YOUTH AND CANNABIS LEGALIZATION: CONSIDERATIONS FOR PUBLIC HEALTH AND PREVENTION

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CONFLICT OF INTEREST & DISCLOSURE

I have not received any research funding from any entity that would raise conflict of interest concerns.

I receive travel reimbursement (but do not accept honoraria or donations) for keynote and panel presentations on cannabis legalization and public health policy at Cannabis Industry events in Canada.

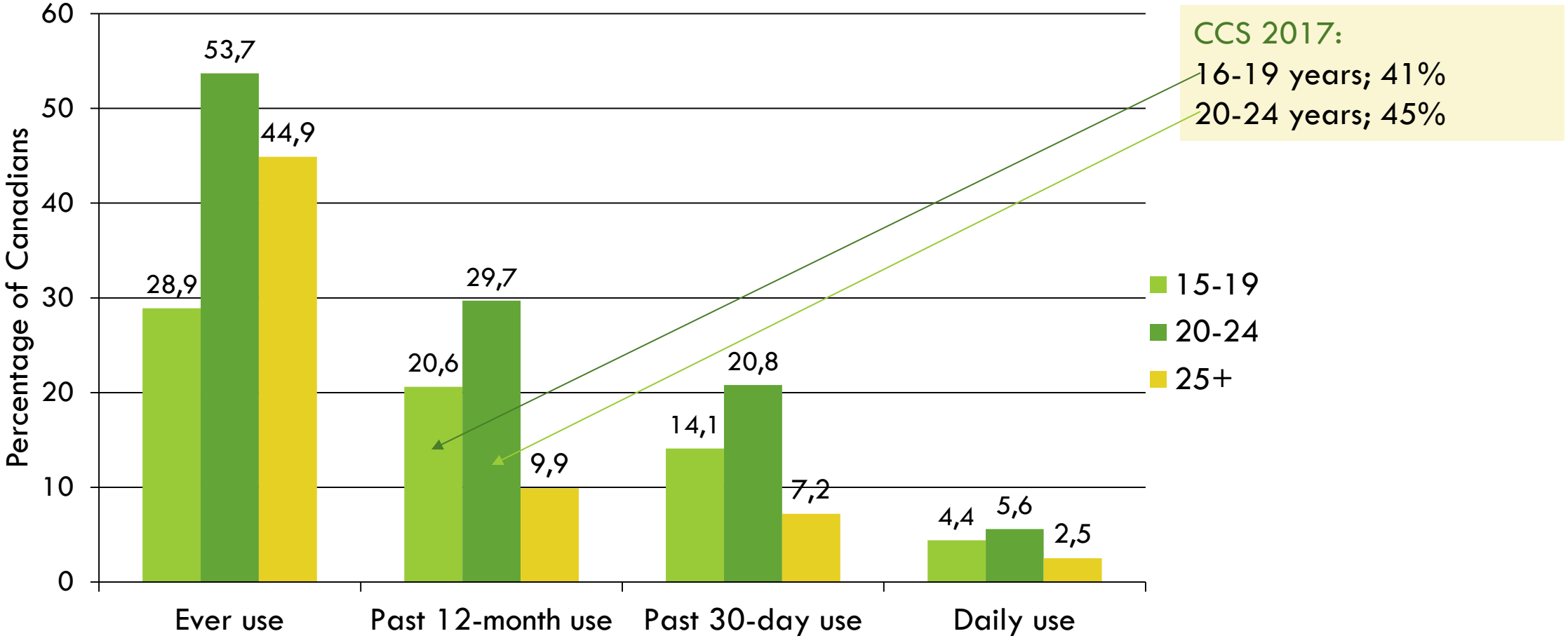
LEARNING OBJECTIVES

- Describe the current context around youth cannabis use in Canada.
- Discuss the rationale for cannabis legalization within a 'public health approach' to youth substance use.
- Assess past approaches and future directions in cannabis prevention for youth, specific to the context of legalization's public health goals.

THE POLICY CONTEXT IN CANADA

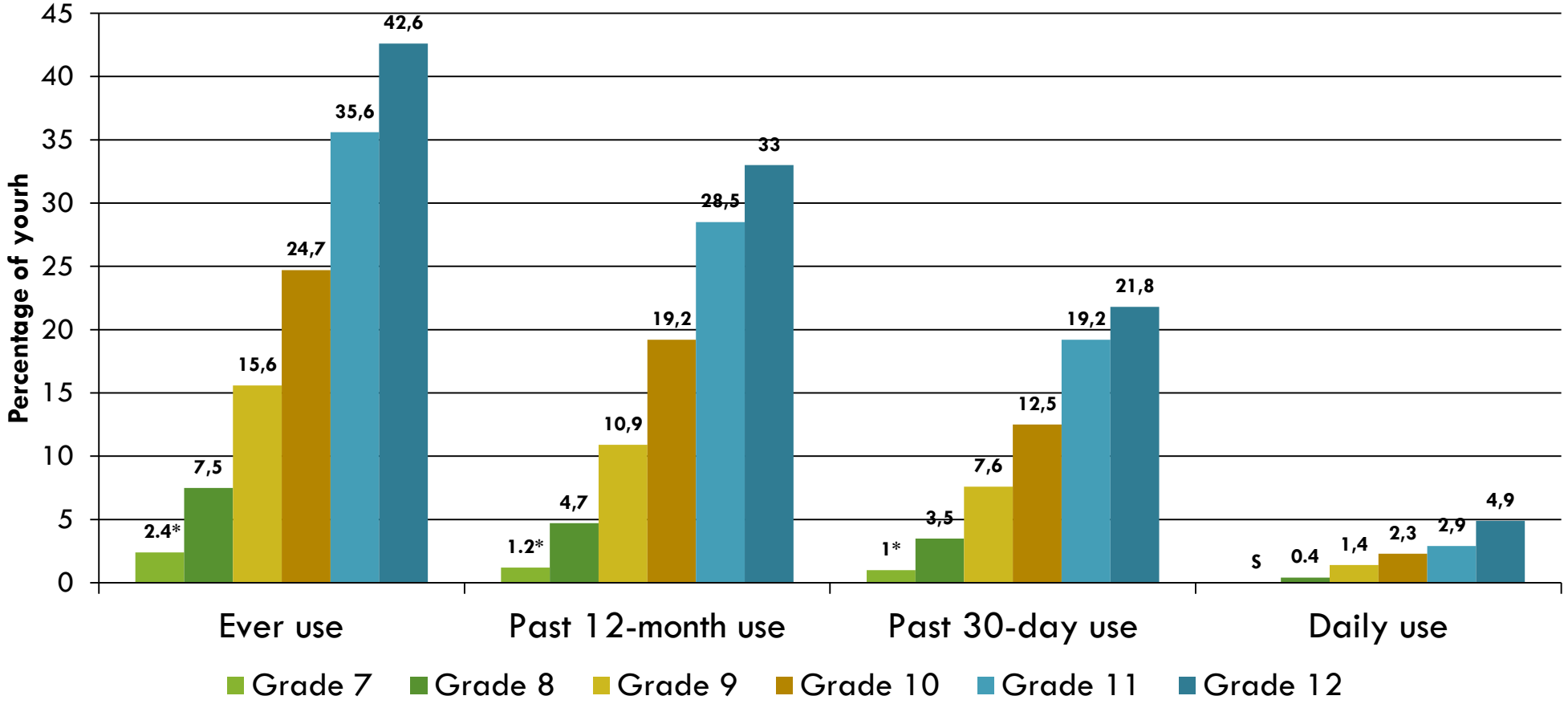
- Cannabis policies have been based on politics and values rather than evidence
- The evidence on health risks and benefits for youth is still developing
- Many approaches to youth prevention and education are archaic and ineffective
- There is a need for a comprehensive and coordinated public health approach to regulating cannabis use.

PREVALENCE OF CANNABIS USE: CANADIANS 15+



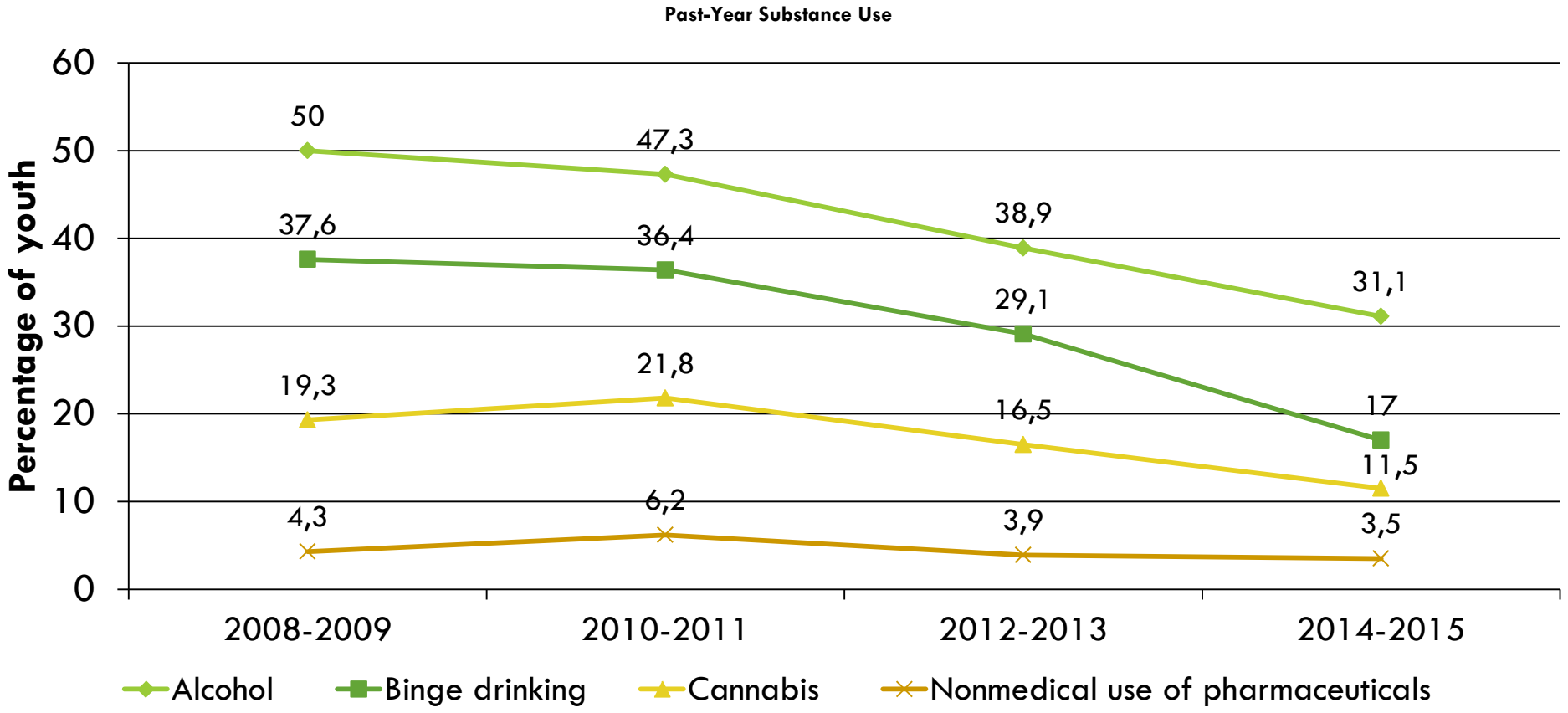
SOURCE: Dr. Cam Wild. Canadian Student Tobacco, Alcohol, and Drugs Survey 2014-2015; Grades 7-12 (*N* = 36,665)

PREVALENCE OF CANNABIS USE: CANADIAN YOUTH



SOURCE: Dr. Cam Wild. Canadian Student Tobacco, Alcohol, and Drugs Survey 2014-2015; Grades 7-12 (*N* = 36,665)

CANNABIS AND SUBSTANCE USE TRENDS OVER TIME: ALBERTA YOUTH



SOURCE: Dr. Cam Wild. Youth Smoking Surveys 2008-2013; Canadian Student Tobacco, Alcohol, and Drugs Survey 2014-2015; Grades 7-12 (*N* = 36,665)

WHAT IS A 'PUBLIC HEALTH APPROACH'?

This approach to legalization and substance use:

- Recognizes that people use substances for anticipated beneficial effects
- Is attentive to the potential harms of the substances ***and*** the unintended effects of control policies
- Seeks to ensure that harms associated with control interventions are not out of proportion to the benefit to harm ratios of the substances themselves

SOURCE: Canadian Drug Policy Coalition. http://drugpolicy.ca/the-drug-problem/glossary/

CPHA: "A NEW APPROACH…" (2014)

"A public health approach recognizes that problematic substance use is often symptomatic of underlying psychological, social or health issues and inequities. As such, it includes the perspective of people who use illegal psychoactive substances or are affected by problematic use. Vital to this approach is the concept that those who work with people affected by, or on issues concerning, illegal psychoactive substances have the necessary education, training and skills to understand and respond to the needs of both people who use these substances and their families."

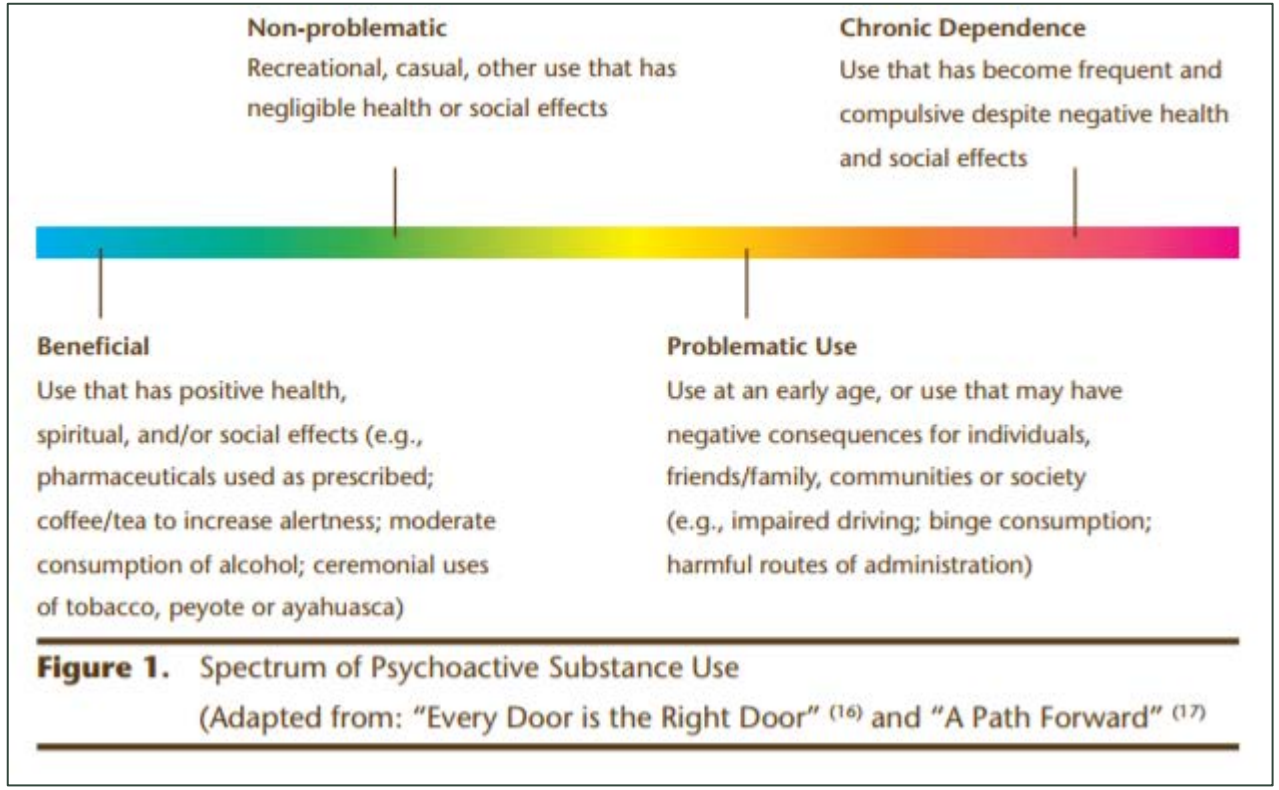


Figure 1. Spectrum of Psychoactive Substance Use
(Adapted from: "Every Door is the Right Door" [16] and "A Path Forward" [17]

Source: https://www.cpha.ca/sites/default/files/assets/policy/ips_2014-05-15_e.pdf

PUBLIC HEALTH BEYOND PROTECTION

Is keeping, or making something illegal the best way to make it 'safer' and to prevent the potential for harms associated with use?

"…The principles of good public health-oriented policy-making however should be applied consistently and proportionately on best available data, and not arbitrarily rest on selectively applied and emphasized evidence for risks or harms…If such was done for comparable activities [like alcohol use and hockey] as described, **most aspects of young people's daily lives should be illegal for their supposed protection**; at the same time, it is the collateral harms of the supposed protection (i.e., criminalization) that causes many of the other harms legalization seeks to overall reduce in its approach and objectives."
(2016; pg.13, emphasis added)

SOURCE: Fischer, B., Rehm, J., & Crépault, J. F. (2016). Realistically furthering the goals of public health by cannabis legalization with strict regulation: Response to Kalant. International Journal of Drug Policy, 34, 11-16.

Assumptions, fears, myths and debates about the impacts of legalization

Legalization will not protect youth or public health	A public health approach is more than protection and abstinence for youth
Legalization encourages or condones use	Legalization accepts use and removes criminal sanctions
The age of access should be 25+	Youth age 20-24 have the highest prevalence of use
Youth prevalence will rise	Youth prevalence is already highest in the developed world
Youth age 12-18 will be allowed to legally possess cannabis	Youth possession will be decriminalized in most provinces
Pediatric poisonings will increase	Parents will be more likely to report accidental ingestions
Youth will be at increased risks of mental illnesses	Some, but not all youth. And not all mental illness
Youth will be at risk for permanent cognitive deficits	Cognitive outcomes are difficult to isolate to a single variable (cannabis use)
Rates of addiction or dependency will rise	Trajectories to problematic use are complex and embedded in social contexts, family contexts, dispositions and genetics
When cannabis is legal, drug dealers will need new revenue and will promote “harder” drugs to youth	More likely that some youth will access “licit” cannabis through their social networks or continue to access an illicit market supply
Youth cannabis use will be on par with their alcohol use	Perhaps over generations – if cannabis becomes as culturally acceptable and socially integrated as alcohol is
Any and all cannabis use by youth has the potential to be harmful	Harm is most strongly associated with early onset of use and frequency (intensity) of use

YOUTH AND PUBLIC HEALTH: THREE BIG THINGS TO UNPACK

1. Legalization will not protect public health
   - (Assumes use and harms will increase)
2. The legal age of access should be 21-25
   - (Assumes a higher age will 'protect harms to the developing brain')
3. Education should promote abstinence
   - (Assumes awareness is effective for behaviour change; all use is problematic)

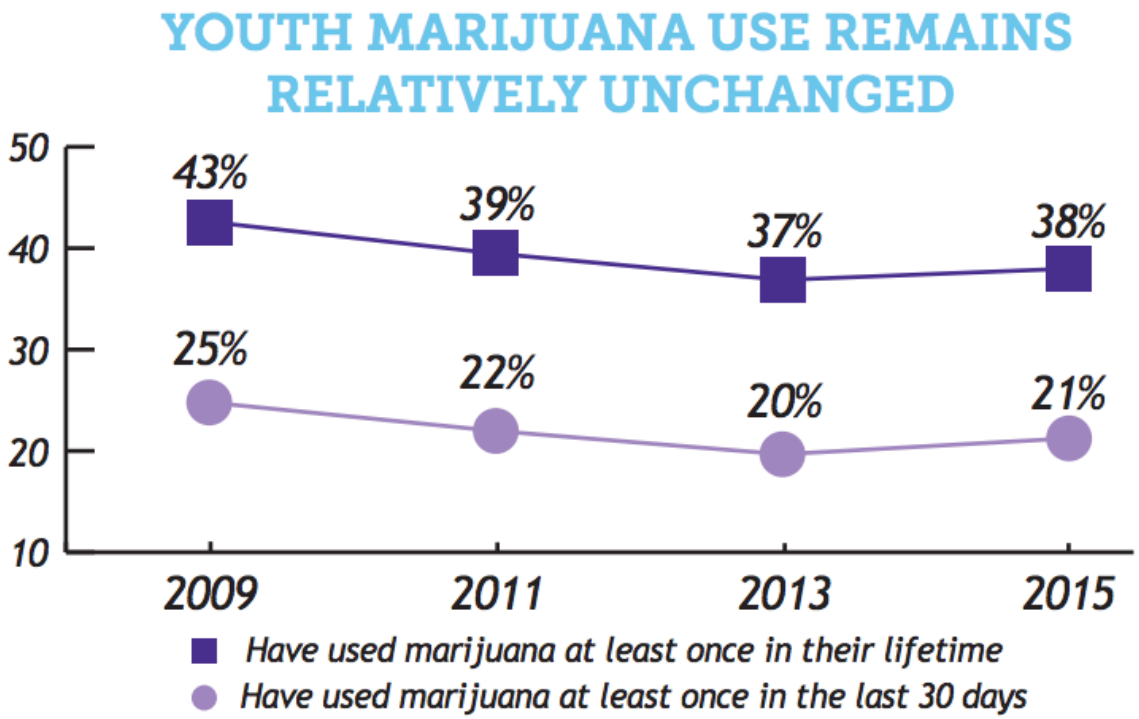
HARMS TO YOUTH: FREQUENCY AND AGE OF ONSET

- Most people who use cannabis do so infrequently; and without significant negative health or social outcomes
- Most use concentrated amongst young people and youth, and tapers off with age
- Initiating cannabis use in early adolescence increases risk of experiencing cannabis-related harm, longer cannabis-use trajectories, earlier transitions to problematic use

SOURCE: National Academies of Medicine (2017); Dr. Elaine Hyshka. Cannabis and Public Health Forum, University of Calgary (2017).

ADOLESCENT USE POST-LEGALIZATION

Available data includes two large state surveys from Washington and Colorado, which demonstrate that teen cannabis use rates have remained stable post-legalization



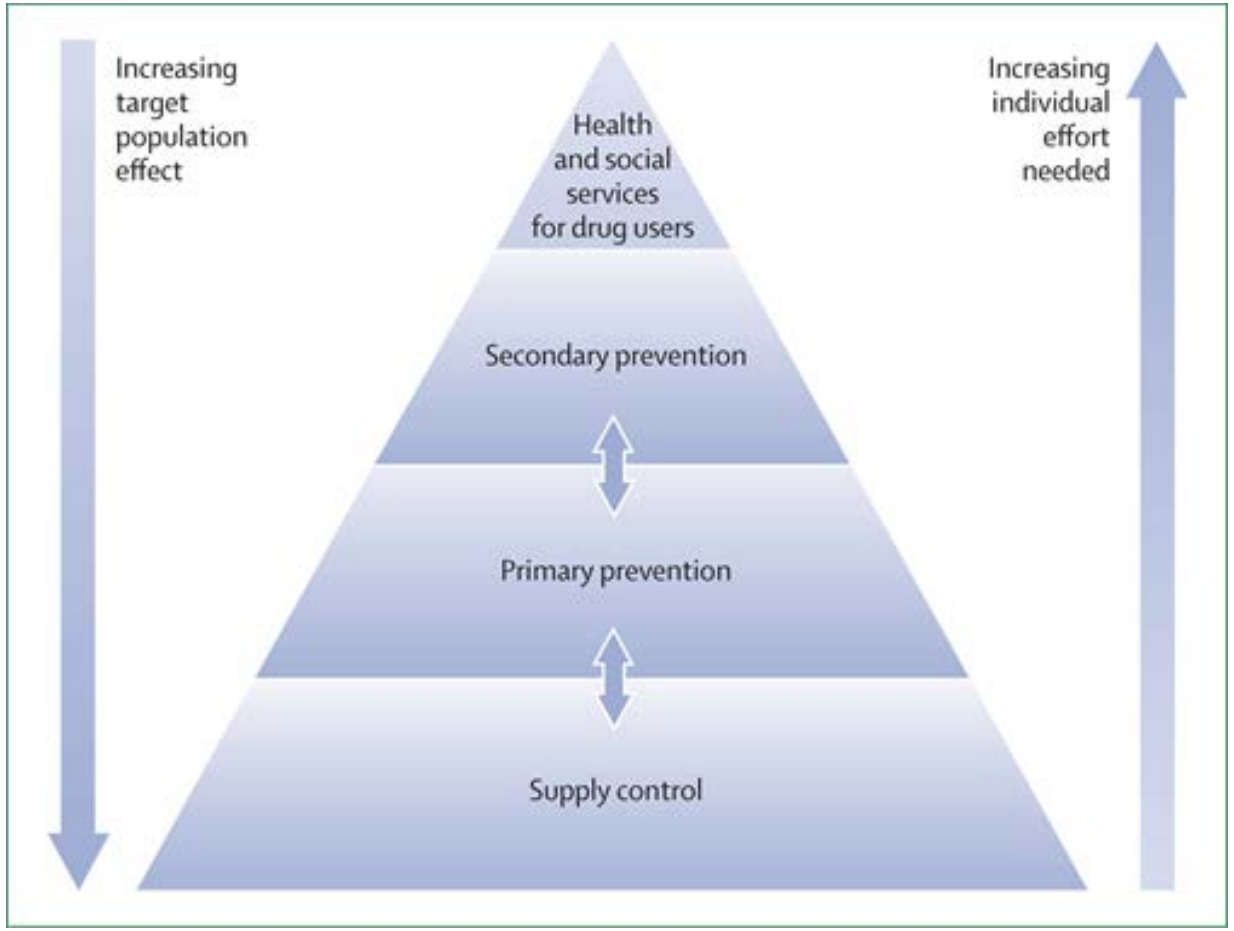
SOURCE: Dr. Elaine Hyshka. Data from the Healthy Kids Colorado Survey (2015). https://www.colorado.gov/pacific/sites/default/files/PF_Youth_HKCS_MJ-Infographic-Digital.pdf

DOMINANT APPROACHES TO DRUG PREVENTION

- Abstinence-focused
- Universal as opposed to targeted
- Didactic and based on delivering facts and information
- Does not address peer or social contexts beyond 'peer pressure' models
- Does not address social determinants of health or health inequities
- Does not address psychosocial risks or vulnerabilities
- Mass media campaigns may change attitudes and raise awareness
- The knowledge-base on cannabis-specific interventions for youth is limited
- Harm reduction focus has been seen as inappropriate for youth

TYPES OF PREVENTION PROGRAMS

- Venue-based programs: school, primary health care, community (delivery to captive audience)
- Environmental or "societal" approaches (e.g. limiting supply, marketing, mass media)
- Psychosocial developmental interventions (targeting risk behaviours, personality)
- Educational programs aim to raise awareness and increase knowledge of the adverse effects (≠ behavioral outcomes)
- Screening and brief intervention programs (typically in health settings)



SOURCE: Strang, J., Babor, T., Caulkins, J., Fischer, B., Foxcroft, D., & Humphreys, K. (2012). Drug policy and the public good: evidence for effective interventions. *The Lancet*, *379*(9810), 71-83.

EVIDENCE FOR EFFECTIVENESS

- Cochrane systematic reviews of randomized controlled assessments and other high quality reviews show that **psychosocial developmental interventions can be effective**, whereas knowledge and awareness are generally ineffective for prevention of use of illicit drugs, tobacco, and alcohol. (Ennett et al 1994; Faggiano et al. 2005, 2010; Gates et al. 2006; Kellam et al 2008)
- Findings from a few high quality studies indicate that **some family-based and classroom interventions can reduce drug or alcohol use**. These interventions do not focus exclusively or specifically on drug or alcohol use; they aim to develop pro-social behaviour and social skills more generally, and they have benefits beyond the reduction of drug or alcohol misuse, such as the reduction of violence and mental health problems.
- Interventions that have evidence for effectiveness: **Strengthening Families Programme**, (SFP10-14), social or life skills training, and the **Good Behaviour Game** (Babor et al, 2010; Kellam et al, 2008)
- Other initiatives, such as a focus on **correcting young people's misperceptions about how common drug use is**, have been shown to be effective.

Note: We do not yet have any evaluations of messaging on brain changes or harms in relation to cannabis but this messaging is now very widely taken up by parents and the general public

SOURCE: The text on this slide is reproduced from - Strang, J., Babor, T., Caulkins, J., Fischer, B., Foxcroft, D., & Humphreys, K. (2012). Drug policy and the public good: evidence for effective interventions. *The Lancet*, *379*(9810), 71-83 (All citations on this slide are found in this article)

WHAT DO WE KNOW WORKS?

- **Brief interventions for university students** focused on reducing harms (Fischer et al., 2012; 2013) (RCT)
  - Reductions in deep inhalations and driving while intoxicated at 12 months compared to controls
  - Evidence for reducing mean number of days of or episodes of use (past 3)
- **Brief, personality-targeted interventions** focused on coping skills (Mahu et al., 2015)(RCT)
  - Targeting anxiety sensitivity, hopelessness, impulsivity and sensation-seeking
  - Effective for reducing rates of use at 6 months, some support for reducing frequency of use at 12-18 months
  - Most effective for delaying the onset of cannabis use among sensation seekers
- **Community level approaches** (The Icelandic Model)(Sigfúsdóttir et al 2008) (non RCT)
  - Those who reported being drunk during the last 30 days, smoking one cigarette or more per day and having tried hashish once all declined steadily from 1997 to 2007 (i.e. 42% to 20% and 23% to 10%, for alcohol and tobacco, respectively).

Read an account of this program from the popular press:
https://mosaicscience.com/story/iceland-prevent-teen-substance-abuse/
https://www.theatlantic.com/health/archive/2017/01/teens-drugs-iceland/513668/

THE TRACE RESEARCH PROGRAM

An ethnographic study exploring frequent cannabis use among youth ages 13-19 in three communities in British Columbia.

2006-10: Primary data collection

2011-16: Knowledge translation projects

Trace
Teens Report on Adolescent Cannabis Experiences

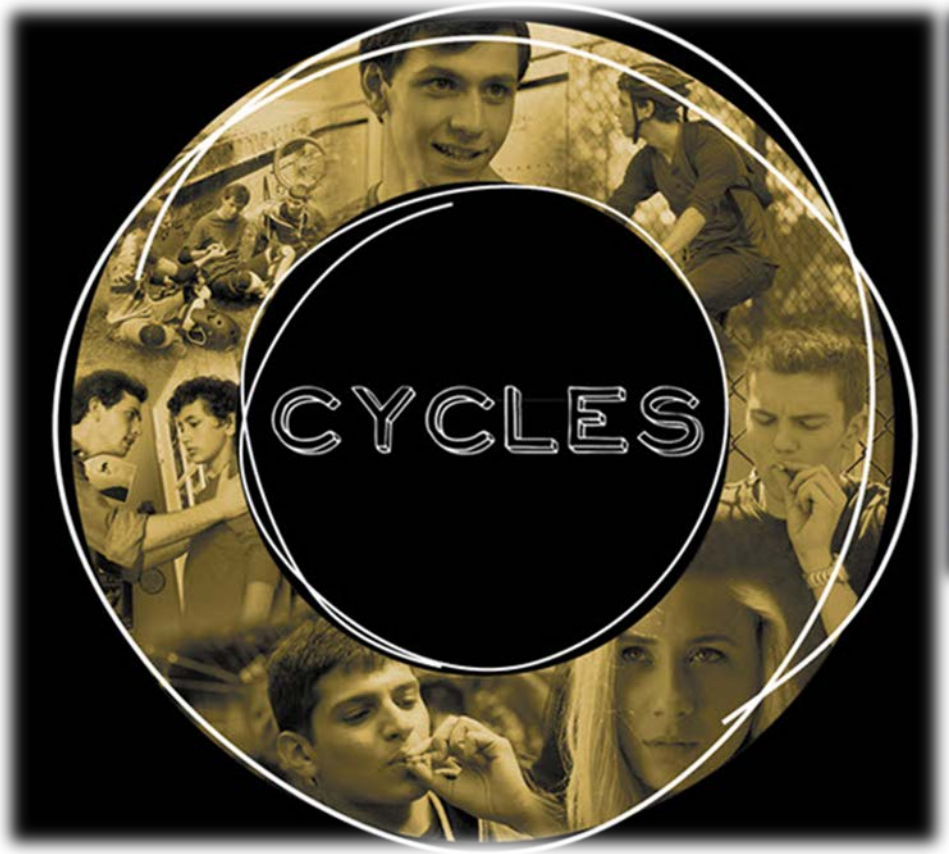
Purpose

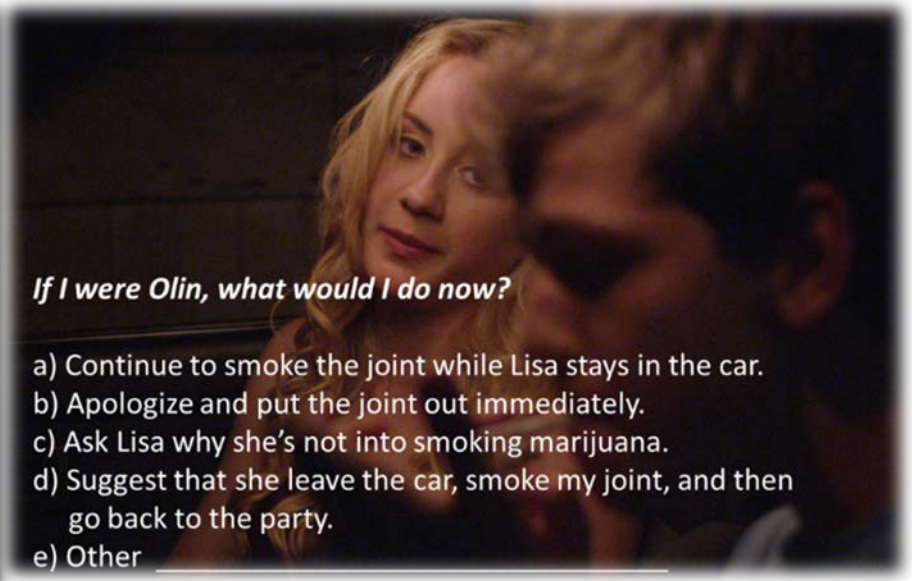
- To explore the culture and context of teens' frequent cannabis use
- To engage youth in developing credible and appropriate harm prevention messages

WHAT WE LEARNED FROM QUALITATIVE RESEARCH

- There is a spectrum of use by youth: from social, to 'relief-oriented,' to problematic
- Youth were skeptical of 'biased' or heavy-handed messaging
- Stigmatizing youth who use cannabis as 'unhealthy' or 'addicts' is not productive
- Youth are actively engaged in their own harm prevention strategies

THE CYCLES RESOURCE: A 'CULTURAL' INTERVENTION





Search: CYCLES at CISUR (UVictoria)

TEENS' PUBLIC HEALTH MESSAGES ON CANNABIS

Your life, your choice... how do you want your future?

Trace
Teens Report on Adolescent Cannabis Experiences

TRACE CO-RESEARCHERS PUBLIC HEALTH MESSAGES, CREATED JUNE 5, 2012

1. It is better to stay abstinent than to suffer the potential consequences.
2. It's best not to resort to marijuana when life isn't going well. There is always help available.
3. Initiating cannabis use before adulthood is a lot more dangerous than beginning at a later age.
4. Marijuana affects everyone differently, both physically and mentally. Know what you're gambling with when using marijuana.
5. If you do choose to use it, make sure it only impacts your life and not the lives of others.
6. Know your source. There may be more in the dose than just marijuana.
7. The higher the dosage, the more severe the impairment.
8. Know the risks, make informed decisions, use responsibly.

THE ESSENTIAL MESSAGE

- There is a sound and evidence-based rationale guiding Canada's legalization policy
- Legalization is not a recommendation for, or endorsement of youth cannabis use
- Evidence suggests cannabis prevention and education has not been effective and legalization provides a policy window to try new approaches

REFERENCES

Fischer, B., Jones, W., Shuper, P., & Rehm, J. (2012). 12-month follow-up of an exploratory 'brief intervention'for high-frequency cannabis users among Canadian university students. *Substance abuse treatment, prevention, and policy*, *7*(1), 15.

Fischer, B., Dawe, M., McGuire, F., Shuper, P. A., Capler, R., Bilsker, D., ... & Rehm, J. (2013). Feasibility and impact of brief interventions for frequent cannabis users in Canada. *Journal of substance abuse treatment*, *44*(1), 132-138.

Fischer, B., Rehm, J., & Crépault, J. F. (2016). Realistically furthering the goals of public health by cannabis legalization with strict regulation: Response to Kalant. International Journal of Drug Policy, 34, 11-16.

Mahu, I. T., Doucet, C., O'Leary-Barrett, M., & Conrod, P. J. (2015). Can cannabis use be prevented by targeting personality risk in schools? Twenty-four-month outcome of the adventure trial on cannabis use: a cluster-randomized controlled trial. *Addiction*, *110*(10), 1625-1633.

Sigfúsdóttir, I. D., Thorlindsson, T., Kristjánsson, Á. L., Roe, K. M., & Allegrante, J. P. (2008). Substance use prevention for adolescents: the Icelandic model. *Health Promotion International*, *24*(1), 16-25.

Strang, J., Babor, T., Caulkins, J., Fischer, B., Foxcroft, D., & Humphreys, K. (2012). Drug policy and the public good: evidence for effective interventions. *The Lancet*, *379*(9810), 71-83.