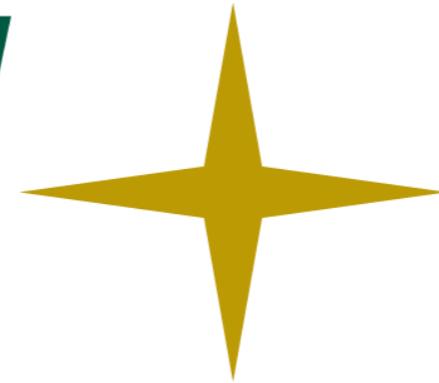


PRIUM



www.prium.com



Medical Marijuana Work Comp Implications

Mark Pew, Senior VP, PRIUM



LinkedIn: markpew
Twitter: @RxProfessor

- 30+ years in P&C, 20+ years in Work Comp
- Created PRIUM's Medical Intervention Program in 2003, Intervention Triage in 2010, Texas Closed Formulary turnkey in 2011, Centers with Standards in 2012, TaperRx in 2014
- From March 2012 thru May 2015, presented 251 times to 15,027 people in 38 states, including 9 national webinars
- Published and quoted in CLM Magazine, Risk & Insurance, Business Insurance, workcompcentral, WorkCompWire, Insurance Thought Leadership, and others
- Member of the IAIABC Medical Issues Committee, SIIA Workers' Compensation Committee, SAWCA Medical/Rehab Committee

What is Weed?

What is it?

Active Ingredients

- 483 known compounds
- Primary ingredients are:
 - **THC** (tetrahydrocannabinol) – psychoactive (the “high”)
 - **CBD** (cannabidiol) – more medical application
 - Moderates THC
 - **CBN** (cannabinol) – weak psychoactive
 - **CBG** (cannabigerol) – non-psychoactive, associated with glaucoma
- More potent
 - Up through the 1980’s ... < 10% THC
 - Now ... Up to 30% THC ... CBD is low or non-existent
<http://news.yahoo.com/marijuana-science-why-todays-pot-packs-bigger-punch-155233170.html>
 - Can be up to 70% in edibles, up to 90% in “dabs”

What is it?

The History

- Legal and accepted prior to 1937
 - George Washington grew hemp as one of his three primary crops
 - Medical preparations available in pharmacies in the 1850's
 - In the 1880's there were an estimated 500 hashish parlors in NYC
 - States passed legislation to regulate “poisons” (narcotics, including marijuana) – first was DC in 1906
 - Federal Bureau of Narcotics (FBN) created in 1930
- The Marihuana Tax Act of 1937
 - Made possession or transfer of cannabis illegal throughout the US under federal law
 - Required an “excise” tax that was inexpensive but difficult to get
 - Followed Supreme Court decision on the *National Firearms Act*
 - Harry J. Anslinger – head of FBN
 - With limited budget, used media to exaggerate issues

What is it?

Changing Demographics

- Pew Research Center national poll in October 2014
 - **52%** said marijuana should be legal
 - 45% said marijuana should remain illegal
 - From 2010 to 2013, favoring legalization increased by 11 points
- In 1969, Gallup asked essentially the same question and ...
 - **12%** said marijuana should be legal
- Pew Research Center national poll in April 2014
 - 15% felt **marijuana** is harmful to health
 - 69% felt **alcohol** is harmful to health
 - 23% felt **marijuana** is harmful to society
 - 63% felt **alcohol** is harmful to society

<http://www.pewresearch.org/fact-tank/2014/11/05/6-facts-about-marijuana/>

<http://www.people-press.org/2014/04/02/americas-new-drug-policy-landscape/4-2-14-5/>

(Pew Research Center)

<http://mmjbusinessdaily.com/pew-poll-54-of-american-adults-think-marijuana-should-be-legal/>

(Marijuana Business Daily)

What is it?

Public opinion in Minnesota

- Public Policy Polling – January 2015
 - 49% - legal and regulated like CO, WA, OR, AK, DC
 - 76% - legal for medical use
 - 52% - people, not politicians, should decide who can use
 - 51% - economy would benefit
 - Any bias in the question?
 - *Do you believe Minnesota's economy would benefit from the thousands of jobs and millions of dollars in tax revenue that a fully legalized and regulated cannabis industry could generate, like it has in Colorado and Washington State, or not?*
- NORML's target – the “marijuana middle”
 - The 27% who support “medical” but not recreational use

<http://www.myfoxtwincities.com/story/27965338/poll-shows-plurality-of-minnesotans-favor-marijuana-legalization>

Delivery Methods

Delivery Methods

Vaporizers



- **Vaping is the new smoking**
 - Extracts active components without combustion
 - Nearly eliminates particulate matter or tar
 - How to get the highest quality vapor:
 - CBD @ 206.3°C
 - CBN @ 212.7°C
 - THC @ 149.3°C

Southwest Medical Marijuana Evaluation Center

(http://www.evaluationtoday.com/news_medicating_with_marijuana.html)

Delivery Methods

Edibles



- **Edibles**

- Marijuana butter (“bud butter”) to substitute for standard butter
 - http://www.thestonerscookbook.com/how_to_cook_with_weed.php
- But there are complications:
 1. Effects take longer to start (processed by digestive system)
 - So it’s easier to ingest more than appropriate
 2. Effects last longer
 - ~30 minutes for smoking, several hours for edibles
 3. Dosage can vary

Southwest Medical Marijuana Evaluation Center

(http://www.evaluationtoday.com/news_medicating_with_marijuana.html)

Delivery Methods

Edibles



Medical Applications



Some say ...
“medical” marijuana is but a Trojan Horse

Do you FEEL better or ARE you better?

NOTE: In Colorado, **48.8%** of adolescents admitted to substance abuse treatment obtained their marijuana from someone registered to use medically

Thurstone C, Lieberman SA & Schmiede SJ, Medical marijuana diversion and associated problems in adolescent substance treatment. *Drug Alcohol Dependence* 118(2-3):489-492, 2011

Medical Applications

FDA's criteria for "medicine"

- To be accepted as medicine, the following criteria must be met:
 1. The drug's chemistry must be known and reproducible
 2. There must be adequate safety studies
 3. There must be adequate and well-controlled studies proving efficacy
 4. The drug must be accepted by qualified experts
 5. The scientific evidence must be widely available

"Marijuana as Medicine? The science behind the controversy", Allison Mack & Janet Joy

Medical Applications Risk List

- Current or past problems with cannabis or other substances
- Active mental illness
- Current, past or family history of psychosis
- Active mood or anxiety disorders
- Suicidal ideation
- Women who are pregnant, planning to become pregnant or at high risk of unplanned pregnancy
- **Anyone under 25 years of age**

“How physicians should respond to the new Cannabis Regulations”, *The Canadian Journal of Addiction*, Meldon Kahan and Sheryl Spithoff

Medical Applications

National Institute on Drug Abuse

- Clinical trials underway
 - Autoimmune diseases that weaken the immune system
 - HIV/AIDS
 - Multiple sclerosis (MS), causes gradual loss of muscle control
 - Alzheimer's disease, causes loss of brain function, affecting memory, thinking, and behavior
 - Inflammation
 - Pain
 - Seizures
 - Substance use disorders
 - Mental disorders
- Recent animal studies show marijuana can kill certain cancer cells

Medical Applications National Eye Institute

- Glaucoma
 - Studies in the early 1970s showed that marijuana, when smoked, lowered intraocular pressure (IOP)
 - NEI's own studies demonstrated that some derivatives of marijuana transiently lowered IOP when administered orally, intravenously, or by smoking, but not when topically applied to the eye
 - However ...
 - None of the studies demonstrated that marijuana could lower IOP **as effectively as drugs already on the market**

<https://www.nei.nih.gov/news/statements/marij>

- Anecdote – Would require 6 joints/day for the rest of your life

Medical Applications

Top 23

1. It can be used to treat Glaucoma
2. It may help reverse the carcinogenic effects of tobacco and improve lung health
3. It can help control epileptic seizures
4. It also decreases the symptoms of a severe seizure disorder known as Dravet's Syndrome
5. A chemical found in marijuana stops cancer from spreading
6. It may decrease anxiety
7. **THC slows the progression of Alzheimer's disease**
8. The drug eases the pain of multiple sclerosis
9. Other types of muscle spasms could be helped too
10. It lessens side effects from treating hepatitis C and increases treatment effectiveness
11. **Marijuana treats inflammatory bowel diseases**
12. It relieves arthritis discomfort
13. It keeps you skinny and helps your metabolism
14. It improves the symptoms of Lupus, an autoimmune disorder
15. While not really a health benefit, marijuana spurs creativity in the brain
16. Marijuana might be able to help with Crohn's disease
17. Pot soothes tremors for people with Parkinson's disease
18. **Marijuana helps veterans suffering from PTSD**
19. **Marijuana protects the brain after a stroke**
20. **It might protect the brain from concussions and trauma**
 - **The NFL might allow if proven effective**
 - **According to "Real Sports with Bryant Gumbel", 50-60% of NFL players use the drug**
21. It can help eliminate nightmares
22. Weed reduces some of the awful pain and nausea from chemo, and stimulates appetite
23. **Marijuana can help people trying to cut back on drinking**
 - **Counterpoint: Alcohol may cause faster absorption of THC**

Business Insider

"23 Health Benefits Of Marijuana"

4/20/14

Medical Applications Prescription Drug Versions

- Marinol
 - Synthetic THC (dronabinol); capsule
 - Nausea and vomiting for cancer patients, appetite stimulation for AIDS patients, neuropathic pain for MS patients
 - FDA approved for **appetite stimulation** (1992), **nausea** (1985)
 - Schedule III drug
- Cesamet (nabilone)
 - Synthetic cannabinoid, similar to THC; capsule
 - Nausea and vomiting for cancer patients
 - FDA approved originally in 1985, removed from market (to add warnings about potential effects to mental state of patient), re-approved on 5/15/06
 - Schedule II drug

Medical Applications

The Superstar

- **Charlotte's Web**

- Marijuana extract high in **CBD**
 - No psychoactive effect
 - Administered as an oil (Realm Oil and Alepsia)
 - Developed in 2011 by the Stanley brothers
- Named after 5-year old Charlotte Figi ..
 - First documented in the 2013 CNN series "Weed"
 - Born with Dravet Syndrome (epilepsy)
 - Traditional seizure medications were ineffective
 - 300 seizures per week
 - *Charlotte's Web* reduced that to 2-3 per month
- **The** emotional hot button driving legalization

Medical Applications

The Superstar

- “Medical expatriates” in Colorado
 - Moved for access to Charlotte’s Web since it was illegal in their home states
 - Cost is around \$1,000/month
 - Research shows it’s only effective on 25-30% of patients

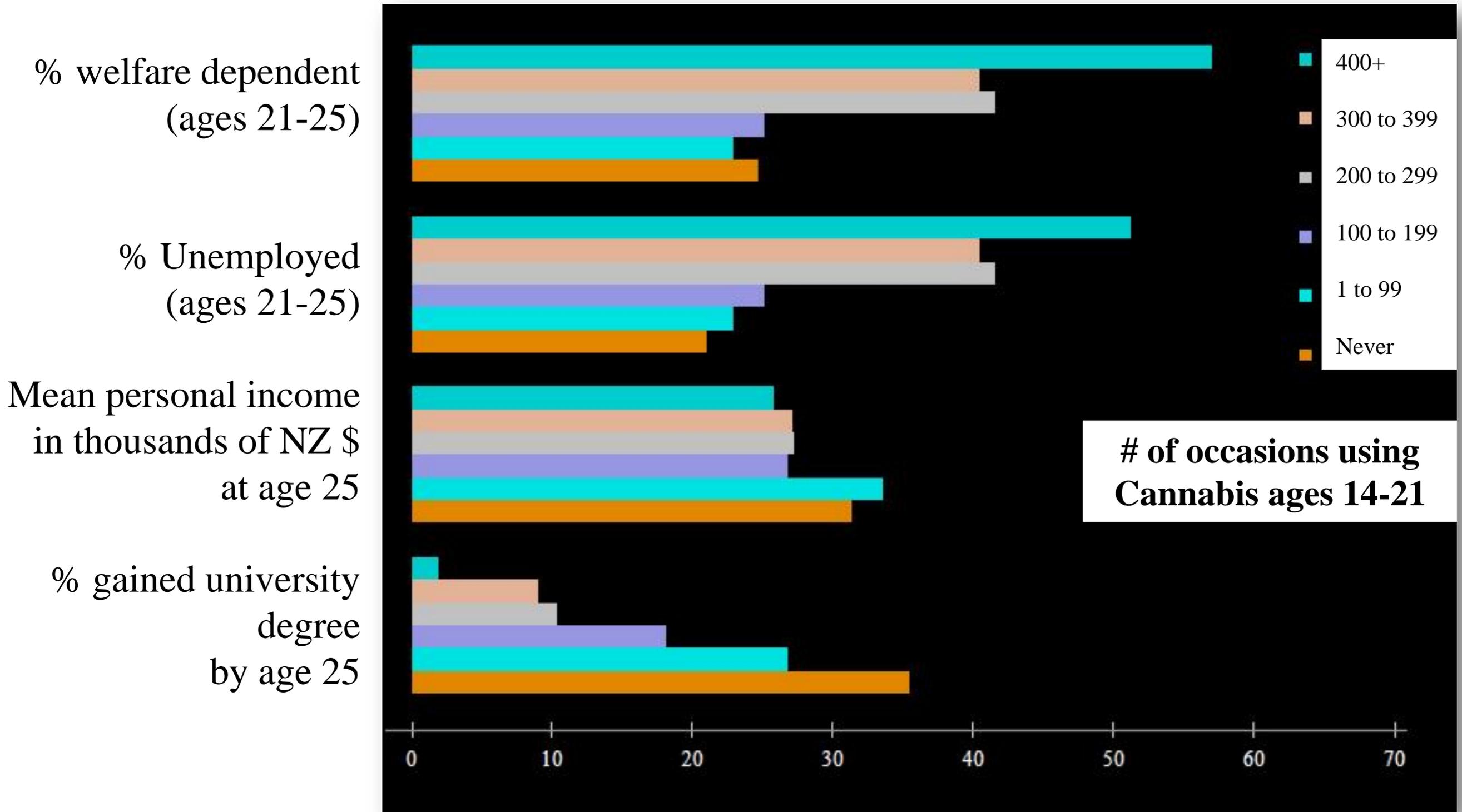
Medical Applications Minnesota's Legal List

- Cancer, if the underlying condition or treatment produces one or more of the following:
 - severe or chronic pain
 - nausea or severe vomiting
 - cachexia or severe wasting
- Glaucoma
- Human immunodeficiency virus or acquired immune deficiency syndrome
- Tourette's syndrome
- Amyotrophic lateral sclerosis
- Seizures, including those characteristic of epilepsy
- Severe and persistent muscle spasms, including those characteristic of multiple sclerosis
- Crohn's disease
- Terminal illness, with a probable life expectancy of under one year, if the illness or its treatment produces one or more of the following:
 - severe or chronic pain
 - nausea or severe vomiting
 - cachexia or severe wasting
- Any other medical condition or its treatment approved by the commissioner
- **Non-malignant chronic pain is not included ... Yet**

Effects

Effects

Later Life Outcomes are Dose Dependent



Source: Fergusson and Boden. *Addiction*, 103, pp. 969-976, 2008
 Courtesy of Nora D. Volkow, MD, National Institute on Drug Abuse

Effects Mental and Physical

- Marijuana makes us feel good
 - Dopamine release
- Blocks memory formation
 - Especially during adolescence
- Messes with your balance
 - Impacts ability to walk, talk and drive
- Increases the risk of depression (and suicide)
 - If genetically vulnerable
- Affects anxiety
 - May increase fear, distrust or panic
- Psychosis
 - Hallucinations, delusions, loss of personal identity
- Interrupts REM sleep
 - The most important part
- Heart rate increase
 - Sometimes by 20-50 beats/minute
- Dry mouth
 - Cannabinoid receptors are located where saliva is produced

Business Insider

“What Marijuana Does To Your
Body And Brain”

4/20/14

The longest-term study to-date

- **A 20-year study in Australia**
 - Study from 1993-2013 by Dr. Wayne Hall, director of the Centre for Youth Substance Abuse Research at the University of Queensland
 - Five major findings:
 1. It's essentially impossible to overdose
 - Requires 15-70 grams
 2. It **doubles** the chance of a driving accident
 - DUI for marijuana not as understood as from alcohol
 3. Addiction/dependence can occur
 - **1 in 10 adults, 1 in 6 adolescents**
 - Strongly associated with use of other illicit drugs
 4. **Negatively impacts IQ**
 - Only where initiated in adolescence and continued into adulthood
 5. Effect on respiratory health is inconclusive
 - Typically smoke tobacco as well

Effects Brain Changes

- **Casual marijuana use changes the brain**
 - Northwestern Medicine and Massachusetts General Hospital/Harvard Medical School study on casual use (1-2 times per week)
 - 20 adults (18-25) who smoked marijuana, 20 who did not
 - Scientists examined the nucleus accumbens and the amygdala -- key regions for **emotion** and **motivation**, and associated with **addiction** -- in the brains of casual marijuana users and non-users
 - “The more joints a person smoked, the more abnormal the shape, volume and density of the brain regions.”

<http://www.sciencenewsline.com/articles/2014041523060034.html>

What does Healthcare think?

- **American Medical Association (AMA)**
 - Affirmed on 11/20/13 opposition to legalization of marijuana
 - “cannabis is a dangerous drug and as such is a public health concern”
 - “federal efforts to address illicit drug use via supply reduction and enforcement have been ineffective”
 - “modification of state and federal laws to emphasize public health based strategies to address and reduce cannabis use”
 - “public health based strategies, rather than incarceration”

<http://www.usnews.com/news/articles/2013/11/20/ama-reaffirms-opposition-to-marijuana-legalization>

What does Healthcare think?

- **American Society of Addiction Medicine (ASAM)**
 - Education for patients, health and human services professionals
 - Alcoholism should mean abstinence from marijuana
 - Marijuana dependency is an issue that needs to be treated
 - Medical uses (like Marinol) need to be carefully controlled
 - Smoking is dangerous
 - Continue evidence-based research
 - Physicians should be able to discuss risks and benefits with marijuana as with any other treatment

<http://www.asam.org/docs/publicity-policy-statements/1marijuana-5-062.pdf?sfvrsn=0>

- **“Cannabis is unstable and unpredictable and the drug should be subject to the same standards that apply to other medications. For every disease and disorder for which marijuana has been recommended, there is a better, FDA-approved medication.”**

What does Healthcare think?

- **Official Disability Guidelines (ODG)**
 - All cannabinoids are ‘N’ drugs – “Not recommended for pain”
 - Among the supporting studies cited ...
 - Cannabis users who start using the drug as adolescents show an **irreparable decline in IQ**, with more persistent use linked to a greater decline
 - Long-term marijuana use has been linked to structural brain changes similar to those observed in **schizophrenia patients**, and they correlate with poorer working memory

Is marijuana less dangerous than opioids?

Legal Landscape

As perception of risk decreases...
(if it's legal, it can't be that bad)

Use increases

Not Legal Federal vs. State

- Marijuana is **illegal** at the Federal level
 - DEA Schedule I controlled substance
 - Substances in this schedule have *no currently accepted medical use* in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse
 - Heroin, LSD, peyote, meth, Ecstasy

<http://www.deadiversion.usdoj.gov/schedules/>

- In 2013, DEA requested the FDA evaluate re-scheduling
 - Study is “ongoing”

<https://ww3.workcompcentral.com/news/story/id/4ad40fa0f0b7674bd0884294399ad90bf004f354>

Not Legal Look the other way – Unofficial

- **USDOJ Memo to US Attorneys, August 29, 2013**
 - Urges US Attorneys to exercise their discretion in using federal resources to prosecute individuals using marijuana for medical purposes
 - Emphasizes federal policy of enforcing CSA (Controlled Substances Act) to prevent:
 1. Distribution of marijuana to minors
 2. Revenue to fall into hands of dangerous drug cartels
 3. Diverting medical marijuana from legal status to other states
 4. State-authorized marijuana activity from being used as a cover for trafficking other illegal drugs
 5. Violence in the cultivation and distribution of marijuana
 6. Drugged driving and other adverse public health consequences
 7. Growing marijuana on public or federal lands

Not Legal

Look the other way – Official

- **2015 Federal Budget provides protection**
 - US Congress included an amendment that prohibits Department of Justice from using funds to go after state-legal medical cannabis programs
 - H.R. 83, “**Section 538**” (specifically lists the states)
 - President Obama signed it on 12/16/14
- “None of the funds made available in this act to the Department of Justice may be used ... to prevent ... states ... from implementing their own state laws that authorize the use, distribution, possession, or cultivation of medical marijuana.”

<http://blog.norml.org/2014/12/16/president-to-sign-federal-spending-bill-protecting-state-sanctioned-medical-marijuana-programs/>

Not Legal Unconstitutional?

- **Schedule I status is under attack**
 - The *Schweder* case in California claims Schedule I is unlawful
 - Does marijuana as a Schedule I drug violate the guarantee of equal protection of our laws inherent in the Fifth Amendment's Due Process Clause?
 - Does the federal government's prosecution of medical marijuana violate the constitutional principle of Equal Sovereignty?
 - Defense quoted “**Section 538**” as proof that there are medical uses for marijuana
 - **Judge did not decide on constitutionality, trial ongoing for defendants, deferred to U.S. Congress**

http://edca.typepad.com/eastern_district_of_calif/schweder-marijuana-case/

Not Legal Make it Law

- **CARERS**

- Compassionate Access, Research Expansion, and Respect States Act (S.683)
 - Introduced on 3/10/15, referred to Committee on the Judiciary
 - Bipartisan – Rand Paul (R-Kentucky), Kirsten Gillibrand (D-New York), Cory Booker (D-New Jersey)
 - Reclassifies marijuana as a Schedule II drug
 - Allows states to implement regulations as they see fit
 - Enables the Veterans Administration to consider its use

<http://www.forbes.com/sites/davidkroll/2015/03/11/is-congress-planning-to-legalize-marijuana/>

- H.R. 1538 (identical) introduced on 3/25/15
 - Referred to the Subcommittee on Crime, Terrorism, Homeland Security, and Investigations
 - Bipartisan –5 Democrats, 4 Republicans

Maybe Legal 2015 pending legislation

To legalize medical marijuana

Pending	Already Failed
Missouri	Indiana
Nebraska	Kansas
North Carolina	Kentucky
Pennsylvania	Mississippi
South Carolina (expansion of 2014 law)	North Dakota
Tennessee	Utah
	West Virginia

Legal Now Overview

State	Year Effective	Patient Registry?	Allow Dispensaries?	Specify Conditions?	Recognize Patients from other states?	Recreational Adult Use?
Alaska	1999	Yes	No	Yes		Approved Nov 2014, not yet operational
Arizona	2010	Yes	Yes	Yes	Yes	
California	2003	Yes	Yes	No		
Colorado	2000	Yes	Yes	Yes	No	Yes (Eff. 1/1/14)
Connecticut	2012	Yes	Yes	Yes		
Delaware	2011	Yes	Yes	Yes	Yes	
District of Columbia	2010	Yes	Yes	Yes		Approved Nov 2014, not yet operational
Guam	2014	Yes	Yes	Yes	No	Approved Nov 2014, not yet operational
Hawaii	2000	Yes	No	Yes		
Illinois	2013	Yes	Yes	Yes	No	
Maine	2011	Yes	Yes	Yes	Yes	
Maryland	2013	Yes	Yes	Yes		
Massachusetts	2012	Yes	Yes	Yes		
Michigan	2008	Yes	No	Yes	Yes	
Minnesota	2014	Yes	Yes	Yes		
Montana	2011	Yes	No	Yes	No	
Nevada	2000	Yes	No	Yes		
New Hampshire	2013	Yes	Yes	Yes	Yes, with conditions	
New Jersey	2009	Yes	Yes	Yes		
New Mexico	2007	Yes	Yes	Yes		
New York	2014	Yes	Yes	Yes		
Oregon	2007	Yes	No	Yes		Approved Nov 2014, not yet operational
Rhode Island	2009	Yes	Yes	Yes	Yes	
Vermont	2011	Yes	Yes	Yes		
Washington	2011	No	Yes	Yes		Yes (Eff. 7/1/14)

Medical

- 23 states + DC + Guam

Recreational

- 4 states + DC + Guam

(as of 6/1/15)

National Conference of State Legislatures

<http://www.ncsl.org/research/health/state-medical-marijuana-laws.aspx>

Legal Now Overview

State	Year Effective	Patient Registry?	Allow Dispensaries?	Specify Conditions?	Recognize Patients from other states?	Definitions of Products Allowed	Allows for Legal Defense	Allowed for Minors
Alabama	2014		UAB only	Yes	No	Yes	Yes	Yes
Florida	2014	Yes	Yes	Yes	No	Yes		Yes
Georgia	2015	Yes	University system	Yes	No	Yes	Yes	Yes
Iowa	2014	Yes	Does not define	Yes	No	Yes	Yes	Yes
Kentucky	2014	No	Universities in KY	Yes	No	No		
Mississippi	2014		Ole Miss only	Yes	No	Yes	Yes	Yes
Missouri	2014	Yes	Yes	Yes	No	Yes	Yes	Yes
North Carolina	2014	Yes	University research	Yes	No	Yes	Yes	Yes
Oklahoma	2015	Yes	No	Yes	No	Yes	Yes	Yes
South Carolina	2014	Yes	Yes	Yes	No	Yes	Yes	Yes
Tennessee	2014	Yes	Tenn Tech	Yes	No	Yes		
Texas	2015	Yes	Yes	Yes	No	Yes	Yes	Yes
Utah	2014	Yes	Yes	Yes	No	Yes	Yes	Yes
Virginia	2015	No	No	Yes	No	Yes	Yes	Yes
Wisconsin	2013	No	No	Yes		Yes	No	Yes

15 states have **limited access** product laws
NOTE: Idaho legislature approved, Governor vetoed in 2015

Legal Now Not So Neighborly

- **Nebraska and Oklahoma Sue Colorado**
 - NE and OK attorneys general filed directly with the U.S. Supreme Court to strike down Colorado's 2012 legalization
 - “Marijuana flows from this gap <in the federal drug-control system> into neighboring states,” the suit says, undermining their marijuana bans, “draining their treasuries, and placing stress on their criminal justice systems.”
 - **Oklahoma and Nebraska said the influx had led to more arrests, more impounded vehicles and higher jail and court costs**
 - Suit aimed at commercial, not personal use/possession

<http://www.nytimes.com/2014/12/19/us/politics/nebraska-and-oklahoma-sue-colorado-over-marijuana-law.html>

Legal Now Recreational Use

- Alaska and Oregon and DC approved in November 2014
 - **Alaska** (Measure 2)
 - Passed 53% to 47%
 - Adults 21+ can possess up to 1oz
 - Can grow up to 6 plants
 - **Oregon** (Measure 91)
 - Passed 57% to 43%
 - Adults 21+ can have up to 8oz at home and 1oz in public
 - Can cultivate up to 4 plants
 - Effective July 1, 2015
 - **District of Columbia** (Initiative 71)
 - Passed 68% to 31%
 - Possession up to 2oz
 - Cultivation of up to 6 plants
 - U.S. Congress blocked implementation
 - DC ignoring the blockade ... Chaos

Legal Coming Recreational Use

- **Vermont**
 - Legislature to consider legalization in 2015 session
- **Advocates pushing for 2016 ballot initiatives in ...**
 - Arizona
 - California
 - Florida
 - Hawaii
 - Maine
 - Massachusetts
 - Missouri
 - Montana
 - Nevada

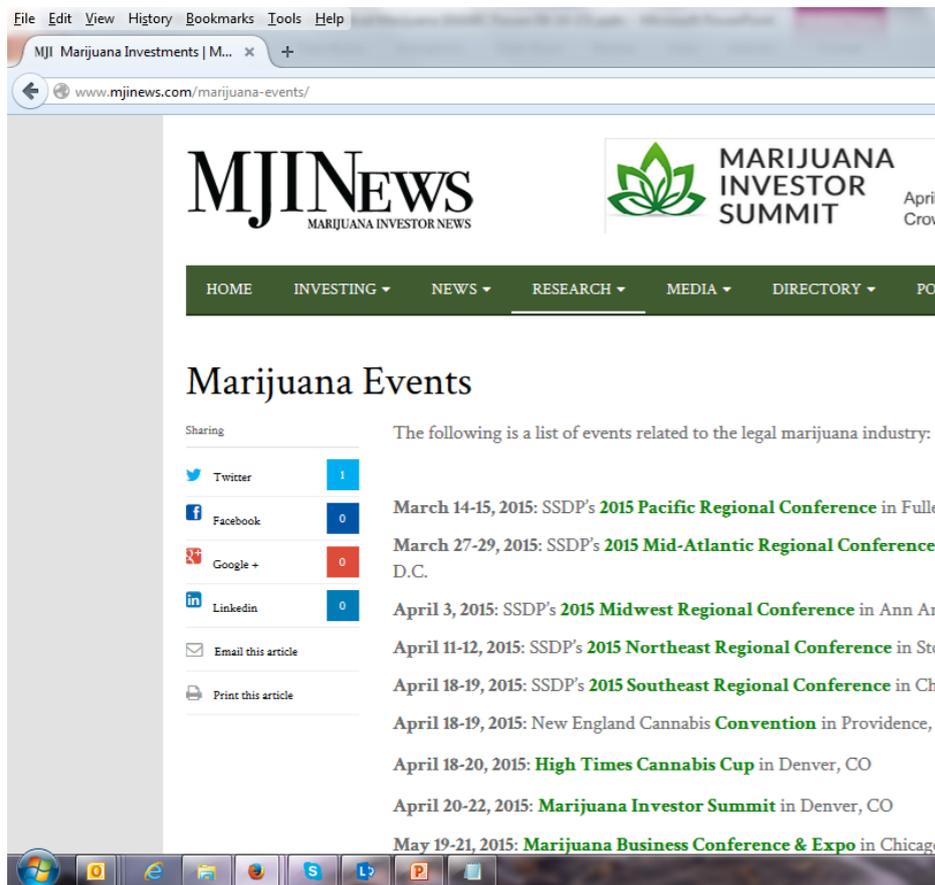
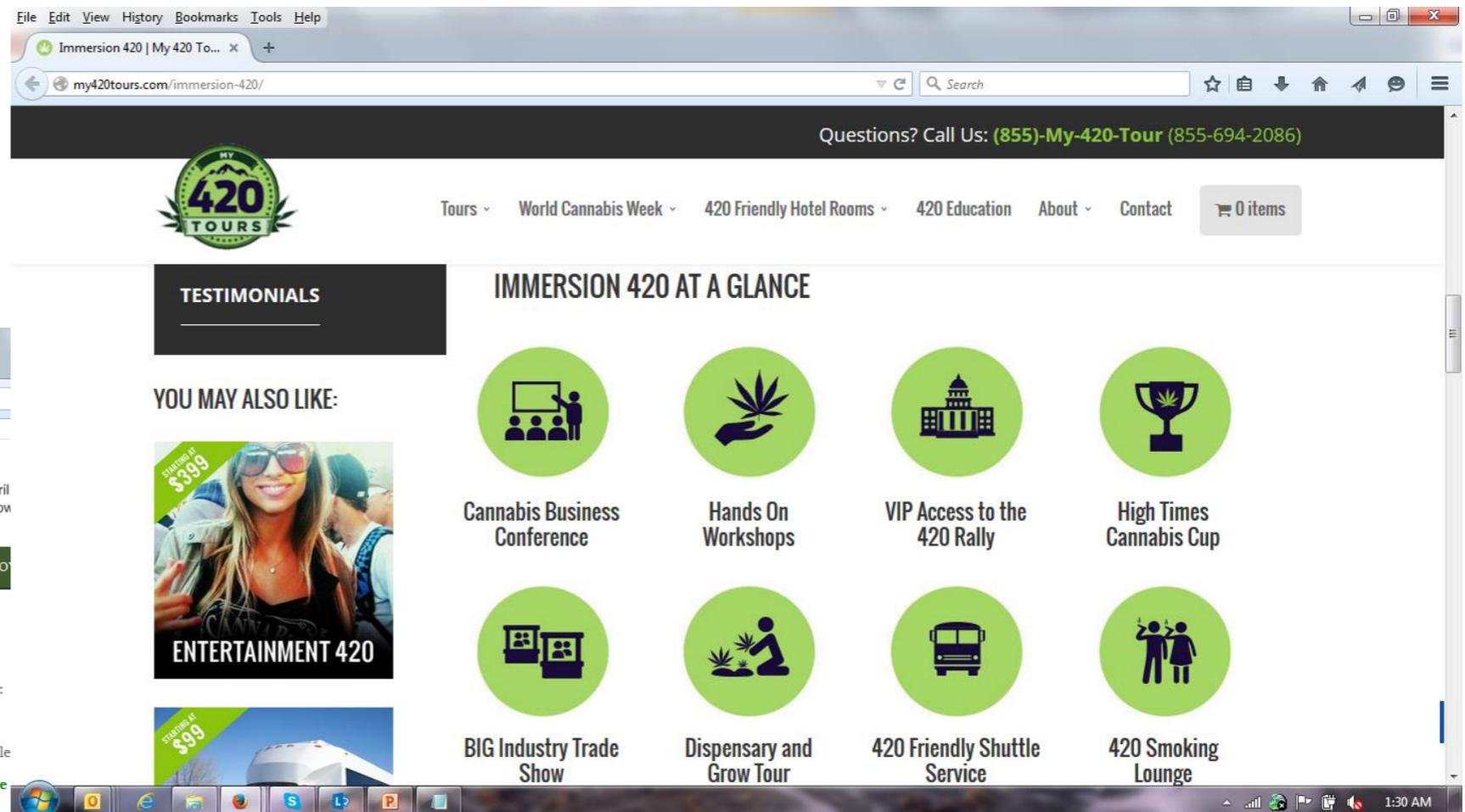
<http://www.cheatsheet.com/politics/5-states-and-one-city-ready-to-legalize-marijuana.html/3/>

Remember “Big Tobacco”?

Say hello to “**Big Marijuana**”

April 18-20, 2015
High Times Cannabis Cup

April 20-22, 2015
Marijuana Investor Summit



“Tobacco companies for generations have talked privately about getting into the weed business”
“Will Big Tobacco become Big Marijuana?”, *USA Today*, 4/11/15

Lessons Learned

Lessons Learned \$\$\$\$\$\$'s

Colorado Department of Revenue
<http://www.colorado.gov/cs/Satellite/Revenue-Main/XRM/1251633259746>
 Statistics and Reports / Marijuana Tax Data (Retail = 3+4+8, Medical = 2)

Month	Retail Tax Revenue (12.9%)	Medical Tax Revenue (2.9%)
January 2014	\$2,013,576	\$913,519
February 2014	\$2,212,784	\$1,022,176
March 2014	\$3,078,097	\$999,900
April 2014	\$3,591,686	\$919,982
May 2014	\$3,848,349	\$927,330
June 2014	\$4,143,371	\$830,861
July 2014	\$5,189,191	\$838,711
August 2014	\$5,728,847	\$935,807
September 2014	\$5,273,366	\$908,630
October 2014	\$5,851,182	\$928,329
November 2014	\$5,174,973	\$772,472
December 2014	\$6,422,995	\$889,249
Total	\$52,528,417	\$10,886,966
% of Total	82%	18%

Original Expectations:
\$134M in tax+fee revenue

Total Tax Revenue
Jan-Dec 2014
\$63,415,383

Total Tax Revenue
Jan-Mar 2015
\$24,502,975
 Only 10% “medical”

Lessons Learned

Oops ...



Colorado Governor John Hickenlooper (Democrat)

On January 23, 2015 on CNBC's "Squawk Box"

- He originally opposed it but it passed 55%-45%
 - FYI ... He was in the craft brew business
- "If I could've waved a wand the day after the election, I would've reversed the election and said, 'This was a bad idea' "
- "You don't want to be the first person to do something like this" ... "We're starting from scratch"
- He tells other governors to **"wait a couple of years"** because they don't know what the unintended consequences are

Lessons Learned

Unintended Consequences

- **Colorado**
 - “Surround and Drown”
 - Hazmat Suits
 - Underground market still flourishing
 - Grower can cultivate up to 16 plants per doctor prescription
<http://www.washingtonpost.com/news/storyline/wp/2014/07/30/inside-colorados-flourishing-segregated-black-market-for-pot/>
 - Stoned pets
<http://www.usatoday.com/story/news/nation/2014/03/24/marijuana-pot-dogs-edible/6600763/>
 - Police dogs have to be re-trained
 - Banks don't want to process money ... “money laundering” (RICO)

Lessons Learned Unintended Consequences

- In Washington ...
 - Blueberries - \$17,000 per acre
 - Marijuana - **\$7,500,000** per acre
 - What would you grow?



Lessons Learned Capitalism at its best ...



“Heidi Carney speaks with her husband, Justin Menees, while their daughter, Lexi, 8, **sold Girl Scout Cookies outside a marijuana dispensary in Phoenix last week.** Girl Scouts seem to be **skipping the usual supermarket stops** for selling their beloved cookies. A few days after a teenager sold dozens of cookie boxes outside a San Francisco pot dispensary, Menees, 8, will return to Trumed Dispensary in Phoenix on Saturday for the same purpose. Carney, got the idea after hearing about what happened in San Francisco. Susan de Queljoe, a spokeswoman for the Girl Scouts, Arizona Cactus-Pine Council, says this is **not something the organization would encourage** but that it's up to the parents.”

Implications for Work Comp

Implications Substance Abuse

- Tennessee Department of Labor and Workforce Development ...
 - **38-50%** of all Work Comp claims are related to substance abuse in the workplace
- Why does that matter?
 - Marijuana accounted for **4.5M** of the estimate 7.1M Americans dependent on or abusing illicit drugs
 - In 2009, approximately **18%** of people aged 12 and older entering drug abuse treatment programs reported marijuana as their primary drug of abuse
 - **61%** of persons under 15 reported marijuana as their primary drug of abuse

2010 National Study on Drug Use and Health (NSDUH)

Implications New Mexico

- **New Mexico**
 - NM Court of Appeals in May 2014 required an employer to reimburse an injured worker for medical marijuana used for his low-back pain
 - *Vialpando v. Ben's Auto. Servs*
 - The “**Compassionate** Use act” allows a person to use medical marijuana for a debilitating medical condition
 - The Work Comp statutes allow “reasonable and necessary” for an injured worker’s treatment
 - Even though medical marijuana is not a prescription drug, a “licensed dispensary” could qualify as a “service”, and if that “service” were “**reasonable and necessary**” ...

Implications New Mexico

- **New Mexico**
 - NM Court of Appeals in January 2015 confirmed that “medical” marijuana was reasonable and necessary
 - *Maez v. Riley Industrial*
 - The patient tested positive for recreational use of marijuana while being prescribed a variety of other drugs (including opioids)
 - The physician decided to certify the marijuana use
 - The physician was deposed and said the patient “has failed traditional pain management and is a candidate for the cannabis program”
 - The Court decided that since the physician confirmed its use that it should be deemed “reasonable and necessary”
 - **The ultimate patient-directed care**

Implications Inconsistent UDM

- Use of marijuana can be indicator for abuse/misuse of other drugs
- Per Ameritox study ...
 - 250,397 urine drug tests from 5/16/11-5/15/12
 - In cases where expected Hydrocodone was not found ...
 - 36.5% tested positive for THC
 - 59.6% tested positive for Cocaine
 - 29.7% had no illicit drugs
 - In cases where non-prescribed medication was found ...
 - 29.1% tested positive for THC
 - 29.9% tested positive for Cocaine
 - 22.0% had no illicit drugs

“An analysis of the association between marijuana use and potential nonadherence in patients prescribed hydrocodone”, M. DeGeorge et al 2013

Implications More Injuries

- From David DePaolo
 - “According to the National Institute on Drug Abuse, marijuana smokers are **more likely** than non-marijuana smokers to file workers' compensation claims. For example, a study among postal workers found that employees who tested positive for marijuana on a pre-employment urine drug test had 55% more industrial accidents, 85% more injuries, and a 75% increase in absenteeism compared with those who tested negative for marijuana use.”

<http://daviddepaolo.blogspot.com/2014/03/co-pot-goes-to-court.html>

<http://www.drugabuse.gov/publications/research-reports/marijuana/how-does-marijuana-use-affect-school-work-social-life>

Implications Driving While Stoned

- **Breathalyzers are on the way**
 - Detects THC, not reliant on blood tests or field sobriety tests
 - Washington State University researching
 - Cannabix Technologies
 - Working prototype by end of February 2015
 - Target government approval by Summer 2015

<http://www.ibtimes.com/driving-while-high-marijuana-breathalyzer-horizon-police-struggle-stop-stoned-drivers-1734400>

- According to the Colorado Department of Transportation:
 - Marijuana affects reaction time, short-term memory, hand-eye coordination, concentration and perception of time and distance. Getting high and getting behind the wheel of a car will get you arrested for a DUI – this law hasn't changed with the legalization of marijuana in January 2014.

Implications Drug Free Workplace

- **Impact on a drug-free workplace?**
 - Workplace safety
 - Which employee is OK to be stoned at work?
 - Zero tolerance policy
 - Marijuana <> alcohol, illegal drugs, prescription drugs?
 - Judging intoxication / impairment and causality
 - 3.1-4.5 ng/mL (oral) and 3.3-4.5 ng/mL (smoked) plasma levels
= 0.05 g% blood alcohol concentration
 - Drug testing policies
 - Do not remove THC from drug panels
 - Hiring, Termination and Return to Work policies
 - Can't find anyone to fill jobs?

Implications Drug Free Workplace

	Urine	Blood	Hair	Saliva
Marijuana - Single Use	1-7+ days	12-24 hours	Doubtful	Not validated (0 -24 hours?)
Marijuana - Regular Use	7-100 days	2-7 days	Months	Not validated (0 -24 hours?)
Amphetamines	1-3 days	24 hours	Months	Not validated (0 -24 hours?)
Cocaine	1-3 days	1-3 days	Months	Not validated (0 -24 hours?)
Heroin, Opiates	1-4 days	1-3 days	Months	Not validated (0 -24 hours?)
PCP	3-7 days	1-3 days	Months	Not validated (0 -24 hours?)

<http://www.canorml.org/healthfacts/drugtestguide/drugtestdetection.html>

Implications Reimbursement

Provisions Containing Workers' Compensation Payment Restrictions

Explicit	Implicit		No Restrictions
Michigan	Alaska	Maine	Maryland
Montana	Arizona	Massachusetts	New Mexico
Vermont	California	Minnesota	
Washington	Colorado	Nevada	
	Connecticut	New Hampshire	
	DC	New Jersey	
	Delaware	New York	
	Hawaii	Oregon	
	Illinois	Rhode Island	

www.prium.com, Thought Leadership

“Medical Marijuana: Summary of Reimbursement Rules – The Sentinel (April 2015 Issue)”

Implications Reimbursement

Allowable Conditions Provision

Specifically include chronic pain as allowable condition		No specific mention of use for chronic pain
Alaska	Montana	Connecticut
Arizona	Nevada	DC
California	New Hampshire	Illinois
Colorado	New Jersey	Maine
Delaware	Oregon	Massachusetts
Hawaii	Rhode Island	Minnesota
Maryland	Vermont	New York
Michigan	Washington	
New Mexico		

Implications Reimbursement

Guideline Restrictions on Medical Marijuana

Specifically restricts use of Medical Marijuana	Medical Marijuana Not Addressed By the Guidelines	No Guidelines mandated	Not Classified
Arizona	Connecticut	Alaska	Hawaii
California	Delaware	DC	Oregon
Colorado	Massachusetts	Maryland	Rhode Island
Illinois	Minnesota	Michigan	Vermont
Maine	Montana	New Hampshire	Washington
Nevada		New Jersey	
New Mexico			
New York			

Implications

Potential Work Comp Defense

- Distribution of marijuana is illegal under Controlled Substance Act, regardless if legal in state and used for medicinal purposes
- Marijuana is not a FDA-approved “medication”
 - Except for Marinol and Cesamet
- Work Comp is not required to reimburse costs (Colorado, Florida, Michigan, Montana, Vermont)
- Burden of proof is on injured worker to show no impairment (e.g. US DOT, Arizona)
- Private employees / employers are not regulated since that would create a new “protected employee class” (Casiar v Wal-Mart Stores, Inc.)

Required reading for employers

Marijuana in the Workplace: Guidance for Occupational Health Professionals and Employers: Joint Guidance Statement of the American Association of Occupational Health Nurses and the American College of Occupational and Environmental Medicine

Full Report: http://journals.lww.com/joem/Fulltext/2015/04000/Marijuana_in_the_Workplace___Guidance_for.17.aspx

Summary: <http://www.lexisnexis.com/legalnewsroom/workers-compensation/b/recent-cases-news-trends-developments/archive/2015/04/24/acoem-guidance-on-marijuana-in-the-workplace-keeping-employers-sane-amidst-the-reefer-madness.aspx>

In Summary

- Marijuana is not as benign as advocates present
- There are medical applications for some conditions using some components
 - The evidence is still somewhat anecdotal
 - More research is needed ... and going to Schedule II might facilitate
- Legalization efforts are well-funded and organized
- Judicial reform is necessary
 - Treatment instead of punishment?
- Legalization will have a significant impact on employers, workplaces and Work Comp
- Legalization will open a societal Pandora's Box
- **It's about risk management at this point ...**

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