



December 20, 2016

The Honourable Jane Philpott  
P.C., M.P. Minister of Health  
House of Commons  
Ottawa, Ontario K1A 0A6

Dear Minister,

We are writing as the executive of the Early Psychosis Intervention Ontario Network (EPION) to apprise you about a recent forum that we convened on cannabis and psychosis. EPION is funded by the Ontario Ministry of Health and Long-Term Care to support training and networking amongst the over 50 early psychosis programs across the province that treat young people experiencing a first episode of psychosis and their families.

We are aware that the Task Force on Cannabis Legalization and Regulation has released their report after significant deliberations and the federal government will be moving ahead with legislation and regulation in 2017. We understand that many adult users, in fact the majority, are able to use marijuana without experiencing harmful effects. We feel compelled, however, to write this letter because of the strong messages heard at our recent forum from researchers who presented empirical evidence, clinicians who struggled to understand how to manage this understudied drug, and families who are helping their loved ones recover from an episode of psychosis.

This letter documents scientific concerns about the increased risk of psychosis associated with regular marijuana use among youth. By 'regular marijuana use,' we mean three times a week or more. At the end of this letter you will find seven recommendations which we very much hope can be taken into consideration as the government works on legislation and regulation.

Attached to this letter, please find a description of EPION's role and work.



## **About EPION's Cannabis and Psychosis Forum**

The EPION forum on Cannabis & Psychosis took place on November 15th and 16th, 2016 in Toronto. The forum brought together clinicians working in Early Psychosis Intervention (EPI), persons with lived experience of psychosis, family members, and experts in the field to explore current social, political and medical trends in cannabis use, its impacts on individuals with psychosis, and implications for EPI care.

The objectives of this forum, derived from clinician and stakeholder concerns, were as follows:

1. Enhance awareness and understanding of the health impacts of cannabis use among adolescents and young adults and the latest evidence-based research on this topic
2. Understand potential impacts of federal legislation that legalizes marijuana and implications for EPI clients, families and clinicians
3. Identify practical strategies to use in clinical work with clients and families.

The forum was attended by 185 registrants with clinical services from across Ontario represented. The forum highlighted diverse perspectives on cannabis use and featured clinical researchers with expertise in psychosis and substance use, a representative from a licensed producer of medical cannabis, a psychiatrist with experience prescribing cannabis, and several addiction specialists. Clinicians attended workshops on Motivational Interviewing and harm reduction. In addition, all participants attended drug awareness sessions led by two expert police officers. A further highlight was the inclusion of live and video presentations by clients who were recovering from a first episode of psychosis and coming to terms with the impact of their own cannabis use.

## Psychosis and Cannabis Use among Youth: Scientific Evidence

In 2004, 40% of Canadian youth between 15 and 17 years of age had tried marijuana and 2.8% of Canadians 15 years of age and older reported using it weekly for at least three months (Adlaf, Begin et al. 2005). Regular cannabis use among youth, (defined as three times a week or more for three months or longer) is now considered to be a component cause of psychosis – increasing the susceptibility for a subsequent episode of psychosis, (Gibbs, Winsper et al. 2015) (Arseneault, Cannon et al. 2002, van Os, Bak et al. 2002, Arseneault, Cannon et al. 2004, Caspi, Moffitt et al. 2005). The risk doubles during early adulthood among adolescents who were regular users, compared to adolescents who were non-users (controlling for known confounding variables such as alcohol and other illicit street drug use) (van Os, Bak et al. 2002). Numerous epidemiological studies and systematic reviews have substantiated this finding (Arseneault, Cannon et al. 2004, Smit, Bolier et al. 2004, McLoughlin, Pushpa-Rajah et al. 2014). Furthermore, a recent Canadian study involving over 1,500 youth revealed significant changes in the brain - thinning of the brain cortex - among male users 16 years or younger compared to non-users of the same age (French, Gray et al. 2015). Cortical thinning among users was related to genetic risk for schizophrenia.

The risk of psychosis, euphoria, and addiction has been linked to THC (delta-9-tetra- hydrocannabinol) (D'Souza, Perry et al. 2004, D'Souza, Abi-Saab et al. 2005, D'Souza, Sewell et al. 2009). Most of the marijuana sold 'on the streets' to youth today has high levels of THC, ranging from 14% upwards to about 30%. These relatively high concentrations of THC are generally associated with hydroponically grown plants. The THC content is about four to six times the concentration found in marijuana plant strains, including for hashish oil, tested in the 60s and 70s (e.g., in the 60's the THC content was upwards of 5%).

There are many other important chemicals in marijuana to also consider. The cannabidiol content of marijuana sold 'on the streets' to teens today has traditionally been relatively low, typically less than 2%. Cannabidiol does not cause psychosis and is not associated with euphoria. It has been found to have antipsychotic properties. The THC/cannabidiol concentrations have important implications for psychosis risk. Many people are not aware of the changes in the chemical structure of the marijuana sold today in Canada. As a result, many young people underestimate the ill health effects of marijuana. Many youths who use marijuana regularly are inadvertently putting themselves at risk for developing psychosis, but they are unaware of this concern.



Many young people who have already developed a psychotic disorder may be putting themselves at risk of relapse of psychosis if they continue to use, even when they are in treatment (Archie and Gyömörey 2009, Dawe, Geppert et al. 2011). Data gathered from EPI programs in Ontario has shown that 58% of young people who developed a first episode of psychosis had used cannabis (a rate of use not significantly different from the Canadian population). Furthermore 9% of these first episode psychosis patients met criteria for cannabis use disorder (Archie, Rush et al. 2007).

We believe more research and treatment are needed to help youth who have developed medical problems, such as addiction or psychosis, related to their cannabis use. There are a number of recommendations that we would like the government to consider.

### Recommendations

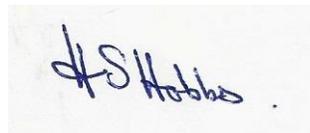
1. **Public Education:** The launch of cannabis legalization need to be simultaneously accompanied by a vigorous public health campaign educating families, adolescents & educators about the risks. Public education should also include information about where youth can seek help for addiction and psychosis problems.
2. **Treatment:** Currently, there are more youths with substance use disorders who require help than there are available programs to serve their needs.
3. If the rates of recreational marijuana use climb with legalization, the government will need to consider how to provide more **substance use counseling services to young people**. In general, more community and residential treatment facilities for substance use disorders are needed and in particular, specialized services designed for youth. These services should offer evidence-based treatment strategies, such as cognitive behavioural therapy, motivational interviewing, self-help groups, and harm reduction.

4. **Package warnings.** Policies that have been put in place to reduce tobacco use among teens have been successful, and consideration should be given to adopting similar regulations for cannabis use. We ask that governments legislate warning labels on packaging similar to alerts provided to consumers purchasing cigarettes. The content of THC and CBD should be clearly labelled along with warnings about the risk of psychosis among teens from regular marijuana use.
5. **The Legal age:** According to the Canadian Paediatric Association [<http://www.cps.ca/en/documents/position/cannabis-children-and-youth>], the brain does not reach full adult maturation until the early 20's. Research suggests that youth between the ages of 14 and 16 years of age are at the greatest risk of developing psychosis from regular marijuana use. We would strongly recommend that the Ontario government consider using the age of majority, 19 years or older as the minimum viable legal age to help protect vulnerable youth.
6. **Limiting THC content:** The government considers restricting the concentration of THC sold to adults for recreational use. We also recommend that the government track and monitor the concentration of THC and cannabidiol sold for recreational and medical use to keep abreast of the extent of the concentration problems.
7. **Information and Training for Health Care Providers and Educators:** It is critical that doctors and healthcare providers receive adequate education about the prudent use of medical marijuana and the health effects of recreational marijuana, particularly for at risk populations. Similarly, educators will have specific training needs related to the effects of marijuana among youth in the classroom.
8. **Research:** There is a profound lack of research knowledge related to effective treatment of cannabis use disorder among youth and young people experiencing a first episode of psychosis with comorbid cannabis use. There are insufficient clinical trials regarding treatment with medical marijuana. Evidence-based prevention and treatment strategies are necessary to support young people and their families.

In closing, we appreciate the due diligence that the federal government is demonstrating on the issue of legalizing and regulating cannabis. As veteran practitioners in the field of early psychosis intervention with specialization in working with youth populations, we respectfully submit these seven recommendations for consideration as the task force report and the views of multiple stakeholder groups are contemplated.

Sincerely,

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**Ms. Heather Hobbs**  
EPION Co-Chair



**Dr. Chiachen Cheng**  
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**Ms. Sarah Bromley**  
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## **Attachment 1: About EPION**

The Early Psychosis Intervention Ontario Network (EPION), formerly the Ontario Working Group for Early Psychosis Intervention (OWG), was established in 1999 and comprises clinicians, managers, persons with lived experience and researchers from over 50 EPI programs throughout Ontario. The network is led by an executive elected by its members. EPION plays an active role in helping expand early intervention resources in Ontario, and helping to implement the Ministry of Health and Long-Term Care's EPI Standards. Other functions of EPION include:

- Facilitating collaboration between EPI sites, particularly emerging sites in need of training and established sites with resources and expertise
- Providing a forum where families, clinicians, people who have used EPI services and funders can work together to support the implementation of high quality services
- Helping early intervention providers improve their practices through information sharing.
- The objectives of a comprehensive early psychosis intervention program are outlined in the Ontario Ministry Standards, developed in 2011, are as follows:-
- To reduce the duration of untreated psychosis through early intervention and appropriate detection and response, thereby potentially reducing the severity of the illness
- To minimize the disruption in the lives of adolescents and young adults who experience psychosis so that they can reintegrate and maintain educational, vocational, social and other roles
- To minimize the societal impact of psychosis including reducing the demand in other areas of mental health, health and social service systems and reducing disruption in the lives of families.

## **Attachment 2: References**

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