Decriminalization of Marijuana and Potential Impact on CMV Drivers

Darrin T. Grondel,
Director
Washington Traffic Safety Commission
November 29, 2018
Denver, Colorado
Global Perspective

STATE BY STATE:
Marijuana Possession and Use Laws
AS OF APRIL 2017

1 Louisiana has a medical marijuana law but implementation is limited; NCSL does not consider Louisiana a medical marijuana state.

4 States: Decriminalized (not medical or recreational)
10 States: Medical (not decriminalized or recreational)
9 States: Decriminalized and medical but not recreational
9 States + DC: Everything—recreational, decriminalized, and medical

Source: National Conference of State Legislatures
Inhaling - Pulmonary

Smoking

Vaporizing

Dabbing

Inhaler

Oral - Digestive

Edibles

Capsules

Raw Marijuana
Trans mucosal – sublingual, intranasal, rectal, ocular

Tincture
Lozenges
Spray - oral/nasal
Suppository

Transdermal
No More of These...

McJuana?

nuggetta
Collaboration and Research

Drugged driving is more complicated than drunk driving.

<table>
<thead>
<tr>
<th>DRUGGED DRIVING</th>
<th>DRUNK DRIVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number:</td>
<td>Hundreds of drugs</td>
</tr>
<tr>
<td>Data on Use by Drivers &amp; Crashes:</td>
<td>Limited</td>
</tr>
<tr>
<td>Use by Drivers:</td>
<td>Increasing</td>
</tr>
<tr>
<td>Impairment:</td>
<td>Varies by type</td>
</tr>
<tr>
<td>Crash Risk:</td>
<td>Varies by type</td>
</tr>
<tr>
<td>Beliefs &amp; Attitudes:</td>
<td>No strong attitudes – public indifferent</td>
</tr>
</tbody>
</table>

[GHSA Logo] [RESPONSIBILITY.ORG Logo]
## Signs and Symptoms of Marijuana Use

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relaxation</td>
<td>Mood changes, including panic and paranoia with high dose</td>
</tr>
<tr>
<td>Euphoria</td>
<td>Heightened senses</td>
</tr>
<tr>
<td>Relaxed Inhibitions</td>
<td>Body tremors (Major muscle groups: quads, gluts, and abs)</td>
</tr>
<tr>
<td>Disorientation</td>
<td>Eyelid tremors</td>
</tr>
<tr>
<td>Altered time &amp; distance perception</td>
<td>Red, Bloodshot eyes</td>
</tr>
<tr>
<td>Lack of Concentration</td>
<td>Possible GVM or green coating on tongue</td>
</tr>
<tr>
<td>Impaired Memory &amp; comprehension</td>
<td>Dilated pupils</td>
</tr>
<tr>
<td>Jumbled thought formation</td>
<td></td>
</tr>
<tr>
<td>Drowsiness</td>
<td></td>
</tr>
</tbody>
</table>
Marijuana and Alcohol Use in Washington State

Among all drivers involved in fatal crashes 2008-2016, one in three are positive for alcohol and/or drugs. This number is likely under-reported since not all drivers in fatal crashes are actually tested for alcohol and drugs (60 percent of fatal crash involved drivers were tested for alcohol and drugs 2008-2016).

Among drivers in fatal crashes 2008-2016 that tested positive for alcohol or drugs, 44 percent tested positive for two or more substances (poly-drug drivers). The most common substance in poly-drug drivers is alcohol, followed by THC. Alcohol and THC combined is the most common poly-drug combination.

Although research-based estimates of the risks posed by THC have varied greatly, all studies included in this review agree that giving alcohol to drivers who are already compromised by THC will only further inflate the level of impairment and crash risk. The deadly consequences of combining these two impairing substances and driving are already apparent in Washington fatal crash data.

For the first time in 2012, poly-drug drivers became the most prevalent type of impaired drivers involved in fatal crashes. Since 2012, the number of poly-drug drivers involved in fatal crashes have increased an average of 15 percent every year.

By 2016, the number of poly-drug drivers were more than double the number of alcohol-only drivers and five times higher than the number of THC-only drivers involved in fatal crashes.

According to the biological results of Washington’s Roadside Survey, nearly one in five daytime drivers may be under the influence of marijuana, up from less than one in ten drivers prior to the initiation of marijuana retail sales.
Legalization in Canada Impacts for CMV
Poly-Drug Driving Rising

Rising Frequency of Poly-Drug Drivers in Fatal Crashes

THC Only
Alcohol Only


115 113 96 81 80 97 106 120 138 141

94 90 89 81 80 84 65 62 65 67

19 19 26 27 18 33 29 38 36 29

7 5 9 7 13 7 19 24 28 16

THC Only
Alcohol Only

The most common poly-drug combination is alcohol and marijuana (THC).

One quarter of poly-drug drivers in fatal crashes are positive for both alcohol and THC.
Impairment Involved in 50% of Traffic Fatalities

Alcohol Impaired and Drug Positive Driver-Involved Fatalities in Washington State

Alcohol Impaired or Drug Positive Driver-Involved Fatalities
Total Fatalities
Drug Positive Drivers Increasing

Alcohol Impaired & Drug Positive Driver-Involved Fatalities in Washington State

- Total Fatalities
- Alcohol Impaired or Drug Positive Driver-Involved Fatalities
- Alcohol Impaired Driver-Involved Fatalities
- Drug Positive Driver-Involved Fatalities

Data for the years 2003 to 2017, showing trends and numbers for each category.
Drug Testing Among Drivers Involved in Fatal Crashes, 2008-2016

Drug Testing Rates Steady
Marijuana Use in Drivers Increasing

Cannabinoid-Positive Drivers Involved in Fatal Crashes, 2008-2016

Delta-9 THC Positive | Total Cannabinoid-Positive Drivers | Percent Delta-9 THC Among Cannabinoid-Positive Drivers

- **2008**: 33 (42.9%) | 77 (100%)
- **2009**: 25 (32.1%) | 78 (100%)
- **2010**: 36 (44.4%) | 81 (100%)
- **2011**: 32 (57.1%) | 56 (100%)
- **2012**: 36 (57.1%) | 63 (100%)
- **2013**: 38 (64.4%) | 59 (100%)
- **2014**: 74 (84.1%) | 88 (100%)
- **2015**: 82 (89.1%) | 92 (100%)
- **2016**: 79 (72.5%) | 109 (100%)

Marijuana Use in Drivers Increasing
Washington State Patrol - Toxicology Lab
Blood Sample Submissions for DUI Investigation

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Sample Submissions</th>
<th>Percent Sample Positive for THC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>4,809</td>
<td>18.2%</td>
</tr>
<tr>
<td>2010</td>
<td>5,012</td>
<td>19.4%</td>
</tr>
<tr>
<td>2011</td>
<td>5,132</td>
<td>20.2%</td>
</tr>
<tr>
<td>2012</td>
<td>5,298</td>
<td>18.6%</td>
</tr>
<tr>
<td>2013</td>
<td>5,468</td>
<td>24.9%</td>
</tr>
<tr>
<td>2014</td>
<td>6,270</td>
<td>28.0%</td>
</tr>
<tr>
<td>2015</td>
<td>7,042</td>
<td>32.8%</td>
</tr>
<tr>
<td>2016</td>
<td>8,462</td>
<td>33.6%</td>
</tr>
<tr>
<td>2017</td>
<td>9,386</td>
<td>33.7%</td>
</tr>
</tbody>
</table>
THC and similar compounds bind with receptors (CB1 and CB2) in the brain and other parts of the body affecting the function of the **hippocampus** (short-term memory), **cerebellum** (coordination) and **basal ganglia** (unconscious muscle movements).

- Marijuana is a lipid (fat) soluble and tends to stay in the brain
- Alcohol is water soluble - blood

Reference - http://www.brainwaves.com/
Estimated - Duration of Effects After Smoking or Ingesting THC

<table>
<thead>
<tr>
<th></th>
<th>Peak Effects (After last smoking episode)</th>
<th>Duration of Effects</th>
<th>Behavioral and psychological effects return to baseline</th>
<th>Residual Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoked</td>
<td>1-30 minutes</td>
<td>2-3 hours</td>
<td>3-5 hours</td>
<td>Up to 24 hours</td>
</tr>
<tr>
<td>Oral/Edible</td>
<td>1-3 hours</td>
<td>4-8 hours</td>
<td>Dose Dependent</td>
<td>Dose Dependent</td>
</tr>
</tbody>
</table>

Note: Additional research is needed to understand all methods of ingestion and the effects, durations, and long term-impacts
Review of literature revealed varying crash risk and difficult with THC. Research could be under estimating risk since retail marijuana has far higher THC concentration levels.
“Not Your Daddy’s Woodstock Weed”

1973

2008

2014
Marijuana being sold in stores

1973: 3%
2008: 10%
2014: 20% - 30%
THC Potency Used in Most Government Studies

3 - 6% THC
Challenges and Impacts on CMV

Data – lack of good data on CMV crashes with DRE in WA and Nationally.

Public indifference on the issue of drugged driving vs. Alcohol impairment

Medical Marijuana– have all states adopted federal rules for Intrastate CMV operators?

49 CFR 382.60 – Supervisors required to attend 60 min of training for symptoms of alcohol abuse and another 60 min for controlled substances. A singular event no refresher.

◦ Is this enough? Refresher? Compare to LE? This training should have considerations for expansion with high prevalence of drugged driving.

CVEO – trained in signs and symptoms (ARIDE or modified DRE). Can they identify potentially impaired drivers?

◦ Place a DRE at the scale house and have them interact with the drivers and do evaluations on suspected drivers.

National studies are focused on PV with little to no attention on CMV operators.
This includes: random, pre-employment, post-crash, reasonable suspicion, and return-to-duty drug tests.

Transportation Topics – Eric Miller – Positive Drug-Test Rate up to 7-Year High, DOT Says June 2017
Drug Evaluation and Classification Program (DECP) States by Year
Number of Drug Recognition Experts (DREs) per State

*LAPD DRE program - 1980

As of December 2016
Leading Drug Per State / 2013-2014

Source: Sobriety Testing Resource Center

DE - 56%

48%

50%
Leading Drug Per State / 2015-2016
Source: Sobriety Testing Resource Center
# DRE Evaluations on CMV

<table>
<thead>
<tr>
<th>Tox</th>
<th>Total Number (Enforcement Evaluations from 01-01-2014 to 12-31-2016 where Vehicle Type is Commercial)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulants</td>
<td>59</td>
</tr>
<tr>
<td>Cannabis</td>
<td>45</td>
</tr>
<tr>
<td>Narcotics, Depressants</td>
<td>28</td>
</tr>
<tr>
<td>Depressants</td>
<td>25</td>
</tr>
<tr>
<td>Narcotics</td>
<td>25</td>
</tr>
<tr>
<td>Stimulants, Cannabis</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: NHTSA Sobriety Testing Resource Center - DRE Tracking Database
<table>
<thead>
<tr>
<th>Year</th>
<th>Total stops</th>
<th>Drivers OOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>47</td>
<td>44</td>
</tr>
<tr>
<td>2013</td>
<td>63</td>
<td>58</td>
</tr>
<tr>
<td>2014</td>
<td>68</td>
<td>61</td>
</tr>
<tr>
<td>2015</td>
<td>36</td>
<td>34</td>
</tr>
<tr>
<td>2016</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>2017</td>
<td>65</td>
<td>61</td>
</tr>
</tbody>
</table>
# CMV Drugs in System or Vehicle WA

<table>
<thead>
<tr>
<th>Year</th>
<th>Total stops</th>
<th>Drivers OOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>2013</td>
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<td>12</td>
</tr>
<tr>
<td>2014</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>2015</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>2016</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>2017</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

*Due to data limitations cannot separate out*
Under the new medical marijuana law, recognition cards are required if patients and designated providers 21 and older wish to have access to the following benefits:

• Purchase products sales-tax free.
• Purchase up to three times the current legal limit for recreational users.
• Purchase high-THC infused products.
• Grow more than four plants in their residence.
• Have full protection from arrest, prosecution, and legal penalties, although patients will still have an affirmative defense.
Medical Marijuana – Qualifying Conditions

Under Section 16 of the Cannabis Patient Protection Act, the legislature finds that there is medical evidence that some patients with terminal or debilitating medical conditions may, under their healthcare professional's care, benefit from the medical use of marijuana.

http://www.doh.wa.gov/YouandYourFamily/Marijuana/MedicalMarijuana

Some of the conditions for which marijuana appears to be beneficial include, but aren't limited to:

- Nausea, vomiting, and cachexia associated with cancer, HIV-positive status, AIDS, hepatitis C, anorexia, and their treatments;
- Severe muscle spasms associated with multiple sclerosis, epilepsy, and other seizure and spasticity disorders;
- Acute or chronic glaucoma;
- Crohn's disease; and
- Some forms of intractable pain.

Humanitarian compassion necessitates that the decision to use marijuana by patients with terminal or debilitating medical conditions is a personal, individual decision, based upon their healthcare professional's professional medical judgment and discretion.
Road Side Strategies

- Electronic DUI packet
- Electronic Search Warrants
- LE Phlebotomy Program
- Lakewood PD/Pierce County
June 2014 Data Collection

Six counties, 5 locations
926 drivers eligible
97% (917) breath tests
96% (902) saliva
74% (711) blood
95% K & A surveys

Male drivers age 20 – 34 over-represented:
  * 21% population
  * 45% survey sample
Among daytime drivers, there was a statistically significant increase in THC-positive drivers in both waves 2 and 3 compared to wave 1. Those exceeding the 5ng per se significantly decreased in wave 2 from wave 1. All other results were not statistically significant but still

In this chart, only the points that are connected by a line are statistically significant changes - the standalone points can be described as 'point in time prevalence estimates with variation due to chance'.
2014 FARS data revealed that speeding occurs in 35.8% of all fatal marijuana driving cases compared to 25.9% of no-alcohol or drugs cases.

72% of cases involved one or more moving violations. (DTD – Disobeyed Traffic Device)
SHSO Grant Funds

Do you know the State Highway Safety Office? Director?

http://www.ghsa.org/html/about/shsos.html

Annual Traffic Safety Grants
  ◦ Competitive grant process or Assigned

Federal funds for impaired driving
  ◦ 402 Basic Grants
  ◦ 405 (d) Impaired Driving
    ◦ SFSTs, ARIDE and DRE
    ◦ Enforcement
Responsibility.org/GHSA has grants for Drugged Driving training efforts

Helped train an additional 2,000 officers

Responsibility.org is continuing the grant program in 2019 for DRE and ARIDE

Anticipating a large number of grant applications

- Solid problem statements with data and information to support the need for funds
Washington Impaired Driving Advisory Council

NHTSA Pilot Project

40 Representatives – multi-disciplinary

Prioritize DUI – DUID issues and challenges

Fund projects (State)

• BAC Fee $250 of which $75 goes to WTSC - $1.4 Biennium

State funds for DRE call-out $50k biennium
DRUG-IMPAIRED DRIVING

A GUIDE FOR WHAT STATES CAN DO

Darrin T. Grondel
Director
Washington Traffic Safety Commission
360-725-9899
dgrondel@wtsc.wa.gov