

Youth Health Impacts of Marijuana Use

Youth Health Impact #1:

Negative health impacts of marijuana use can be especially profound in the developing adolescent brain. Regular marijuana use beginning in the adolescent years is linked to a decline in IQ. ⁽¹⁾

Other Consequences of Marijuana Abuse are classified into three sets of symptoms.

ACUTE Consequences: (present during intoxication)

- impaired short-term memory
- impaired attention, judgment and other cognitive functions
- impaired coordination and balance
- increased heart rate
- psychotic episodes

PERSISTENT Consequences: (lasting longer than intoxication, but may not be permanent)

- impaired memory and learning skills
- impaired sleep

LONG-TERM (cumulative effects of chronic abuse)

- can lead to addiction
- increases in risk of chronic cough, bronchitis
- increases risk of schizophrenia in vulnerable individuals
- may increase risk of anxiety depression, and amotivational syndrome (often co-reported) ⁽²⁾

Youth Health Impact #2:

Youth marijuana rates increase as marijuana is promoted. Referring to marijuana as benign or medicinal without warning of potential negative health impacts increases youth use.

Two Factors Predict Increased Use Rates: 1) An increase in the perceived or actual availability of the drug, and 2) Decreased perception of risk of harm associated with use of the drug. ⁽⁶⁾

People ages 12-17 were more likely to use marijuana in states permitting medical marijuana. ⁽³⁾

Massachusetts has the second highest youth use rates in the country. ⁽⁴⁾ New Mexico (a medical marijuana state) has the highest rates of teen marijuana use in the nation with 28 percent of teens reporting having smoked marijuana in the past month. ⁽⁵⁾

In Colorado, in a Denver area Youth Substance Abuse Treatment Center, 74% of addicted teens had used someone else's medical marijuana an average of 50 times. "Diversion" is the process in which a supply of marijuana recommended for one person is given, traded, or sold to someone else who is not a registered medical marijuana user. ⁽⁷⁾

Suspensions for drug violations in Colorado schools rose 45 percent between 2007-08 and 2010-11 while expulsions for drug violations increased 35 percent and referrals to police increased 17 percent. In Denver, the increase in referrals to law enforcement for drug violations was particularly high, spiking 71 percent in four years. Denver police in 2010 began listing marijuana arrests at city schools separately from other drug incidents – their records show 179 arrests for marijuana possession or sale at 43 Denver Public Schools between Aug. 1, 2010 and June 30, 2011, with a third of those arrests occurring at elementary, middle, and K-8 schools. ⁽⁸⁾

Youth Health Impact #3:

The Potency of THC* content in marijuana is rising significantly. ⁽⁹⁾

Definition: (* *tetrahydrocannabinol: the active ingredient in cannabis, giving it its narcotic and psychoactive effects*)

This increase raises concerns that the consequences of marijuana use could be worse than in the past, particularly among new users, or in young people, whose brains are still developing. ⁽¹⁰⁾ The first full series of scans of the developing adolescent brain studied over a hundred young people as they grew up during the 1990s and showed that our brains undergo a massive reorganization between our 12th and 25th years. ⁽¹¹⁾

Higher THC levels are linked to increased rates of dependence and addiction, as evidenced by the steeper increased marijuana treatment admissions rates between 1993 and 2007 when compared with increases in use rates. The number of marijuana treatment admissions per regular user nearly doubled.⁽¹²⁾

Youth Health Impact #4:

Underage marijuana use has increased in response to promotional messaging. By 2001, the proportion of under-18 users of marijuana had increased by 67% since the 1960's. Researchers attribute this to the significant increase of pro-drug messages in multimedia venues. Students of all ages today have access to the websites that promote marijuana use, kits for beating drug tests, and can advertise and sell marijuana and paraphernalia. Meanwhile, the prevalence of higher potency marijuana is increasing.⁽¹³⁾

Youth Health Impact #5:

Marijuana addiction is on the rise. There are growing numbers of adolescents in treatment or rehab in MA for marijuana use. One in six teenagers who use becomes dependent. There are four "Recovery High Schools" in Massachusetts, with two more planned. These are schools for children recovering from substance abuse and addiction for whom a return to a regular school setting puts them at high risk for relapse. Marijuana figures largely in their addiction stories.

Marijuana is currently the number one substance that puts kids in substance abuse treatment – more than all other illicit drugs combined – That's a greater rate of dependence or abuse of marijuana than for all sedatives, inhalants, heroin, stimulants, hallucinogens, tranquilizers, cocaine and pain reliever use and abuse combined.⁽¹⁴⁾

Youth Health Impact #6

Youth marijuana use is consistently shown in research data to be linked to other illicit drug use. Regular use of marijuana is associated with an increased risk of using other illicit drugs, and with abusing or becoming dependent upon other illicit drugs. This finding is particularly strong during adolescence.⁽¹⁵⁾

POTENTIAL RESPONSE for Youth Health Impacts:

Multiple regulatory measures to reduce access by adolescents:

- Restrict advertising on marijuana, including sponsorships, point-of-purchase marketing, or depictions in entertainment venues.
- No Product Sampling in stores or any other place.
- Smoke-free laws apply to marijuana use where tobacco is banned.
- Disallow consumption of medical marijuana in all public places.
- Medical marijuana subject to Prescription Drug Monitoring Program to prohibit multiple purchases and abuse.
- No distribution within 1000 feet of schools or other places where children or adolescents frequent.
- No promotional signage.
- Restrict advertising by physicians building business on primarily or substantially on medical marijuana recommendations.
- No visibility of the operations from the physical exterior of businesses.
- Increased education on the health harms associated with marijuana use.
- Licensing fees to build in funds to cover cost of drug abuse education programs to reach all Massachusetts youth and parents in all school districts.
- Require that data and information on the risk of health harms be included with every sale (to discourage the diversion of the drug to underage users).

- Disallow recommendations for children under the age of 21, or
- Require parental consent for under age 18 recommendations, and parent notification for recommendations made for those age 18 through 21.
- Disallow on-line, faxed-in, or web-cam delivered marijuana recommendations by doctors.
- Require physicians to receive continuing education on the health impacts of marijuana use in the adolescent population before they are allowed to write a recommendation for marijuana, and require that the education conform to the findings of the National Institutes of Health and the National Institute on Drug Abuse, including effects of second hand smoke.
- Limit recommendations to expire in 30 days maximum for minors with no more than 5 grams per day.
- Limit the number of patients a caregiver can have, and the number of plants allowable for each patient, where a caregiver can have no more than 15 plants at a time.
- Require an in-person office visit with a Massachusetts licensed physician before a marijuana recommendation can be provided. Require expiration dates (up to 3 months) on all marijuana use recommendations, and continued medical supervision and return office-visits before the recommendation is renewed.
- Establish dosage and THC concentrations at lowest levels.

Regulatory measures to assure that children are not harmed if they do gain access to medical marijuana:

- Require an annual expiration date on medical marijuana cards.
- Require photo ID on marijuana card.
- Require continued doctor supervision, including an office visit with a licensed Massachusetts physician, before another recommendation can be given.
- Require certified lab testing to measure and quantify the THC and other cannabinoid levels that are present in the marijuana product.
- Require that verified product content and safety data sheet be printed on the product label, along with warnings of possible side effects as enumerated by the National Institutes of Health.
- Require certified lab testing for quality control to assure that there are no herbicides, pesticides, toxic heavy metals or molds present in the product.
- A substantial penalty fee on the marijuana industry for every underage user or new user accessing diverted medical marijuana.
- Require that the symptoms of drug dependence and addiction, as published by the National Institute on Drug Abuse, be distributed with every sale.

Information and Data Sources:

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- (5) *Taking teens: 17 top states for marijuana use.* www.cbsnews.com, by Michelle Castillo/ CBS NEWS/ Aril 3, 2012.
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- (14) Substance Abuse and Mental Health Services Administration (2009).
- (15) Cannabis use and other illicit drug use: testing the cannabis gateway hypothesis. Fergusson DM, Boden JM, Horwood LJ, Christchurch School of Medicine and Health Sciences, Christchurch, New Zealand. david.fergusson@chmeds.ac.nz, <http://www.ncbi.nlm.nih.gov/pubmed/16548935>