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MARIJUANA ISSUES
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Marijuana Issues

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Disclaimers/Interests

• I receive no funding from a US Federal Agency
• Serve on American Society of Addiction Medicine (ASAM) Public Policy Committee
• Former policy staffer in three US Administrations
• I will present the work of many of my collaborators/colleagues, including:
  – Dr. Christian Thurstone, Colorado
  – Dr. Paula Riggs, Colorado
  – Dr. Kathryn Wells, Colorado
  – American Society of Addiction Medicine
How did we get here?
Medical Marijuana

“We will use [medical marijuana] as a red-herring to give marijuana a good name.”

—Keith Stroup, head of NORML to the Emory Wheel, 1979
Made people answer the question:

Which is worse: drug abuse or cancer?
Only a small proportion of medical marijuana users report any serious illness

- Less than 2% report cancer, HIV/AIDS, glaucoma, MS, Crohn’s, ALS, etc. as their reason for using medical marijuana.

- **Profile**: 30s white male, no history of cancer/AIDS. Self-reported back pain

Sabet, K. (2014) submitted
Nunberg et al. (2011).
George Soros funds Drug Policy Alliance and instructing them to first focus on a few winnable issues like "medical marijuana"

Progressive Insurance and Univ. of Phoenix founders fund marijuana legalization efforts, MPP established
What are we facing in 2014?

(1) Growing “inevitability” narrative
(2) Money divide
(3) States that will take a while to analyze; while legalization groups work at record pace to fund successful political campaigns
States targeted for Legalization

- Oregon
- Nevada
- California
- Arizona
- Hawaii
- Alaska
- Maine
- New Hampshire
- Vermont
- Massachusetts
- Rhode Island
- Maryland
DOJ Guidance on Legalization

Major areas of importance, including:

- the distribution of marijuana to minors;
- revenue from the sale of marijuana from going to criminal enterprises, gangs and cartels;
- the diversion of marijuana from states where it is legal under state law in some form to other states;
- state-authorized marijuana activity from being used as a cover or pretext for the trafficking of other illegal drugs or other illegal activity;
- violence and the use of firearms in the cultivation and distribution of marijuana
- drugged driving and the exacerbation of other adverse public health consequences associated with marijuana use;
- growing of marijuana on public lands and the attendant public safety and environmental dangers posed by marijuana production on public lands;
- preventing marijuana possession or use on federal property.
How has it gone so far?
Colorado Didn’t Legalize Overnight

- 2001: Medical Marijuana implemented (passed in 2000)
- 2005: Denver legalizes
- 2008: 1st stores
- 2009: 700 stores, 3.5% adults have MMJ license
- 2012: Legalized
- 2014: Stores open

Nussbaum et al., Am J Psychiatry 168:778-781
Urinary THC/Cr - adolescents in substance treatment

Belendiuk et al. (2013), The effect of marijuana commercialization on adolescent drug treatment outcomes, AACAP Poster Presentation, Orlando, FL
Childhood Exposures

Drug-related referrals for high school students testing positive for marijuana increased by an average of 17.3% per year between 2010 and 2012, compared to an average of 5.6% per year between 2007 and 2009. This represents a rise of over 150%. The data is from Rocky Mountain HIDTA, 2013.
Medical marijuana is easily diverted to youth

- Teens who know somebody with a medical marijuana license are more like than those who don’t to report ‘fairly’ or ‘very’ easy access to marijuana

- 74% of Denver-area teens in treatment said they used somebody else’s medical marijuana an average of 50 times

Thurstone, 2013; Salomonsen-Sautel et al., 2012
Denver high schools

- 29% of Denver high school students used marijuana in the last month

- If Denver were an American state, it would have the HIGHEST public high school current use rates in the country
While the total number of car crashes declined from 2007 to 2011, the number of fatal car crashes with drivers testing positive for marijuana rose sharply.
Traffic Fatalities + for Marijuana

Salomonsen-Sautel S, Min SJ Sakai JT, Thurstone C, Hopfer C. Trends in fatal motor vehicle crashes before and after marijuana commercialization in Colorado. Accepted for publication in Drug and Alcohol Dependence
Hospital Cannabis Discharge DX

# Discharges

- 2000: 778
- 2001: 846
- 2002: 837
- 2003: 842
- 2004: 1,100
- 2005: 1,163
- 2006: 1,188
- 2007: 1,198
- 2008: 1,218
- 2009: 1,309
- 2010: 1,755
- 2011: 1,698
- 2012: 1,774
U.S. Postal Inspection Service - parcel packages intercepted

Source: United States Postal Inspection Service
Diversion of marijuana

As the price for marijuana plummets in legalization states, we can expect cheap marijuana to be sold in non-legalization states for a handsome profit.

• According to the El Paso Intelligence Center (EPIC) National Seizure System, in 2012, there were 274 Colorado marijuana interdiction seizures destined for other states compared to 54 in 2005.
Projected vs. Actual Tax Revenue (in millions)

Projected vs. Actual tax Revenue (in millions)

- **January 2014**: Projected: $5.8 million, Actual: $2.0 million
- **February 2014**: Projected: $5.8 million, Actual: $3.2 million
- **Total January-June 2014**: Projected: $35.3 million
- **Total July 2014-June 2015**: Projected: $117.8 million

Bar chart showing the comparison between projected and actual tax revenue for different months and periods.
Early Indications in Colorado

• When asked, 10% of non-using youth said they would use, according to 10,000-student survey by NYU researcher, published in peer-reviewed journal (Palamar et al, International Journal of Drug Policy)
• “Students Find Way to Sneak Marijuana Into Class”
• “Colorado students who ingested marijuana edibles treated at hospital”
• “Marijuana candy at Colorado middle school”
• “Colorado pot trade is smoking Nebraska Panhandle budgets”
• “Marijuana superstore proposed in Eagle, Colorado”
A WEBSITE TRACKING THE VIOLATIONS OF THE LEGALIZATION OF MARIJUANA IN COLORADO AND WASHINGTON

In August of 2013, the US Department of Justice Released a Memo Promising to Closely Examine How Legalization in WA and CO Affected Several Areas. This Website Tracks Violations in Those Areas.

Students Find Way To Secretly Smoke Marijuana In Class

February 20, 2014 / in Minors, Public Health Consequences / by legaladmin
Responsible Regulations?

- Heavily influenced by CO’s massive medical marijuana industry

- Advertising allowed in magazines/newspapers where 21+ makes up “more than 30% of audience”
Marijuana in the workplace

THC-positive workplace drug test results in Colorado Springs rose by 30% since 2013
Average number of THC-positive results per month

*2014 estimates based on January data from Conspire! drug testing results in Colorado Springs
2014 Marijuana Developments

- Associated Press: “Two Denver Deaths Linked to Recreational Marijuana Use”. One includes the under-aged college student who jumped to his death after ingesting marijuana cookie.

- The number of parents calling the poison-control hotline to report their kids had consumed marijuana has risen significantly in Colorado.

- Marijuana edibles and marijuana vaporizers have been found in middle and high schools.
Colorado’s underground market

A Colorado drug dealer says that if anything, legalization has helped his business because “it’s over priced, it’s being taxed way too high.”
Colorado Springs Lieutenant stated that “[Legalization] has done nothing more than enhance the opportunity for the black market. If you can get it tax-free on the corner, you’re going to get it on the corner.”
Crime in Colorado

Several media reports said that crime had decreased in Colorado since the legalization of sales began in 2014.

Crime fell for motor vehicle theft violations, which skewed “crimes against property” category

Issue gets more complicated when digging deeper into the numbers.
Crimes Against Property: 2013 vs. 2014
(Based on Jan, Feb and March totals)
Crimes Against Society: 2013 vs. 2014
(Based on Jan, Feb and March totals)
All Other Offenses
(Based on Jan, Feb, and March totals)
Crime in Colorado

Data weaknesses:

Does not control for any other confounders
What happened in other areas?
Did enforcement go up, or actual crime?
Media Portrayals of Colorado

• Mostly positive
  – However some outlets, like the biggest newspaper in Colorado, now are profiting off of the sales of marijuana
Celebrate the Inaugural 4/20 Weekend Across the Front Range

Altitude Wellness
Denver CO

Nature's Herbs & Wellness
Garden City CO

4/20 oz specials all day!

$175 top shelf
$150 premium

$5 gram scissor hash (limit 2 per patient)

Doorbuster sales changes every hour

Festival

Free show!
Sun 4/20

Featuring Nappy Roots
Floots & Brandi Raines & More

Sunday April 20th, 2014
Is this the beginning of Big Marijuana?
Hazelnut spread with Medical Marijuana

Mind Body Spirit Wellness Clinic
mbswellnessclinic.com • OPEN 7 days a week • ATM on site

STOP BY ON YOUR WAY UP THE MOUNTAIN FOR ALL YOUR RECREATIONAL NEEDS!

SHOW YOUR SKI PASS AND RECEIVE A $1.00 JOINT WITH PURCHASE!
Vaporizing industries: Nicotine and Marijuana

Pax by Ploom

• Japan Tobacco International (JTI) is the third largest international tobacco company behind Philip Morris International.

• In 2011, JTI bought a portion of Ploom – a startup based in Silicon Valley that produces a loose-leaf vaporizer that can be used to inhale heated vapor from marijuana as well as tobacco, called the Pax.
Regular E-Cigarettes can be used to vaporize marijuana

- Marijuana with THC concentrates approaching 100%, in the form of butane-extracted hash oil (BHO) can easily be packed into e-cigarettes.
- The process is extremely dangerous.
- E-cig companies are increasingly marketing youth and adolescents.
- Teen use of e-cigarettes is significantly on the rise.
M-Cigarettes
(marijuana vaporizers)

Atmos Dry Herb, Wax, and Oil Vaporizer Kit. Multiple Colors Available.

FROM
$39.99

BUY!

VALUE   DISCOUNT   YOU SAVE
$117.95  66%        $77.96

SELECT OPTION

LIMITED TIME ONLY!

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LIMITED QUANTITY AVAILABLE

Over 1,000 bought
Increasingly popular and accessible
MARIJUANA STOCKS

IF YOU HAD INVESTED $100 IN SHARES OF A CANNABIS COMPANY ON JANUARY 2, 2014, THIS IS WHAT YOUR INVESTMENT MIGHT LOOK LIKE ON FEBRUARY 15, 2014*

*these calculations may not be 100% accurate but are close. They also depend on what time of day you purchased the shares of the company.

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THE ARC VIEW GROUP
MARIJUANA INC.
Meet the Entrepreneurs and Investors Firing Up a New Industry

ACKMAN AND LAMPERT: RETAIL'S WRECKING CREW

THE 50GREATEST BUSINESS RIVALRIES OF ALL TIME
DISPLAY UNTIL APRIL 15, 2013
NUMBER 5 / FORTUNE.COM
Thank You for Smoking—Marijuana

Justin Hartfield, the Weedmaps.com founder, on his plans to legalize the drug nationwide and become the Philip Morris of pot.

Newport Beach, Calif.

Justin Hartfield is high.

"I've been high since I'm 13," the 30-year old marijuana entrepreneur says as he sips an iced tea at the Pelican Hill Resort, a tony spot overlooking the Pacific where he plays golf twice a week. But don't mistake this onetime high-school pot dealer with a libertarian streak for your run-of-the-mill stoner. His aim is to become the Philip Morris of the American marijuana industry.

"Prohibition is about to pop. And the people that were here before, if they're positioned intelligently, will reap a profit. I think we're positioned really well," Mr. Hartfield says.

In the 1920s and early 1930s, risk-takers who invested in alcohol while it was still underground hit the jackpot when it was legalized. Joseph Kennedy secured "medicinal liquor" permits during Prohibition and in the months before the anti-alcohol law was repealed in 1933 he secured the exclusive import rights to popular liquor brands like Dewar's whisky and Gordon's gin.

Associate editorial features editor Bari Weiss on Justin Hartfield, an entrepreneur in the budding marijuana industry.
Thank you – for listening!

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www.dpi.psychiatry.ufl.edu

www.kevinsabet.com

www.legalizationviolations.com