

Board of Health Briefing Report

To: Chair and Members of the Board of Health
Date: April 5, 2023
Topic: Icelandic Prevention Model for Youth Substance Use Prevention
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RECOMMENDATIONS

It is recommended that the Timiskaming Board of Health endorse the implementation of the Icelandic Prevention Model as a local strategy to reduce youth substance use.

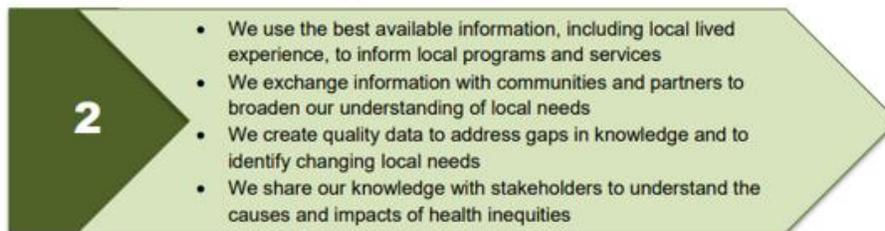
Overview

- Youth substance use rates in Northern Ontario are higher than in Ontario.¹
- The earlier youth begin to use substances, the more likely they are to develop a substance use disorder later in life.²
- Youth substance use can be delayed, reduced, or prevented through mitigating risk factors and enhancing protective factors, which includes creating supportive environments.³
- Comprehensive, population-level, multi-sectoral approaches are more effective than standalone programs or interventions.⁴
- Local adaptation of the Icelandic Prevention Model presents a critical opportunity to implement an evidence-based framework for influencing risk and protective factors related to youth substance use.

Links to Ontario Public Health Standards and THU Strategic Plan 2019-2023

This work contributes to meeting requirements and expected outcomes in the [Ontario Public Health Standards](#) (2021) and supports the following THU strategic directions:

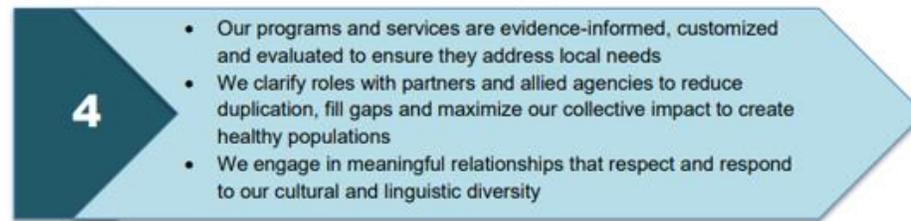
We create, share and exchange knowledge



We collaborate with partners to make a difference in our communities



We adapt to address the diverse and changing local needs



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- Our programs and services are evidence-informed, customized and evaluated to ensure they address local needs
- We clarify roles with partners and allied agencies to reduce duplication, fill gaps and maximize our collective impact to create healthy populations
- We engage in meaningful relationships that respect and respond to our cultural and linguistic diversity

Background

Substance use costs the Canadian economy \$49.1 billion annually with \$13.4 billion attributed to healthcare costs.⁵ Early initiation of substance use is associated with higher risks for developing substance use disorders later in life with approximately 90% of individuals diagnosed with substance use dependence having started using before the age of 18 years.² In Canada, the average age for the onset of alcohol consumption is 13.4 years.⁶ It is well understood that investing in primary prevention is cost-effective and carries significant benefits to individuals, families, and society. Studies have reported a savings of \$15-\$18 for every dollar invested in prevention.⁷

Adolescence is a critical period of physical, emotional, social, and cognitive development. It is a time of transition from childhood to adulthood characterized by the adopting of adult behaviours and social roles.⁸ The human brain continues to develop until around 25 years of age;⁹ during adolescence, the prefrontal cortex, responsible for personality, inhibitory functions, as well as decision making and the amygdala, which is responsible for processing emotions, undergo substantial development. The hippocampus is involved with memory formation. The development of all three can be negatively impacted by alcohol and other substances.^{10, 11} In addition, adolescence is often characterized by impulsivity and thrill-seeking behaviours which place youth at increased risk for unintentional injury and death. The risks associated with youth substance use can be acute including intentional or unintentional injuries, physical violence, accidents, and poisonings, or they can be chronic leading to poor academic performance, addiction, relationship problems, and disease.

While chronic diseases are not normally associated with adolescence, long term use of substances can pose health risks. For example, alcohol is the direct cause of over 200 chronic diseases including at least seven different types of cancer.¹² The long-term impacts of tobacco smoking are well-established and while the long-term effects of vaping remain to be determined, frequent cannabis smoking has been shown to increase the risk for developing chronic obstructive pulmonary disease.¹³ Adolescence is one of the most influential periods of an individual's life. Both healthy and unhealthy behaviours established during adolescence can continue to influence health well into adulthood.^{14 15}

Unfortunately, youth substance use rates in Northern Ontario have been consistently higher than the rest of the province.¹ Several factors influence behaviour, and youth substance use should not only be viewed in terms of an individual health behaviour, but as a social practice that is influenced and reinforced by the context in which it occurs. Understanding and addressing the various risk and protective factors that influence youth use are critical to reducing substance use rates and improving youth well-being at the population level. To adequately address youth substance use, interventions and action are required at various levels.

Addressing Risk and Protective Factors: A Primary Prevention Approach

Effective prevention focuses on reducing risk factors and strengthening protective factors that are most closely linked with substance use.^{3,4} **Risk factors** are characteristics of individuals, their families, communities, peer groups, or wider society that can increase risk and negatively impact healthy

development.¹⁶ The more risk factors present in a young person's life, the more likely they are to engage in high risk behaviours and experience negative outcomes. On the other hand, **protective factors** reduce risk and promote positive youth development. Protective factors act as a buffer and can help youth be more resilient, allowing them to bounce back from negative experiences.¹⁷ Additionally, the risk and protective factors related to youth substance use are similar to that of other outcomes such as violence, school drop-out, delinquency, mental health issues, and teen pregnancy. Therefore, interventions aimed at influencing risk and protective factors have potential to produce positive effects in multiple areas.³

In the case of preventing early substance use, **primary prevention** can look like: stable housing and adequate family income, positive relationships with family and peers, connection to school and community, and constructive use of free time.¹⁷ Substance use behaviour is complex with a wide range of contributing factors that cannot be addressed with a simple solution. Evidence suggests that comprehensive, multi-sectoral approaches can have much greater and longer-lasting effects than standalone programs or interventions.⁴ Canada's Chief Public Health Officer has endorsed the Icelandic Prevention Model as a comprehensive approach to preventing youth substance use that tackles a range of interconnected community and social determinants of health.

The Icelandic Prevention Model

The [Icelandic Prevention Model](#) (IPM) is an evidence-based primary prevention approach focused on engaging whole-communities to strengthen protective factors, mitigate risk factors, and build healthy environments within the family, school, peer group, and leisure-time contexts. Due to its success and strong international reputation, the model has been introduced in over 34 countries around the world, including several communities in Canada. The approach is driven by a bi-annual survey of secondary students which reveals the status of substance use and correlations with risk and protective factors. The survey results are used by community partners to inform interventions designed to create a social environment where young people become progressively less likely to engage in substance use. The model follows a 10-step process of community capacity building, data collection, implementation of prevention activities, and repetition. This approach has demonstrated effectiveness in reducing youth substance use in Iceland for over 20 years.¹⁸ Key elements of the IPM's success include the diversion of resources upstream, multi-sector partnerships, and data-driven decision-making.

Planet Youth Guidance Program

[Planet Youth](#) is an analytics consultancy that offers a 5-year [Guidance Program](#) to assist communities with adapting the Icelandic approach and building permanent capacity to support long-term implementation of the IPM. Through participation in the Guidance Program, communities receive the core questionnaire, timely data analysis and reporting of survey results (within 8 weeks), intervention recommendations, training on the IPM methodology and implementation, action planning workshops, and other supports and resources. Participating communities become Planet Youth Partners and are responsible for facilitating collective decision-making and collaboration in the community, resource allocation, and the implementation of prevention activities that address the risk and protective factors.

Youth Engagement

Engaging local youth as a key stakeholder will be an essential component of creating a community strategy that effectively responds to the needs of youth. Integrating youth engagement in the planning and delivery of programs and services can improve quality and effectiveness and increases the likelihood of positive outcomes.¹⁹

Expected Impact

The expected impacts of local implementation of the IPM include high-quality, timely, and localized data; evidence-informed interventions; reduced youth substance use and related harms; enhanced

youth well-being and resiliency; increased collaboration between community partners; reduced duplication of services; cost-savings; and healthier youth, families, and communities.²⁰

Resources Required

The resources required for successful implementation of the IPM include local facilitation, a project steering committee, smaller local coalitions to respond to the data in each participating community, data collection, analysis and reporting, youth engagement, and interventions. The cost of the Guidance program is \$225,000 CAD over the course of five years. In part due to generally limited staffing capacity and in part due to the backlog of work that was set aside during the pandemic, Timiskaming Health Unit does not have capacity to dedicate analytical expertise to this approach. Additionally, obtaining current local youth substance data is a significant ongoing challenge. Outsourcing the data processing and analysis to Planet Youth through participation in the Guidance Program presents an opportunity to support community readiness to work collaboratively to address youth well-being.

Local Work

Building on the momentum of the Timiskaming Drug and Alcohol Strategy, stakeholders in Timiskaming District have demonstrated readiness to work collaboratively in the implementation of the IPM. Local exploration of the IPM is a foundational cornerstone of the Prevention Pillar 5-year work plan. THU staff have facilitated several introductory presentations to various stakeholder groups. In February 2023, community partners from across the district gathered to attend an introductory learning session with guest speakers from Planet Youth. Following the session, 12 individuals from 8 community organizations indicated interest in becoming part of a steering committee, with interest also being indicated to participate in smaller community-level coalitions.

Next Steps

Next steps involve securing support from additional community stakeholders, building a regional steering committee, and securing funding for the Guidance Program.

Summary

The Icelandic Prevention Model is a comprehensive, community-based approach with demonstrated effectiveness in reducing youth substance use through building healthy community environments around children and youth. Given the evidence supporting the IPM and the considerable capacity and support to be gained through participation in the Planet Youth Guidance Program, it is recommended that Timiskaming Health Unit endorse the implementation of the Icelandic Prevention Model as a local strategy to reduce youth substance use.

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