

Marijuana and Youth: Utilizing Science to Inform Policy



Brain development continues until the age of 25

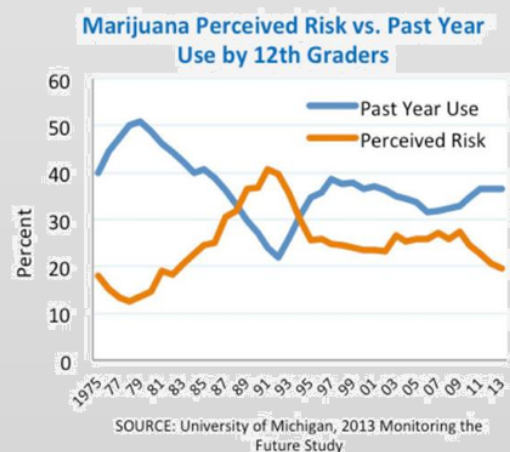
Cannabis use in youth is associated with decreased brain connections and volumes in areas involved with memory, decision-making, self-control, and motor functions.¹

Effects of cannabis use in adolescence

- Decreased academic performance, increased drop-out rates, and decreased college enrollment and educational achievement.
- Decreased occupational performance and increased unemployment later in life.
- Increased rates of and worsening of psychotic disorders (including 2-5x increase in schizophrenia), mood, and anxiety disorders.
- Decreased IQ by 8 points on average.

Rates of Use²

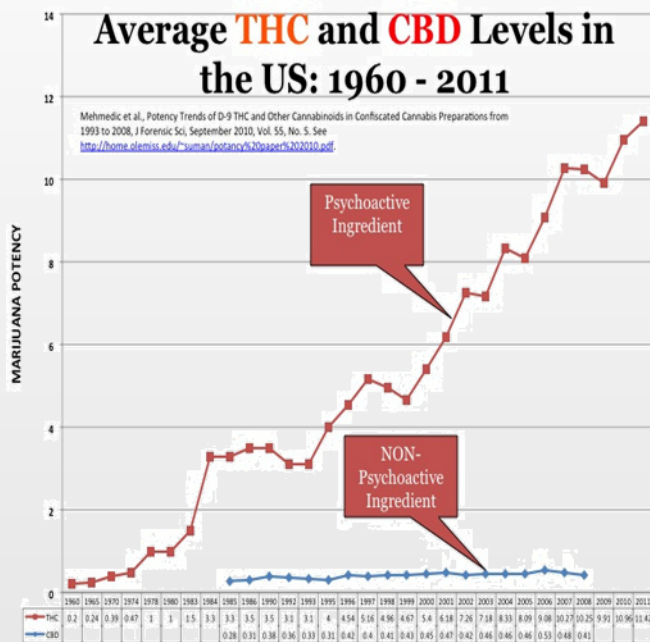
- 45% of US high school seniors have used cannabis
- 23% of US high school seniors use currently
- 6% of US high school seniors use daily
- Decreased perceived risk is associated with increased use in youth.



Cannabis Use and Addiction³

- Earlier use predicts greater risk of developing addiction to cannabis.
- People who begin using marijuana before the age of 18 are 4–7 times more likely than adults to develop a marijuana use disorder.⁴
- Youth who use cannabis are at greater risk for developing addictions to other substances including opioids.

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Marijuana Potency and Youth⁵

- Currently marijuana has higher potency (12% THC) vs. marijuana in 1990's (3%) and edibles and concentrates are even higher (62%).
- Increased potency cannabis use associated with dangerous effects including unrelenting vomiting, difficulty breathing, increased heart rate, and severe psychotic symptoms.
- Increased potency has been associated with increases in adolescent detox/rehab admissions and calls to poison control due to child marijuana ingestion and exposures (2-fold increased rate of accidental exposure in children less than 6 in states with legalized marijuana).

Recommendations

NJCCAP, NJPA and NAMI oppose any legislation that will increase access of marijuana to adolescents. We recommend the following steps be taken:

- Increased funding of educational programs for youth and their families about the effects of marijuana on youth.
- Increased funding of research into the effects of marijuana on youth and treatment strategies for marijuana addiction.
- Increased access to evidence based substance treatment programs for youth.
- Implementation of steps to prevent the distribution of marijuana and cannabis products to children and adolescents.

¹Volkow, ND, et al. Adverse health effects of marijuana use. *N Engl J Med.* 2014 June 5; 370 (23): 2219-2227.

²Johnston, LD, et al. (2014). *Monitoring the Future national results on drug use: 1975-2013: Overview, Key Findings on Adolescent Drug Use.* Ann Arbor: Institute for Social Research, The University of Michigan.

³Hall, W, Degenhardt L. Adverse health effects of non-medical cannabis use. *Lancet.* 2009 Oct 17; 374(9698): 1383-91.

⁴Winters KC, Lee C-YS. Likelihood of developing an alcohol and cannabis use disorder during youth: association with recent use and age. *Drug Alcohol Depend.* 2008;92(1-3):239-247.

⁵ElSohly MA, et al. Changes in cannabis potency over the last 2 decades (1995-2014); Analysis of current data in the United States. *Biol Psychiatry.* 2016 Apr 1; 79(7):613-9.