug/multi-substance impaired driving as a top priority safety issue

Persuade the public and decision-makers to expand drug testing – screening/evidentiary

Explore and advocate for emerging technologies

Ensure a greater public understanding of how it works, reliability, effectiveness

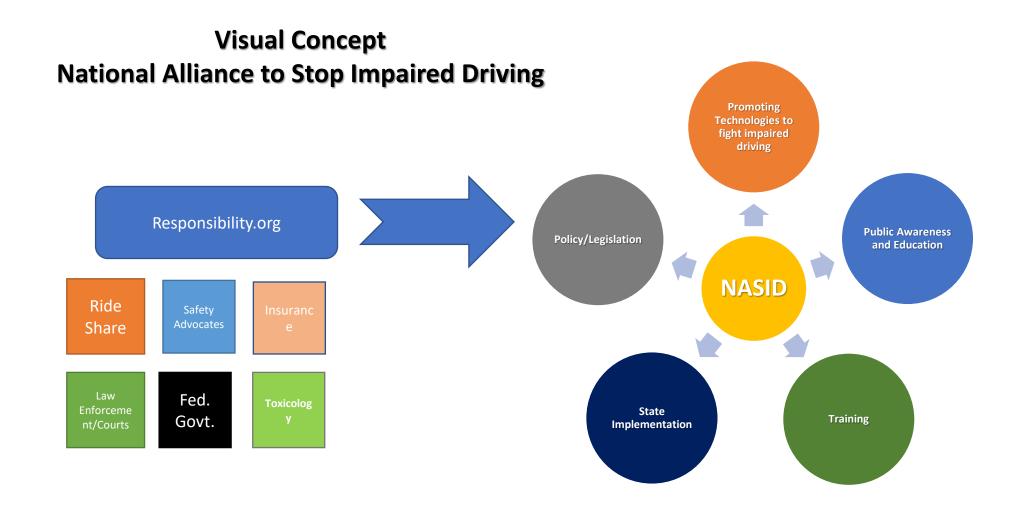
Dispel myths regarding technology -oral fluid testing

Promote pilot programs and replicate them in target states

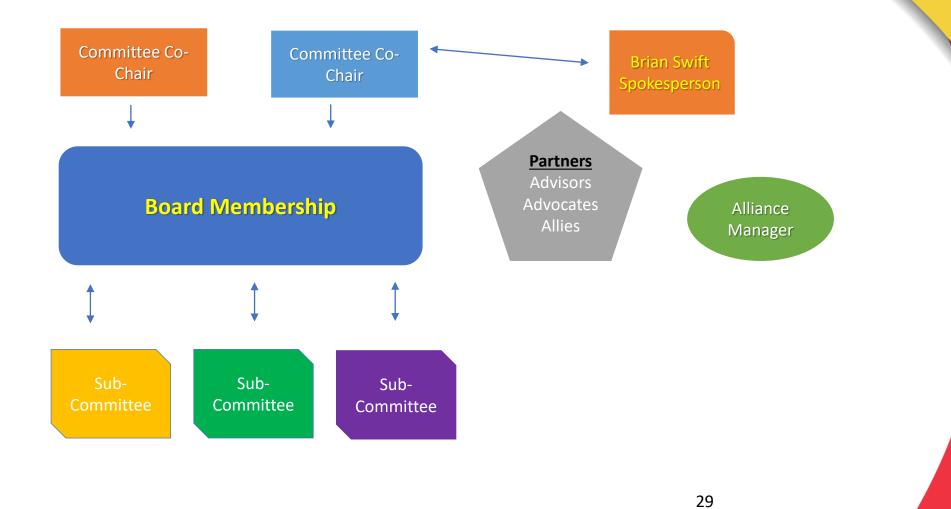
Build champions for issue among elected officials and stakeholders

Convene influencers for State and Federal legislative action

Assist practitioners with training and education











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Jennifer Tibbitts Knudsen
Traffic Safety Resource Prosecutor
Colorado District Attorneys' Council



Judge Richard Vlavianos
San Joaquin County
Superior Court



Jen Knudsen, CO TSRP





We are trying to do everything with nothing.





THE DEFINITION OF DRUG

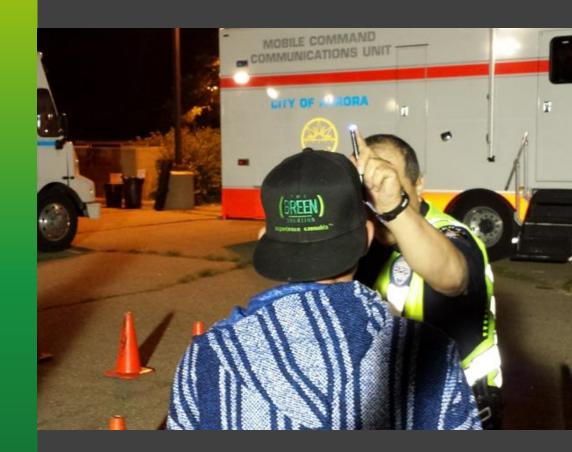
- Schedule (federal or state- e.g., fentanyl analogs)
- Drug Evaluation & Classification Program
- Statutory definition

Law Enforcement



STANDARDIZED FIELD SOBRIETY TESTING

- Not validated for drugs other than alcohol
- Increased court time
- Back to basics training



Volunteer Certificate

Presented to

[Type Name]

for

[Type Reason for Receiving]



Type Date

Date

Type Name

ADVANCED ROADSIDE IMPAIRED DRIVING ENFORCEMENT

When?

Voluntary?

Tests are NOT validated!

DRUG EVALUATION & CLASSIFICATION PROGRAM





Drug Matrix

	CNS Depressants	CNS Stimulants	Hallucinogens	Dissociative Anesthetics	Narcotic Analgesics	Inhalants	Cannabis
HGN	Present	None	None	Present	None	Present	None
VGN	Present (High Dose)	None	None	Present	None	Present (High Dose)	None
Lack of Convergence	Present	None	None	Present	None	Present	Present
Pupil Size (2.5 - 5.0) normal room (5.0 - 8.5) normal dark (2.0 - 4.5) normal direct	Normal (1)	Dilated	Dilated	Normal	Constricted	Normal (4)	Dilated (6)
Reaction to Light more than 1 second is slow	Slow	Slow	Normal (3)	Normal	Little to None Visible	Slow	Normal
Pulse Rate (60-90 bpm is normal)	Down (2)	Up	Up	Up	Down	Up	Up
Blood Pressure (systolic normal 120-140) (diastolic normal 70-90)	Down	Up	Up	Up	Down	Up / Down (5)	Up
Body Temperature 98.6° F is normal +/- 1 degree is up / down	Normal	Up	Up	Up	Down	Up / Down / Normal	Normal
Muscle tone	Flaccid	Rigid	Rigid	Rigid	Flaccid	Normal or Flaccid	Normal

FOOTNOTE: These indicators are those most consistent with the category, keep in mind that there may be variations due to individual reaction, dose taken and drug interactions.

- 1. Soma, Quaaludes and some anti-depressants usually dilate the pupils.
- $2. \quad \text{Quaaludes, ETOH and some anti-depressants may elevate the pulse rate.} \\$
- 3. Certain psychedelic amphetamines may cause slow reaction to direct light.
- 4. Normal, but may be dilated.
- 5. Down with anesthetic gases, up with volatile solvents.
- 6. Pupil size possibly normal.

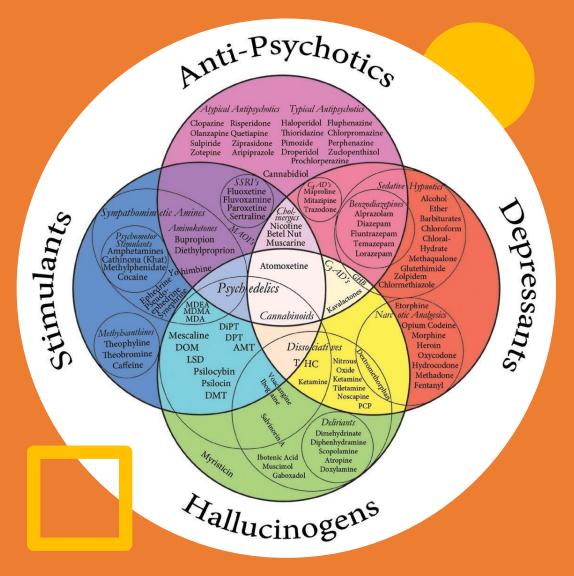
	State v. Ibis	CNS Depressants	Cannabis
HGN		Present	None
Vertical Nystagmus		Present* (High dose)	None
Lack of Convergence		Present	Present
Pupil Size		Normal (1)	Dilated (6)
Reaction to Light		Slow	Normal
Pulse Rate		Down (2)	Up
Blood Pressure		Down	Up
Body Temperature		Normal	Normal
Muscle Tone		Flaccid	Normal

SFSTs	HGN /6	BAC
	WAT /8	
	OLS / 4	

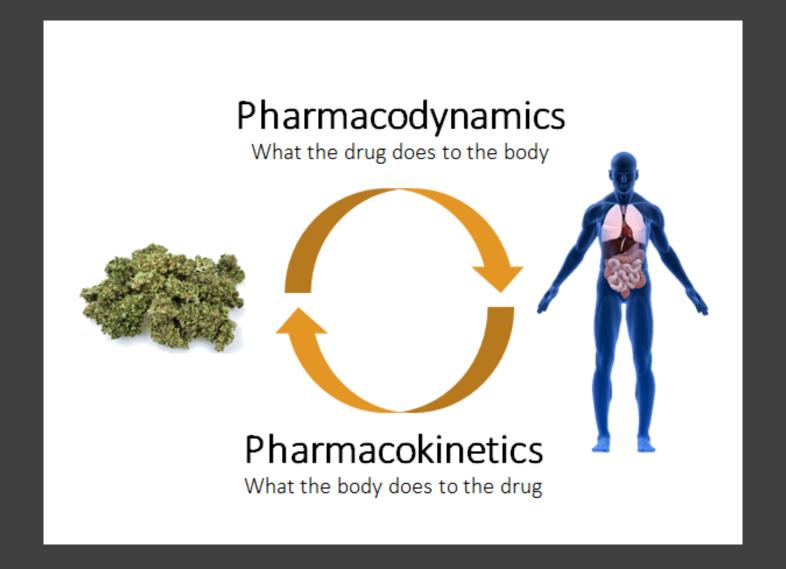
	CNS Depressants	Cannabis
General Indicators		

Conflicting worlds

Medical v. DRE

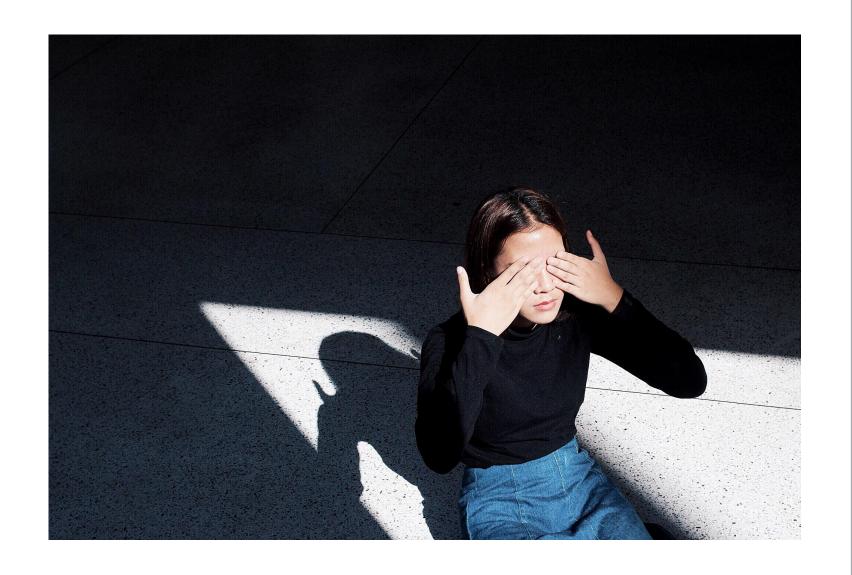


EXPERT WITNESSES



TOXICOLOGY

Good as gold?



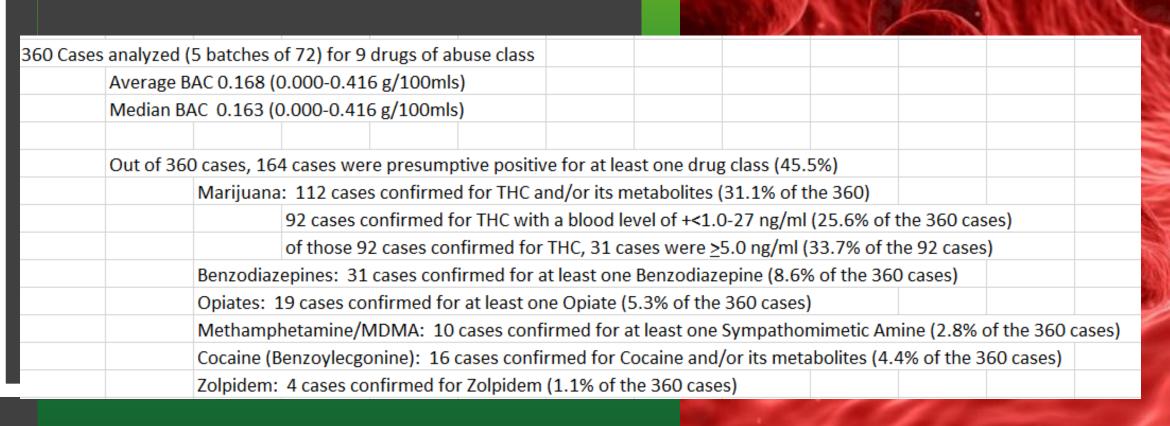
What are we missing & does it matter?

COSTS

- Who pays?
 - Kits
 - Delivery
 - Testing
 - Expert witnesses



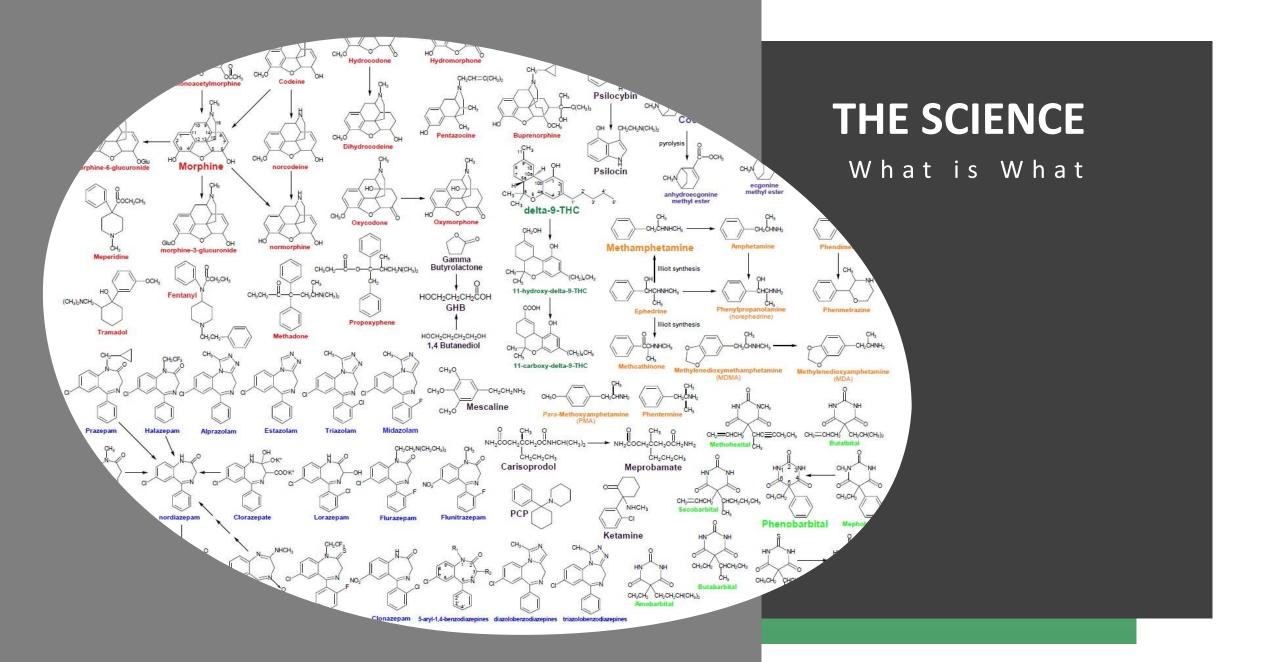
BLOOD



SOME RESULTS

Item 1.1				
Drug	Result	Method		
Ethanol	0.073 +/- 0.004 g/100 mL	HS-GC/FID		
Delta-9-tetrahydrocannabinol (THC)	12 +/- 2ng/mL	LC/MS/MS		
11-hydroxy-9-tetrahydrocannabinol (HC-OH)	10 ng/mL	LC/MS/MS		
11-nor-9-carboxy-delta-9-tetrahydrocannabinol (THC-COOH)	140 ng/mL	LC/MS/MS		
Item 1.1				

Drug	Result	Method	
Ethanol	0.206 +/- 0.010 g/100 mL	HS-GC/FID	
Delta-9-tetrahydrocannabinol (THC)	7.0 +/- 1.3 ng/mL	LC/MS/MS	
11-hydroxy-9-tetrahydrocannabinol (THC-OH)	3.6 ng/mL	LC/MS/MS	
11-nor-9-carboxy-delta-9-tetrahydrocannabinol (THC-COOH)	50 ng/mL	LC/MS/MS	

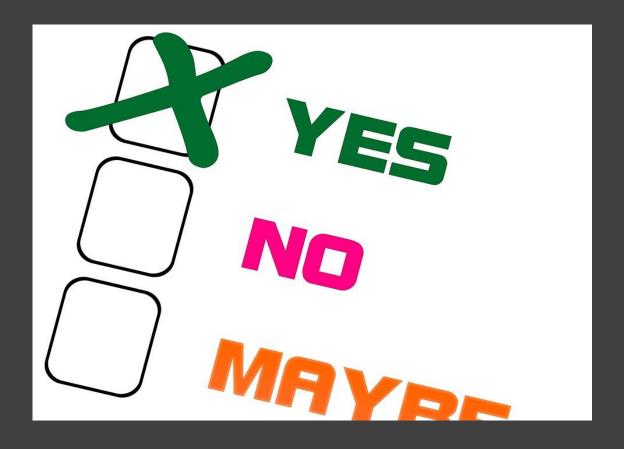


There is no magic number.

1 + 1 doesn't equal 2?

EXPRESSED CONSENT

- Administrative sanctions
 - Point system
 - Refusals
- Consciousness of guilt
- Unconscious draws
- Limits ability to get a warrant



C.R.S. §42-4-1301.1 et seq.

Any person who drives any motor vehicle upon the streets and highways and elsewhere throughout this state shall be required to submit to and to complete, and to cooperate in the completing of, a test or tests of such person's blood, saliva and urine for the purpose of determining the drug content within the person's system when so requested and directed by a law enforcement officer having probable cause to believe that the person was driving a motor vehicle in violation of the prohibitions against DUI or DWAI and when it is reasonable to require such testing of blood, saliva, and urine to determine whether such person was under the influence of, or impaired by, one or more drugs, or one or more controlled substances, or a combination of both alcohol and one or more drugs, or a combination of both alcohol and one or more controlled substances.





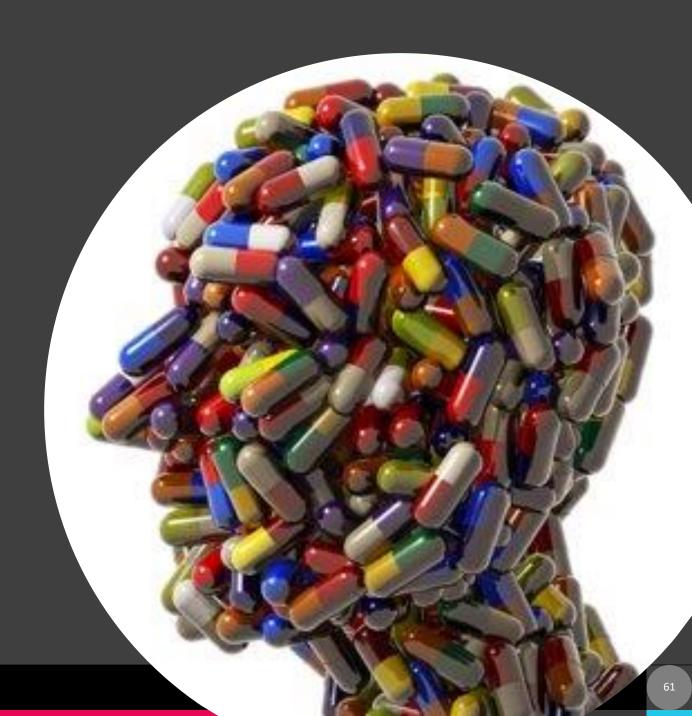


An Evaluation of Data from Drivers Arrested for Driving Under the Influence in Relation to *Per Se* Limits for Cannabis, Barry Logan, Ph.D., f-ABFT, et al.

PLEA NEGOTIATIONS

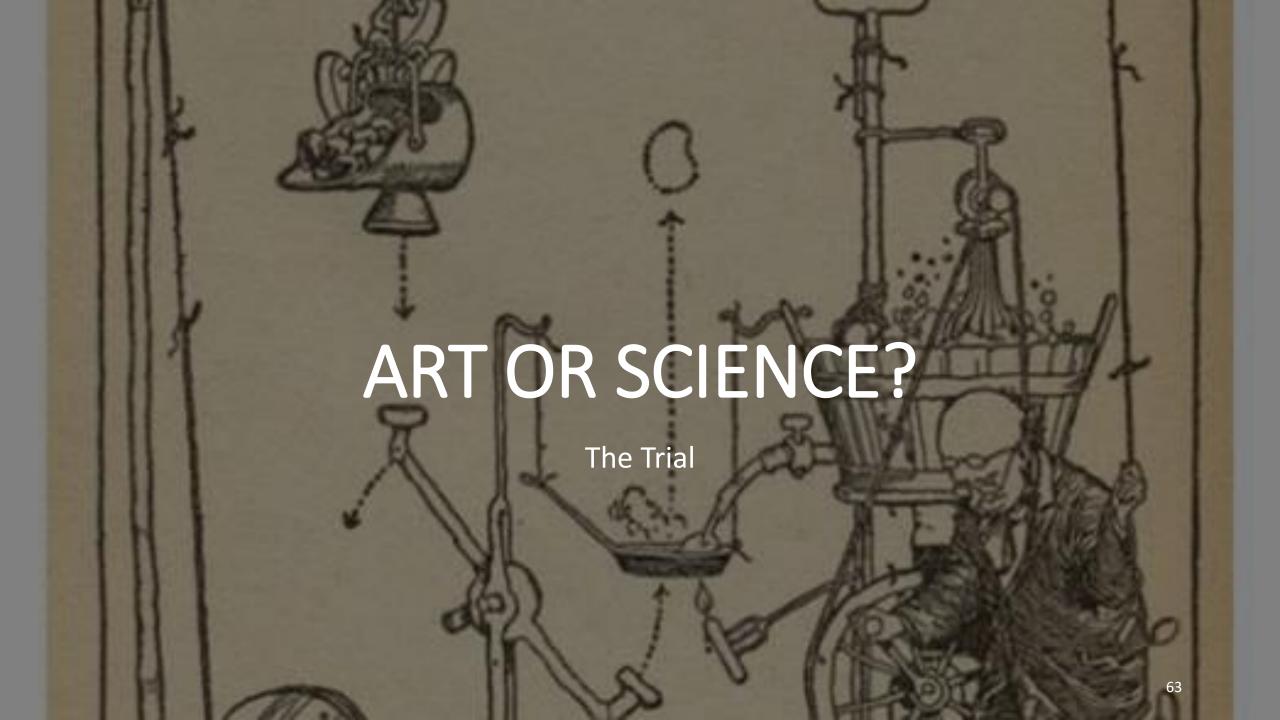


IMPAIRMENT IS IMPAIRMENT





Jury Nullification





Thank you

Jen Knudsen, CDAC



The Under-Recognized Group

- High risk for re-offense but low substance use disorder (SUD) needs
 - Very different
 - Issues generally cognitive behavioral
 - Need to be handled differently

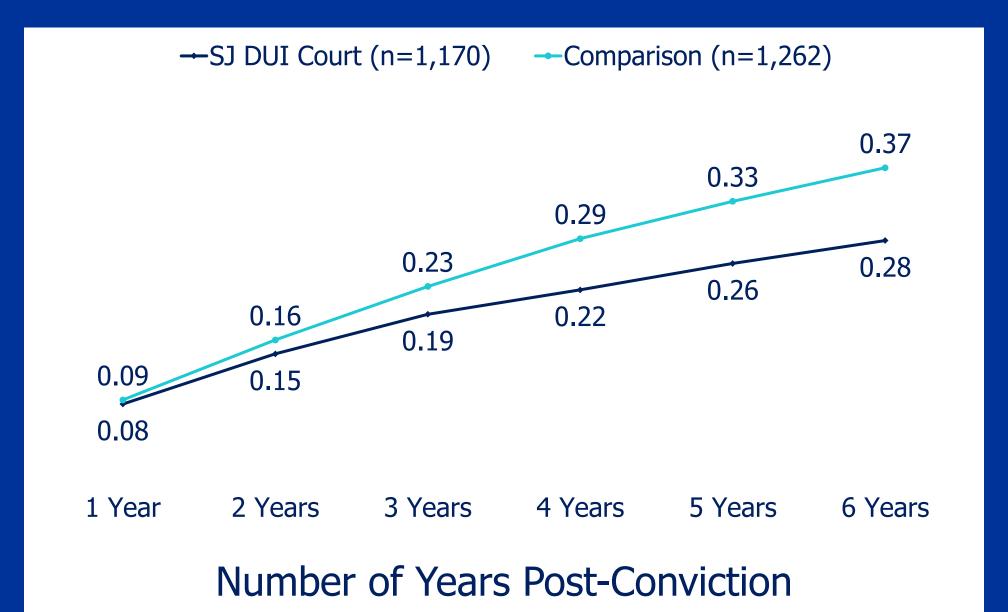
Monitoring / Accountability

- Monitoring works if verified/Court helps
 - No effect if not verified
- Reduction in recidivism while monitored
 - Ignition Interlock Study in California 3 months
 - NHTSA study on transdermal monitoring – 4 months
- Reversion to norm upon removal
 - 3 months & 4 months

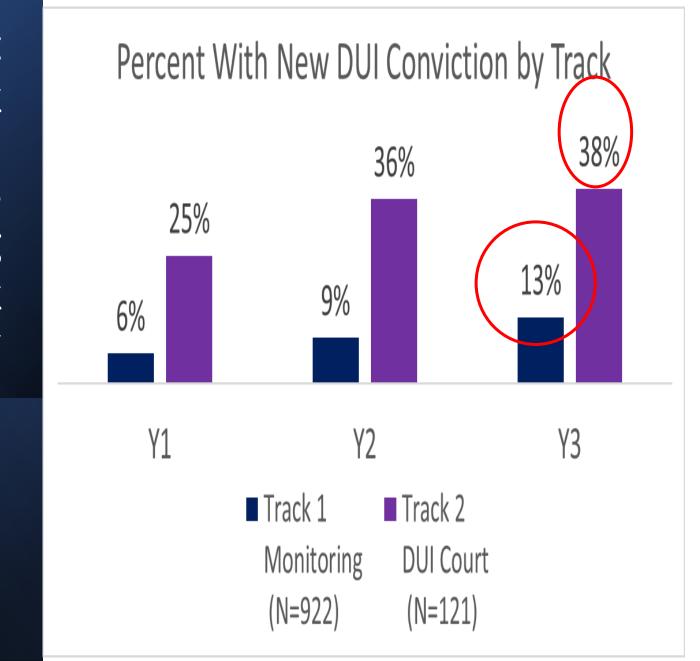
Monitoring / Accountability 2019 San Joaquin County DUI Court Longitudinal Study

- 1 year of monitoring with installation verified
- > No reversion to norm upon removal
- Reduction in recidivism increased every year for all 6 years measured

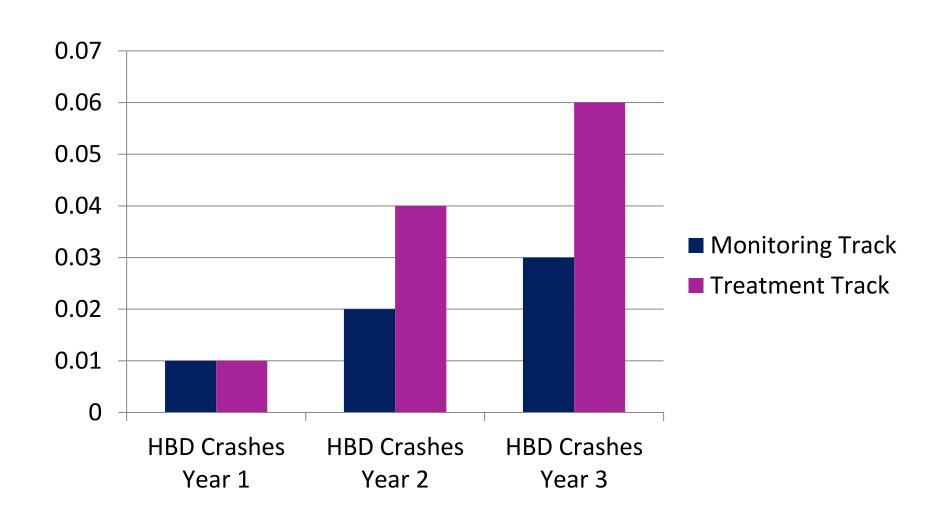
Participants in SJ DUI Court had 24% Fewer DUI Convictions 6 Years After Program Entry



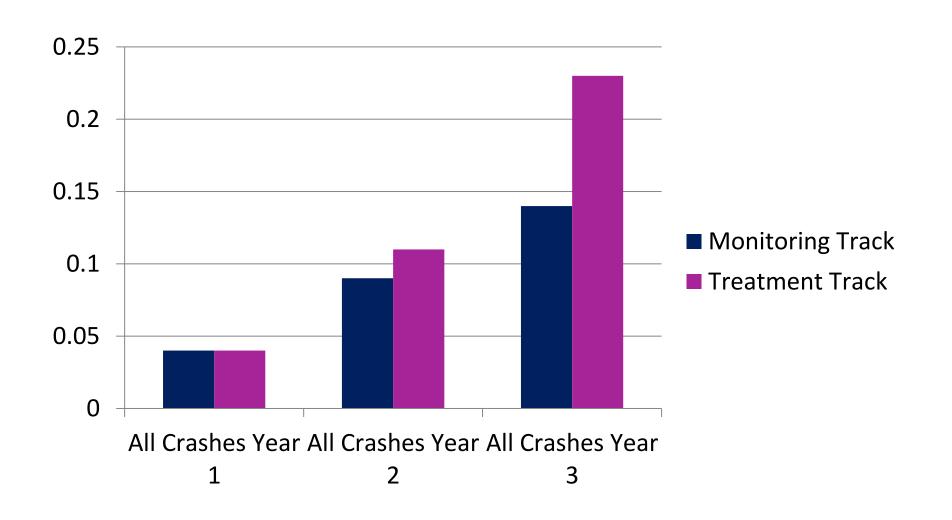
Treatment Track (HR/HN) VS Monitoring Track (Majority HR/LN)



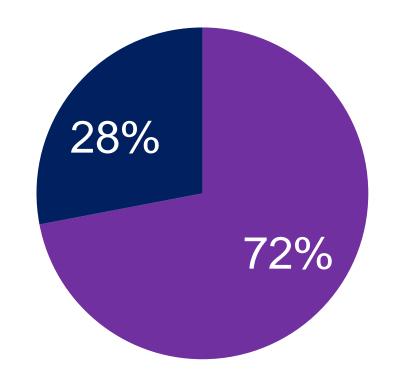
Monitoring Track v. Treatment Track HBD Crashes



Monitoring Track v. Treatment Track All Crashes

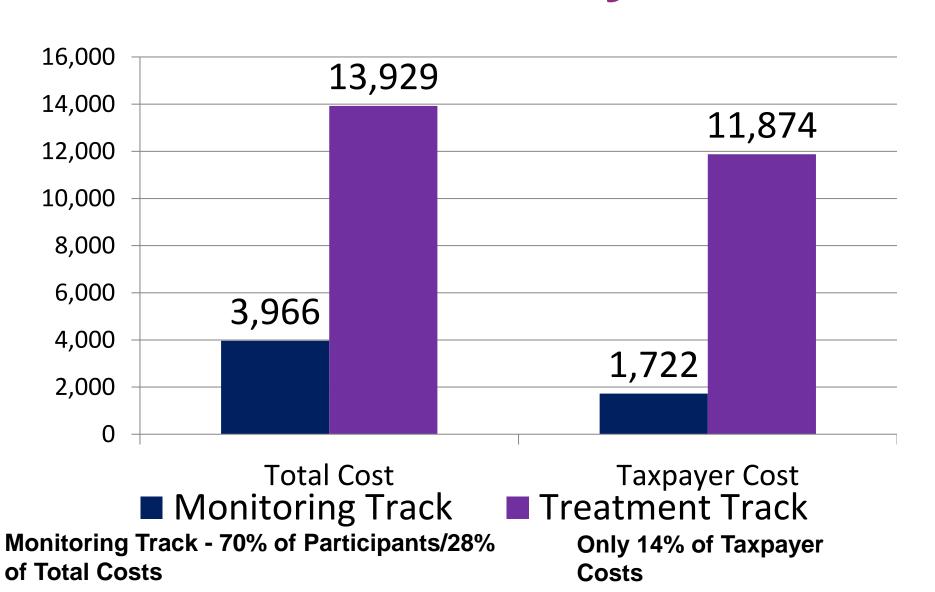


Overall Track %



- Monitoring Track Approx. 3,672
- Treatment Track-Approx. 1,428

Cost Per Client by Track



Court Session Cost Per Client by Track in Dollars

