Driving While High: Facts and Public Attitudes

New England Cannabis Convention
Boston, Massachusetts
March 24, 2018
What is the Insurance Information Institute?

Improving public understanding of insurance...

...what it does and how it works
Who We Are and What We Do

The mission of the Insurance Information Institute is to improve public understanding of insurance—what it does and how it works.

We Are…

- A voice for the property/casualty insurance industry.
- The go-to source for credible and unbiased insurance information for the media, the industry and consumers.
- Dedicated to ensuring the media covers our business fairly and accurately.
- Ready to assist our member companies with their communications, research and planning needs.

We do not lobby.
Insurance Industry Snapshot: By the Numbers

- **2.5 million**
  People in the U.S. employed, in a wide variety of careers, from human resource administrators to public relations managers to financial analysts.

- **$5.8 trillion**
  Assets under management at year-end 2016, including $1.5 trillion for the property/casualty sector and $3.7 trillion for the life sector.

- **$508 billion**
  Contributed to the U.S. gross domestic product in 2016, roughly 2.7% of the whole.

- **$40.0 billion**

Source: *A Firm Foundation, Insurance Information Institute.*
Today’s Talk

- Public attitudes toward legalization
- Research about cannabis use and driving
- Public attitudes toward cannabis use and driving
Public Attitudes Toward Legalization
Support for Legalization Grows


“No survey in years where no data appears.”
Support for Legalization Grows

% Saying Yes

Democrats
Independents
Republicans

"Do You Think the Use of Marijuana Should Be Made Legal, Or Not?"

Cannabis in the USA

Legalization is Accelerating


Congressional Cannabis Caucus

Rohrbacher (CA)
Bluemenauer (OR)
Young (AK)
Polis (CO)
Driving While High – the Legal Framework

Illegal Everywhere, but What Makes You High?

RI: ‘Zero Tolerance (Medical Exception).’ Rest of NE: ‘Incapable of Driving Safely.’

SOURCE: National Conference of State Legislators, National Organization for Reform of Marijuana Laws (NORML),
Blood Levels vs. Intoxication

BAC and ‘feeling drunk’ rise and fall in lockstep

THC levels in blood and ‘feeling high’ rise and fall at different rates

It Is Difficult to Use Blood Test to Measure Whether Someone is High.

Cannabis and Drivers
THC on the Road

% THC-Positive Drivers (WA)

Before Legal Sales | After 6 Months | After 1 Year
--- | --- | ---
Any Time of Day | 14.6 | 19.4 | 21.4
Nighttime | 17.5 | 19.8 | 22.2
Daytime | 7.8 | 18.4 | 18.9

Legalization Put More Drivers With THC in Their System on the Road.

Driving While High

The Science

Review of Literature

- Conclusive evidence
  - Improves the lot of adults in chronic pain.

- Substantial evidence
  - Increases the risk of motor vehicle crashes.

Marijuana and Driving Skills
What the Studies Say

Cognitive Studies

‘Impairment in every performance area that can reasonably be connected with safe driving’

Experimental Research

‘Marijuana users tend to overestimate their impairment, and consequently employ compensatory strategies.’

Culpability Studies

Suffer from
- Sampling delay
- Reliance on carboxy-THC

Case Control Studies

Hard to create a good control group (accidents that didn’t happen)

Accident Probability

WA ‘per se’ limit

Chance of Accident Rises Sharply As Consumption Rises.

But Blood Tests Aren’t Perfect

Blood Test vs. Drug Recognition Experts (DREs)

<table>
<thead>
<tr>
<th>THC Concentration (ng/mL)</th>
<th>Sensitivity (“Catches the Bad Guys”)</th>
<th>Specificity (“Frees the Good Guys”)</th>
<th>Overall Accuracy (“Gets It Right”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80.4%</td>
<td>70.2%</td>
<td>77.0%</td>
</tr>
<tr>
<td>2</td>
<td>72.3</td>
<td>75.2</td>
<td>73.3</td>
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<tr>
<td>3</td>
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<td>7</td>
<td>29.7</td>
<td>89.9</td>
<td>50.0</td>
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<tr>
<td>10</td>
<td>14.1</td>
<td>95.0</td>
<td>41.5</td>
</tr>
</tbody>
</table>

SOURCE: AAA Foundation, An Evaluation of Data from Drivers Arrested for Driving Under the Influence in Relation to Per se Limits for Cannabis, March 2016.
Marijuana + Alcohol
A Killer Combination

Studies Agree

- Cannabis Hurts Automatic Functions (Lane Usage) More Than Complex Tasks
- Alcohol Does the Opposite
- Cannabis Users Become Less Daring
- Alcohol Users Become More Daring

Cannabis Doesn’t Supplant Drinking

Liquor Tax Collection, % Change from Year Earlier

SOURCES: Colorado Department of Revenue. (Data for first 10 months of year to allow like-to-like comparisons.)
Legal Sales Lead to More Accidents

Look at ‘Real World’ Crashes

All Measures Statistically Significant

‘Overall’ Measure a Good Proxy for What Will Happen in Any State

* Vs. Neighboring States.

SOURCE: Highway Loss Data Institute.
Pedestrian Deaths and Cannabis
Walking While High?

First six months of year.
SOURCE: Governors State Highway Association
Public Opinion On Driving While High
Agree or Disagree: Driving After Smoking or Consuming Marijuana Results in More Vehicle Crashes.

I.I.I. Survey: Cannabis vs. Alcohol

Would You Ride With a Driver Who Drank Too Much?

- Yes: 3%
- No: 97%

Would You Ride With a Driver Who Was High?

- Yes: 27%
- No: 73%

Respondents Seem Much More Tolerant of High Driver, Even Though They Understand the Risk.

Summary

Key Takeaways

Conclusions

- Driving While High Is Dangerous
- Better Roadside Testing Needed

Customers

- Don’t Drive While High
  - Smokers wait at least 4-6 hours
  - Edibles: wait at least 6-8 hours
- Don’t Mix Booze and Weed
- Don’t Get in a Car With a Driver Who Is High
Thank You!