

Marijuana and other drugged driving prevention challenges

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Basic Elements: Understanding Impaired Driving Prevention

- Understanding of Risks
- Regulation of two behaviors:
 - Driving
 - Substance Access and Use
- Driver options, decisions, behaviors
- Driving concerns represent a basic foundation for our social and societal implications for our relationship with drugs

Using Alcohol as a Model: 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.

Very Early Images



Circa 1910



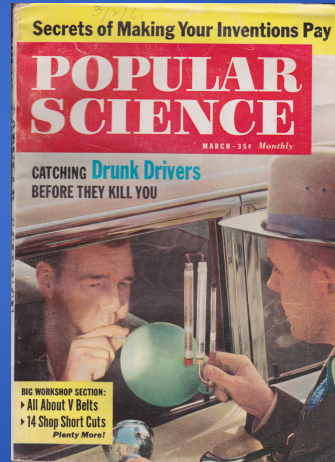
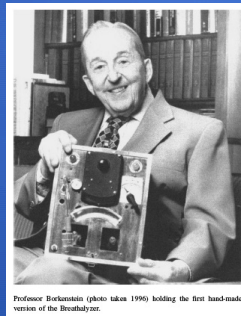
WPA Funded Art 1936 or 1937



Kansas United Dry Forces, 1939

Technology made alcohol detection and research easier

- The Drunkometer (1930's); Breathalyzer (1954)
- Grand Rapids Study Risk (1960's)



Is Drugged Driving a “Silent Epidemic”

- Without good measures, we’re incapable of quantifying the frequency or relative risk of drugged driving.
 - FARS data codes for drugs started at 1991 with changes in 1993 and 2010
 - Active/impairing levels not known based on FARS methods
 - Often urine tests or DRT are used to gather driver drug use
 - Roadside surveys only recently being conducted.
 - Saliva being validated, but may be limited with respect to manner of use.
 - Extremely large menu of possible drugs, with combinations potentially complicating risk estimates.

College Specific Rates

1 in 6 college students (with access to a car) "drove drugged" (drove while high) in the past year

Arria, Amelia M., Kimberly M. Caldeira, Kathryn B. Vincent, Laura M. Garnier-Dykstra, and Kevin E. O'Grady. "Substance-Related Traffic-Risk Behaviors among College Students." *Drug and Alcohol Dependence* 118, no. 2-3 (November 1, 2011): 306-12. doi:10.1016/j.drugalcdep.2011.04.012.

Unfortunately data is limited, but since college students tend to be a high-risk population for drug use in general, it is likely that their rates are higher than the national average.

Standardized measures have not been created to assess the behavior.

Regulating Two Behaviors

- Driving behavior is well regulated already.
- Drug side regulation varies substantially from substance to substance:
 - Prescription drugs may be entirely legal for the driver to possess and use
 - Cannabis may also be from a state perspective
 - Are there restrictive driving policies for those on impairing medications, especially when self-administered?
- Are these substances provided in a manner that reduces the likelihood of use/driving combinations? For instance, is on-premise use of edible forms of marijuana a possibility?

High Volume Video Blogs/ Shows: Not Useful for Context Information

Tequila Beer and Weed
Strikeout! Beerfest style! -
edited

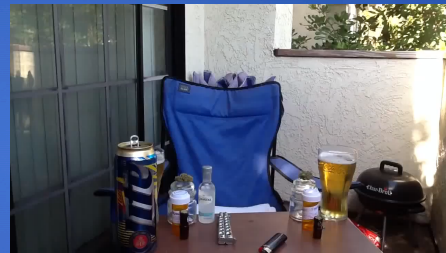
Downloaded 4/16/15

Nick420CA 56,177

Subscribers 33,123 Views

Appears to be commercial in
nature

Extremely high tolerance



Urban Dictionary

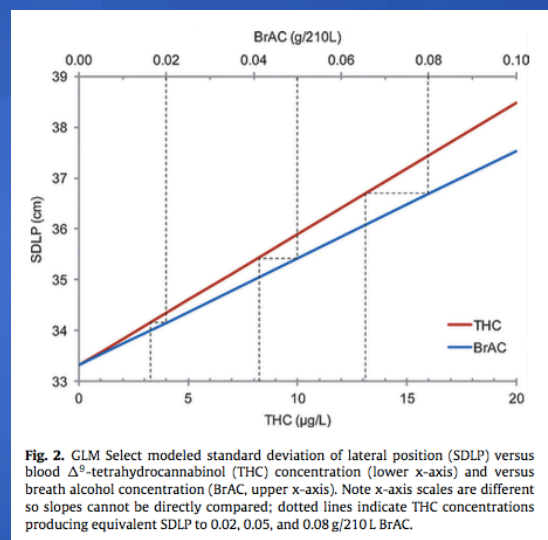
"A Strikeout is possibly one of the most brilliant and best ways to get totally inebriated. The person in question must have ready a fully loaded

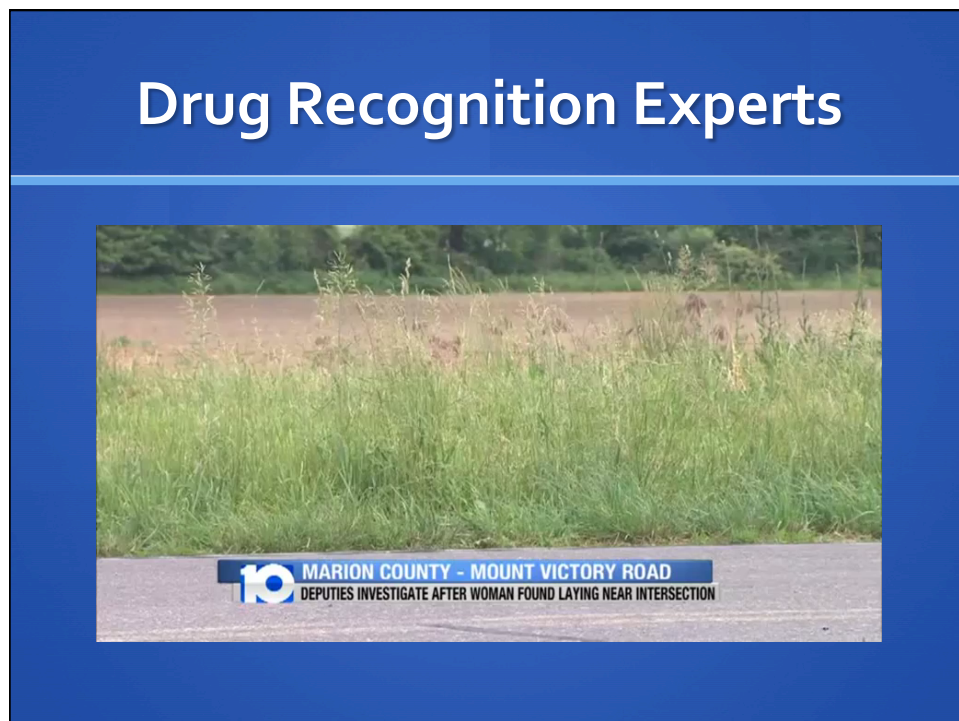
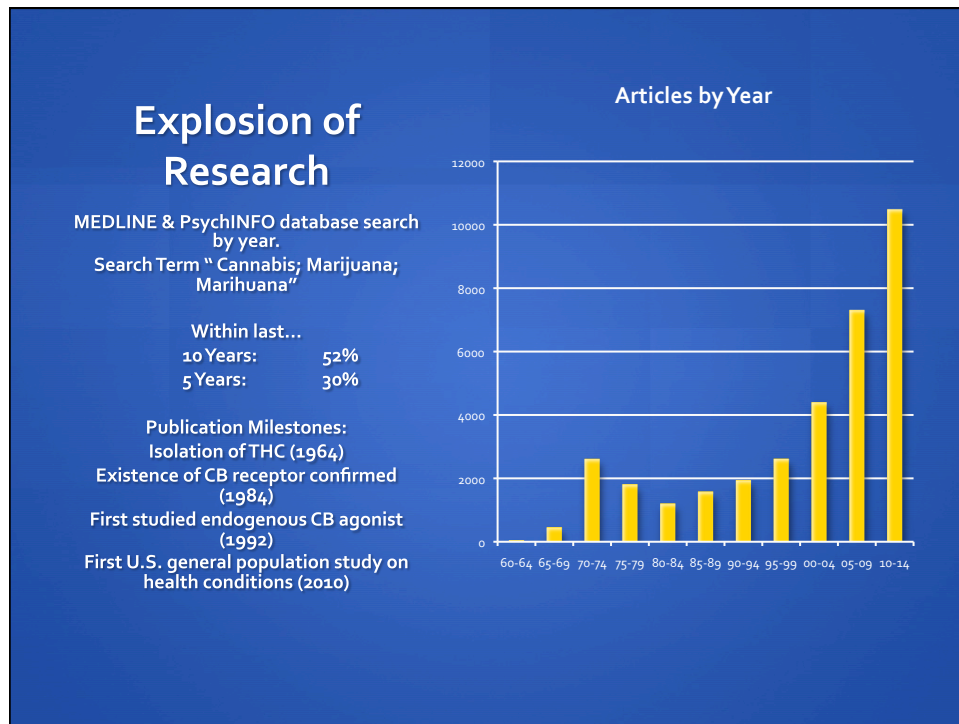
Bong, a shot of his or her favourite liquor, and a pint of his or her favourite Beer. The person in question then lights the bowl, takes a nice, long bong hit, then puts the bong down. While holding the weed smoke in, the person proceeds to take the shot of liquor back and then chugs the beer back. After they finish the beer, they exhale the weed smoke."

THC and Alcohol

Hartman, Rebecca L.,
Timothy L. Brown, Gary
Milavetz, Andrew Spurgin,
Russell S. Pierce, David A.
Gorelick, Gary Gaffney, and
Marilyn A. Huestis.

"Cannabis Effects on
Driving Lateral Control
with and without Alcohol."
Drug & Alcohol Dependence
doi:10.1016/j.drugalcdep.
2015.06.015.





DRE Challenges

- Enforcement requires establishing probable cause in order to obtain blood sample. Usually done with specially DRE trained officers.
- Various impairments based on classes of drugs. SFST is not sufficient, as impairment tests lack specificity and the HGN cannot be used detect all substances.
- Sensitivity is questioned, especially as we move towards per se versus zero tolerance approach
- Not universal to all drugs

Tolerance Effects



Zen OC Guys trying to take me out with Edibles!!!!!! – [Edited]; Nick420CA 55,760 Subscribers, 8,067 Views

Driver Decisions

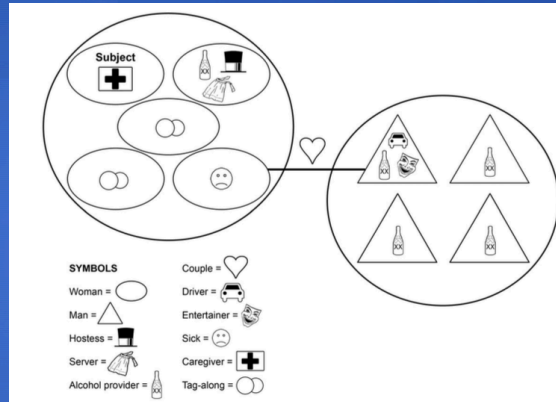
- “The most common strategies for reducing DUIC-related [DUI Cannabis] risk involved compensating for perceived impairments, whereas strategies involving forward planning were more frequently implemented for DUICA [DUI Cannabis and Alcohol]” (Swift, Jones & Donnelly, 2010).

Understanding Driver Decisions and Contextual Options

- Awareness of risks: First steps towards avoidance. For medications, are the warning labels specific enough to provide guidance?
- Motivations for use: How many of those with medications in their system have valid prescriptions and are using according to their treatment recommendations?
- What are the social settings in which drug use occurs that leads to driving impaired?

Social Context

- Source of benefits, protection, *and* risks
- We know, or at least have documented, very little about the social context of marijuana use. Even less is known for prescription medicines
- Context will change in legalized environment.



Lange, J. E., Devos-Comby, L., Moore, R. S., Daniel, J., and Homer, K. "Collegiate Natural Drinking Groups: Characteristics, Structure, and Processes." *Addiction Research & Theory* 19, no. 4 (August 2011): 312-22.

What to do for Now

- Advise users to wait 3 (though some say 3-5) hours before driving.
- Eaten or drink-form cannabis use likely impairs for 3x as long (9-15 hours)
- Drivers should not mix even low amounts of alcohol with cannabis.
- Currently no age restriction, but recommendations tend to emphasis risks for use-initiation prior to age-18

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Working towards awareness: The breadth

- Illicit vs. Medicinal (Over the Counter vs. Prescription)
- Medical Use vs. Non-Medical Use
- Example from Colorado: Should a medical user have a higher “*per se*” limit?
- Specific intent vs. general intent: Awareness of the risks to a voluntary behavior is a prerequisite for general intent. For illicit drugs this is side-stepped. As legalization spreads and prescription medicines get included, it must be addressed.

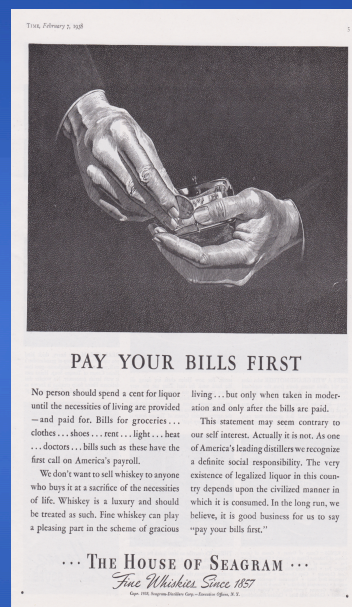
Colorado law technically does not have a *per se* limit

"Social Problems"

- Driving concerns represent a basic foundation for our social and societal relationship with drugs

Societal Definitions Change

- Drunk driving was a concern since cars existed (Lange, 2008). But rarely mentioned by prohibitionists. Now it's a major source of our justification
- Technology may impact our definitions of reckless
- Age 21, Age 18 and the various concerns over time
- Various measures include "Hangovers".
- Are we also trying to prevent Munchies?



Suggested Implications

- Remove the connection between anti-drug and anti-DUID intent.
 - Activists are definitely linking these, but their efforts may not reach those who are most at risk.
 - Because medical use and legalized environments already exist, those messages may lack utility.
 - Ultimately, we've shown that many people can successfully separate their use from their driving when alternatives are available and properly cued.
- We'll need to get specific for how students can avoid DUID beyond use restrictions.
- A lot more research is needed

Low Hanging Fruit

Washington State Roadside
Survey, 10/2014.
PIRE Report

Table 5. Response to Question, "When you used marijuana and drove, how do you think it affected your driving?"

| Marijuana Affect Driving | Frequency | Percent | Cumulative Frequency | Cumulative Percent |
|---|-----------|---------|----------------------|--------------------|
| Did not make any difference in my driving | 60 | 61.9 | 60 | 61.9 |
| I do not know | 10 | 10.3 | 70 | 72.2 |
| Made my driving better | 24 | 24.7 | 94 | 96.9 |
| Made my driving worse | 3 | 3.1 | 97 | 100.0 |

Table 7. Response to Question, "How likely do you think it is that a person could be arrested for impaired driving after using marijuana within two hours of driving?"

| How Likely Arrested | Frequency | Percent | Cumulative Frequency | Cumulative Percent |
|---------------------|-----------|---------|----------------------|--------------------|
| Not at all likely | 98 | 11.1 | 302 | 34.3 |
| Somewhat likely | 219 | 24.96 | 521 | 59.1 |
| Likely | 204 | 23.2 | 725 | 82.3 |
| Very likely | 360 | 40.9 | 1085 | 100.0 |

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For reprints visit the *Report Vault* in
iPrevention.com

