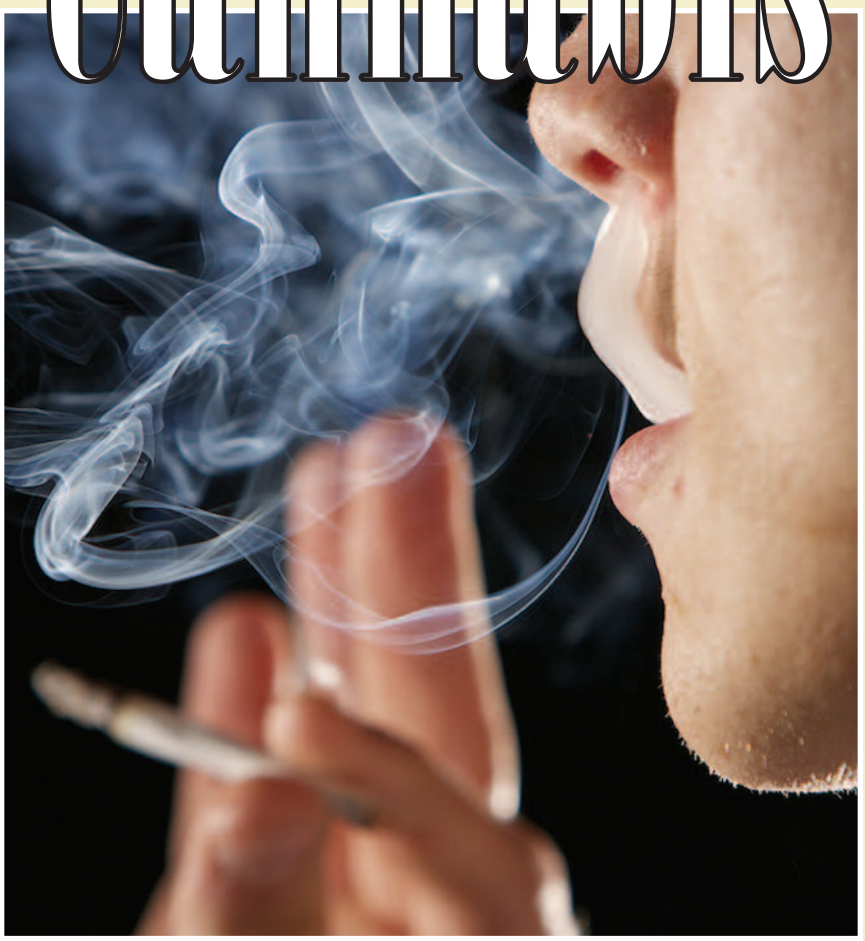
New guidelines aim to reduce risks associated with cannabis



by **Brad Hopkins,**
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With the impending 2018 legalization of cannabis in Canada, the Canadian Research Initiative in Substance Misuse have released an updated version of the "Canada's Lower-Risk Cannabis Use Guidelines" (LRCUG) with the stated aim of protecting public health and public safety.

The comprehensive update of the evidence and recommendations were published in the *American Journal of Public Health* (Aug. 2017; 107(8)). The authors also published an evidence brief for clinicians and a two-page brochure for the public.

"Experiences from other jurisdictions have suggested that legalization does not necessarily—at least in the short run—translate into consistent public health improvements, but may increase specific problems," said the investigators. "The data show, cannabis use is associated with a variety of health risks, including several for which the evidence is 'substantial.' The primary challenge for public health-oriented cannabis policy is to prevent adolescent or young adult cannabis users from developing severe—acute or chronic—health problems from use."

The guideline features 10 recommendations that focus on abstinence, age of initial use, choice of cannabis products, cannabis use methods and practices, frequency and intensity of use, cannabis use and driving, special-risk populations, and combining risks or risk behaviours.

MANY MISCONCEPTIONS REGARDING CANNABIS

"There has been lots of misconceptions [about cannabis] and in a sense we have allowed the illicit market—the drug dealers—to do the marketing. That is clearly not a situation that is allowing us to provide clear information to the public," said study investigator Dr. Bernard Le Foll, head of the Translational Addiction Research Laboratory in the Campbell Family Mental Health Research Institute and medical head of Addiction Medicine Service, Centre for Addiction and Mental Health (CAMH), Toronto.

"We are hoping that with public health education, . . . clear evidence-based information will be disseminated that will allow people to make informed choices," said Dr. Le Foll.

"It is important for users to really [consider] that [cannabis] is not something that is safe 100 per cent. There are risks, and then they have to think of what the real risk is that they want to take," said Dr. Le Foll.

Dr. Le Foll summarized the LRCUG findings by stating that, "we know that people lose control when they use—they develop addiction and some people develop other consequences related to the cannabis use. But if they smoke intermittently, low dose, avoid smoking before driving, [and] . . . reduce exposure to smoke [inhalation], then those are very clear things that they can decide to do that will reduce their individual [health] risks."

Candice E. Crocker, PhD, said these guidelines were necessary because "the basic health information seems to be getting lost in the shuffle."

Dr. Crocker, Nova Scotia Early Psychosis Research Unit, assistant professor, Department of Psychiatry, Dalhousie University in Halifax, and colleagues ran focus groups involving high school and college students as part of development of a social media campaign called "Weedmyths" (www.weedmyths.ca).

"We really found that by age 15, a lot of the individuals are really set in their thoughts about how safe or unsafe cannabis is. But when you challenged them with 'well have you ever heard about someone who had a bad trip?,' they all had stories of somebody who had had a bad experience," said Dr. Crocker. "It was fascinating and frightening all at the same time."

"There is this attitude that [cannabis] is harmless, [but] nothing that alters your consciousness is harmless," said Dr. Crocker.

Dr. Robert Milin, head of the Division of Addiction & Mental Health and associate professor, Department of Psychiatry, University of Ottawa, said he thinks the guidelines are useful and clear. However, he would also have liked to have seen some additional comments along the lines of 'at this time we do not have a definition or guidelines for what is safe recreational use of marijuana' and that continued regular marijuana may be an impairment to achieving one's potential.

"I would use [these —*please turn to* **page 13**

LRCUG can help Canadians make best decisions for own health, wellbeing

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surrounding 'what the evidence says' conclusively about the harms of cannabis use, the LRCUG utilize precautionary principles and pragmatism to provide guidance based on the best available evidence. Given uncertainties about exactly who is at risk for harms, or how much use can cause harm, the LRCUG are a sound starting point for making coherent decisions in policy and clinical practice, and to help Canadians to make the best decisions for their own health and wellbeing.

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More research and information needed to prepare Canadians for legal cannabis

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guidelines] as a tool," said Dr. Milin, director of the Adolescent Day Treatment Unit, Youth Psychiatry Program, Royal Ottawa Mental Health Centre and consulting psychiatrist at the Dave Smith Youth Treatment Centre for substance use disorders. "I will share this information sheet with agencies and physicians as [cannabis] is presently a pretty hot topic of discussion and they often ask 'is there something that I can quickly look at that summarizes the important points?.' It is important to provide a consistent message when it comes to education on this topic."

Dr. Sabina Abidi, assistant professor and child/adolescent psychiatrist in the Department of Psychiatry at Dalhousie University in Halifax, agrees that the investigators "did a good job given the current research."

"Much of the research confirms a very strong association between cannabis, THC (tetrahydrocannabinol) in particular, and risks with driving, cognitive function, [and] . . . early onset psychosis," said Dr. Abidi. "But . . . proponents of cannabis [focus on] the fact that the research isn't causal—in that we can't prove the causality."

"What is so interesting to me is that the evidence on the flip side, the evidence related to the . . . potential benefits of THC. It is not conclusive, . . . yet that is being touted as . . . one of the reasons for legalizing [cannabis] for prescribing for doctors," said Dr. Abidi.

Dr. Milin noted it would have been helpful to have added certain anchor points with respect to marijuana use such as "the regular weekly use of marijuana in adolescents has been found to be threshold marker for the risk of developing cannabis use disorder".

RECOMMENDING ABSTAINING FROM CANNABIS USE

"I love that the first recommendation [is] abstinence. I think that is super important," said Dr. Abidi. "When I was training years ago, before we knew what we know now about the risks associated with THC and psychotic disorders, for example, we would have used a harm-reduction model associated with cannabis use with adolescents and now . . . I have shifted to starting with a primary recommendation of abstinence. In other words, if we don't warn youth of the potential risks and how to avoid them, that is in fact, causing more harm, particularly for youth that present with a psychotic experience."

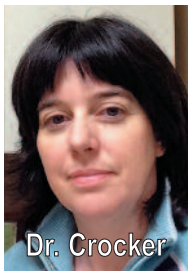
For patients already using cannabis, Dr. Abidi uses motivational interviewing to determine why and how frequently they are using; and she tries harm-reduction at that point. However, she said it is the best policy to be honest with youth, especially those at risk for psychosis, that abstinence is the safest choice.

CONTROVERSIAL AGE OF INITIAL USE

The age of initial use recommendation has been controversial. The LRCUG evidence-brief states that "early initiation of cannabis use (i.e., Most clearly that which begins before age 16) is associated with multiple subsequent adverse health and social effects in young adult life."

"I found it a bit curious that in the text of the systematic review that they talk about substantial evidence, which many of us have found, with risks associated with youths before the age of 18, but in the guidelines they put youths before the age of 16," said Dr. Crocker.

Dr. Crocker was involved in the Canadian Psychiatric Association position statement titled "Implications of Cannabis Legalization on Youth and Young adults (Apr. 12, 2017) in which they recommend that access to cannabis should not be allowed until 21 years of age and that THC potency should be restricted for those between 21 and 25 years of age because cannabis is associated with an increased risk of schizophrenia. Dr. Crocker and colleagues also noted that cannabis may increase the risk of depression; and higher levels of THC can worsen panic disorder and other anxiety disorders.



The same age of use recommendation had been proposed by the Canadian Medical Association (CMA) in a submission in response to the federal Task Force on Marijuana Legalization and Regulation (Aug. 29, 2016).

Yet, in Bill C-45, the Canadian federal government set the national minimum age for purchase of cannabis at 18 years of age; with no limits on THC potency.

An editorial published in the *Canadian Medical Association Journal* (May 29, 2017; 189(21)) by the interim editor-in-chief, Dr. Diane Kelsall, suggested that by not heeding the CMA's recommended age for consumption, the bill does not protect the health of Canada's youth

"Cannabis should not be used by young people," said Dr. Kelsall. "It is toxic to their cortical neuronal networks, with both functional and structural changes seen in the brains of youth who use cannabis regularly."

Dr. Benedikt Fischer, lead author of LRCUG, submitted a response to Dr. Kelsall's editorial (*Canadian Medical Association Journal* July 24, 2017; 189:E971-E972), in which he says, "certainly, in theory, all cannabis-related health risks would be best eliminated by abstention, and from a public health perspective, abstention among youth (or everyone in general) would be the 'ideal' solution in terms of avoiding these health risks. Yet this is, evidently, not anywhere realistic or feasible."

"For decades, existing prohibition law and policy has aimed to purge cannabis use from the Canadian population—yet a persistent one in three people in the 16–25 years of age group (trends rising) are active users. So youth 'not using cannabis' is a futile illusion in current reality, and [Dr.] Kelsall does not propose new or improved approaches to realistically change this," said Dr. Fischer, senior scientist at CAMH.

As an explanation for age 16 years, Dr. Le Foll highlighted his research that found that the risk of lifetime cannabis dependence and lifetime heavy use of cannabis is higher when cannabis is used at a younger age (<14), but the risk decreases with every subsequent year of age of initial use (*Accid Anal Prev.* Mar. 2015; 76:1-5).

In the LRCUG, Dr. Fischer and colleagues do note that the later cannabis use is initiated, the lower the risks for adverse effects are on the user's "general health and welfare."

Dr. Abidi said that waiting until the brain has matured before using cannabis is the best approach. "The bottom line is if young people or young adults want to use cannabis after the age of 23 or 24, the mental health health and cognitive risks [are] significantly lower," she said. "It is in that critical period where the brain is developing that has the most impact in terms of negative mental health outcomes."

CONCERNS WITH SPECIAL-RISK POPULATION SECTION

Dr. Crocker was concerned with an inclusion in the special-risk population section, which states that individuals who have had a family history of psychosis or other mental health problems are at a higher-risk of cannabis-related adverse effects.

"A lot of cases of [cannabis-related] schizophrenia are de novo," said Dr. Crocker. "We currently have no way of identifying who is at risk of developing psychosis with cannabis use."

Dr. Milin said he would have also described a section in the special-risk population differently, with regard to the authors' use of the term "cannabis-related psychosis."

"The question with cannabis-related psychosis [is that] people sometimes think, 'well [the psychotic impact] will go away if I stop smoking,' but it may not. You can experience cannabis-induced psychosis disorder, which in itself is not a benign condition, but you can also end up precipitating a schizophrenic disorder, or schizophrenia," said Dr. Milin.

MORE GUIDELINES NEEDED

Dr. Abidi said that guidelines like the LRCUG are essential but more research and guidance about cannabis is needed.

"Education is important. The more that we have out there that actually speaks the same language and touts the same information, the better the case we can make when we talk to our Canadian youth," she added.