Recreational Marijuana Use Confers No Excess Mortality Risk

Point/Counterpoint: An Inconvenient Truth

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Present life underwriting practices for marijuana use are deeply flawed as a result of three factors:

1. A lack of systematic research
2. Entrenched misperceptions
3. Government-incited disinformation

This essay provides extensive evidence that current marijuana use practices need to be fundamentally changed.

What is the epidemiology of pot use in America?

- In a review of 17 countries, the US had the highest cumulative marijuana use rate. [Degenhardt]
- Lifetime marijuana use by Americans is between 30-45%. [Dregen, Muhuri]
- Over 16 million use pot within any given month. [Lee and Milman]
- Over 80% use pot on an occasional basis only and <10% become daily users. [Hall, Ishida]

The incidence of applicant disclosure of pot use is far lower than these data tell us it should be ... and one major reason is our widely appreciated punitive underwriting approach.

The odds of a pot user being a cigarette smoker are 5-fold higher than for never-users and this represents the primary consideration of major importance where adult marijuana use is concerned. [Richter]

Among pot smokers who do not smoke tobacco, 48% are college graduates and 60% earn >$50k/year. [Pletcher]

What is the risk of cannabis dependence?

- Marijuana has the lowest dependency risk among all widely used drugs. [Room]
- Less than 1 in 10 pot users become dependent vs. 15% for alcohol and 32% for nicotine. [Patton]
- Those at risk have other social, occupational and medical benchmarks which clearly distinguish them. [Hall, Swift, Winstock]
- There is no risk of dependence onset after age 25. [Wagner]

Marijuana use is not associated with initiation of hard drug use. [Morrall] The real “gateway drug” is tobacco use. [Bostwick]
• The withdrawal syndrome is no greater than in cigarette smoking. [Budney]

Are there significant medical consequences associated with recreational marijuana use?

No.

Begg showed that 0.2% of the global disease burden is related to cannabis, as compared to 2.3% and 7.8% for alcohol and tobacco, respectively.

Study after study proves that pot smoking confers no COPD risk in the absence of comorbid cigarette use and furthermore that marijuana use by cigarette smokers does not significantly increase their risk of tobacco-related diseases. [Hancox, Pletcher, Tan, Tashkin, Tetrault]

A recent study showed that cannabis use is not carcinogenic. [Quoix]

A review of 19 studies found no association between marijuana and lung cancer. [Mehra] The most recent investigation confirms this reality. [Lee]

There is no association between pot smoking and head/neck cancer. [Chacko, Llewellyn, Rosenblatt, Zhang]

Marijuana use is not independently associated with CV risk factors. [Mittleman, Rudondi, Sidney and Tolan]

The only context in which marijuana confers excess CV risk is elderly MI survivors. [Aryana, Mukumal]

Marijuana smoking reduces the risk of becoming obese and improves virological outcomes in chronic hepatitis C. [Le Strat, Sylvastre]

What is the association between pot use and psychiatric illness?

There is no increased risk of anxiety disorders in marijuana users. [Harder, Moore, Zvolensky]

There is no significantly increased risk of affective disorders in recreational marijuana users. [Moore, Robson]

In an editorial assessment of the alleged association between pot use and psychosis, experts concluded that researchers “jumped the gun” by failing to find a causal link. [Double]

It has been shown that marijuana use per se cannot induce psychosis in asymptomatic individuals lacking a strong familial and environmental predisposition. [Irriber, Henquet, van Os]

There is no association between pot use and suicide in the absence of a predisposing psychiatric comorbidity. [Hall, Moore, Price]

In an 11,253-subject investigation, Dregan reported that pot users – unlike users of other drugs – tested favorably for various parameters of cognition.

Pot use improves neurocognitive function in bipolar patients and is not associated with risk-significant cognitive dysfunction. [Grant, Pope, Ringen]

How does marijuana use stack up as a driving risk?

“[T]he true effect of cannabis is to reduce the risk of killing or seriously injuring oneself in a traffic crash, although the studies probably underestimate the actual degree of risk reduction.”

Institute for Environmental Science and Research, New Zealand
Epidemiology Reviews 21(1999):222

A brand new analysis of nine studies stipulated a 1.9-fold excess crash risk in persons testing positive for cannabis. However, by far the largest study in this review showed that this risk is negligible. [Asbridge]

In a French study, the accident risk was slightly increased in pot users, as compared to 8-fold greater in those testing positive of blood alcohol. [Biecheler]

Heishman found that the driver performance effects of marijuana use were no greater than those reproduced with minimal alcohol intake.

Elliott showed that the incidence of driving offenses is consistently higher in cigarette smokers than pot users.

Nicholson discovered that persons testing positive solely for cannabis had a 41% lower risk of fatal crashes than those who tested negative. In a New Zealand study, this risk was shown to be 30% lower. [Bates]

A number of findings in various studies explain why the driving risk is low in cannabis-only consumption. [Bates, Calabria, Smiley]

Pot users, as compared to all other drivers:
• Drive slower
• Are less likely to tailgate
• Are less inclined to overtake and pass other drivers
• Take fewer overall risks while driving

It is likely that, when compared with recreational marijuana indulgence, cell phones exert a far greater adverse effect on driving-related morbidity and mortality!

What is the effect of cannabis use on mortality?
“A recent editorial in this journal implied that as many as 30,000 deaths in Britain might be caused by smoking cannabis. The current knowledge base does not support the assertion that it has any notable adverse public health impact in relation to mortality.”

Stephen Sidney
Kaiser Permanente Medical Care Program
British Medical Journal
327(2003):636[editorial]

The editorial alluded to by Sidney is emblematic of government-incited disinformation.

In the landmark marijuana mortality study, 65,171 subjects were followed for 10 years. There was no extra mortality associated with marijuana use after controlling for HIV-1 infection. [Sidney]

In another mortality assessment, CV mortality was somewhat less in pot users than in non-users and cancer mortality was significantly lower in those indulging in cannabis. [Muhuri]

In a Swedish study of military conscripts, cannabis use had no adverse effect on long-term mortality after controlling for tobacco use. [Andreasson]

In a 30-year follow-up of substance abusers, there was no increase in drug-related or non-drug-related mortality in those who smoked pot. [Nyhlén]

On balance, the “evidence” for mortality due to recreational marijuana use rests solely in baseless assertions by political opportunists.

What are the insurability implications of medical marijuana?
The term “medical marijuana” is ambiguous and is variously used for endogenous endocannabinoids, phytocannabinoids and synthetic cannabinoids. [Bostwick]

What we do know is that far more addicting and abusable substances – opiates, amphetamines and barbiturates – have been approved by governmental bodies for routine use in medicine.

Marijuana has been shown to afford significant medicinal benefit in a wide range of prevalent disorders: [Bifulco, Gurley, Lal, Lee, Leung, Piomelli, Wang, Watson]
• Alzheimer’s disease – according to a CNN report on 10/6/06
• Cancer treatment and prevention
• Chemotherapy-induced nausea/vomiting
• Asthma
• Glaucoma
• Migraine
• Neuropathic pain due to various causes
• Withdrawal from addiction to harmful drugs
• Inflammatory bowel disease
• Tourette’s syndrome
• Spasticity

“Public approval and political expediency rather than scientific data drive the continued implementation of [marijuana] laws ... the federal government thumbs an illogical nose at contemporary public sentiment, recent scientific discoveries and potentially head-to-toe therapeutic breakthroughs.”

J. Michael Bostwick, MD
Mayo Clinic
Mayo Clinic Proceedings
87(2012):172
According to a prominent law professor: [Cohen]

“[T]he US Congress had failed to follow its usual review process dictated by the Controlled Substances Act that requires scientific evaluation and testimony before legislative action. It declared cannabis illegal in the absence of such evidence.”

Despite these shenanigans, by 2009 16 states had already approved medical marijuana legislation and universal acceptance is inevitable. (Aggarwal)

The comprehensive evidence cited in this essay leads us to three conclusions regarding the insurability of adult recreational marijuana users:

1. It confers no excess medical, psychiatric, driving or mortality risk.
2. It is grossly inappropriate to impose “tobacco user” premium rates on marijuana-using applicants who do not also smoke tobacco.
3. There is no basis for arbitrarily denying preferred risk coverage to recreational marijuana users who otherwise qualify.

It is likely that attempts to defend our current practices with informed clients, attending physicians and regulators, as well as in the setting of contested claims, will be unsuccessful.

And, in the event an insurer’s protective value study suggests excess risk associated with testing positive for marijuana use, this finding must be regarded as an epiphenomenon until study results are adequately controlled for tobacco smoking and excess alcohol use, as well as both medical and psychiatric comorbidities.

It is time to abandon our obsolete marijuana underwriting practices.

References

Begg. The Burden of Disease and Injury in Australia, 2003; published by the Australian Institute of Health and Welfare
Calabria. Drug and Alcohol Review. 29(2010):318
Chacko. Urology. 67(2006):100
Clark. Medical Science Monitor. 17(2011):RA249
Grant. NIH Workshop on Clinic Consequences of Marijuana. Rockville, MD; April 13, 2001
Hancock. European Respiratory Journal. 35(2010):42
Heishman. Pharmacology, Biochemistry and Behavior. 31(1989):649
Lal. European Journal of Gastroenterology and Hematology. 23(2011):891
Lee and Milman. Clinical Chemistry. 57(2011):1127
Robson. Expert Opinion on Drug Safety. 10(2011):675
Rosenblatt. Cancer Research. 64(2004):1409
Smiley. The Health Effects of Cannabis. Toronto Center for Addiction and Mental Health; 171
Tashkin. Monaldi Archives of Chest Disease. 69(2005):93
Tetra. Archives of Internal Medicine. 167(2007):221
Xiang. Cancer Epidemiology, Biomarkers and Prevention. 9(1999):1071

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