## **USING EVIDENCE** TO TALK ABOUT CANNABIS

**CLAIM RESPONSE** 

[Cannabis] is a drug that can result [in] serious, long-term consequences, like schizophrenia."

- Kevin Sabet, Smart Approaches to Marijuana (Baca, 2015)

- While some studies point to a link between cannabis use and an increased risk of symptoms associated with schizophrenia (Fergusson, Horwood, & Ridder, 2005; Zammit, Allebeck, Andreasson, Lundberg, & Lewis, 2002), a recent study concluded that cannabis use by itself did not increase the risk of schizophrenia (Proal et al., 2014). Scientists have repeatedly noted the difficulty of establishing causality in studies about cannabis use and mental illness (Moore et al., 2007; Volkow et al., 2014). This means that while people who develop schizophrenia may have previously used cannabis, it is difficult to unequivocally state that this use is what caused them to develop the condition (Pierre, 2011).
- If cannabis use caused schizophrenia, we would expect to see increases in incidence as rates of cannabis use have increased, but this trend has not been observed (Hall, 2014). One UKbased study reported that, given that cannabis use has increased fourfold among the UK population between the early 1970s and 2002, there should be a corresponding 29% increase in cases of schizophrenia among men, and 12% increase among women between 1990 and 2010 (Hickman et al., 2007). Instead, during this time period (1996-2005), it was found that annual cases of schizophrenia in the UK were either stable or declining (Frisher et al., 2009). These findings strongly suggest that cannabis use does not cause schizophrenia.
- Scientific research has suggested that young people who are genetically predisposed to schizophrenia may have their risk of developing this condition increased by using cannabis (Caspi et al., 2005). However, scientific findings are inconsistent on the magnitude of risk posed by cannabis use, as well as the frequency of use that is associated with mental illness (Andréasson, Engström, Allebeck, & Rydberg, 1987; Caspi et al., 2005; Moore et al., 2007).

**BOTTOM LINE:** While scientific evidence supports an association between cannabis use and schizophrenia, a causal relationship has not been established.

## **REFERENCES:**

Andréasson, S., Engström, A., Allebeck, P., Rydberg, U., 1987. Cannabis and schizophrenia: A Longitudinal Study of Swedish Conscripts. The Lancet 330, 1483-1486.

Baca, R., 2015. Here's anti-legalization group Project SAM's response to CNN's 'Weed 3'. <a href="http://www.thecannabist.co/2015/04/20/weed-3-cnn-project-sam-kevin-sabet/33728/">http://www.thecannabist.co/2015/04/20/weed-3-cnn-project-sam-kevin-sabet/33728/</a>
Caspi, A., Moffitt, T.E., Cannon, M., McClay, J., Murray, R., Harrington, H., Taylor, A., Arseneault, L., Williams, B., Braithwaite, A., Poulton, R., Craig, I.W., 2005. Moderation of the effect

of adolescent-onset cannabis use on adult psychosis by a functional polymorphism in the catechol-O-methyltransferase gene: Longitudinal evidence of a gene X environment interaction. Biological psychiatry 57, 1117-1127.

Fergusson, D.M., Horwood, L.J., Ridder, E.M., 2005. Tests of causal linkages between cannabis use and psychotic symptoms. Addiction 100, 354-366.

Frisher, M., Crome, I., Martino, O., Croft, P., 2009. Assessing the impact of cannabis use on trends in diagnosed schizophrenia in the United Kingdom from 1996 to 2005. Schizo-

phrenia Research 113, 123-128.

Hall, W., 2014. What has research over the past two decades revealed about the adverse health effects of recreational cannabis use? Addiction 110, 19-35.

Hickman, M., Vickerman, P., Macleod, J., Kirkbride, J., Jones, P.B., 2007. Cannabis and schizophrenia: model projections of the impact of the rise in cannabis use on historical and future trends in schizophrenia in England and Wales. Addiction 102, 597-606.

Moore, T.H., Zammit, S., Lingford-Hughes, A., Barnes, T.R., Jones, P.B., Burke, M., Lewis, G., 2007. Cannabis use and risk of psychotic or affective mental health outcomes: a system-

Proal, A.C., Fleming, J., Galvez-Buccollini, J.A., DeLisi, L.E., 2014. A controlled family study of cannabis users with and without psychosis. Schizophrenia Research 152, 283-288. Volkow, N.D., Baler, R.D., Compton, W.M., Weiss, S.R.B., 2014. Adverse effects of marijuana use. New England Journal of Medicine 370, 2219-2227. Zammit, S., Allebeck, P., Andreasson, S., Lundberg, I., Lewis, G., 2002. Self reported cannabis use as a risk factor for schizophrenia in Swedish conscripts of 1969: Historical cohort study. British medical journal 325, 1199-1201.