



Recreational Marijuana Users More Likely To Misuse Prescription Drugs, According to National Study by Quest Diagnostics

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Quest Diagnostics Health Trends™ analysis also finds marijuana is the most commonly abused drug in the United States, but medical marijuana users are not more likely to misuse other drugs

MADISON, N.J., April 8, 2013 /PRNewswire/ -- Individuals who use marijuana recreationally are more likely to misuse other drugs, including pain-controlling, but potentially addictive narcotics, sedatives and other prescription medications, than individuals who do not use marijuana, according to a new national study issued today by Quest Diagnostics (NYSE: DGX), the world's leading provider of diagnostic information services.

The study also found that while marijuana was the most frequently abused drug of patients tested, individuals who used prescribed marijuana (prescription cannabinoids) were not more likely to misuse other drugs than non-marijuana users.

The Quest Diagnostics Health Trends™ report, *A Report on Marijuana and Prescription Drug Misuse in America*, is believed to be one of the largest studies of the correlation between marijuana and prescription drug use in a nationally representative population based on objective laboratory data.

The report is now available at QuestDiagnostics.com/HealthTrends. The company will present additional findings from the report during the 2013 American Academy of Pain Medicine (AAPM) Annual Meeting, April 11-14, 2013, in Fort Lauderdale, Florida (booth 207).

"This study provides important evidence that people who use marijuana have greater risk of other forms of drug misuse. Future research is needed to determine the exact nature of this relationship and to inform substance prevention efforts," said Christian Thurstone, M.D., assistant professor, psychiatry, University of Colorado School of Medicine and medical director of Denver Health, an adolescent substance abuse program in Denver.

The new Quest Diagnostics Health Trends study is based on an analysis of 227,402 de-identified urine lab-test results of patients, age 10 years and older, of both genders in 49 states and the District of Columbia performed by the company's clinical laboratories in 2011 and 2012 in connection with the company's prescription drug monitoring services. These services aid clinicians in monitoring patients for appropriate use of up to 26 commonly abused prescription medications, such as opioids and sedatives, and illicit drugs, such as marijuana and cocaine.

The key findings for marijuana use:

- Marijuana was the most frequently detected non-prescribed drug, found in more than one in four (26%) of patients with inconsistent test results. An inconsistent result is one that indicates a patient did not use medications as prescribed, such as by combining them with other prescription or illicit drugs. These findings confirm other research on the prevalence of marijuana use, including a March 2013 Quest Diagnostics Drug Testing Index™ report that found marijuana was the most frequently detected drug among the nation's workforce.
- Nearly half (45%) of patients who used marijuana recreationally also used other non-prescribed drugs -- most commonly sedatives and narcotic pain killers -- compared to approximately one third (36%) of non-marijuana users. These findings suggest recreational marijuana users are 1.3 times more likely than non-marijuana users to use or combine potentially dangerous and addictive prescription and illicit drugs without a legitimate prescription or a clinician's oversight.
- Thirty-seven percent of medical marijuana users (those taking prescribed cannabinoids as pharmaceutical preparations) misused other drugs. Although this data shows a significant percentage of patients prescribed cannabinoids also misused other drugs, it does not indicate they were less responsible than other patient populations.
- Recreational marijuana users were only slightly more likely than non-users not to use their prescription drugs. A patient may not take a prescribed drug due to financial constraints and diversion, including illegal drug sales.

"Our data raises the possibility that people who use marijuana recreationally are more likely to misuse their prescribed medications and other drugs. This is disturbing in light of the prevalence of marijuana use and the epidemic of drug addiction and death due to prescription medication abuse in the United States," said F. Leland McClure, Ph.D., director, pain management, mass spectrometry operations, Quest Diagnostics.

"We also found that patients taking prescription cannabinoids did not combine other drugs at a significantly higher rate than other patients," said Dr. McClure. "While additional research is needed to confirm the findings, patients using prescribed cannabinoids may do so largely for legitimate medical reasons and not to engage in the type of abusive drug behavior for which this patient population is sometimes accused."

The drug marijuana is derived from the leaves, stems and other parts of the hemp plant *Cannabis sativa*, contains delta-9-tetrahydrocannabinol, or THC, a psychoactive chemical which affects areas of the brain associated with pleasure, memory, thinking and coordinated movement. Although Federal law prohibits marijuana possession, distribution or use, 18 states and the District of Columbia now permit marijuana use for medicinal purposes and Colorado and Washington permit recreational use of marijuana among adults.

Quest Diagnostics is a leader in prescription and workplace drug monitoring by diagnostic testing. The company's Drug Testing Index™ is widely considered a benchmark in national trends of drug use by American workers. The company extended its drug monitoring services with the addition of a new portfolio of prescription drug monitoring services for clinicians in 2010.

A [separate press release](#) issued last week by Quest Diagnostics provides additional information on the report's findings on overall prescription drug misuse rates.

Study Strengths and Limitations

The study's strengths are its size and national scope; use of an objective laboratory method, versus surveys or polls, which may be subject to user misrepresentation or error; confirmation of all positive drug screens by mass spectrometry, the most advanced drug testing method; and inclusion of patients under care by clinicians in a primary care or pain-management setting, but exclusion of those in drug rehabilitation or addiction treatment settings, where unusually high rates of drug misuse may be expected.

Study limitations include geographic disparities; inability to confirm drug misuse through access to medical records or clinical evaluation; and technological factors and patient variations, such as drug metabolism and hydration state, that may affect the reliability of a minority of results. Quest Diagnostics does not provide services to all clinicians in the U.S., so results are not broadly representative of all patients taking prescription medications in the U.S. It is also possible some clinicians tested patients due to appropriate suspicions of drug misuse, and that some clinicians omitted to specify all drugs prescribed for the patient on a test order, skewing some results.

The company's Quest Diagnostics Health Trends studies are performed in compliance with applicable privacy regulations, the company's strict privacy policies and as approved by the Western Institutional Review Board.

About Quest Diagnostics Health Trends™ Reports

Quest Diagnostics Health Trends Reports identify trends in disease and wellness based on analysis of de-identified test results from Quest Diagnostics, which maintains the largest private clinical laboratory database in the United States. Quest Diagnostics Health Trends Reports are published in peer reviewed medical journals and by the company as a public service. Previous reports have focused on allergies and asthma, chronic kidney disease, diabetes, heart disease, H1N1 (2009) Influenza, rotavirus and workplace wellness. Visit QuestDiagnostics.com/HealthTrends.

About Quest Diagnostics

Quest Diagnostics is the world's leading provider of diagnostic information services that patients and doctors need to make better healthcare decisions. The company offers the broadest access to diagnostic testing services through its network of laboratories and patient service centers, and provides interpretive consultation through its extensive medical and scientific staff. Quest Diagnostics is a pioneer in developing innovative diagnostic tests and advanced healthcare information technology solutions that help improve patient care. Additional company information is available at QuestDiagnostics.com. Follow us at Facebook.com/QuestDiagnostics and Twitter.com/Quest DX.

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Quest Diagnostics Contacts:

Wendy Bost (Media): [973-520-2800](tel:973-520-2800)

Dan Haemmerle (Investors): [973-520-2900](tel:973-520-2900)

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