



Recreational marijuana Where's the risk?

In 2015 we published a white paper with an underwriting perspective on marijuana use. The following paper takes a look at the developing landscape after two years.

In 1969, a Gallup poll indicated 12 percent of Americans were in favor of legalizing marijuana. After four decades of increasing support, 60 percent of Americans currently support the legalization of marijuana.^{1,2} Increasing acceptance of marijuana for both medical and recreational use is indicated by the number of states that have legalized its use. Eight states and the District of Columbia have legalized recreational marijuana and more states are considering legalization for recreational or medical use. Acceptance is also reflected in the number of users. According to a study published by The National Survey on Drug Use and Health, in 2014, 2.5 million persons age 12 years or older used marijuana for the first time. At the same time, the estimated national prevalence of perceived availability (i.e., that it would be fairly easy or very easy to obtain marijuana) among persons aged 12 years or older increased by four percentage points compared to 2002, to 60.2 percent, while prevalence of perceived great risk from smoking marijuana has decreased.³

Legal cannabis is a big business

Legal cannabis is a big business. For January and February 2017, Colorado sales of both medical and recreational marijuana—\$235 million—surpassed 2016 sales for the same period by 30 percent.⁴ The bulk of the increase comes from adult recreational-use sales. Colorado sales tax on marijuana generated over \$172 million in 2016.⁵ In addition, Microsoft's announcement that it would begin offering software to state governments that would help them track marijuana plants "from seed to sale" indicates the beginning of a legitimate infrastructure for the industry.⁶

Potency and synthetic cannabinoids

The marijuana in use today is more potent than that of the mid-twentieth century. Due to selective plant breeding, the THC (the psychoactive ingredient in marijuana) concentration in marijuana plants has increased from around four percent in 1995 to 12 percent in 2014.⁷ In addition, synthetic cannabinoids have appeared, which are more potent and more dangerous than herbal marijuana. Synthetics are man-made chemicals that are either sprayed onto dried and shredded plant material so they can be smoked (known as "herbal incense"), or are distributed as a liquid so they can be vaped (known as "liquid incense").⁸ These new psychoactive substances (NPS) are potent: one drug, with the street name AK47 24Karat Gold, is 85 times as potent as THC. A study published in the *New England Journal of Medicine* identified this compound in the blood and urine of individuals who were part of a mass intoxication of 33 people in a New York City neighborhood in July 2016.⁹ The *New York Times* reported that bystanders described the victims as "zombies," because of their "trancelike state, groaning and moaning, their eyes lifeless and their movements slow and seemingly mechanical."¹⁰

Marijuana dependency

The DSM-5 lists marijuana dependency as a single disorder. Those diagnosed with the disorder must meet at least two of 11 symptoms, which include: obsessive craving, withdrawal, lack of control, and negative effects on personal or professional responsibilities. Severity is rated as mild, moderate, or severe, depending on the number of symptoms met. A new study by the National Institute on Alcohol Abuse and Alcoholism (NIAAA)¹¹ shows that marijuana dependency is twice as common among men as women, and that younger age groups are much more likely to experience the disorder than people

age 45 and over. The risk for marijuana dependency peaks during late adolescence and is associated with increasing mental health problems if used heavily in adolescence years. As marijuana use increases, marijuana dependency is also increasing. The same study found that 2.5 percent of adults — nearly 6 million people — experienced the disorder in the past year, while 6.3 percent of marijuana users had met the diagnostic criteria for the disorder at some point in their lives.

Underwriting applicants who use marijuana

When assessing an applicant who uses marijuana these key factors should be considered:

- For medical marijuana users, what is the underlying disease?
- Age of applicant.
- What type of marijuana is being consumed (herbal cannabis, oils, waxes)?
- How much is being consumed and with what frequency?
- How is the marijuana being consumed (smoked, vaped, ingested)?
- Comorbid impairments.
 - Mental health disorders.
 - Alcohol or other substance abuse.
 - Lung or cardiovascular disease.

Always ask, "Where's the risk?"

Medical and recreational marijuana use is increasing. Although it remains an illegal, Schedule 1 drug, the number of users has never been higher and it has never been easier to obtain. Scientific research is still needed, specifically on the active components of cannabis in non-smoked form. As marijuana use and cannabis-derived medications evolve, the insurance industry will be required to more fully understand this drug. When underwriting marijuana use, it is critical to identify, "Where's the risk?"

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