



## *Meeting Minutes*

October 20, 2017

**Call to order:** 9:05 by Glenn Davis, Acting Chair

**Quorum:** 12 of 21 members

### **Introductions**

**Legislative Remarks:** None

**Public Comments:** None

### **Minutes of Previous Meeting**

Motion to accept minutes by Flavia, second Johnson. Motion passes.

### **Statistics**

State Fatality Numbers – Glenn Davis, CDOT

To date there have been 486 traffic fatalities. Last year at this time there were 510 fatalities. This is a decline of 5%. The feeling at State Traffic Advisory Committee was that 486 is low because a lot of fatalities have not been reported through the system. Law enforcement reports to CDOT. Investigation time on a local level sometimes takes time. This data is not surprising for a state without a primary seatbelt law, no helmet law and weakest texting law in the nation. Last three years Colorado has set records in motorcycle fatalities. Number one counter measure is a helmet law but there is caution on introducing legislation.

Johnson: How can we improve timeliness of reporting?

Davis: Law enforcement is required to submit their info of traffic fatalities to DOR:

42-4-1606:

(4)(a)(I) It is the duty of all law enforcement officers who receive notification of traffic accidents within their respective jurisdictions or who investigate such accidents either at the time of or at the scene of the accident or thereafter by interviewing participants or witnesses to submit reports of all such accidents to the department on the form provided, including insurance information received from any driver, within five days of the time they receive such information or complete their investigation. The law enforcement officer shall indicate in such report whether the inflatable restraint system in the vehicle, if any, inflated and deployed in the accident.

It often comes down to local law enforcement agencies. If CDOT LE liaisons could get into Sherriff Asso. and Police Chiefs' Asso. there might be the opportunity to education and inform on the issue.

Mitchell: Expressed consent often come into DOR on the last day of the window.

Johnson: He is going to work to see about spreading the message to his association.

Aylmer: Does the coroner's office have any responsibility?

Davis: Death notification and toxicology reports must be submitted to CDOT. Most provide the information but CDOT sometimes has to chase it down. There are also challenges on what is tested. There are a lot of data gaps in the system. Glenn is working on getting FARS data to be more current.

### **Legislation** – Fran Lanzer, MADD/ Glenn Davis, CDOT

We need to get ready for annual report. We are changing the format a lot this year. Glenn would like to try to get some time with the legislative liaisons so they are more informed when we submit it to the legislature. Rebecca is going to champion the revisions.

Johnson: Do they see results of prior years' accomplishments such as after hours operation?

Davis: At the legislative meeting next year we should present our annual report and show where we had success and what didn't go through. Glenn is also on the CO Teen Driving Alliance. There was talk about the group disbanding but it was determined that there needs to be an organization to represent this constituency. CTFDID is in a position to champion issues. Two legislators had concerns about amount of distracted driving they have witnessed on roadways. Glenn: The number one factor that shows up in crash analysis is speed. However distracted driving is probably under reported as law enforcement investigating crashes usually depend on self-reporting from people involved in the event. Recent changes to distracted Colorado's distracted driving laws increase penalties for violations but, make it more difficult for law enforcement to enforce as simply using a device is not enough for contact. Compared to other states Colorado DUI laws are pretty tight, however there is room for improvement. It is difficult to pass legislation if it has a significant fiscal not or there is not a dedicated funding source in place.

Wood: It will be interesting to look at the results of the DCJ report that will come out in March.

Mitchell: It is difficult to enforce the interlock requirement.

Aylmer: He sat next to legislator who was big on distracted. How do we make the same link with seat belts reducing deaths just as reducing distracted driving will reduce deaths?

Davis: We need to change the culture of drivers. A seat belt is your best protection if being hit by a drunk driver, distracted driver. 85% seat belt usage rate. Use rate usually goes up 5% over time with a primary seat belt law.

Wood: Four legislators have agreed to request of the legislative council that it establish a Legislative Interim Study Committee on DUI/DUID laws that will convene between the 2018 and 2019 legislative sessions.

Anderson: CU has gotten permission to do studies on marijuana's use for pain. Does this mean the feds are allowing study on marijuana?

Groff: Is it state funding or NIH funding? It is probably funding from the state.

Graham: CU is moving forward on the study. The lead researcher was looking for feedback from NHTSA on what information would be valuable. Lack of validated SFST. Federal studies have to get marijuana from the marijuana farm in Mississippi which has very different THC levels than Colorado's marijuana.

Groff: He was part of a news study "Too High to Drive". Volunteers came with their own marijuana and drove on a master drive course. Model of study drew blood upon arrival. Did a couple of runs on course and evaluated success. Then they dosed and waited 15 minutes. All smoked the same amount. Blood drawn again. Went out on the course. One hour later repeated.

### **Media Relations & Significant Upcoming Events – Sam Cole, CDOT**

Sam is presenting in NY for NHTSA Region 2. Halloween enforcement begins on October 27 and runs through November 1.

### **Break: 10:12 am**

### **Task Force Business & Presentations**

Work Groups need to report their recommendations for the 2017 Annual Report at the November meeting.

Annual Report timeline:

**Work Group Updates and Recommendations - 11/17/2017**

**Photos: 12/1/2017**

**Victims' stories: 12/1/2017**

**Meet with Executive Committee: 12/6 or 12/7**

**Rough Draft to Task Force members: 12/8/2017**

**Comments due by: 12/29/2017**

**Final Draft: 1/5/2018**

**To printer: 1/8/2018**

Davis: Biggest success last year was HB1315. It will have a significant impact.

Do not recycle recommendations from prior years but work to make them fresher. If there are things that still have value use them but freshen them up.

### **Work Group Updates**

#### **Program Management & Strategic Planning – Glenn Davis**

Met in September to discuss Annual Report. Thinking that they will really want to recommend a primary seatbelt.

### **Criminal Justice** – Deputy Chief Steve Johnson

Not a lot of change. They will bring recommendations to the November meeting which look at best practices and training costs including best practices to reduce refusal rate. Refusal for testing under expressed consent is between 25% and 30%. Making sure that expressed consent card is current and looking at utilization of POST and others.

Whitney: CO Supreme Court dealt with the issue. Defense argued that law enforcement told the plaintiff the consequences of his decision making it no longer a choice. The Supreme Court ruling expressed that just by driving you have given expressed consent. Court stated that it is ok to state the consequences of not consenting to testing.

Davis: There is merit in best practices in law enforcement. Victories: more task force type enforcement. Maybe there has been some improvement.

### **Prevention** – Ellen Anderson

Second item the work group undertook was to look to see if there is a correlation between MIPs and subsequent DUIs. This involves a lot more work so this item has been tabled. First recommendation was read again. A new California law mandates that by 2020 all bartenders and servers to receive training on how to responsibly sell and serve alcoholic beverages. Oregon has a similar law. The work group will dig a little deeper with both bills. The recommendation with change the language from mandate to requires.

### **Impaired Driver Intervention & Treatment** – Christine Flavia

Working on the implementation of Level II Four Plus. In the final stages of coming up with the clinical competencies for the program. Feels strongly that the work group needs to come up with distinct phases to break down the 18 month mandated treatment. Helps both client and provider. More likely to complete with a greater likelihood for success.

### **Communication** – Sam Cole

Davis: CDOT continues to work on impaired driving awareness for HVE events. Sam will present next month.

### **Program Evaluation & Data** – Jack Reed

Groff: Mechanisms to collect data are in place. DCJ Director was meeting with legislators on standardizing costs across the toxicology labs. He has been provided DUI testing data. He is not sure what direction the committee will be taking.

## **Lightning Round Update**

Whitney: Weld Co. DUI Task Force has reformed. Trooper Nate Grimm has taken the lead and has good involvement of local enforcement.

Groff: The Colorado Board of Health Rules Pertaining to the Testing of Alcohol and Other Drugs (5CCR 1005-2) is currently being revised in order to align the rule with current statutes. The rule will undergo a more comprehensive revision in the summer of 2018.

Wood: Michigan State Police will be initiating oral fluid testing by the end of this year. Use oral fluid testing will take place after a DRE evaluation. Taking oral fluid at the stop and taking an additional sample for offsite testing.

Johns Hopkins paper testing the level of THC in blood from people who had been taking oral marijuana.

Standard dosage never got above 1 ng, participants took five times the normal dose never got above 2.5 ng.

Canada plans to legalize recreational use by July 1, 2018. Putting in standards for up to nine impairing drugs.

Looking at both 2 and 5 ng. Report was issued last week and they will be using both 2 and 5. At 5 they may be charged with a crime. At two it is a fine only regardless of outcome.

Anderson: In Aspen public transportation buses does not have seat belts. There is a lot of resistance to the idea yet no seat belts poses so much risk. Groff: School buses are the same way.

Hecker: November 8<sup>th</sup> the Informed Responsibility tour is coming to Denver. To present cutting edge tech in fighting impaired driving. She and Amy are both going and will bring updates back to the group.

Graham: There is a pilot underway to capture distracted driving called a text-a-lizor. It won't read the data in the phone it only gives the officer a timestamp of the data transmission. New York is trying to get a pilot. Also does checkpoints by vehicle type. This has the potential to drastically impact the quality of law enforcement stops. Same methodology used in seat belt surveys could be applied here. 24/7 - there are initial start-up costs but NHTSA could help support if there is legislation. Once started it is offender funded. Davis: It would also be cost savings to the state. Has the potential to reduce felony DUI population.

Sonderup, L: All of the CDOT communications partners have task orders in place for FFY2018. Sam should be in a better position next month to share the info.

Calabrese: His Company wants to looks at who is in what venues. Looking at ways to engage particular audiences.

Tracy: Person that killed her husband will be paroled on November 7<sup>th</sup>. Presented Daring to Move last Monday and was able to share full circle.

Flavia: 18<sup>th</sup> Judicial District was doing a pilot on 24/7. What were the results from that? Davis: At the time he went they had only one person in it. It wasn't mandated so people could opt out. Graham: NHTSA is looking at educating judges on the ability to mandate. They also would like to take out the driving piece and make it available for any offense involving alcohol. Timkin: He has looked at studies and fully endorses a statewide implementation vs. piecemeal. Falvia: Monitoring with treatment has the potential to create long-term results.

Colling: Got approval for funding to help treatment providers become licensed to provide Level II Four Plus.

Wood: Last month he was in Amsterdam he saw two people texting while biking. You don't have to be in a car to be distracted.

Davis: He will be presenting at the Cordoaria Nacional Lisbon, Portugal.

Meeting adjourned. 11:05 am, Aylmer, Johnson

**Next Meeting:** November 17, 2017, 9:00-12:00pm  
Colorado State Patrol Academy  
15055 S. Golden Road Carrell Hall, Building 100

**In attendance:**

Glenn Davis, Colorado Department of Transportation, Vice Chair

Rebecca Novak, Colorado State Patrol, Secretary

Josh Downing, Major, Colorado State Patrol

Benjamin Mitchell, DOR-DMV

Dave Timken, CIDRE

Ben Whitney, Weld DA/CDAC

Patrick Maroney, DOR-Liquor Enforcement Division

Steve Johnson, County Sheriff's Association

Ellen Anderson, Topsy Taxi

Jeff Groff, CDPHE

Christine Flavia, CDHS-OBH

Susan Colling, Judicial/Probation Services

Paul Aylmer, CO Restaurant Asso.

Jennifer Tracy, Victim

Jackie Urioste, OBH

Gene Giron, MillerCoors

Matt Sanderup, Heinrich Marketing

Laura Sonderup, Heinrich Marketing

Katie Hecker, SCAO/Prob. Solving Courts

Al Graham, Region 8-NHTSA

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## Driving Impairment in Occasional Versus Heavy Marijuana Users

Nov 17, 2017

Ashley Brooks-Russell, MPH, PhD  
Assistant Professor, Department of  
Community and Behavioral Health  
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UNIVERSITY OF COLORADO | COLORADO STATE UNIVERSITY | UNIVERSITY OF NORTHERN COLORADO

## Marijuana may impair driving

- Biologically plausible
- Evidence of impairment from experimental studies
- Evidence of crash risk from epi studies

And...

- Impaired driving is prevalent and may be increasing



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## Is the risk the same for all users?

- Tolerance to of marijuana is known
- Some evidence that heavy, chronic users may not have meaningful psychomotor impairment
  - Reaction time, critical tracking task, divided attention task, memory

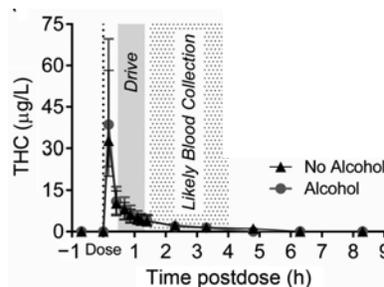
(see Hart et al, 2001; D'Souza et al, 2008; Ramaekers et al, 2009; 2011; 2016; Schwoppe et al, 2012; Desrosiers et al, 2015)



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## Detection Dilemmas

- 5 ng/mL limit:
  - May not identify impaired drivers
  - Risks over identifying heavy users as impaired
- Model from alcohol (reliance on a blood level) isn't a good fit



Hartman R et al. Clin Chem 62:367-377; 2016

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## Potential Solutions

- Oral fluid/saliva?
- Exhaled Breath?
- Tablet-based neuropsych tests?
- Ocular/eye findings?
- Something else...?

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## Current Study

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## Research Team

Co-PI: Michael Kosnett, CU Anschutz

Co-I: Tim Brown & Gary Milavetz, U of Iowa

Chris Halsor, Understanding Legal Marijuana

Steve Schmitz & DriveABLE

Team from Rocky Mountain Poison and Drug Center:

Anderson, Bartelson, Rapp Olsson, Friedman

Sam Wang, CU Anschutz

Greg Dooley, CSU

Funder: Colorado Department of Public Health and Environment

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## Primary Aim

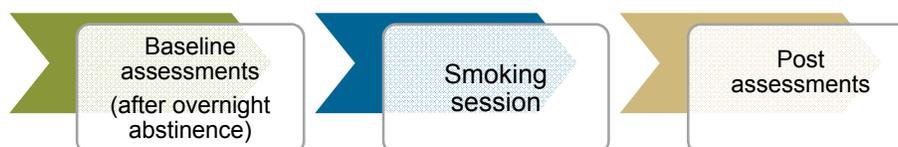
- Compare driving impairment in occasional vs. heavy marijuana users, before and after smoked marijuana
  - Driving simulator
  - Standardized Field Sobriety Test (“plus”)
  - iPad-based test battery



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## Design

- 3 groups, 30 in each:  
daily, weekly, and non-users



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## Challenges

- Observational study (IRB)
- University legal concerns
- Finding off-campus space

## Timeline

- Begin recruitment: early 2018
- Conduct the study: early 2018 - mid 2019
- Share findings: late 2019 – early 2020

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## Questions?

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## Effects on driving performance

Biological plausibility:  
THC affects perception, short-term memory, attention, and reaction time



### Driving skills:

- Speed
- Following distance
- Lane position
- Performance with divided attention
- Visual field/tracking

For a review: Hartman & Huestis. (2013). Cannabis effects on driving skills. *Clinical Chemistry*.

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## Evidence from experimental studies

- Cognitive-motor tests, driving simulation, on-road driving
- Meaningful increase in impairment at blood THC 2-5 ng/mL among occasional users

Reviews: Berghaus 2011; Berghaus 1995;  
Hartman & Huestis 2013; Grotenhermen 2007



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## Evidence from epi crash studies

- Associated with fatal crashes or crashes with serious injury
- Increased crash risk, OR ~2 for any presence of THC

Reviews: Asbridge et al., 2012, *BMJ*; Li et al., 2012, *Epidemiologic Reviews*;  
Hartman & Huestis, 2013, *Clinical Chemistry*



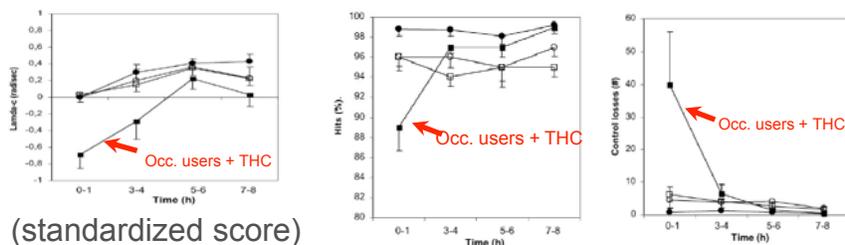
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Neurocognitive performance during acute THC intoxication in heavy and occasional cannabis users

[Ramaekers J et al. J Psychopharm 23:266-277; 2009]

- 12 occasional cannabis users and 12 heavy users participated in double-blind, placebo-controlled, 2-way balanced trial.
- Endpoints included critical tracking task, and divided attention tasks
- Paced smoking of placebo or joint (13% THC) delivering 500 µg/kg dose in 10 minutes (≈25 hits)
- Whole blood THC 15 min after smoking: 23.7 ± 14.1 ng/ml (heavy users); 10.4 ± 4.6 ng/ml (occ users)

Heavy users were tolerant to impaired performance after THC



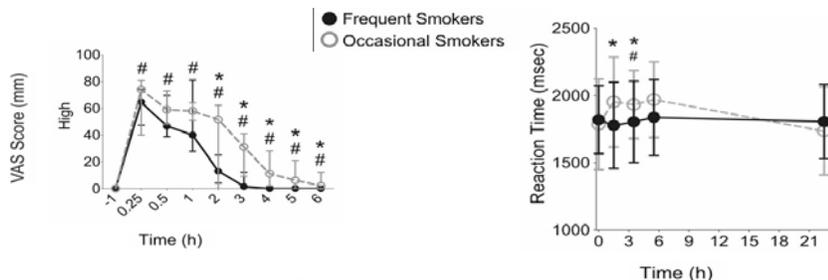
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divided attention task

Smoked cannabis' psychomotor and neurocognitive effects in occasional and frequent smokers

[Desrosiers N et al. J Anal Toxicol 39:251-261; 2015]

- Performance on neuropsych tests pre and post smoking 6.8% THC joint *ad libitum* for 10 min in
- 14 frequent users (≥ 4 x/week) and 11 occasional users (< 2 x/week)



Both groups feel "high"

Frequent users tolerant to slowed reaction time

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In frequent users, cannabis smoking had no effect on accuracy of memory, but response time was prolonged compared to placebo

