Guest Speaker

Chris Swonger
President & CEO
Responsibility.org &
Distilled Spirits Council of the U.S.
Guest Speaker

Jonathan Adkins
Chair, National Alliance to Stop Impaired Driving (NASID) &
Executive Director, Governors Highway Safety Association (GHSA)
Darrin Grondel
Vice President of Traffic Safety and Government Relations, Responsibility.org
Thanks to our Wifi Sponsor

Intoximeters
Experience • Service • Integrity

NETWORK: NASID22
PASSWORD: Intoximeters
Mission
The National Alliance to Stop Impaired Driving (NASID) is a coalition established and led by Responsibility.org to eliminate all forms of impaired driving, especially multiple substance impaired driving, through effective and proven measures such as DUI system reform, DUI detection, improved use of data and technology. Our members include law enforcement, prosecutors, judges, toxicologists, academics, safety advocates, and industry leaders.

Purpose
NASID provides national leadership to expand testing among impaired drivers, training for criminal justice practitioners, toxicology lab capacity improvements, and programs to increase 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.
Priority Areas

**Data Improvement**

**Goal:** *Conduct a data assessment survey to identify the gaps in drugged driving data*

- AAA has done work on this task and the state-by-state results are available to you here: [https://aaafoundation.org/enhancing-drugged-driving-data-state-level-recommendations/](https://aaafoundation.org/enhancing-drugged-driving-data-state-level-recommendations/)  [Click the link to the appendices to the left for state-level results.]

**Goal:** *NASID to work with the Association of Transportation Safety Information Professionals (ATSIP) to support changes to the FBI reporting requirements for DUI data collection*

- ATSIP has completed the survey that will be disseminated to law enforcement agencies, courts, state highway safety offices and traffic records coordinating committees to glean data addressing gaps in reporting to the National Incident-Based Reporting System (NIBRS), formally known as the Uniform Crime Report (UCR). Ron Replogle and Darrin Grondel are members of this ATSIP working group and will present on a panel at the ATSIP Annual Meeting.

**Goal:** *NASID to support and promote the Drug Recognition Evaluation (DRE) data – tablet*

- The Institute of Traffic Safety Management and Research is now represented with NASID.
Priority Areas

**Goal: Prioritize 5 states for oral fluid policy**
- March 29 – Minnesota Legislature Oral Fluid Roadside Screening Summit
- May 18 – Louisiana
- Michigan, Ohio
- AAA oral fluid drug testing and/or roadside screening programs toolkit for advocacy

**Goal: Advocate for electronic search warrants in 3 states**
- Maryland, Oregon

**Goal: Coordinate with National Conference of State Legislatures (NCSL) in conducting training on multiple substance impairment**
- August 1-2 – NCSL will be hosting a pre-conference meeting and NASID will be presenting

**Goal: Support of ignition interlock legislation and reciprocity**
- Hawaii, Colorado, New Hampshire, Tennessee, Minnesota, Arizona, Kansas, Louisiana, Utah, Florida, Wisconsin, Maryland, Georgia, Alabama, West Virginia, Michigan, Iowa, South Carolina

**Goal: Screening and assessment and treatment legislation for Substance Abuse Disorder**
- Louisiana applies the Computerized Assessment and Referral Screening (CARS) tool as mandated by their Supreme Court
- Nevada poised to take this on for their specialty courts and provisions are being established to get CARS

**Goal: Prioritize key DUI countermeasures in preparations for state and federal Cannabis legalization efforts**

**Goal: Create a policy/education program with a priority list for policy makers considering legalization of cannabis**
- Cannabis State Laws Map
- State Laws - National Alliance to Stop Impaired Driving (nasid.org)
- Outreach to the following state’s legislatures offering our services related to cannabis legislation – Delaware, Hawaii, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Missouri, Nebraska, New Hampshire, Ohio, Pennsylvania, Rhode Island, Tennessee, West Virginia
Priority Areas

**Goal:** Provide grants to states for DUID countermeasures (*phlebotomy, toxicology, data enhancements, etc*)

- GHSA and Responsibility.org/NASID Awarded 6 State Grants for 2022
- Connecticut - Green Lab/Alcohol Wet Lab combination
- Illinois - adding validations for expanding drug testing
- Louisiana - two grants awarded (1) purchase of toxicology equipment to conduct expanded drug testing, especially multiple substances, (2) creation of a toxicology subject matter expert program to provide testimony and consultation for prosecutors
- Maryland - conduct 8 green labs across the state for training for criminal justice professionals, safety managers, and others for impairment detection
- Nevada - computerized Assessment and Referral System (CARS) statewide training for judges to use for screening and assessment of DUI defendants

**Goal:** Fundraising – NASID activities and NASID Conference

- Conference registration early bird fee is $250
- Fund raising and membership is available through Joey Ford
NASID Resource: State Cannabis DUI Laws

State Laws

SELECT A STATE on the map below to view statistics about and laws relating to impaired driving.

State Laws - National Alliance to Stop Impaired Driving (nasid.org)
National Alliance to Stop Impaired Driving (NASID) - National Alliance to Stop Impaired Driving

https://www.responsibility.org/toolkit/
Guest Speaker

NHTSA Update and DUID Tool Funding Overview

Tara Kelley-Baker
Impaired Driving Division Chief, NHTSA
2020 Fatal Motor Vehicle Crash Update
Fatality Analysis Reporting System (FARS)

- 38,824 Traffic Fatalities
- 6.8% Increase in fatalities from 2019
- 11,653 Alcohol-impaired fatalities (14% increase)

Early estimate for 2021 just released:
- 42,915 Traffic Fatalities (10.5% increase)
Examination of the Traffic Safety Environment During the Second Quarter of 2020

Special Report

Update to Special Reports on Traffic Safety During the COVID-19 Public Health Emergency: Third Quarter Data

National Highway Traffic Safety Administration (NHTSA) Data on traffic safety during the COVID-19 public health emergency. The data reflect a significant decrease in traffic volume for the first quarter of 2020. The report also includes data on traffic volume and fatality trends as of the second quarter of 2020.

Continuation of Research on Traffic Safety During the COVID-19 Public Health Emergency: January – June 2021

The National Highway Traffic Safety Administration continues to monitor traffic safety during the COVID-19 public health emergency. The report includes data on traffic volume, fatality trends, and other traffic safety indicators. The data reflect a significant decrease in traffic volume for the first quarter of 2020. The report also includes data on traffic volume and fatality trends as of the second quarter of 2020.

Background

After the declaration of the public health emergency in March 2020, driving patterns and behaviors in the United States changed significantly (Whitaker et al., 2020). Office of Behavioral Safety Research experts analyzed the data and found that the drivers who remained on the roads, some engaged in reckless behavior, including speeding, failure to wear seat belts, and driving under the influence of alcohol or other drugs. Traffic data also showed increases in speeding-related fatalities (NHTSA, 2020). This report includes data on traffic volume and fatality trends as of the second quarter of 2020.
Foundation in Data

- The number of fatalities in Q1 and Q2 was lower in 2020 than in the previous year. This is good.
- However, the fatality rate per 100 VMT increased substantially.
- We need to understand why.

Source: Early Estimate of Motor Vehicle Traffic Fatalities for the First Half (Jan–Jun) of 2020
Enforcement Changed

• More than 900 first responders have died from COVID-19 through October 21, 2021
  • Law Enforcement comprise two-thirds of first responder fatalities

• Many law enforcement agencies had policies limiting interactions with the public and arrests
  • Reductions in stops, DWI arrests, speeding citations, belt citations
  • Deterrence through highly visible enforcement was not there

• In conversations with our Regions, States described reductions in traffic safety enforcement activity
Risky Behaviors Changed

**Speed** — driving speeds increased

**Seatbelts** — ejection rates increased

**Drugs and Alcohol** –

- Increase in marijuana sales (taxes) and alcohol sales
  - Wholesale and retail sales of alcohol were at record levels in May and June
- Increase in opioid-related EMS calls and Naloxone administration
  - 99,000 drug overdose deaths in the US in the first year of the pandemic; nearly 30% increase from the year before.
- Increases in self-reported alcohol and drug use
  - Q4 of 2020, 25.9 million past year users of alcohol & 10.9 million past year users of drugs other than alcohol perceived that they were using these substances “a little more or much more” than they did before COVID
- Increase in prevalence of drugs and alcohol among critically injured road users at five trauma centers
  - NHTSA Study
Alcohol & Other Drugs in Trauma Patients

- Proportion of drivers who were MVC trauma patients with alcohol, marijuana and opiates on board compared to pre-March 16 went up
- Overall 51% tested positive for some drug before March 16th (COVID) and 65% after

<table>
<thead>
<tr>
<th>Drug</th>
<th>Before March 16 (dating to Sept 2019)</th>
<th>After March 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>21.8%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Cannabinoids (THC)</td>
<td>20.8%</td>
<td>32.7%</td>
</tr>
<tr>
<td>Opioids</td>
<td>7.5%</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

- Highest BAC ranges showed biggest increases
- Antidepressants down

Note: All data presented on this slide is significant at the .05 level
Funding Support for Implementing Recommendations from the Drug-Impaired Driving Criminal Justice Evaluation (DUID) Tool
The Drug Impaired Driving Criminal Justice Evaluation (DUID) Tool

**Purpose**

Allows users to **self-diagnose** programs to reduce drug-impaired driving through a systematic review of activities, policies, and procedures intended to reduce impaired driving.

**Identify gaps** in drug-impaired driving programs, inform strategies to strengthen programs, and track progress over time against baseline results.

Can be accessed at

[www.NHTSA.gov/DUIDtool](http://www.NHTSA.gov/DUIDtool)
DUID Tool

Overview

Consists of questions divided into ten sections representative of critical criminal justice and programmatic elements.

Categories include:

- law enforcement,
- prosecution,
- judiciary,
- community supervision,
- toxicology,
- treatment,
- emergency medical services,
- data,
- legislation, and
- program communications
Drug-Impaired Driving Criminal Justice Evaluation Tool

The Drug-Impaired Driving Criminal Justice Evaluation Tool is intended for State, local and territorial and tribal governments and agencies** to self-assess readiness to reduce drug-impaired driving through a systematic review of programs, policies, and procedures intended to reduce impaired driving. Designed to be completed in consultation with subject matter experts most familiar with the relevant programs (either individually or via group discussion), the self-evaluation can identify gaps in drug-impaired driving programs, inform strategies to strengthen drug-impaired driving programs, and track progress over time against baseline results. The self-evaluation includes links to best practices and resources for strengthening drug-impaired driving programs.

Completing and Scoring the Self-Evaluation

The self-evaluation consists of ten groups of questions organized by the tabs below. You should answer the questions within each subsection and review corresponding best practices and resources for each section. After answering the questions for each subsection, you will be asked to rate your program strength level for that indicator using a defined 0-5 point scale. Scores will be tabulated on the final "Scoring" sheet to allow an overall view of program performance for each indicator. Strategic planning sections are included for each issue area following ratings. For additional support, contact your National Highway Traffic Safety Administration Regional Office (www.nhtsa.gov/about-nhtsa/regional-offices).

<table>
<thead>
<tr>
<th>Strength Level</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't Know/Not Enough Information</td>
<td>0</td>
<td>Not enough information to evaluate effectively.</td>
</tr>
<tr>
<td>Limited or No Participation</td>
<td>1</td>
<td>There is limited activity/action related to this indicator.</td>
</tr>
<tr>
<td>Low/Initial Strength</td>
<td>2</td>
<td>Activity is undocumented and in a state of dynamic change, tending to be driven in an ad hoc manner. The State is collecting best practices, building support with leadership and developing an implementation process.</td>
</tr>
<tr>
<td>Medium Strength</td>
<td>3</td>
<td>The indicator is repeatable, with consistent results. Documented standard processes are established, although may not be systematically used.</td>
</tr>
<tr>
<td>Approaching Optimal Strength</td>
<td>4</td>
<td>The State has established program performance and is adjusting for maximum potential.</td>
</tr>
<tr>
<td>Optimal Strength</td>
<td>5</td>
<td>The indicator has reached full or optimal strength and is widely used in the State with a focus on continually improving process/performance.</td>
</tr>
</tbody>
</table>

Evaluation Topics:
Section 1: Law Enforcement
Section 2: Prosecution
Section 3: Judiciary
# Drug-Impaired Driving Criminal Justice Evaluation Scoring

## Results

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Strength Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 1: Law Enforcement</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Law Enforcement Engagement in Drug-Impaired Driving Enforcement</td>
<td>5</td>
</tr>
<tr>
<td>1.2 Problem Identification</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Officer Training and Coverage</td>
<td>3</td>
</tr>
<tr>
<td>1.4 Courtroom Experience and Training</td>
<td>2</td>
</tr>
<tr>
<td>1.5 Expedited Warrants</td>
<td>1</td>
</tr>
<tr>
<td>1.6 Law Enforcement Phlebotomy</td>
<td>0</td>
</tr>
<tr>
<td>1.7 Thorough Report Writing</td>
<td>5</td>
</tr>
<tr>
<td>1.8 Expedited Reporting</td>
<td>5</td>
</tr>
<tr>
<td>1.9 Law Enforcement Liaisons</td>
<td>2</td>
</tr>
<tr>
<td><strong>Section 2: Prosecution</strong></td>
<td></td>
</tr>
<tr>
<td>2.1 Leadership</td>
<td>0</td>
</tr>
<tr>
<td>2.2 Traffic Safety Resource Prosecutors</td>
<td>4</td>
</tr>
<tr>
<td>2.3 Dedicated DWI Prosecutors</td>
<td>4</td>
</tr>
<tr>
<td>2.4 Pretrial Monitoring</td>
<td>5</td>
</tr>
<tr>
<td>2.5 Prosecutor Training</td>
<td>3</td>
</tr>
<tr>
<td>2.6 Coordination</td>
<td>2</td>
</tr>
<tr>
<td>2.7 Data Collection</td>
<td>1</td>
</tr>
<tr>
<td>2.8 Drug-Impaired Driving Case Law</td>
<td>0</td>
</tr>
<tr>
<td>2.9 Supervision</td>
<td>0</td>
</tr>
<tr>
<td><strong>Section 3: Judiciary</strong></td>
<td></td>
</tr>
<tr>
<td>3.1 Judicial Outreach Liaison</td>
<td>3</td>
</tr>
<tr>
<td>3.2 Prompt Adjudication of Drug-Impaired Driving Cases</td>
<td>4</td>
</tr>
<tr>
<td>3.3 Support for Expedited Warrants</td>
<td>5</td>
</tr>
</tbody>
</table>
DUID Tool Funding support

• Reimbursement-based program to help implement recommendations from the tool.
• Open to all interested non-Federal agencies.
• Complete relevant sections of the tool before filling out and submitting application.
• Rolling application process – applications will continue to be accepted through December 2022 or until available funding is exhausted.
• All funding must be expended by July 2023.
• Applications will be reviewed and approved in the order they are received.
• Submit applications and questions to DUIDTool@toxcel.com.
Guest Speaker

DUI Systems Mapping:
Simplifying a Complex Problem

Jerry Miller
Director, Institute for Traffic Safety Management & Research (ITSMR)
SYSTEMS MAPPING

Impaired Driving

Simplifying A Complex Process
All politics are local...

- **FEDERAL**
  - NHTSA, NTSB, FMCSA....
  - Funding
  - Safe Systems
  - National Advocacy Groups

- **STATE**
  - Highway Safety Offices
  - Grant Programs
  - Advisory Councils
  - State Police / Highway Patrol
  - Statewide Advocacy Groups

- **LOCAL**
  - Micro vs Macro
Who’s on first...

• Is the Impaired Driving message coordinated within your local communities?
• Do we really know what every “player” is doing?
• Do they know WHY?
• Is traffic enforcement/impaired driving a priority?
  • Top to Bottom of Organization?
• How do we know if all components of “the system” are aligned?
Systems Mapping 101

- Bring all the stakeholders into one room for a mapping exercise.
- The starting point (Impaired Driving) is placed at the center of a piece of paper, on a whiteboard, or newsprint.
- Stakeholders, issues, and indicators are added.
- Arrows are drawn from one indicator to another, to indicate a relationship.
- Drill down whenever/wherever possible.
- This is a brain dump exercise.
- Embrace the chaos!!
The Socratic Method

- Involves a shared dialogue between facilitator and participants.
- The facilitator is not the content matter expert.
- The facilitator leads by posing thought-provoking questions.
- The participants are not passive recipients of knowledge.
- Participants actively engage by asking questions of their own.
- Assume Nothing!
Who to invite to the party...
Benefits of System Mapping

• Exposes relationships, patterns, pinch & leverage points.
• Fosters collaboration among diverse teams.
• Participants gain a better understanding of how the components work together as a system.
• Clears up misperceptions
• Leverages potential synergies between system participants.
• Exposes shared resources, potential system improvements.
• Puts faces to names
Cannabis DUI Public Awareness Campaigns

Darrin Grondel (M)
Vice President Traffic Safety and Government Relations, Responsibility.org

Karen Sprattler
Principal, Sprattler Group

Robyn Robertson
President and CEO, Traffic Injury Research Foundation
About TIRF

TIRF is registered charity providing the following services:

> Research on road crashes;
> Program and policy development;
> Evaluation plans, program, and policy evaluations; and
> Knowledge transfer
Road Safety Campaigns

> Important to understand source of behavior before adopting an approach.
> Characteristics of audience influences approach.
> Those less likely to engage in behavior and who are sensitive to social norms are easier to change.
> Fear-based campaigns should be used cautiously with those most invested in behavior.
> Self-efficacy, motivational factors are important.
> Do not underestimate importance of branding and execution of campaign.
Community-Based Toolkit | Road Safety Campaigns

Campaign effectiveness linked to:

> solid theoretical foundation;
> topic of campaign;
> types of tools used in the campaign;
> program duration;
> social norms underlying the target audience;
> the external influences and environment for behaviour; proximity important; and,
> combination with enforcement.
Cannabis responsibility messages

To put it bluntly: Don’t drive high.

Don’t go down that road.

Pretty simple:
If you’re high, just don’t drive.

Baked goods and baked drivers are a bad recipe.
Cannabis messaging

• History behind “marijuana”
• Language matters
• Danger in stereotypes
• Importance of the messenger
• Confusion created by ambiguity and misinformation
• Cannabis-impaired DUI is illegal in all 50 states
What we’ve learned

• Funding
• Respect
• Inclusion
• Fact-based
• Language
• Message and messengers*
Partnerships

- CANNRA
- Cannabis industry leaders
- Cannabis retailers
- State impaired driving task forces and impaired driving groups
Karen Sprattler
Sprattler Group
karen@sprattlergroup.com

Robyn Robertson
TIRF
robynr@tirf.ca
Applying a Safe Systems Approach to Impaired Driving

Jake Nelson (M)
Director of Traffic Safety Advocacy & Research
AAA

Russ Martin
Senior Director of Policy & Government Relations
GHSA

Michael Sawyer
City Transportation Engineer, City of Richmond, VA
Advanced Vehicle Technologies

Brandy Nannini (M)  
Senior Vice President, Responsibility Initiatives, Responsibility.org

Matt Strausz  
President and CEO, Smart Start, LLC

Stephanie Manning  
Chief Government Affairs Officer, Mothers Against Drunk Driving MADD

Rob Ritter  
Director, Office of Impaired Driving and Occupant Protection NHTSA

Kristin Kingsley  
Consultant, Automotive Coalition for Traffic Safety ACTS

Anders Lie, PhD  
Former Board of Director, member of The European New Car Assessment Programme (EuroNCAP)
Rulemaking Process
An Introduction
Traffic and Motor Vehicle Safety Act

National Traffic and Motor Vehicle Safety Act of 1966

• Authority to establish Federal motor vehicle safety standards (FMVSS) that:
  1) are practicable
  2) meet the need for motor vehicle safety, and
  3) are stated in objective terms

• NHTSA generally mandates performance requirements
  • Not specific technology
Drivers to Initiate Rulemaking

Internal Drivers
• Crash data analysis
• Research on countermeasures
• Enforcement issues
• Retrospective reviews
• Agency Priority plans

External Drivers
• Congressional (Statutory) mandates
• Public petitions
• NTSB recommendations
• Changes in the state of the art
Bipartisan Infrastructure Law

• Issue a final rule prescribing a FMVSS
  • Passively monitor the performance of a driver to determine whether driver may be impaired and prevent or limit operation
  • Passively and accurately detect whether BAC over .08 and prevent or limit operation
  • A combination

• Timing
  • Issue a final rule not more than 3 years from date of enactment
  • May extend for up to 3 years; with annual report to Congress
Some Rulemakings may also entail an ANPRM + Public Comment and/or an SNPRM + Public Comment.
Data Drives Decisions

Data → Research and Development
    Data → Initiate Rulemaking
        Data → NPRM
            Data → Public Comments
                Data → Final Rule
Public Involvement

• All active rulemakings and associated status can be found in the Unified Agenda, available at: www.reginfo.gov

• Rulemaking documents are published in the Federal Register, available online at: www.federalregister.gov

• Length of comment period and comment submission guidance are included in all published documents

• Any individual(s) or organization(s) can submit comment
# View Rule

**DOT/NHTSA**  
**RIN:** 2127-AM50  
**Publication ID:** Spring 2022

**Title:** Advanced Impaired Driving Technology  
**Abstract:** Pursuant to a statutory mandate in the Bipartisan Infrastructure Law, this rulemaking would prescribe a Federal Motor Vehicle Safety Standard to require passenger motor vehicles manufactured after the effective date of that standard to be equipped with advanced drunk and impaired driving prevention technology. This notice seeks public comment on how NHTSA could propose to set minimum performance requirements and specify a test procedure(s) under which compliance with any such requirements could be measured.

**Agency:** Department of Transportation (DOT)  
**Priority:** Economically Significant

---

**Overall Description of Deadline:** Section 24220 of the BiL mandates a final rule not later than November 2024.

<table>
<thead>
<tr>
<th>Action</th>
<th>Date</th>
<th>FR Cite</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANPRM</td>
<td>12/00/2022</td>
<td></td>
</tr>
</tbody>
</table>

**Regulatory Flexibility Analysis Required:** No  
**Small Entities Affected:** No  
**Included in the Regulatory Plan:** No  
**RIN Information URL:** [www.regulations.gov](http://www.regulations.gov)  
**RIN Data Printed in the FR:** No  
**Public Comment URL:** [www.regulations.gov](http://www.regulations.gov)

**Government Levels Affected:** None  
**Federalism:** No

---

**Agency Contact:**  
David V. Freeman  
Chief, Vehicle Controls & Adapted Vehicle Division  
Department of Transportation  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue SE, Washington, DC 20590  
Phone: 202-366-0153  
Email: david.v.freeman@dot.gov
Ignition Interlock Technology
For Today and Tomorrow

Matt Strausz
Who is Smart Start

Leading Provider of Alcohol Monitoring Technology
• Ignition Interlock Devices
• Portable Alcohol Monitoring
• App Based Alcohol/GPS Solutions
• Case Management Tools

Global Footprint
• 47 U.S. States and 18 Countries
• Installed on 1,500,000+ Clients
Proven, Life-Saving Technology for Today

- IIDs are an effective and well-studied tool to reduce drunk driving
- IIDs on offender vehicles nearly as effective as airbags on all vehicles in reducing road fatalities
- All-offender laws associated with 16% fewer alcohol-involved fatal crashes
- Continuous improvement in technology over 30+ years to ensure accuracy, avoid circumvention and keep people safe

IID Industry Statistics

- **2020**
  - Every day prevented 8,800 starts
  - Every day prevented 1,070 starts >0.08

- **2006-2020**
  - 29,224,162 total starts prevented
  - 3,781,383 total starts prevented > 0.08

---

¹ Kaufman, University of Pennsylvania, March 2016
² Teoh, IIHS, “State alcohol ignition interlock laws and fatal crashes” October 2021
³ MADD, 2020
Life Saving Technology for Tomorrow

Role of IIDs in the Future

• Ride/Halt Act an important step to saving lives
• IIDs a part of a holistic solution, particularly for:
  • Saving lives today while technology and regulation progress
  • Non-equipped and older vehicles
  • Preventing circumvention or tampering of future technology
  • DUI after implementation of new technology
  • Accountability/Court/Treatment supervision

Questions to be Solved

• When to limit vehicle usage?
• Definition of Impairment?
• Data issues - Who owns it? How can it be accessed and used? Subpoena needed? Where is it stored?
• Who carries liability on malfunction?
• How prevent Tampering/Circumvention? What is done when it happens? Who is responsible?
• Do any of these trigger driving restrictions or supervision for initial or habitual violations?
• Only 1/3 of offenders get IIDS today due to ineffective laws in many jurisdictions

• Must continue to pass effective legislation, particularly at the state and local level
  • Data-driven, compliance-based programs most effective in improving safety
  • IIDS as a component of plea downs and no ability to “wait-out” the requirement, install at arrest
  • Focus on installation compliance
What’s Next for Alcohol Monitoring Technology

Smart Start FLEX®
Alcohol and GPS Monitoring
Portable, Discrete and Continuous
Non-Vehicle Supervision and Compliance

ORBIS®

Smart Start Insight®
Inventing a World Without Drunk Driving

Kristin Kingsley
Driver Alcohol Detection System for Safety
DADSS.org
KKingsleyConsulting@gmail.com
The DADSS Technologies

The Breath System measures the alcohol in a driver’s naturally exhaled breath. A small sensor compares the amount of carbon dioxide molecules with alcohol molecules in the driver’s breath using infrared light.

The Touch System measures the blood alcohol concentration under the skin’s surface by shining an infrared-light through the fingertip or the palm of the driver.

This document is Proprietary and Confidential. No part of this document may be disclosed in any manner to a third party without the prior written consent of ACTS.
DADSS Program Objectives

1. Prevents Drunk Driving vs. Detects Drunk Driving vs. Infers Drunk Driving vs. Reduces Risk of Drunk Driving

2. Vehicle-Integrated Application vs. Stationary Device vs. Portable Device

Factors include:
- Lifetime Calibration
- Extreme Temperatures
- Vibrations

3. Tested and Proven Effective vs. Concept vs. Design Stage

4. High Likelihood of Public Acceptance vs. Low Likelihood of Public Acceptance

Factors include:
- Passive Detection
- Fast
- Accurate (minimal false positives/negatives)
- Affordability
- Safe System Response

DADSS
- Breath-Based
- Touch-Based

Tested and Proven Effective vs. Concept vs. Design Stage

High Likelihood of Public Acceptance vs. Low Likelihood of Public Acceptance

Factors include:
- Passive Detection
- Fast
- Accurate (minimal false positives/negatives)
- Affordability
- Safe System Response

Vehicle-Integrated Application vs. Stationary Device vs. Portable Device

Factors include:
- Lifetime Calibration
- Extreme Temperatures
- Vibrations
# DADSS Deployment Timeline

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>GEN 3.3 Breath</th>
<th>GEN 5.0 Touch</th>
<th>GEN 4.0 Breath</th>
<th>GEN 6.0 Touch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Commercialization</td>
<td>2021</td>
<td>2023</td>
<td>2024</td>
<td>2025</td>
</tr>
<tr>
<td>Market Application</td>
<td>Fleet vehicles &amp; accessory sales</td>
<td>Consumer vehicles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Integration</td>
<td>After mass production (Upfitter or dealer installed)</td>
<td>During mass production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol (Ethanol) Set Point</td>
<td>0.02%</td>
<td>0.05 or 0.08%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Characteristics</td>
<td>Contactless, Directed–breath</td>
<td>Passive operation, 2 to 4 tunable lasers, single board electronics</td>
<td>Contactless, Passive–breath</td>
<td>Passive operation, 2 widely tunable lasers, ASIC–level electronics</td>
</tr>
</tbody>
</table>
Advanced Vehicle Technologies

Impaired Driving / Reckless Driving
Vision Zero - Systems approach (adapt to the failing human)

Road

Vehicle

Usage

Safe speeds
Crashworthiness - fatality risk for car occupants

<table>
<thead>
<tr>
<th>Year</th>
<th>Risk Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-1990</td>
<td>1.00</td>
</tr>
<tr>
<td>1991-2000</td>
<td>0.72</td>
</tr>
<tr>
<td>2001-2010</td>
<td>0.42</td>
</tr>
<tr>
<td>2011-2020</td>
<td>0.34</td>
</tr>
</tbody>
</table>
There is more coming
Impaired driving
Capabilities of modern cars

Protect

Detect

Act
Protection from modern cars

- Crash protection
- Airbags
- Seat belt reminders
- Emergency braking
- Braking for pedestrians etc.
- Stability control (ESC)
- Lane departure

- (Assumes normal driving)
Detection in modern cars

- Lateral position (cameras)
- Steering patterns
- Acceleration/braking patterns
- Loss of control (ESC)
- In cabin monitoring (cameras)

- (Reckless driving)

Protect

Detect

Act
Action from modern cars

- Warnings
- High alert mode
- Limp home mode
- Safe shut down

- (Mainly focusing fatigue, distraction sudden sickness)
Challenges

Society

Consumers/Organizations

Industry
Challenges Society

- New approach
- Perceived conflict with alternative methods
- Detection while driving
- It takes time to exchange the vehicle fleet

(Complicated to estimate benefits)
Challenges Industry

- Fatigue, distraction and sudden sickness
  OK, alcohol less so
- Perceived conflict with alternative methods (the responsibility of the society)
- Reluctant to actions beyond warning
- Reckless driving
- It takes time to exchange the vehicle fleet
  (Some suppliers very interested)
Challenges Consumers (private)

• Fatigue, distraction and sudden sickness OK, alcohol less so. "I have no problems" but still high acceptance levels
• Additional costs
Challenges? Organizations

- Fatigue, distraction, sudden sickness, alcohol and drugs, all in focus and a given
- Access to the market
- Road safety on the 2030 agenda
  - Safety footprint
  - Sphere of influence
  - Value chain analysis
  - (FIA RS Index)
- Saving costs

Alcohol starter interlock is common practice
Conclusions

• Unique possibilities
• New way of thinking
• Impaired driving / BAC
• New substances

• Reckless driving, definition

Global momentum with different focuses

Thank You
Anders Lie
Technical Working Group Members

Nat Beuse, Vice President of Safety, Aurora; Mothers Against Drunk Driving (MADD) Board Member

Kadija Ferryman, PhD, Assistant Professor, Johns Hopkins Bloomberg School of Public Health

Shannon Frattaroli, PhD, Director, Johns Hopkins Center for Injury Research and Policy

Kelly Funkhouser, Program Manager, Vehicle Technology, Consumer Reports

Shaun Kildare, PhD, Director of Research, Advocates for Highway and Auto Safety

Anders Lie, PhD, retired, former Board Member, European New Car Assessment Program (Euro NCAP); former Traffic Safety Specialist, Swedish Transport Administration

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Don Tracy, retired, former Vice President, DENSO North America

David Zuby, Executive Vice President and Chief Research Officer, Insurance Institute for Highway Safety (IIHS)
Nissan (2007)

Passive alcohol sensor and driver monitoring system

• In 2007, Nissan announced a concept vehicle that could detect alcohol-impaired driving by using sensors such as odor detectors as well as facial recognition of the driver via a camera all while monitoring any erratic driving of the vehicle operator.

• Video: https://www.youtube.com/watch?v=dV9LfD1CYnI
Toyota (2007)

Passive alcohol sensor and driver monitoring system

• Similar to Nissan, system monitors a driver’s alcohol level through a steering wheel sensor and also uses a camera to see if a driver’s pupils are dilated.

• January 3, 2007, Associated Press: “The system could also kick in if the sensors detect abnormal steering, or if a special camera shows that the driver's pupils are not in focus. The car is then slowed to a halt.”
Subaru (2021)

Driver monitoring system and driving performance monitoring

According to Euro NCAP’s rating of the 2021 Subaru Outback “It is also equipped with a system which monitors the driver's state of alertness, directly, by assessing eye movement, and indirectly, from steering inputs which can provide indications of fatigued or impaired driving. A camera-based lane support system gently corrects the car’s path if it is veering out of lane, and also intervenes in some more critical situations.”
Volvo (2019-2022)

Driver monitoring system and driving performance monitoring

March 20, 2019: “Volvo Cars believes intoxication and distraction should be addressed by installing in-car cameras and other sensors that monitor the driver and allow the car to intervene if a clearly intoxicated or distracted driver does not respond to warning signals and is risking an accident involving serious injury or death.”

Volvo’s 2021 Sustainability Report: “if a clearly distracted (or intoxicated) driver does not respond to warning signals and risks a serious, potentially lethal accident, the car could intervene as a last resort by actively slowing down and stopping the car.”

Mercedes-Benz Drive Pilot (advertised as level 3 AV)

Mercedes-Benz Active Emergency Stop Assist
Mazda Co-Pilot

• Video: https://www.youtube.com/watch?v=9VhqniIL5lg
Honda Sensing Elite Safety System

A camera driver monitoring system advertised in 2021 as being the “first Level 3 automated technology to be approved by Japanese authorities.” The system “tracks the condition of the driver using a monitoring camera mounted inside the vehicle.”
Lexus Safety System +A (2019)

Video: https://www.youtube.com/watch?v=yDE9o55c5U
General Motors

Video: https://www.youtube.com/watch?v=786tbVCXp2s
Ford

Video: https://www.youtube.com/watch?v=t2aG58Qgh0A
Debra Coffey
Vice President,
Government Affairs
Smart Start, LLC
Abbott Presentation
Protecting the Public with Improved Supervision

Debra Coffey (M)
Vice President,
Government Affairs
Smart Start, LLC

Lee Axdahl
ACCESS

Jacqueline Hall
Chief Operating Officer,
Wired for Addiction

Robert Forman
Executive Director,
Policy & Government
Relations,
Alkermes, Inc.
Accountability for High-Risk Drivers:
A Proven Model for Highway Safety
Principles & Methodology

Proven Accountability
- Monitoring
- Role of the Judge

Program is Data-Driven & Evidence-Based

Early & Easy Intervention

Best Served Population
- High-risk Low-needs Offenders
The Under-Recognized Group

REPEAT OFFENDERS BREAK OUT

- High Risk High Needs: 28%
- Low Risk High Needs: 4%
- High Risk Low Needs: 50%
- Low Risk Low Needs: 18%

Risk/Needs Data – All Repeat Offenders
1650 in S.J. County since 2015
San Joaquin Experience for Offenders

Treatment Court
28% of Offenders

Monitoring
72% of Offenders
QUIZ: Evidence demonstrates that monitoring reduces recidivism among DUI/DWI offenders:

- TRUE
- FALSE
- IT DEPENDS
Monitoring & Accountability
To Achieve Scale

QUIZ: Evidence demonstrates that monitoring reduces recidivism among DUI/DWI offenders:

- TRUE
- FALSE

✓ IT DEPENDS
Monitoring & Accountability

• Monitoring works if it is verified
  • **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 of devices
  • **3 to 4 months!**
Role of the Judge

- Cannot be duplicated by others
- Use of evidence-based behavioral tools
  - Swift & Certain responses
  - Negative responses
  - POSITIVE RESPONSES!
Monitoring & Accountability

The ACCESS model:

• **ONE YEAR** of monitoring with installation verified
• **FOUR TO FIVE** times daily
• **NO REVERSION** to norm upon removal
• **REDUCTION IN RECIDIVISM** increases every year for the six years of measurement!

(2019 San Joaquin County DUI Court Longitudinal Study)
Monitoring & Accountability

- Participants in SJ DUI Court had 24% Fewer DUI Convictions 6 Years After Program Entry
San Joaquin County DUI Court: 2020 Track Comparison Study
Monitoring v. Treatment Cost Per Client in Dollars:
Thank You!
International Experts in the Science of Addiction Recovery

100+ years in the field
MDs, PhDs, DCs, LMHCs, Govt Affairs, and Attorneys

16 years of Research & Development
Algorithm to quantify addiction, dependency, and mental health conditions

Partners & Affiliates
ISSUP, NACDL, GMANZ, FAT-C, Pharmacogene Variation Consortium, American Board of Disability Analysts, and the ACACD

CEO 2021 Nominee for Modern Healthcare’s Top 25 Innovators in Healthcare

Advised the U.S. Surgeon General on Physical Activity & Women’s Health

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The American Psychological Association reports:

- 64% of incarcerated individuals in jail report mental health concerns
- 54% of incarcerated individuals in state prison report mental health concerns
- 45% of incarcerated individuals in federal prison report mental health concerns

The Department of Justice reports:

- Alcohol plays a role in 40% of all violent crimes
- 80% of offenders abuse drugs or alcohol
- 60% of individuals arrested for most types of crimes test positive for illegal drugs at arrest
- 18% of all crime is linked to the convicted individual seeking money for drugs
- 40% of all traffic fatalities are alcohol related
- 4/5 of children and teen arrestees in state juvenile justice systems admit having substance abuse and addiction problems.
  - Only 69k of 1.9 mil receive treatment
Identify, isolate, and measure the physiological component of addiction, dependence, & mental health conditions using a triangular relationship model.

85 Biomarkers: 69 Genes, 11 Neurotransmitters, and 5 Hormones
Wired For Addiction™ Patent-Pending Custom Panel

**Step 1:** Pharmacogenomic Testing
- Eliminate the “try it out phase” of medication

**Step 2:** Wired For Addiction™ Custom Genetic Panel
- 69 Genetic SNPs

**Step 3:** Wired For Addiction™ Neurotransmitter & Hormone Panel
- 11 Neurotransmitters
- 5 Hormones

**Step 4:** Wired For Addiction™ Biomarker Evaluation Report
- Biochemical pathway identification & support to inform the physiological aspect of mental health & addiction recovery
<table>
<thead>
<tr>
<th>Wired For Addiction™ Client</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2021: Single, White, Male</strong></td>
</tr>
<tr>
<td>• Contacted by family of individual facing 15-year sentence for burning down a church.</td>
</tr>
<tr>
<td>• History of polysubstance abuse.</td>
</tr>
<tr>
<td>• Obsessed with sex and believes God is speaking to him.</td>
</tr>
<tr>
<td>• No illicit substances in system at time of arrest.</td>
</tr>
<tr>
<td>• No previous mental health diagnosis.</td>
</tr>
<tr>
<td><strong>Stole and crashed father’s car prior to burning down the church.</strong></td>
</tr>
<tr>
<td>• Not included in police report.</td>
</tr>
<tr>
<td>• Family is supportive of Wired For Addiction™ testing to augment defense case.</td>
</tr>
<tr>
<td><strong>Jail determined he was depressed, psychotic, and a danger to himself and others.</strong></td>
</tr>
<tr>
<td>• Began Zoloft, Effexor, Anafranil prescriptions; still reported auditory and visual hallucinations.</td>
</tr>
<tr>
<td>• Denied bail by judge.</td>
</tr>
</tbody>
</table>
### Neurotransmitters / Mood

<table>
<thead>
<tr>
<th>rsID</th>
<th>Gene</th>
<th>Genetic Result</th>
<th>Therapeutics Associated With Pathology</th>
<th>Highly Recommended Therapeutics</th>
<th>Provider Information</th>
<th>Literature Recommendations</th>
<th>Laboratory Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **(+) No clinical abnormality**
- **(++) Heterozygous result**
- **(+++) Homozygous result**

### Therapeutic Class

#### Analgesics, Opioid
- Methadone (CYP2B6)

#### Anticonvulsants
- Clobazam
- Phenytoin

#### Antidepressants
- Mirtazapine
- Moclobemide
- Trazodone

- Amitriptyline
- Clomipramine
- Desipramine
- Doxepin
- Duloxetine
- Imipramine (CYP2C19, CYP2D6)
- Nortriptyline
- Protriptyline
- Venlafaxine

### Analyte Results

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result</th>
<th>Unit per Creatinine</th>
<th>L</th>
<th>WRI</th>
<th>H</th>
<th>Reference Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serotonin</td>
<td>73.4</td>
<td>µg/g</td>
<td></td>
<td></td>
<td></td>
<td>50 – 98</td>
</tr>
<tr>
<td>Dopamine</td>
<td>145</td>
<td>µg/g</td>
<td></td>
<td></td>
<td></td>
<td>110 – 200</td>
</tr>
<tr>
<td>Norepinephrine</td>
<td>16.1</td>
<td>µg/g</td>
<td></td>
<td></td>
<td></td>
<td>18 – 42</td>
</tr>
<tr>
<td>Epinephrine</td>
<td>3.3</td>
<td>µg/g</td>
<td></td>
<td></td>
<td></td>
<td>1.3 – 7.3</td>
</tr>
<tr>
<td>Norepinephrine / Epinephrine ratio</td>
<td>4.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt; 13</td>
</tr>
<tr>
<td>Glutamate</td>
<td>29</td>
<td>µmol/g</td>
<td></td>
<td></td>
<td></td>
<td>9.0 – 40.0</td>
</tr>
<tr>
<td>Gamma-aminobutyrate (GABA)</td>
<td>3.3</td>
<td>µmol/g</td>
<td></td>
<td></td>
<td></td>
<td>1.6 – 3.5</td>
</tr>
<tr>
<td>Glycine</td>
<td>3439</td>
<td>µmol/g</td>
<td></td>
<td></td>
<td></td>
<td>350 – 1500</td>
</tr>
<tr>
<td>Histamine</td>
<td>18</td>
<td>µg/g</td>
<td></td>
<td></td>
<td></td>
<td>12 – 30</td>
</tr>
<tr>
<td>Phenethylamine (PEA)</td>
<td>23</td>
<td>nmol/g</td>
<td></td>
<td></td>
<td></td>
<td>26 – 70</td>
</tr>
<tr>
<td>Creatinine</td>
<td>53.2</td>
<td>mg/dL</td>
<td></td>
<td></td>
<td></td>
<td>35 – 240</td>
</tr>
</tbody>
</table>

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Without genetic guided treatment, individuals such as this patient are relegated to M.A.T., various forms of talk therapy, and/or empirically prescribed pharmaceuticals for behaviors derived from suboptimal physiology.

- M.A.T. occupies a receptor site without addressing other affected biochemical pathways.
- Incomplete rehabilitation.
- The genetic panel utilized in this client’s case allows for hyper-precise diagnosis and genetically informed intervention based on identified, isolated, and measured biochemical pathways unique to the individual.

Diagnosed ADHD, psychotic, depressed, and/or anxious depending on vocabulary of physician(s). Therefore, prescribed Ritalin, Lithium, Zoloft, and Xanax, etc. Continue psych meds without addressing appropriate biochemical pathways and self medicate with other substances (caffeine, alcohol, nicotine, sugar, tobacco, relationships, etc.) with high odds of recidivism.
Importance of Data Informed Treatment

Mental health is fluid with many biochemical factors in addition to lifestyle choices. Diagnosing and prescribing based on vocabulary and empirical evidence is an unnecessary and dangerous subjective means to selecting medication(s) and treatment modalities in a life-or-death scenario.

Mental Health and substance misuse diagnosed based on vocabulary:
- Individual’s vocabulary
- Family’s vocabulary
- Judge’s vocabulary
- Counsel’s vocabulary
- Prison staff vocabulary

Prescribed based on prison medical staff’s empirical experience.
Try a combo of meds & change if mental health declines or plateaus.
Counseling can upregulate or downregulate physiology, but not enough to fully optimize a biochemical pathway unilaterally.
Psychotropic medication to neutralize physical threat to self and others and to reduce personnel required to stabilize individual.

1. Pharmacogenomic Testing determined prescribed medications were incompatible.
2. WFA Genetic Panel determined SSRI would be ineffective.
3. WFA Neurotransmitter Panel determined serotonin and dopamine weren’t the biochemicals requiring support and psychotic behavior was perpetuated by specific neurotransmitter.

Elevating the Standard of Care in the Criminal Justice System

Current Standard of Care

124
Repeat DUI Offenders and the Treatment of Alcohol Dependence

Robert F. Forman, Ph.D.
Executive Director, Policy & Government Relations
Alkermes, Inc.

July 28, 2022
Interlock Devices

From 2006 to 2020, interlocks stopped 3.78 million attempts to drive drunk with a blood alcohol concentration of .08 or greater, including 390,456 attempts to drive drunk in 2020.

What happens after the interlock has been removed?

Interlock Fails and Repeat DUI Offenses

Recidivism Rates by Recorder Failures

![Graph showing recidivism rates by interlock recorder failures]

Fig. 1. Interlock BAC failures and post-interlock recidivism. Relationship between BAC fail level violations (≥ 0.04%) recorded while driving with an interlock device and repeat DUI offenses during 12 months after the interlock is removed. Four levels represent increasing frequency of failed BAC tests ranging from none to many.

Estimated Relative Prevalence of Substance Use Disorders, 2020

- Alcohol Use Disorder: 28,300,000
- Pain Reliever Use Disorder: 2,300,000
- Heroin Use Disorder: 691,000

Alcohol Dependence and Repeat Violent Crime

A survey was conducted with inmates in a county jail to determine which substance use disorders were most common among violent repeat offenders. The researchers conducted diagnostic assessments of 176 male inmates each of whom had at least one prior offense in the preceding 12 months and met the diagnostic criteria for one or more substance use disorders. As seen below, alcohol dependence was the most common diagnosis among the violent repeat offenders in this survey.\(^8\)

**Substance Dependence Diagnoses Among Repeat Offending Inmates, %**

- Alcohol Dependence: 80% violent, 86.1% overall
- Heroin Dependence: 18.6% violent, 13.9% overall
- Marijuana Dependence: 22.9% violent, 13.9% overall
- Cocaine Dependence: 39.3% violent, 19.4% overall

Only 1% of people with alcohol use disorder were treated with an FDA-approved medication in 2020.\(^9\)

--U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration
Currently, there are four U.S. Food and Drug Administration (FDA)-approved medications prescribed for treating alcohol dependence:

- Acamprosate
- Disulfiram
- Oral naltrexone
- Extended-Release Naltrexone

According to SAMHSA, when used with counseling and other evidence-based techniques, medications can help people reduce their drinking levels and achieve abstinence.

Reference: [SAMHSA ADVISORY: Prescribing Pharmacotherapies FOR Patients with AUD](https://www.samhsa.gov/advisory)
People With Alcohol Dependence Treated with an FDA-approved Medication, 2020

Nationally, about 1.0% of people with AUD were treated with an FDA-approved alcohol dependence medication.

### Table 1

Holidays with the highest number of alcohol-related traffic fatalities in the United States (MADD, 2002, 2003)

<table>
<thead>
<tr>
<th>Holiday</th>
<th>Total no. of traffic fatalities</th>
<th>Alcohol-related fatalities, n (%)</th>
<th>NHTSA monitoring interval</th>
<th>Days of week</th>
<th>Interval analyzed in this study^a^ (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Year’s holiday</td>
<td>219</td>
<td>134 (61)</td>
<td>December 31, 2002 (6 p.m.) to January 2, 2003 (6 a.m.)</td>
<td>Tuesday evening to Thursday early morning</td>
<td>3</td>
</tr>
<tr>
<td>Labor Day</td>
<td>541</td>
<td>300 (56)</td>
<td>August 30, 2002 (6 p.m.) to September 3, 2002 (6 a.m.)</td>
<td>Friday evening to Tuesday early morning</td>
<td>5</td>
</tr>
<tr>
<td>Super Bowl Sunday</td>
<td>113</td>
<td>62 (55)</td>
<td>January 26, 2003 to January 27, 2003 (6 a.m.)</td>
<td>Sunday to Monday early morning</td>
<td>2</td>
</tr>
<tr>
<td>Christmas</td>
<td>130</td>
<td>68 (52)</td>
<td>December 24, 2002 (6 p.m.) to December 26, 2002 (6 a.m.)</td>
<td>Tuesday evening to Thursday early morning</td>
<td>3</td>
</tr>
<tr>
<td>Memorial Day</td>
<td>479</td>
<td>238 (50)</td>
<td>May 23, 2003 (6 p.m.) to May 27, 2003 (6 a.m.)</td>
<td>Friday evening to Tuesday early morning</td>
<td>5</td>
</tr>
<tr>
<td>Fourth of July (2002)</td>
<td>683</td>
<td>330 (48)</td>
<td>July 3, 2002 (6 p.m.) to July 5, 2002 (6 a.m.)</td>
<td>Wednesday evening to Friday early morning</td>
<td>3</td>
</tr>
<tr>
<td>Thanksgiving</td>
<td>543</td>
<td>255 (47)</td>
<td>November 27, 2002 (6 p.m.) to December 2, 2002 (6 a.m.)</td>
<td>Wednesday evening to Monday early morning</td>
<td>6</td>
</tr>
<tr>
<td>Halloween</td>
<td>268</td>
<td>109 (41)</td>
<td>October 31, 2002 to November 1, 2002</td>
<td>Thursday to Friday</td>
<td>2</td>
</tr>
<tr>
<td>St. Patrick’s Day</td>
<td>107</td>
<td>37 (35)</td>
<td>March 18, 2003 to March 19, 2003 (6 a.m.)</td>
<td>Monday to Tuesday early morning</td>
<td>2</td>
</tr>
</tbody>
</table>

^a Partial days within NHTSA-defined holidays were redefined for this analysis as full days because drinking behavior in the 6-month efficacy trial was reported on a daily basis and thus not available with the high temporal resolution of NHTSA data.
Impact of Treatment on Holiday and Non-holiday Drinking

Fig. 1. Comparison of alcohol consumption in 4-day initial abstinence patient population during holiday and nonholiday periods for percent drinking days (A), percent days heavy drinking (B), and number of drinks per day (C). All values shown represent median values. Because one subject in each treatment group was dosed but provided no postdose drinking data, analyses are based on 26 or more patients per group. Heavy drinking is defined as five or more drinks per day (men) or four or more drinks per day (women). Numbers in parentheses represent ranges for each category.

State Policies Supporting Clinical Assessment & Offer of Treatment Options for Repeat DUI Offenders

- More than 1 million drivers were arrested for DUI in 2018
- According to NHTSA, about 1/3rd of all DUI offenders are repeat offenders¹
- Referred for assessment and treatment

Contact Information

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202-304-1763
THC Isomers (Delta 6-11)  
New and Emerging Drugs in the U.S.

Dr. Alex Krotulski  
Associate Director,  
Center for Forensic Science Research & Education (CFSRE)

Dr. Curt Harper  
Chief Toxicologist,  
Alabama Department of Forensic Sciences
New and Emerging Drugs in the U.S.
Background & Introduction

• U.S. in midst of an opioid epidemic
  • Some refer more broadly as “overdose crisis”
  • Increasing signs of a “poly-drug crisis”

• Fentanyl dominates postmortem positivity, but new drugs and trends continue to emerge and appear in driving populations
  • “Speed-balls” – combinations of opioids with stimulants
  • “Benzo-dope” – combinations of opioids with benzodiazepines
  • Traditional opioids with new/novel synthetic opioids
  • Emergence of new drugs or structural variants (Novel Psychoactive Substances [NPS], THC isomers, etc.)

Data Source: CFSRE / NPS Discovery
Drug Trends – What’s Popping Up Near You?

NPS Benzodiazepines

NPS Stimulants

NPS Opioids

Synthetic Cannabinoids

Data Source: CFSRE / NPS Discovery
Emerging Drugs Not Like Traditional Drugs

Data Source: NMS Labs / Aya Chan-Hosokawa
Issues and Challenges

• Laboratory:
  • Instrumentation
  • Sensitivity & Specificity
  • Scope of Testing →

• National Perspective:
  • Differing Scopes of Testing
  • No Consolidation of Data
  • Differing Laws and Procedures

• Opportunities:
  • Data Collection
  • Information Sharing
  • National Standards

<table>
<thead>
<tr>
<th>Benzodiazepines</th>
<th>Opioids</th>
<th>Stimulants &amp; Hallucinogens</th>
<th>Synthetic Cannabinoids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier One (Strongly Recommended)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Titonamide</td>
<td>1-10</td>
<td>Mephedrone</td>
<td>3-10</td>
</tr>
<tr>
<td>Finalpimozide</td>
<td>1-10</td>
<td>Mebupranol</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Clozapine</td>
<td>&lt;1</td>
<td>Urethane</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Alpharacemobartram</td>
<td>1-10</td>
<td>Alpha-2-Methylpropranol</td>
<td>1-10</td>
</tr>
<tr>
<td>Belladonna</td>
<td>&lt;1</td>
<td>3,4-Methylenedioxyamphetamine</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

| Tier Two (Recommended) |
| Phencyclidine | 1-10 | Phencyclidine | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |
| Flunitrazepam | 1-10 | Flunitrazepam | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |
| Mouldover | 1-10 | Mouldover | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |
| Dextromethorphan | 1-10 | Dextromethorphan | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |

| Tier Three (Considered) |
| Flunitrazepam | 1-10 | Flunitrazepam | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |
| Valproic acid | 1-10 | Valproic acid | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |
| Benzodiazepines | 1-10 | Benzodiazepines | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |
| Ketamine | 1-10 | Ketamine | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |
| Methadone | 1-10 | Methadone | 1-10 | 3,4-Methylenedioxyamphetamine | 1-10 |

Note: This may not be an all-inclusive list. Laboratories should consider additional NPS for inclusion or exclusion based on local, national, and/or international needs.
Varying Case Examples

Case A:
• Driver involved in crash
• Displayed indicators of impairment, SFST performed
• Admitted cannabis, antidepressant, and buprenorphine use

• Toxicology Testing:
  • Buprenorphine (opioid)
  • Delorazepam (benzodiazepine)
  • Bromazolam (benzodiazepine)

Case B:
• Driver involved in crash resulting in hospitalization

• Toxicology Testing:
  • Methamphetamine (stimulant)
  • Amphetamine (metabolite)
  • Hydroxybupropion (therapeutic)
  • Clonazolam (benzodiazepine)
  • 8-Aminoclonazolam (metabolite)
  • AP-238 (opioid)

Case C:
• Driver stopped on suspicious of drugged driving

• Toxicology Testing:
  • Methamphetamine (stimulant)
  • THC (cannabinoid)
  • Fentanyl (opioid)
  • Tramadol (opioid)
  • Trazodone (therapeutic)
  • Xylazine (adulterant)
  • Mitragynine (opioid)
  • Eutylone (stimulant)
  • Dimethylpentyline (stimulant)
A Path Toward Integration & Data Sharing

World Meteorological Organization:
Acknowledgments & Websites

Contact Information:
• alex.krotulski@cfsre.org

Acknowledgements:
• Scientists at the CFSRE / NPS Discovery
  • Barry Logan, Sara Walton, Mandi Mohr, Melissa Fogarty, and Others

• Scientists at NMS Labs
  • Aya Chan-Hosokawa and Donna Papsun

Access Content & Reports:
• Center for Forensic Science Research & Education (CFSRE)
  • www.cfsre.org

• NPS Discovery
  • www.npsdiscovery.org
Novel Cannabinoids

THC Isomers (Delta 6-11): New and Emerging Issues
Key Considerations for Novel Cannabinoids Toxicology Testing

• Quick evolution of new compounds
• Similar structure could result in misidentification
  • $\Delta^8$-THC, $\Delta^{10}$-THC, others
• Challenge to laboratories to quickly add new compounds to scope
• Novel Cannabinoids may not screen positive on current immunoassay drug screens resulting in false negative.
• Prosecution of DUI Cases
  • Legality, Concentration (ng/mL), Impairment
• Legally purchased cannabinoid products can contain $\Delta^9$-THC
Cannabinoids: The Mechanism of Euphoria and Toxicity

Partial Agonist: Ceiling effect (Delta-9-THC)

Partial Agonist: Ceiling effect (AEA, 2-AG)

Full Agonist: No Ceiling effect (Traditional SynCans)

D8, D10, THC-O, P?

Delta-8-THC and Delta-10-THC

Delta-8-THC
- Same effects as Δ9-THC
- Mild euphoria, happiness, and relief from pain and insomnia.
- Less potent
- Little research on strength of effects

Δ10-THC
- Relatively new and not quite as popular as Δ8-THC
- Considered a gentler more “sativa-like head high”
- Less potent than Δ8 and Δ9-THC.
- Thought to lead to more energy and creativity.

C_{21}H_{30}O_{2}
THC-O

- Also known as THC-O and THC-O-a
- Does not naturally occur in marijuana plants
- Originally produced in the 1970s
- Created by adding acetic anhydride to Δ8-THC
- Considered to be 3X as potent as Δ9-THC
THC-P

- Tetrahydrocannabiphorol
- Discovered in 2019
- Naturally occurs in marijuana plants in very low concentrations
- Considered to be up to 30X as potent as Δ9-THC
Novel Cannabinoid Total Ion Chromatogram

## Cannabinoids Concentration Blood vs. OF (ng/mL)

<table>
<thead>
<tr>
<th></th>
<th>Target: Delta-9-THC</th>
<th>Target: Carboxy THC</th>
<th>Target: Delta-8-THC</th>
<th>Target: Cannabinol</th>
<th>Target: Cannabigerol</th>
<th>Target: Cannabidiol</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blood Concentration</td>
<td>OF Concentration</td>
<td>Blood Concentration</td>
<td>OF Concentration</td>
<td>Blood Concentration</td>
<td>OF Concentration</td>
</tr>
<tr>
<td>Mean</td>
<td>7</td>
<td>324</td>
<td>Mean</td>
<td>65</td>
<td>Mean</td>
<td>7</td>
</tr>
<tr>
<td>Median</td>
<td>3.6</td>
<td>26</td>
<td>Median</td>
<td>36</td>
<td>Median</td>
<td>3.0</td>
</tr>
<tr>
<td>Max</td>
<td>337</td>
<td>33,372</td>
<td>Max</td>
<td>980</td>
<td>Max</td>
<td>44</td>
</tr>
<tr>
<td>Min</td>
<td>1</td>
<td>0.71</td>
<td>Min</td>
<td>1.6</td>
<td>Min</td>
<td>1</td>
</tr>
<tr>
<td>(+) Rate</td>
<td>294/358 = 82%</td>
<td>333/366 = 91%</td>
<td>(+) Rate</td>
<td>349/356 = 98%</td>
<td>13/333 = 4%</td>
<td>(+) Rate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Blood Concentration</th>
<th>OF Concentration</th>
<th>Blood Concentration</th>
<th>OF Concentration</th>
<th>Blood Concentration</th>
<th>OF Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5</td>
<td>18</td>
<td>Mean</td>
<td>11</td>
<td>Mean</td>
<td>5</td>
</tr>
<tr>
<td>Median</td>
<td>2.4</td>
<td>5.2</td>
<td>Median</td>
<td>1.6</td>
<td>Median</td>
<td>2</td>
</tr>
<tr>
<td>Max</td>
<td>14</td>
<td>462</td>
<td>Max</td>
<td>50</td>
<td>Max</td>
<td>12</td>
</tr>
<tr>
<td>Min</td>
<td>0.93</td>
<td>0.51</td>
<td>Min</td>
<td>0.82</td>
<td>Min</td>
<td>1.3</td>
</tr>
<tr>
<td>(+) Rate</td>
<td>18/167 = 11%</td>
<td>187/194 = 96%</td>
<td>(+) Rate</td>
<td>35/162 = 22%</td>
<td>170/177 = 96%</td>
<td>(+) Rate</td>
</tr>
</tbody>
</table>

https://www.adfs.alabama.gov/services/tox/toxicology-statistics
FARS

Current Status, Limitations, Opportunities
Report Data Collection and Evaluation

Amy Berning
Research Psychologist,
NHTSA
Drug Testing and Traffic Safety: What You Need to Know

amy.berning@dot.gov

Office of Behavioral Safety Research
What People Want to Know

• Did drug use among drivers go up?
  o How much did it go up?

• Which drugs are used most often; and more than in the past?
How People Imagine Drug Information Gets Into FARS
Single-vehicle, multi-vehicle?
Driver, pedestrian, cyclist, etc. involved?

Crash Occurs

Response
Who responds to the crash (police, EMS, medical examiner)?
Who in crash will be tested for presence of drugs?
Is there evidence / probable cause for impaired driving?

Surviving with injuries; or died within 720 hours.
Did EMS administer drugs?

Transported to a Hospital
Are specimens collected for crash investigation?
Is testing done onsite or offsite?
Where does information go after hospital?

Medical Examiner
Died at the Crash

Arrested
Testing for alcohol or other drugs could be at police station, or at a hospital

Released
There is (typically) no test for alcohol or other drugs

Local, State, and Federal Reporting Requirements (one of which is FARS)

Wherever Testing is Conducted
Which biological samples were tested?
Which drugs are in test panel?
Is confirmation testing done as well as screening?
What are the detection thresholds?
Limitations and Consequences

- Testing varies widely across States, jurisdictions, types of drivers, and years
- Analysts often receive test results not from lab but from police / others
  Typically, unknown if only screening tests, or also confirmatory testing
- Typically, unknown which drugs tested for
- Typically, drug detection thresholds not reported
- Data transfer loss across State agencies

There is significant missing data - breadth and depth

Sometimes with missing data, there is a skew in one direction and estimates can be useful, especially trends over time. This is not the case with FARS drug data. Some of the issues lead to underestimates, and others lead to overestimates.

These limitations constrain interpretation of the drug data, including examining trends or comparing States.

Data ARE often used and receive much media attention, including by partners; conferences.
I am Officer Thorn. I responded to a call about a crash at 11:30 pm at the intersection of Vine and 2nd Street. There were 2 drivers involved. Driver 1 did not stop at the stop sign and hit Driver 2 in the Driver’s side of the vehicle. Driver 2 was pronounced dead at the scene of the crash. The medical examiner obtained a blood sample at the scene, and I will update this report when those results are available.

[later updated]

Driver 2 Blood Test Alcohol = .07; Amphetamine .09; Methamphetamine .38

<table>
<thead>
<tr>
<th>ANALYTE</th>
<th>RESULTS</th>
<th>REPORTING LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAZEPAM</td>
<td>Negative</td>
<td>20 ng/mL</td>
</tr>
<tr>
<td>OXAZEPAM</td>
<td>Negative</td>
<td>20 ng/mL</td>
</tr>
<tr>
<td>CLONAZEPAM</td>
<td>Negative</td>
<td>20 ng/mL</td>
</tr>
<tr>
<td>LORAZEPAM</td>
<td>Positive 208 ± 14 ng/mL</td>
<td>20 ng/mL</td>
</tr>
<tr>
<td>ALPRAZOLAM</td>
<td>Negative</td>
<td>20 ng/mL</td>
</tr>
</tbody>
</table>
More Complications

• In cases of a surviving driver, emergency medical technicians or hospital personnel may have administered a drug(s) as part of treatment following the crash.
  o Benzodiazepines and opioids are particularly likely for treatment
  o A toxicologist may be able to determine if medical administration was likely

• Depending on when sample obtained, body may have begun metabolizing any drug

• Some jurisdictions have “stop testing” procedures whereby if alcohol is detected at a certain level, such as .08 or .10 g/dL, there is no continued testing for other drugs.

• Conversely, a lab may test for other drugs only if testing for alcohol was negative.

• There can be data loss as information is transferred across agencies’ systems.
Drug Data is More Missing than It Is Complete
Available Fatality Drug Data is Inconsistent and Incomparable
The Chicago River

2015
Improving FARS Drug Data

• **Recent Improvements**
  - Can enter each drug that has a positive test result (previously limited)
  - Can enter matrix (sample type), allowing for more accuracy
  - Can enter when a test result is negative, as well as positive

• **In Short-Term**
  - Updating list of drug names
  - Allow recording of data source (e.g., lab)
  - Test type: screening/confirmatory

• **Long-Term**
  - Record date / time tests conducted
  - Amount of drug
  - Drug Panel / detection level
Improving FARS Drug Data

- Researching Out to Stakeholders
  - FARS Analysts
  - National and International Research Committees
  - Lifesavers
  - Forensic Toxicology / Chemical Testing

- Working with Stakeholders
  - Regional Toxicology Liaisons (NHTSA Regions 5, 7, 9)
  - Toxicology Stakeholder Meetings in as many as 10 States
Drug Testing and Traffic Safety: What You Need to Know

Find our research at:
- [www.NHTSA.gov](http://www.NHTSA.gov) then “More Info” then “Research” then Behavioral Research
- [https://rosap.ntl.bts.gov/](https://rosap.ntl.bts.gov/) and search by NHTSA
- [https://rip.trb.org/](https://rip.trb.org/) and search by NHTSA
The Role of Prescription Drugs in Multi-Substance Impaired Driving

Matt Myers
Assistant Chief of Police,
Peachtree City (GA)
Police Department
Proper Use

• Does therapeutic use = not impaired?

• Consider:
  • Therapeutic intent
  • Acute vs. Chronic Use
  • Tolerance
  • Consistency
  • Patient baseline in disease state
  • [Other medications]
Abuse

• Intentional use of therapeutics for mind-altering effects
Misuse

• Irregular use of some drugs/doses
• Not prescribed
• Multiple prescribers, problematic therapy profiles
• Drug Interactions
• Additive Drug Effects
Older Drivers on Multiple Prescription Drugs Can Cause Crashes

While half of older drivers take seven or more medications regularly, fewer than 1 in 5 have been warned by a health professional about the drugs’ possible effects on driving, according to a report from the AAA Foundation for Traffic Safety.

Drug Interactions

Pharmacokinetic Interactions:
• Occur at the level of absorption, distribution, metabolism, or elimination.

Pharmacodynamic Interactions:
• One drug modifies the body’s expected response to a concentration of another drug.
  • Modulation of drug effects on receptor function
  • Interference with a physiological control process
  • Additive or opposing physiological effects
Pharmacokinetic Drug Interactions: Example

Drugs can change enzyme activity

- **Induction**: More enzyme activity leads to reduced effects of some drugs that are targets of the enzyme (unless prodrug).

- **Inhibition**: Reduced enzyme activity leads to increased effects of some drugs.

- 50+ enzymes just in cytochrome P450 family
- Six are responsible for 90% of drug metabolism
- Two significantly more than others
**Drug Interactions: Pharmacodynamic**

**WARNING: RISKS FROM CONCOMITANT USE WITH OPIOIDS; ABUSE, MISUSE, AND ADDICTION; and DEPENDENCE AND WITHDRAWAL REACTIONS**

*See full prescribing information for complete boxed warning.*

- **Concomitant use of** benzodiazepines and opioids may result in profound sedation, respiratory depression, coma, and death. Reserve concomitant prescribing for use in patients for whom alternative treatment options are inadequate. Limit dosages and durations to the minimum required. Follow patients for signs and symptoms of respiratory depression and sedation. (5.1, 7.1)

**FDA Boxed Warning: Benzodiazepines + Opiates**
Drug Interactions: Pharmacodynamic

Risks from Concomitant Use with Benzodiazepines or Other CNS Depressants

Concomitant use of opioids with benzodiazepines or other central nervous system (CNS) depressants, including alcohol, may result in profound sedation, respiratory depression, coma, and death [see WARNINGS, PRECAUTIONS; Drug Interactions].

- Reserve concomitant prescribing of hydrocodone bitartrate and acetaminophen oral solution and benzodiazepines or other CNS depressants for use in patients for whom alternative treatment options are inadequate.
- Limit dosages and durations to the minimum required.
- Follow patients for signs and symptoms of respiratory depression and sedation.
# (Potentially) Impairing Prescription Medications

<table>
<thead>
<tr>
<th>CNS Depressants</th>
<th>CNS Stimulants</th>
<th>Narcotic Analgesics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle Relaxers</td>
<td>ADHD meds (e.g., Adderall)</td>
<td>Opiates / Opioids</td>
</tr>
<tr>
<td>Sleep Medications</td>
<td>Weight Loss (e.g., Phentermine)</td>
<td></td>
</tr>
<tr>
<td>Anxiety medications (benzodiazepines)</td>
<td>Narcolepsy &amp; Shift Work Disorder medications</td>
<td></td>
</tr>
<tr>
<td>Some Antidepressants</td>
<td>Masking?</td>
<td></td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>Duration?</td>
<td></td>
</tr>
<tr>
<td>Neuropathic pain medications</td>
<td>Downside?</td>
<td></td>
</tr>
<tr>
<td>Anti-seizure medications</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sedation**

**Overstimulation**

**Drowsiness**

**Sedation**
Tolerance

Consistency
• Dose
• Frequency
• Adequate Duration
• Comedication

Behavioral Factors
• Irregular dosing
• Stopping / restarting
• Sleep routines

Other Factors?
• Cumulative drug effects
• Drug – drug interactions
Driver Statements

- Pregabalin (Lyrica)
- Duloxetine (Cymbalta)
- Topiramate
- Lamotrigine (Lamictal)
- Dextro/Amphetamine (Adderall)
- Hydrocodone

- Meloxicam
- Doxycycline Hyclate
- Esomeprazole
- Methotrexate
- Tresiba FlexTouch
- Bydureon

“*A bucket full load*” of medications

**Drug Confirmation Results**

<table>
<thead>
<tr>
<th>Submission 004</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Positive, amphetamine, 58 µg/L (+/- 16 µg/L)</td>
</tr>
<tr>
<td>2) Positive, hydrocodone, 42 µg/L (+/- 11 µg/L)</td>
</tr>
<tr>
<td>3) Positive, tramadol, 0.12 mg/L (+/- 0.04 mg/L)</td>
</tr>
<tr>
<td>4) Positive, lamotrigine {LC/MS/MS}</td>
</tr>
<tr>
<td>5) Positive, methocarbamol {LC/MS/MS}</td>
</tr>
</tbody>
</table>

- Six drugs with CNS depressing properties
- Multiple prescribers
- Therapeutic duplication
Excerpt from expert report by pharmacologist:

“Therapeutic drug concentration must not be confused with a toxic or impairing concentration, the latter being a concentration that would with high probability be equated with a behavioral effect, for example driving errors.”

“...finding a low therapeutic concentration of a drug(s) **cannot** be equated with impairment.”

[Emphasis added]

Rebuttal from opposing expert:

“While the first statement is factually correct that toxic concentrations have high probability of behavioral effects, the remainder of the sentence is likely to mislead laypersons on this subject to believe therapeutic drug concentrations **cannot** cause such behavioral effects. The second statement cements *****’s position that this is an absolute truth in this case.

Such explanation fails to acknowledge that the combined effect of multiple drugs at therapeutic concentrations can lead to impairing behavioral effects, and in context of the remaining report also ignores potential contributions of [several prescription drugs not in toxicology scope].”
Excerpt from expert report by pharmacologist:
“...tolerance to the sedating effects of alprazolam or tramadol meant that the side-effect of these drugs would not be the cause of this accident.” [Emphasis added]

Rebuttal from opposing expert:
• First, Dr. [Expert’s] position assumes that tolerance to impairing effects is “complete”. That is, not only have [Driver’s] relevant responses to the drugs diminished, but they have completely disappeared.

• Secondly, this position requires assuming [Driver] consumed medications in a manner consistent with his tolerance. Tolerance to drug effects occurs as a function of consistency in both dose and frequency. Consuming higher levels of a drug, consuming a drug more/less frequently, consuming a drug irregularly, or ceasing and then re-starting a drug are all variables that may affect a person’s tolerance to effects of a drug.

• Third, this position requires assuming that tolerance to certain effects of individual drugs negates the potential for multiple drugs to cumulatively have an adverse effect on someone’s performance.
Collecting Data to Understand the Problem
DrugImpairment.com is coming in Summer / Fall 2022. Join the waitlist at DrugImpairment.com

- E-Learning
- Drug Guides
- Research Summaries
- Resource Library

Info@DrugImpairment.com
www.DrugImpairment.com
Improved Detection and Adjudication

Brian Swift (M)  
Spokesperson  
NASID

Erin Holmes  
Director of Global  
Road Safety  
Abbott

Rob Duckworth  
Traffic Safety Director,  
Indiana Criminal  
Justice Institute

Jayme Derbyshire  
Chemical Test for Alcohol  
Unit Coordinator,  
Montgomery County  
Department of Police
Advancing Roadside Drug Testing Programs
Impaired driving investigative process

- **Screening** = qualitative result (+/-); can aid in establishing probable cause; not admitted in court as evidence
- **Confirmation** = quantitative result (ng level); analysis performed in a forensic laboratory to confirm presence of drug(s) in body; admissible as evidence in court

**SOURCE:**
Benefits of roadside drug testing

• Roadside drug testing programs have multiple benefits:
  • Aid the investigative process (e.g., help establish probable cause)
  • Enhance public safety
  • Support strategic use/allocation of resources
  • Create general deterrence

• Advantages of oral fluid technology include:
  • Easy and rapid sample collection (ideal for roadside environment).
  • Minimally invasive; comparable to a preliminary breath test.
  • Ability to collect sample proximal to the time of a traffic stop.
  • Active drug detection shows recent use.
  • Objective measure to supplement officer observations of signs/symptoms of impairment.
  • Medical personnel are not required for sample collection.
Oral fluid policy landscape

• Oral fluid can be authorized for screening, evidential testing, or both.

• 23 states authorize oral fluid testing in statute in some form (approaches include: implied consent, preliminary testing, pilot laws, etc.).

• Oral fluid pilots have been completed in numerous jurisdictions.

• Shift towards conducting feasibility studies and implementing permanent roadside drug testing programs.

Cannabis legalization & traffic safety

• Currently, 19 states and DC have legalized cannabis for adult recreational use (more than 40% of the U.S. population).

• Traffic safety must be considered when debating legalization.

• States should take a proactive and comprehensive approach to address drug and multi-substance impaired driving:
  • Increased drug testing (both roadside screening and laboratory testing), law enforcement training, improved data collection, public awareness/education, effective supervision and treatment, increased lab capacity, etc.

• Roadside drug testing can provide better insight into the magnitude and characteristics of the DUID problem to inform decision-making.

• Canadian example - roadside oral fluid screening was authorized in advance of legalization to protect public safety and create general deterrence.
Momentum and models for success

- Leadership and advocacy have led to successful roadside drug testing initiatives.
- **Michigan** – first major success through the implementation of the *Swift Act* and subsequent multi-phase pilot program.
- **Alabama** – initiated a program through the Department of Forensic Services.
- **Indiana** – established the largest permanent program through the Indiana Criminal Justice Institute (ICJI).
- Interest in roadside drug testing programs is growing as more agencies learn from the experiences in early adopter states.
  - Regional momentum, specifically in the Great Lakes.
- Blueprint for success is now available and can aid in the planning and implementation process.
Program considerations

- Strong vision and leadership are imperative.
- Not a one-size-fits all approach; different avenues available to establish programs.
- Identify scope of program and designate authority for administration.
- Early stakeholder engagement and buy-in (preferably during planning phase).
- Identify potential challenges and barriers to program success.
- Determine level of training for officers who will utilize devices (e.g., SFST, ARIDE, DRE).
- Develop device selection/approval process (i.e., program oversight).
- Develop a plan for officer safety (e.g., sample collection protocol).
- Create and deliver standardized training.
- Develop a plan to collect data and evaluate the program (i.e., measure impact).
- Create a public education campaign.
New AAA resources

Use of Oral Fluid to Detect Drugged Drivers

**ORAL FLUID FIELD SCREENING (OFFS)**
- Portable & handheld options available
- Easy & fast collection
- Minimally invasive, similar to breath test
- Gender neutral collections
- Rapid results (~10 minutes)
- Demonstrated accuracy, sensitivity & specificity
- Used in conjunction with other evidence to build probable cause for arrest decision
- Quickly identifies potential polydrug impaired drivers
  (regardless of BAC level)
- Results may support search warrant requests for additional biological samples
- Follow manufacturer instructions/guidelines
- Admissible in hearings like those on probable cause

**LABORATORY TESTING**
- Easy & fast collection
- Less invasive compared to blood & urine collection
- Collection close to the time of driving (e.g., at roadside)
- Gender neutral collections
- Less expensive to collect than blood
- Likely represents recent drug use
- Often increased detectability of drugs with rapid elimination from blood
- Difficult to adulterate
- Commonly prescribed/actively used, or impairing drugs
  (e.g., THC, cocaine)
- Laboratories use validated and accepted analytical techniques and instruments
- Admissible in all court proceedings; evidentiary

**ORAL FLUID AUTHORIZED TO DETECT DRUGS?**

- Interested in starting a program in your state?
  - Law Enforcement
  - Toxicology Personal
  - Traffic Safety Resource Prosecutors
  - FR1 & DRE State Coordinators
  - Agency Representatives
  - Drug Manufacturers
  - Local Impaired Driving Groups
  - Researchers and/or Data Analysts
  - State Highway Safety Office
  - Probation Personnel
  - State Public Health Agency
  - Other Licensing Officials

**ADDITIONAL RESOURCES**
- AAA Foundation for Traffic Safety | www.aaafoundation.org
- Arkansas Department of Forensic Sciences | www.safetyarkansas.org/forensic divisions/traffic-safety-resources
- DRE Program | www.ndtac.org/programs/the-interim-drug-evaluation-classification-program
- Society of Forensic Toxicology FAQs | www.sft-vox.org/files/2019%20DF_FAQ_FINAL.pdf

Pilot Project Publications:
- NHTSA.org/file/2018_DF_Pilot.pdf

Use of Oral Fluid to Detect Drugged Drivers: A Toolkit

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Indiana’s Roadside Impaired Driving Oral Fluid for Drug Driving (RID of DD) Moving the Needle
Three T’s to Improve Impaired Driving Outcomes

❖ Training
❖ Tools
❖ Toxicology
### Problem Identification: What Data are You Using?

<table>
<thead>
<tr>
<th>Drivers in fatal collisions</th>
<th>Surviving</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and/or drug</td>
<td>439</td>
<td>493</td>
<td>452</td>
<td>449</td>
<td>467</td>
<td>271</td>
<td>338</td>
<td>287</td>
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<td>None</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>18</td>
<td>37</td>
<td>6</td>
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<td>Refused</td>
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<tr>
<td>Not reported</td>
<td>185</td>
<td>168</td>
<td>206</td>
<td>154</td>
<td>136</td>
<td>298</td>
<td>289</td>
<td>275</td>
<td>258</td>
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<tr>
<td>Tested, as % all</td>
<td>70.1%</td>
<td>74.1%</td>
<td>68.0%</td>
<td>72.3%</td>
<td>72.4%</td>
<td>47.1%</td>
<td>53.5%</td>
<td>50.3%</td>
<td>50.8%</td>
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<tr>
<th>By BAC test result</th>
<th></th>
<th></th>
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<td>Alcohol-impaired</td>
<td>34</td>
<td>32</td>
<td>30</td>
<td>32</td>
<td>34</td>
<td>68</td>
<td>83</td>
<td>70</td>
<td>85</td>
<td>73</td>
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<tr>
<td>Not impaired</td>
<td>308</td>
<td>297</td>
<td>308</td>
<td>311</td>
<td>243</td>
<td>111</td>
<td>122</td>
<td>135</td>
<td>123</td>
<td>109</td>
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<td>No result reported</td>
<td>284</td>
<td>336</td>
<td>327</td>
<td>277</td>
<td>367</td>
<td>396</td>
<td>427</td>
<td>366</td>
<td>351</td>
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<table>
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<th>By drug test result</th>
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<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Positive</td>
<td>67</td>
<td>54</td>
<td>75</td>
<td>76</td>
<td>72</td>
<td>85</td>
<td>107</td>
<td>98</td>
<td>123</td>
<td>96</td>
</tr>
<tr>
<td>Negative</td>
<td>182</td>
<td>167</td>
<td>198</td>
<td>237</td>
<td>194</td>
<td>97</td>
<td>97</td>
<td>113</td>
<td>121</td>
<td>97</td>
</tr>
<tr>
<td>Pending</td>
<td>21</td>
<td>26</td>
<td>9</td>
<td>7</td>
<td>22</td>
<td>15</td>
<td>22</td>
<td>8</td>
<td>2</td>
<td>5</td>
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<tr>
<td>No result reported</td>
<td>356</td>
<td>418</td>
<td>383</td>
<td>301</td>
<td>357</td>
<td>378</td>
<td>406</td>
<td>352</td>
<td>313</td>
<td>398</td>
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</table>

Source: Analysis provided by the Indiana University Public Policy using data downloaded from the Automated Reporting Information Exchange System (ARIES), as of March 29, 2021.
Problem Identification: What Data are You Using?

2019

Breath Tests

2019

Lab Submissions

Problem Identification: What Data are You Using?

2019

Breath Tests

2019

Lab Submissions
Good, Better, Best

**Good:** 12,000 Officers
   All Officers are Trained in Standardized Field Sobriety Tests (SFST’s) in during Basic Training

**Better:** 2,200 Officers, 18%
   ARIDE: Advanced Roadside Impaired Driving Enforcement

**Best:** 185, 1.5%
   DRE: Drug Recognition Expert School, 1% the Elite
ARIDE and Oral Fluid Screening

- User Training at the Conclusion of all **ARIDE Training**

- FY21 ARIDE Training
  - 235 Officers (81, FY19)
  - 81 Agencies (32, FY19)

- 61 of 92 (78%) Counties increased Submissions for Drug Analysis by 15% or more

- 42 of 92 (46%) Counties increased Submissions for Drug Analysis by 50% or more
Three T’s to Improve Impaired Driving Outcomes

- **180 Total Instruments**
- **Monthly Download to SD Card**

![Bar chart showing Total SoToxa Tests with Negative 607 and Positive 739, totaling 1345 tests.](image)

![Pie chart showing THC+ of Total 72% and Poly Drug + 55%.](image)
DRE Program Performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Evaluations</th>
<th>DRE Officers</th>
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<tbody>
<tr>
<td>2018</td>
<td>381</td>
<td>203</td>
</tr>
<tr>
<td>2019</td>
<td>425</td>
<td>228</td>
</tr>
<tr>
<td>2020</td>
<td>51</td>
<td>218</td>
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<tr>
<td>2021</td>
<td>483</td>
<td>197</td>
</tr>
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</table>
What About the Lab?

<table>
<thead>
<tr>
<th>County</th>
<th>2019</th>
<th>2021</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benton</td>
<td>2</td>
<td>50</td>
<td>2400%</td>
</tr>
<tr>
<td>Dearborn</td>
<td>22</td>
<td>126</td>
<td>473%</td>
</tr>
<tr>
<td>Elkhart</td>
<td>81</td>
<td>245</td>
<td>202%</td>
</tr>
<tr>
<td>Blackford</td>
<td>27</td>
<td>77</td>
<td>185%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>56</td>
<td>129</td>
<td>130%</td>
</tr>
<tr>
<td>Fulton</td>
<td>19</td>
<td>43</td>
<td>126%</td>
</tr>
<tr>
<td>Porter</td>
<td>86</td>
<td>191</td>
<td>122%</td>
</tr>
<tr>
<td>Lawrence</td>
<td>58</td>
<td>128</td>
<td>121%</td>
</tr>
<tr>
<td>Madison</td>
<td>91</td>
<td>195</td>
<td>114%</td>
</tr>
<tr>
<td>Huntington</td>
<td>59</td>
<td>124</td>
<td>110%</td>
</tr>
<tr>
<td>Hendricks</td>
<td>121</td>
<td>244</td>
<td>102%</td>
</tr>
<tr>
<td>Lake</td>
<td>134</td>
<td>249</td>
<td>86%</td>
</tr>
</tbody>
</table>

❖ **13%** Increase in Submissions to ISDT from 2020 to 2021
   ❖ 8,798 vs 9,466

❖ **71.1%** of Submission Positive for One (1) or More Drugs
   ❖ 6,246 vs 6,720 (+500)

❖ THC positives increased from **40.4%** in 2019 to **53.4%** in 2021 (+13%)
Statewide Implementation

- 2019  Aggressive Support of Toxicology Lab
  - 2.7 Million in support with 405D Funds – FY20-22
  - Equipment GC/MS to support processing increase in THC Cases
  - Outsourcing to eliminate backlog of cases
  - Additional Lab Personnel – Scientist and Lab Supervisor
    - Lab Supervisor - Develop Additional Methods Emerging ‘s

• Result Wait Times

<table>
<thead>
<tr>
<th></th>
<th>May 2019</th>
<th>December 2021</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug</td>
<td>327 Days</td>
<td>73 Days</td>
<td>77.6%</td>
</tr>
<tr>
<td>ETOH</td>
<td>85 Days</td>
<td>31 Days</td>
<td>63.5%</td>
</tr>
</tbody>
</table>
Average Drug Analysis Turnaround 2019-2021

Jan  | Feb  | Mar  | Apr  | May  | Jun  | July | Aug  | Sept | Oct  | Nov  | Dec  |
-----|------|------|------|------|------|------|------|------|------|------|------|
289  | 316  | 285  | 311  | 327  | 279  | 266  | 203  | 114  | 90   | 98   | 84   |

2019 | 2020 | 2021
Making Better, Better with Training, Tools and Toxicology

❖ Statewide Implementation by SHSO
   ❖ Devices & Supplies
   ❖ Training Program – Impairment 1st
   ❖ Annual Maintenance
   ❖ Statewide Data

❖ DRE Evaluations

❖ ARIDE Trained Officers

❖ Detection of Drug Impaired Drivers
Green Lab Training
The issue:

- 20 states, as well as the District of Columbia, have medicinal and recreational programs.
- Rules vary on growing one’s own product.
- The cannabis community has made great strides legislatively, but little has been done with regard to improving DUID laws/methods of identification.
Deterrence
Cannabis Intoxication Impaired Driving Labs
aka - Green Labs

WHO: 10 certified medical cannabis patients, approximately 25 officers (mostly patrol and/or specialized street-based units). Auditors: legislators, judges, prosecutors, lab personnel, traffic safety experts

WHAT: 3 hours of classroom, 2 hours of lab, working dinner, enforcement

WHEN: 1 lab per quarter- evening hours

WHERE: Predetermined venue with classroom and consumption area

HOW: Consumers dose twice throughout the evening – edibles, alcohol, inhalation
Classroom Portion
- SFST Refresher
- Legal Update
- ARIDE Tests
- Methods of Ingestion

Consumption Portion
- Initial Screening
- 30 Minute Consumption Period
- Dialogue Regarding Effects
- Review of Accessories

Enforcement Portion (Optional)
Cannabis Intoxication Impaired Driving Labs -Green Labs-

Proven Training
Similar to the NHTSA alcohol wet labs-controlled environment, controlled dosing, selected participants

Confidence
Provide more confidence to officers with regard to correct arrest decision

Community
Community engagement aspect-dual learning. MMCC patients = 157,293 (7.01.2022)

Court
Have stronger cases for prosecution and DREs
Overcoming challenges:

- Agencies throughout the US are now beginning to host these labs:
  - Ohio, Washington, Massachusetts, Connecticut, Virginia, multiple agencies throughout Maryland
- Researchers are working together with law enforcement to be able to tackle the entire issue
- Dispensaries are working to educate consumers about impairing effects
Future action items:

• Cannabis specific roadside tests
• Research consistent to ingested product THC levels
• Law enforcement/research group partnerships
• Educate legislators on DUID
• Oral fluid as a roadside screening device
• Nationally increase number of Green Labs
• Other ways to evaluate impairment in driving – simulators, go-karts, etc.
Officer Jayme Derbyshire

jayme.derbyshire@montgomerycountymd.gov

240.876.3146
Regional Toxicology Liaison Program

Amy Miles (M)
Director – Forensic Toxicology, Wisconsin State Laboratory of Hygiene

Jane Terry
Vice President, Government Affairs National Safety Council

Sabra Jones
Regional Toxicology Liaison - NHTSA Region 5

Kristen Burke
Regional Toxicology Liaison - NHTSA Region 9

Chris Heartsill
Regional Toxicology Liaison - NHTSA Region 7
Jane Terry - National Safety Council Vice President, Government Affairs

Sabra Jones - RTL Region 5

Chris Heartsill - RTL Region 7

Kristen Burke - RTL Region 9
National Resource Toxicologist

Regional Toxicology Liaison (Regions 5, 7, 9)
78% - Labs perform DUId testing (60% perform all testing in-house)

100-40,000 Alcohol tests performed annually (median 2500)

39% limit drug testing based on a Blood Alcohol Concentration

6% of respondents do not hold any accreditation
60% wish to be paired with an academic or research institution

50% feel lab has adequate instrumentation to meet the demands of testing requests

33% percent have performed process improvement
93% of those found successes
Jane Terry
Vice President, Government Affairs
National Safety Council
Preliminary Motor Vehicle Death Estimates, 2020 to 2022

Month: April
- 2020: 2,555 deaths
- 2021: 3,900 deaths
- 2022: 3,460 deaths

https://injuryfacts.nsc.org/motor-vehicle/overview/preliminary-monthly-estimates/
Motor vehicle deaths by alcohol involvement, 1982–2020

11,654
Alcohol, Drugs & Impairment Division

Benefits of Standardization

● Comparable data
● Improved countermeasures
● Consistent prosecution
● Inform other areas like impairment levels
National Safety Council
Alcohol and Drugs
Impairment Division

- Recommendations for Toxicological Investigations of Drug Impaired Driving and Motor Vehicle Fatalities—2021
  - Background Data

<table>
<thead>
<tr>
<th>Compound</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Δ⁹-THC and metabolites</td>
<td>62</td>
</tr>
<tr>
<td>Alprazolam/alpha-hydroxyalprazolam</td>
<td>57</td>
</tr>
<tr>
<td>Cocaine and metabolites</td>
<td>57</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>56</td>
</tr>
<tr>
<td>Diazepam/nordiazepam</td>
<td>48</td>
</tr>
<tr>
<td>Clonazepam/7-aminoclonazepam</td>
<td>45</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>45</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>43</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>34</td>
</tr>
<tr>
<td>Morphine</td>
<td>34</td>
</tr>
<tr>
<td>Oxycodone</td>
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</tr>
<tr>
<td>Diphenhydramine</td>
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<tr>
<td>Lorazepam</td>
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<td>Zolpidem</td>
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<td>Methadone</td>
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<td>Gabapentin</td>
<td>21</td>
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<tr>
<td>Codeine</td>
<td>18</td>
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<tr>
<td>Buprenorphine/norbuprenorphine</td>
<td>15</td>
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<tr>
<td>Tramadol/O-desmethyltramadol</td>
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<tr>
<td>Phencyclidine (PCP)</td>
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<tr>
<td>6-Acetylmorphine</td>
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<tr>
<td>Fentanyl analogs</td>
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</tr>
<tr>
<td>Oxazepam</td>
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</tbody>
</table>
Congressional Attention

National Safety Council testimony in U.S. House of Representatives and U.S. Senate

Infrastructure Investment and Jobs Act (IIJA)
- National Highway Traffic Safety Administration (NHTSA) Request for Comment (RFC)

Department of Transportation FY22 Appropriations bill
Resource Needs
States as Partners—Oral Fluid testing

Alabama Senate Bill 258
● Implied Consent for oral fluid testing
● Testing for all substances

AAA Oral fluid report
● Law Enforcement
● State Highway Safety Officers
● Judicial personnel
● State public health agency
● Toxicologists
Toxicology Labs as Safety Partners

• Incorporate toxicology into your state’s Highway Safety Strategic Plan
• Support the implementation of the recommendations
• Include toxicologists on DUI task forces, advisory groups
• Include toxicologists in law enforcement and legal trainings
• Invest in your toxicology labs – testing capability and data sharing
Standardization and Impaired Driving
Standards Development Process

- Organizational Scientific Area Committees
- Minimum Requirements
- Best Practices
- Standard Protocols
- Ensure that the results of forensic analysis are reliable and reproducible
- Assessment
ANSI/ASB Standard 120: Requirements for Forensic Toxicological Testing of Blood Specimens in Impaired Driving Investigations

Adapted from the work of the National Safety Council’s Alcohol, Drug, and Impairment Division

- Requirements developed based on laboratory surveys, epidemiological data, drug-use patterns, and analytical capabilities of laboratories

Focuses on blood as matrix

- The blood confirmation concentrations listed are based on free drug concentrations
- The listed concentrations are not intended to correlate to impairment or per se limits
Expected Impact of ANSI/ASB Standard 120 and Sister Standards

Should Improve the Field

• Push laboratories to ensure consistent detection limits when testing in these different subdisciplines
• Drive proficiency test providers to produce samples that evaluate laboratory capabilities in meeting the minimum requirements
• Encourage accrediting bodies to evaluate laboratories conformity with the national standards

Document will be updated a minimum of every five years

• Analytes may be added or removed
• Detection limits may be lowered or raised, as research provides more information
ANSI/ASB BPR 037: GUIDELINES FOR OPINIONS AND TESTIMONY IN FORENSIC TOXICOLOGY

• Forensic toxicologists often called to testify in criminal and civil matters to discuss analytical results and offer their expert toxicological opinion

• Important that expert testimony be constrained to areas that are based upon sufficient facts or data, be a product of reliable principles and methods, and that those principles and methods are consistently applied to the facts of the case at hand

• Defines the general areas of forensic toxicology that are viewed as reliable by other experts in the field
ANSI/ASB BPR 037: Guidelines for Opinions and Testimony in Forensic Toxicology

- Clear and Coherent
- Scientific Basis
- Informed by Facts
- Explain what was Reviewed
- References in Support
- Assumptions Stated
- Known Limitations
Forensic Toxicological Testing

Ideal

- Toxicology laboratories appropriately funded with newer instrumentation
- Toxicology laboratories fully staffed to meet the needs of customers
- Systematic Toxicological analysis on every case
- Testing allows for full-assessment of public health risks

Reality

- Most laboratories funded by governments
- May need to rely on older instrumentation or rapid screening techniques that may miss drugs
- Most toxicology laboratories are understaffed
- Scope of testing may be driven by cost and efficiencies
- In private laboratories, testing may be driven by what the customer wants to pay for
- Extent of a drug problem may be underappreciated
• Provide technical support for the toxicology laboratories in their region
• Integrate labs with local, state, regional, national partners and stakeholders
• Identify accreditation needs
• Promote and support method validation and testing guidelines/standards
• Provide multi-agency and cross-discipline networking and training opportunities
• Identifying Challenges
RTL, NHTSA Region 5 Update

Image Sources: Impaired Driving State Landscape Region 5
RTL Activities

• Meetings with regional laboratories
• Participating in Impaired Driving Conferences and Prosecuting the Impaired Driver Training
• Assisting states with initiatives to change legislation on drug impaired driving
• Coordinating Training Requests
• Identify Funding Opportunities
<table>
<thead>
<tr>
<th>State</th>
<th>Event</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>Prosecuting the Drugged Driver</td>
<td>NEAT Meeting</td>
</tr>
<tr>
<td><strong>Region 5</strong></td>
<td>Law Enforcement Liaison Meeting</td>
<td>ASB Toxicology CB Meeting</td>
</tr>
<tr>
<td>Ohio</td>
<td>Quarterly EDSWG Meeting: RTL Overview</td>
<td>Regional Operations and Program Delivery</td>
</tr>
<tr>
<td>Indiana</td>
<td>Highway Traffic Safety Conference and IN state lab</td>
<td>National Safety Council (NSC) Impairment Advisory Board Meeting</td>
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<tr>
<td>Illinois</td>
<td>TSRP Meeting</td>
<td><strong>Illinois</strong> Impaired Driving Task Force Meeting</td>
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<tr>
<td>Wisconsin</td>
<td>Place of Last Drink Meeting</td>
<td>NSC Cannabis Section Call</td>
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<td></td>
<td>SOFT Postmortem, Drugs and Driving and Oral Fluid Committee Meetings</td>
<td>R5 Impaired Driving Working Group</td>
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<td></td>
<td>Protecting New Yorkers from Drugged Driving (A9554/S8913)</td>
<td>Current Trends in Toxicology Symposium</td>
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<td></td>
<td><strong>IL-Midwest</strong> Impaired Driving Conference Speaker Meeting</td>
<td>R5 RTL Quarterly Meeting and JOL/TSRP Updates</td>
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<tr>
<td></td>
<td>Midwest Toxicology Collaborative - Round Table (MN)</td>
<td></td>
</tr>
</tbody>
</table>
Challenges and Opportunities

- Supply Shortages
- Training Requests
- Stakeholder Collaboration
- Legislation
- Resources
Chris Heartsill
Regional Toxicology Liaison - NHTSA Region 7
Supply Shortages

Blood Tube/Collection Kit Shortages
- 52% Yes
- 36% No
- 12% Unsure

Other Supply Shortages
- 59% Yes
- 25% No
- 16% Unsure
Blood Tube Supply

Problem:

Majority of tubes are from a single supplier.

Gray-top tubes must be used for analysis of alcohol and/or drugs

Impact:

In many cases labs provide kits to law enforcement for the collection of blood

The shortage diminishes the supply and may affect the ability to collect appropriate specimen in DUID and DUI cases.
Headspace vials

Problem:
Supply chain, manufacturing, and distribution issues have caused shortages in certain areas.

Impact:
These vials are used for alcohol and volatile testing.

The shortage can impact the lab’s abilities to perform testing for volatile substances including ethanol.
Helium Supply

Problem:

Few suppliers worldwide. Operation shutdowns cause global shortages

Market for helium is very volatile

Impact:

Helium is used for alcohol and volatile testing (and drugs in certain situations)

The shortage can impact the lab’s abilities to perform testing for drugs and volatile substances including ethanol.
Other Shortages

Chemicals, pipette tips, water,
NHTSA Region 7 Update
## NHTSA Region 7 Update

<table>
<thead>
<tr>
<th>State</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa</td>
<td>Impaired Driving Assessment</td>
</tr>
<tr>
<td>Missouri</td>
<td>Impaired Driving Subcommittee Meeting</td>
</tr>
<tr>
<td>Region 7</td>
<td>Law Enforcement Liaison Meeting</td>
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<tr>
<td></td>
<td>R7 RTL Quarterly Meeting and JOL/TSRP Updates</td>
</tr>
<tr>
<td>Arkansas</td>
<td>Impaired Driving Prevention Taskforce Meeting</td>
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<td></td>
<td>Regional Operations and Program Delivery</td>
</tr>
<tr>
<td></td>
<td>Meetings with each state and the laboratories in each state</td>
</tr>
<tr>
<td></td>
<td>Midwest Toxicology Collaborative - Round Table (MN)</td>
</tr>
<tr>
<td>Region 7</td>
<td>Partner’s Meeting</td>
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<td></td>
<td>IACP Impaired Driving and Traffic Safety Conference</td>
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<tr>
<td>Kansas</td>
<td>DOT meeting</td>
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<td></td>
<td>NASID Conference</td>
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<td></td>
<td>SOFT Postmortem, Drugs and Driving and Oral Fluid Committee Meetings</td>
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<tr>
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<td>Annual Law Enforcement Officers and Chiefs Conference</td>
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</tbody>
</table>
Kristen Burke
Regional Toxicology Liaison - NHTSA Region 9
Regional Toxicology Liaison Project

NHTSA REGION 9 Updates

Kristen Burke
NHTSA Regional Toxicology Liaison
kristen@soft-tox.org
Overview of Goals

• Provide technical support for the toxicology laboratories in their region
• SOFT Toxicology Resource Committee – Survey
• Identify accreditation needs
• Promote and support method validation and NSC laboratory testing guidelines (standards)
• Testimony Training
• Improve data
• Collaboration
Survey to R5, R7, and R9
Toxicology Laboratories

Supply Shortages
Topics for Future Training and Location
Organizational Challenges
Grant Funding
Impaired Driving Taskforce
Future Meeting Topics
Goal Priorities for Region 9

Testimony Training

Method Development & Validation

Server for QToF data

Repository for methods and testimony training
Testimony Training

Repository

Mock Court

Training – Partner with TSRPs

Literature/studies – separated by drug categories

Mock case reports
Thank you
NHTSA Regional Toxicology Liaison Project
Amy Miles – Program Manager
Sabra Jones – Region 5
Chris Heartsill – Region 7
Kristen Burke – Region 9
The State of Impaired Driving in the U.S. / MADD’s Law Enforcement Support Programs

Brian Ursino (M)
Director of Law Enforcement, American Association of Motor Vehicle Administrators (AAMVA)

Ron Replogle
National Law Enforcement Initiatives Manager, MADD
Impaired Driving in the U.S.
Current State of Enforcement
Rising Crashes and Fatalities
MADD Law Enforcement Support Programs

NASID Conference
July 28, 2022
Corporal Michael E. Webster
EOW October 3, 1993
MADD’s Vision and Mission Statement Today

VISION
A nation without drunk and drugged driving

MISSION STATEMENT
To end drunk driving, help fight drugged driving, support the victims of these violent crimes, and prevent underage drinking
We are currently trending in the wrong directions!

- 11,654 Alcohol-impaired traffic fatalities in 2020
- 14% increase in alcohol related impaired driving crashes in 2020
- 2021 – 42,915 traffic fatalities – 10.5% increase
- 30% of total traffic fatalities are alcohol-impaired related – leading cause followed closely behind by speeding
- 32 Alcohol-impaired traffic fatalities per day
- An alcohol-impaired fatal crash every 45 minutes
- Drugged Driving – we don’t know what we don’t know
A 38-year history by the numbers

Drunk Driving Deaths Increased 14% in 2020

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

Source: NHTSA/FARS, 5/22
**Drastic drop in Arrests!**

DUI Arrests in the USA (Estimated by the FBI, light blue, and reported to the FBI, dark blue, by local law enforcement agencies)

<table>
<thead>
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<th>Year</th>
<th>FBI Estimated</th>
<th>Local Law Enforcement</th>
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<tr>
<td>2019</td>
<td>772,307</td>
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<tr>
<td>2020</td>
<td>632,720</td>
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</table>
MADD Programs in Support of Law Enforcement

- LERs – Law Enforcement Recognition Events
- Support of High Visibility Enforcement Programs
- Saturation Saturday in August
- Court Monitoring Program
- Death Notification Training
- LODD Condolence Letters
- Legislative Support
- MADD Law Enforcement Committee (sub-committee under the MADD National Board)
- Monthly Law Enforcement Support Newsletter

www.madd.org/les
How did Saturation Saturday get started?
History - Year 1
History - Year 2
History - Year 3
18 States and 262 Agencies
Saturday, August 27, 2022
During NHTSA’s Drive Sober, Get Pulled Over Campaign
August 17 – September 5, 2022
Law Enforcement Support webpage

madd.org/les

Monthly LE Newsletter (sign up online)
✓ Mission Moment
✓ Officer of the Month
✓ Guest Author
✓ LODDs
✓ Roll-call training videos
MADD’s current Umbrella Agreement with NHTSA was approved and initiated on April 1, 2020, for $1.2 Million.

- **Roll Call Video Series Project**
  - Approved on April 1, 2020 as a 12-month agreement
  - Law Enforcement Impaired Driving Roll Call Video completed in 2021

- **MADD/NHTSA Regional Impaired Driving Law Enforcement Summits**
  - Approved on April 1, 2020, as a 24-month agreement
  - One day summits to be held in each of the ten NHTSA Regions
  - Currently on hold due to COVID-19 Pandemic

- **Law Enforcement Engagement Initiative**
  - Approved on September 30, 2021, as a 24-month agreement
  - Funding for MADD’s Law Enforcement committee to meet and develop a toolkit for law enforcement to address impaired driving
  - Also currently delayed by the COVID-19 Pandemic
MADD Roll Call Video Series

• Again, Produced under a NHTSA Cooperative Agreement Grant
• The Series contains the main Roll Call Video for law enforcement – 10 minutes in length
• Four other short law enforcement related videos and four victim story videos.
• The objectives of this project include, but are not limited to, the following:
  1. Produce, disseminate and promote a law enforcement impaired driving roll call briefing video;
  2. increase the enforcement of impaired driving laws; and
  3. reduce the number of crashes, injuries, and fatalities related to impaired driving.

• https://vimeo.com/channels/1695972
Video Series Content – Five Law Enforcement Training Videos

- **Session 1: We Can Stop This (Main Roll Call Video)** – The main Roll Call Video is 10:14 in length.

- **Session 2: Murder in Progress** – This is a short 3:45 video featuring 9 law enforcement officers from 7 states addressing how impaired driving is a violent crime in progress.

- **Session 3: Elephant in the Room** – In this video of 6:26, 10 veteran and experienced law enforcement officers address the typically unspoken deterrents to aggressively enforcing impaired driving laws.

- **Session 4: MADD and Law Enforcement** - In this short 3:53 video, 8 law enforcement officers from 7 states talk about the value of the MADD/Law Enforcement partnership.

- **Session 5: Hutton’s Stop** – This is a short 3:21 video of a Missouri State Trooper telling his story of making one final round at the end of his shift to find an impaired driver.
MADD Roll Call Video Series“We Can Stop This”

Won a Telly Golden Award

General Non-Broadcast- Motivational category

Production Company – Texas Pictures
“We Can Stop This”
MADD Roll Call Video
Video 1
“Murder in Progress”
Video 2
“Hold At All Hazards”
Little Roundtop – Battle of Gettysburg

Colonel Strong Vincent
Colonel Joshua Chamberlain
The 20th Maine
Thank you and Questions?

Ron Replogle
MADD National Law Enforcement Initiatives Manager
ron.replogle@madd.org
469-420-4404
Chris Swonger
President & CEO
Responsibility.org &
Distilled Spirits Council of the U.S.
Kevin Quinlan Awards

Ron Replogle
National Law Enforcement Initiatives Manager
MADD

Jacob Nelson
Director, Traffic Safety Advocacy & Research
AAA National

Daniel Sharp
Chief of Police (Ret)
Oro Valley PD
Sabra Rosener, SVP Legislative Affairs

- Joined Intoxalock in March 2022
- Twenty-plus years of experience in Government Affairs, primarily in Healthcare/Public Health
  - 17 years at large, regional health system, UnityPoint Health, leading G.A. program
  - 2 years at Innovage, a PACE program serving elderly adults
- Thrilled to work on the public health issue of impaired driving and intent on driving positive change
  - Looking forward to growing current colleague relationships alongside forging new partners & collaborations
- Mother (of 4), wife, and animal lover
  - Free time - hiking, yoga, & sporting events
TOP 10 Achievement List
Intoxalock has prevented 761,700 start ups with a BrAC over the Legal Limit (0.08) since January 2019.
Our Social Impact by the Numbers:

- 73% of clients that had an IID removed successfully graduated from their respective state IID program
- 26,025 customers have been violation free since January 2022
- 82,469 customers have been high BrAC-free since January 2022

*YTD 2022*
8 Adjacencies

Intoxalock’s parent company, Consumer Safety Technology has committed 30 years of helping millions live and drive responsibly.

- Acquired in 2019
- Offering SR-22 Insurance

- Acquired in 2021
- Offering Substance Abuse Assessments
Surpassed 4,500 service centers nationwide in 2021
Launched in Q1 2020, Intoxadvisor® is a digital violation analysis tool that helps monitors more clearly understand if a violation has occurred.
Our Workforce

In 2021, Intoxalock was named a Top Work Places by the Des Moines Register and Best Place to work for Working Parents from Top Workplaces USA.
Intoxalock launched **Cross-Check Interstate Monitoring™** in 2022

- Clients can serve IID requirements simultaneously with Intoxalock’s advanced reporting capabilities
- Allows states to capture necessary State fees from clients
- Patent Pending and exclusive to Intoxalock
Intoxalock launched the VerifIID Facial Confirmation™ product in 2022

- Technology identifies missing images to ensure photos are compliant
- Detects multiple faces in the vehicle's cabin, which in turn helps detect tamper and circumvention events more quickly
- Uses an already planned service center visit to confirm proper aiming and functionality of Intoxalock’s eLERT® relay.
- Patent pending and exclusive to Intoxalock
Our business was born from a partnership with Iowa State University. Today, we’re partnered with numerous industry leaders.
In 2022, **Kansas, Oklahoma** and **Hawaii** were added to the list of states requiring Compliance Based Removal. Today, **31 states and D.C.** have enacted laws to include CBR.
Youth Engagement & Education

REACHING “YOUNG” DRIVERS IN AN IMPAIRED WORLD
Countermeasures:
Public Education – Youth Engagement and Education

Rick Birt (M)
President and CEO of Students Against Destructive Decisions SADD

Dr. James Lange
Executive Director, Higher Education Center for Alcohol and Drug Misuse Prevention and Recovery

Zach Kashman
SADD

Erin Meluso
President, Recording Artists Against Drunk Driving RADD
Thank You
How it might feel working in mobility safety...
Video Slide
Goals for Our Session

1. Gain a deeper understanding of the science and data behind impaired-driving in the high school/college age group.

2. Understand the cultural elements that shape youth risk-perception around impairment and driving.

3. Mobilize your network to support promising practices to reach high school/college age students in efforts to eliminate impaired driving.
Connect with HECAOD!

Follow us for the latest research and news, information on upcoming events and training resources to support your campus.

WEB: hecaod.osu.edu | EMAIL: hecaod@osu.edu | PHONE: 614-292-5572

Jim Lange, Ph.D.
Executive Director
Higher Education Center
For Alcohol and Drug Misuse Prevention and Recovery

Lange.221@OSU.edu
Participating Coalitions within the Consortium

- State Coalitions
- Newly Forming Coalitions
- # of Engaged Campuses
A Peek at The Problem:

- Hingson and Colleagues (2017) estimate that in 2014:
  - 1,951,994 students reported driving under the influence of alcohol in 2014
  - 1,519 alcohol-related deaths, with 967 dying in traffic alcohol deaths
  - 63.7% of all alcohol-related student deaths were traffic related in 2014, down from 78.7% in 1998


https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812630
Reported past year driving under the influence of alcohol

2021 NCHA collegiate impaired driving data

NCHA Reference Group Collegiate Impaired Driving Re-analysis
Spring 2021
“One consequence stands out in magnitude and may be a particular challenge for college AOD staff to address: alcohol-impaired driving. Alcohol-impaired driving accounts for the majority of alcohol-related deaths among college students nationwide. Your efforts to reduce student drinking will likely reduce the risk of alcohol-impaired driving as well; however, if you would like to take specific additional steps to help prevent your students from driving while impaired, please see the Frequently Asked Questions section of the CollegeAIM website (see URL below).”

For an introduction to the CollegeAIM see: https://hecaod.osu.edu/trainings/webinars/prevention/

www.collegedrinkingprevention.gov/collegeaim
Basic Elements Underpinning Impaired Driving Prevention Efforts

- Understanding of Risks
- Regulation of two behaviors:
  - Driving
  - Substance Access and Use
- Driver options, decisions, behaviors

Let’s step back and get some historical perspective
Understanding the Risks

- In a sense, we’ve always known alcohol posed driving risk
  - The Horseless Age (1907) published that the “drunken driver” is the sort that would scare horses as he passed.
  - AAA banned alcohol at its races prior to 1917.
  - Hearings on Responsibility Legislation in 1930 identified drunk driving (even during prohibition) as a source of injury.

Socio-Ecological Model

Public Policy/Society
- State policies
- Cultural norms

Community
- Community laws
- Community structures
- Community practices

Institutional
- Campus policies & enforcement
- Action/Inaction by personnel

Interpersonal
- Perceived norms
- Group level policies

Individual
- Beliefs & attitudes
- Skills
- Knowledge
Perception vs. Reality: Young Impaired Drivers
Good Morning!

I’m Zach...
Perception vs. Reality
Campus Culture & Substance Use
Mobilizing Communities

THE STATUS OF COLLEGE IMPAIRED DRIVING
A National Call to Action!
Effective Elements & Counter- Measurers of Youth Programs

- Youth – Led
- Inclusive
- Sustainable
- Facilitated Training
- Measured Learning
- Positive
- Incentives & Recognition
- Evaluated
Zach Kashman
SADD Board of Directors
zkashman@sadd.org
The Ohio Model - Four Promising Practices

- Environmental “community level” project for ages 18-24
- Individual and student “group” engagement
- Inherently diverse and inclusive though music messaging
- Skills-building training before/during the critical high school-to-college transition
College-Age Population Focus:
High-risk demographic with low ID-prevention resource support on campuses

Promotion of RADD Squad” fosters both Individual and student “group” engagement

- College students travel in packs, often formed by their interest in music and entertainment
- Individual student and group (“RADD Squad”) engagement via social media and on-campus promotional activities
- Entertainment-based media and event activations to reach target audiences in a receptive atmosphere
# The Blunt Truth

**MYTH**

I didn’t smoke, I just ate an edible so I’m totally fine to drive.

---

**#SquadPlans**

- Get a **LYFT** or **UBER**
- Choose a **DD**
- Take a **BUS**
- Hop on a **CAB**
- **RADD** SHUTTLE

---

**radd.ohio**

We stan our squads. We stan red nights. And we stan a plan. Get home safe by making a plan BEFORE drinking or using marijuana. 

---

**radd.ohio**

We stan our squads. We stan red nights. And we stan a plan. Get home safe by making a plan BEFORE drinking or using marijuana. 

---

**radd.ohio**

We stan our squads. We stan red nights. And we stan a plan. Get home safe by making a plan BEFORE drinking or using marijuana. 

---

**liked by emmajoplin and 3 others**

**January 17**

Add a comment...
Inherently diverse messaging, visuals, and live music event audiences thanks to multi-ethnic RADD performers

- Young artists perform on RADD TV and tape PSAs to voice our messages in their own words
- Direct artist delivery of our audio and visual messages, pushed out to their fan bases
Youth-led campus activation by SADD students

RADD/HEC’s 2021 expansion to partner with SADD has multiple benefits

- For HEC’s campus members, it exploits the valuable skills of graduating SADD high school students (subject experts, media trained, and experienced group-activity facilitators) to support understaffed Health Ed departments and where possible, form college SADD Chapters.

- For graduating SADD students it gives them a healthy path to college life and an opportunity to serve as a role model for peers.

- For RADD (not a membership org), the SADD alliance:
  - Provides ongoing RADD messaging via active campus presence (beyond 3x year tabling events)
  - Provides institutional support through SADD's state offices, inclusive of SADD National’s long-term alliances with SHSO’s in 24 states throughout the country who benefit from these cost savings.
Discussion
TSRP Program Update and Information

Joanne Thomka (M)
Director, National Traffic Law Center, National District Attorneys Association

Melissa Shear
Assistant Attorney General / Traffic Safety Resource Prosecutor, DC Office of the Attorney General

Sarah Garner
Traffic Safety Resource Prosecutor, North Carolina Conference of District Attorneys
Traffic Safety Resource Prosecutors

Melissa Shear
Office of the Attorney General
Washington, DC

Sarah Garner
Conference of District Attorneys
North Carolina
DC

TSRP Program

Funded from DDOT/NHTSA

Training, legislation, technical support, task forces

1 TSRP

Approximately 80 prosecutions annually

Approximately 80 prosecutions annually
## DC’s Impaired Driving Task Force

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<th>Prevent</th>
<th>Reduce</th>
<th>Educate</th>
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<tr>
<td>Prevent driving under the influence</td>
<td>Reduce the number of impaired-related</td>
<td>Educate the public on the dangers of impaired</td>
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<td>of alcohol and drugs</td>
<td>traffic fatalities and serious injuries</td>
<td>driving</td>
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North Carolina Traffic Safety Program

- Annual budget of $1.1 million through GHSP
- 8 employees
- Approximately 10 annual trainings plus special requests
- Approximately 600 prosecutions annually
NC Publications and Technical Support

Publications
- DWI Prosecutor’s Manual
- DWI Officer’s Manual
- Vehicular Homicide Manual
- Criminal Procedure in Impaired Driving Manual
- DWI Primer
- Checkpoint Primer
- Cannabis Pocket Card
- DRE Matrix

Technical Support
- Listserv
- Research, Briefs, etc.
Contact us:

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**Sarah Garner**
Traffic Safety Resource Prosecutor  
NC Conference of District Attorneys  
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Sarah.Z.Garner@ncourts.org  
919-890-1500 Office  
919-500-9134 Cell  

[www.ncdistrictattorney.org](http://www.ncdistrictattorney.org)
Guest Speaker

DRE Trends and Updates

Kyle Clark
National Drug Evaluation & Classification (DEC) Program Manager, International Assocation of Chiefs of Police (IACP)
2021 DRE Annual Report

- 98 DRE Schools (42 more than 2020)
- 1,375 officers trained (592 more than 2020)
- 28,185 Enforcement evaluations conducted (1,918 more than 2020)

Drug categories opined:
1. CNS Stimulants (15,598)
2. Cannabis (15,570)
3. Narcotic Analgesics (12,210)
4. CNS Depressants (8,581)

Poly-Drugs: 16,090 (39.8%)
Toxicology Refusals: 3,561 (12.5%)

Report accessible at www.decp.org
DRE Enforcement Evaluations

Source: DEC Program Annual Reports
DEC Program Challenges

STATE OF NEW JERSEY
Plaintiff/ Respondent

vs.

MICHAEL OLENOWSKI,
Defendant/Petitioner

SUPREME COURT OF NEW JERSEY
Docket No. C-677
QUASI-CRIMINAL ACTION

DEC Program Challenges

MGH claims breakthrough in detecting marijuana impairment

Study also highlights flaws of existing “drug recognition expert” system

Field Sobriety Tests and THC Levels Unreliable Indicators of Marijuana Intoxication

Researchers investigated how marijuana affects skills required for safe driving and found that biofluid levels of THC did not correlate with field sobriety test performance or marijuana intoxication, regardless of how the cannabis was ingested.

Marijuana use may cause cognitive impairment even when not still high

New analysis of previous research finds that many of the learning and memory problems caused by cannabis consumption can linger for weeks.
DRE Post-Incident Review (AKA DRE Reconstruction)

A process utilized by certified DREs to provide follow-up investigative steps to collect, review, analyze, and interpret evidence and facts post-incident to render articulable facts and information, which may include opinions related to impairment.

- Approved by TAP 4/21/22
- Not intended to replace conducting a DRE evaluation
IACP Impaired Driving and Traffic Safety Conference - 2022

www.theiacp.org/IDTSconference
DRE Moving Ahead

• Increased training
• Use of webinars and other on-line training for recertification
• Developing and expanding DRE recertification sites
• DRE Call-out and overtime programs
• Promoting and expanding law enforcement phlebotomy programs
• Expanded use of DREs in other traffic safety areas
IACP DEC Program Operations

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Joe Abrusci
Project Manager
Eastern Region
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Words Matter-
Defining Drug Impairment in DUI States

Chuck DeWeese (M)
Former Assistant Commissioner, GTSC & Former Chair, GHSA

Maureen McCormick
Traffic Safety Resource Prosecutor, North Carolina Conference of District Attorneys
The Words at Issue:

Impairment vs. Intoxication vs. Under the Influence

And the legal culture / case law interpretations surrounding these words
NY Driving While Intoxicated (DWI): VTL § 1192. Operating a motor vehicle while under the influence of alcohol or drugs:

1. **Impaired** by alcohol (Traffic Infraction)

2. Driving while **intoxicated**; per se .08 BAC or higher (Misdemeanor)

2a. Leandra’s Law: No person shall operate a motor vehicle in violation of subdivision two, three, four or four-a of this section while a child who is fifteen years of age or less is a passenger (Felony)

3. Driving while intoxicated. No person shall operate a motor vehicle while in an **intoxicated condition** (Misd.)
“Drugged” Driving:
VTL §1192.4 & §1192.4a:
Drug and Combined Effects

4. Driving while ability impaired by drugs. No person shall operate a motor vehicle while the person’s ability to operate such a motor vehicle is impaired by the use of a drug as defined in this chapter.

4-a. Driving while ability impaired by the combined influence of drugs or of alcohol and any drug or drugs. No person shall operate a motor vehicle while the person's ability to operate such motor vehicle is impaired by the combined influence of drugs or of alcohol and any drug or drugs.

NY is an ACTUAL IMPAIRMENT state; no “per se” drugged driving charge.
Current Definition of Drug:
VTL §114-a

The term “drug” when used in this chapter, means and includes any substance listed in section 3306 of the public health law and cannabis and concentrated cannabis as defined in section 222.00 of the penal law.
When the Impairing Substance Isn’t on “The List”
Video 1
Defendant was alleged to be driving while intoxicated by “Dust-Off” (diflouroethane) and drove into oncoming traffic on January 13, 2004 killing 18 year old Kristian Roggio. Diflouroethane is not on the drug “list”. Charged under 1192.3 (intoxicated condition). Rejected by the Court of Appeals.
Video 2
When you can’t say what is impairing the driver

**People v. Moss**

- **Saturday, May 12, 2007**

- **4:15 p.m.**

- **Victims:**
  - Antonia Brancia
  - Sjef Vandenberg
Impairment to any extent
Video 3
The Solution: (S8913/A9554)
Expand the Definition of “Drug”

Definition of “drug”.
Amend definition of “drug” as follows:

§114-a. Drug. The term “drug” when used in this chapter, means and includes any substance listed in section 3306 of the public health law and any substance or combination of substances that impair, to any extent, physical or mental abilities.
Chuck DeWeese
trooper2@nycap.rr.com

Maureen McCormick
c. 516-382-2435
Maureen.McCormick@suffolkcountyny.gov
Guest Speaker

Bruce Landsberg
Vice Chair,
NTSB
Stopping Impairment: An alternative approach?

Bruce Landsberg – Vice Chairman, NTSB
Today's Flight Plan

• Who we are

• The problem of impaired driving

• Solutions*
Who is the NTSB?

- **What** happened – The investigation
- **Why** it happened – make recommendations
- Prevent future occurrences – *advocacy!!*
Everything Else....

Other modes – Authorized to Investigate

- Aviation
- Rail
- Marine
- Pipeline
- Hazmat
“Crash” vs “Accident?”
Impaired Driving

Drugs

Alcohol

Cell Phone, etc
There's a lot of Enthusiasm !!!!
Marijuana Map – probably out of date!

You're in trouble!

Medicinal use only

Let the Good Times Roll!
Pot Transport

Federal Law takes Precedence - 91.19
How about Intra-State?
How about for CMV?

• Schedule 1 Controlled Substance

• 21 CFR § 1308.11. (DEA)

• 49 CFR § 390.5 (FMCSA)

• Short Answer …. NO!
Solutions.....

WHAT WOULD NANCY REAGAN DO?

#JustSayNo

No!
Various ways to solve problems?

Culture
Administrative – Rules/Proc.
Education/Training
Supervision/Oversight
Engineering/Design
A former workplace
Greatest safety improvements in aviation?
Driver Monitoring systems
Federalism vs. State’s Rights?

19,500 + incorporated cities/towns

17,980 + Law enforcement agencies
Legislation is ahead of enforcement

- What's the law?
- What's impairment?
- How to measure?
Video 1
Takeaways

• No easy solutions

• It has to be addressed!

• Legislation, education, enforcement, engineering

• Fix It!!!!!
Safety isn't everything, It's the only thing!
Safety isn’t everything --- It’s the ONLY thing