

Balancing Act

An All-of-Society Approach to Substance Use and Harms



Focus on

Tobacco/Vaping
Products, Cannabis,
Alcohol, and Opioids



2023 ANNUAL REPORT

Of the Chief Medical Officer of Health of Ontario to the Legislative Assembly of Ontario

Land Acknowledgement

We wish to acknowledge the land on which the Office of the Chief Medical Officer of Health is working. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today this place is still home to many Indigenous people from across Turtle Island, and we are grateful to have the opportunity to work on this land.

Dedication

Each year, too many members of our communities are lost due to the harmful effects of substances like tobacco, cannabis, alcohol and opioids. This report is dedicated to the family members and friends of those lost far too soon, and to the public health, health care, social service and other providers who strive each day to support those experiencing substance use harms.

Letter from Dr. Moore

Dear Mr. Speaker,

I am pleased to share with you my 2023 Annual Report, “Balancing Act: An All-Of-Society Approach to Addressing Substance Use and Harms,” in fulfillment of the requirements of the independent Chief Medical Officer of Health for Ontario, and as outlined in section 81. (4) of the *Health Protection and Promotion Act, 1990*.

Our collective experiences during recent challenges, notably the COVID-19 pandemic, have showcased the resilience and strength of Ontario’s communities. Today, we face another challenge – the rise in substance use and related harms, which threatens the health of Ontarians and the well-being of our communities.

Opioids have claimed over 2,500 lives each year in Ontario in the past few years through toxicity deaths alone, indicating the need for urgent intervention. We have also seen concerning changes in substance use patterns and harms more broadly, including higher rates of vaping among non-smokers, increased unintentional poisonings in children from cannabis ingestion, and an ongoing high burden of hospitalizations and cancers caused by alcohol. It is our duty to take action now both to address today’s challenges and to lay the foundations for a future state where everyone in Ontario can live longer and healthier lives.

With this report, I am adding my voice to the voices of many professional, public health, and community organizations, and of people with lived experience of substance use and substance use harms, who have identified the need to take collective action urgently to address the harms of substance use in Ontario.

To address these challenges, I am recommending that we invest in what we know works, which includes health promotion efforts, strategies to prevent harms from drug use, access to evidence-based treatment, and regulatory measures and enforcement. Recognizing that substance use is often rooted in early life experiences and intergenerational trauma, the report advocates for comprehensive interventions—both upstream investments to address structural factors and downstream strategies to mitigate acute risks. This approach is crucial to fostering healthier individuals, communities, and societies. And, as reflected in the report title, “Balancing Act,” I recognize the need to strike a balance between individual autonomy and political interests with the overall health of our populations to achieve these goals.

Substance use cannot be addressed by the health sector alone. In this report, I call for collaboration between communities, all levels of government, health and social services, organizations at all levels, the public health sector, the healthcare system, and Ontario residents.

I wish to express my appreciation to all contributors who have played an important role in shaping this report, and I invite partners at all levels to engage in meaningful dialogue, including people with lived experiences of substance use, on how we can collectively do better. By working together, we can find that critical balance to an all-of-society approach that will lead to a healthier future for all Ontarians.

Yours truly,

Dr. Kieran Moore



Contents

- Land Acknowledgement 2
- Dedication 2
- Letter from Dr. Moore 3
- Executive Summary 5
 - Measuring Substance Use Harms 5
 - The Upstream and Downstream Drivers of Substance Use 6
 - Addressing Substance Use Harms: A Balancing Act. 6
 - An All-of-Society Approach to Improve Health and Reduce Substance Use Harms 7
 - Substance-Specific Strategies 7
 - The Need to Act Now 9
- Why a Report on Substance Use and its Harms? Why Now? 10
 - Substance Use Harms are an Urgent Public Health Issue 10
 - COVID-19 Exacerbated Substance Use and Harms 12
 - Public Health Approaches Can Reduce Substance Use Harms 14
 - Well Intentioned Efforts to Address Substance Use Can Cause Harm 15
 - My Call for Health-First Substance Use Policy and Action 16
- I. Understanding Substance Use in Ontario. 18
 - What are the Factors Driving Substance Use and Harms? 18
 - Who is at Greatest Risk of Harms from Substance Use?. 22
- II. Taking an All-of-Society, Health-First Approach to Reduce Substance Use Harms. 28
 - Using a Balanced, Progressive Strategy to Reduce Harms 29
 - Effective and Promising Substance Use Interventions. 31
 - The Next Steps in an All-of-Society, Health-First Approach to Substance Use and Harms. 39
- III. Adapting Our Substance-Specific Responses 41
 - 1. Tobacco/Vaping Products 41
 - 2. Cannabis 50
 - 3. Alcohol 54
 - 4. Opioids. 60
- Conclusion 65
- Acknowledgements 66
- Appendix 67
- References 68

Executive Summary

Mood-altering substances like cannabis, alcohol, opioids, and tobacco and vaping products that contain nicotine are widely used in Ontario. Some people use them for enjoyment. Others use them to reduce anxiety, relieve depression, manage pain, and cope with stress and trauma. Most Ontarians who use these substances do so without seeming to harm their health or wellbeing, but some people experience real damage to their health, lives, and relationships.

Measuring Substance Use Harms

There are currently between 2,500 and 3,000 opioid toxicity deaths in Ontario each year – or one tragic, preventable death every three hours, largely due to the toxic unregulated drug supply. Thousands more Ontarians are also treated for accidental overdoses in our emergency departments each year.

But substance-related harms are not limited to unregulated substances. Every year, the use of regulated substances, like tobacco/vaping products, alcohol, and cannabis, results in thousands of emergency department visits, hospitalizations, and deaths.

The use of these four substances costs the province billions of dollars each year in health care, lost productivity, criminal justice, and other direct costs.

Harms and Estimated Costs Attributable to Substance Use in Ontario, 2020

Substance use attributable harms	Tobacco	Alcohol	Cannabis	Opioids
Deaths	16,296	6,201	108	2,415
Hospitalizations	54,774	47,526	1,634	3,042
Emergency Department Visits	72,925	258,676	16,584	28,418
Total Costs	\$4.18 billion	\$7.11 billion	\$0.89 billion	\$2.73 billion

Source: Canadian Substance Use Costs and Harms Scientific Working Group. (2023). Canadian substance use costs and harms 2007–2020. (Prepared by the Canadian Institute for Substance Use Research and the Canadian Centre on Substance Use and Addiction.) Ottawa, Ont.: Canadian Centre on Substance Use and Addiction. Available from <https://csuch.ca/explore-the-data/>

During the COVID-19 pandemic, Ontario saw disturbing trends in substance use and harms, including:

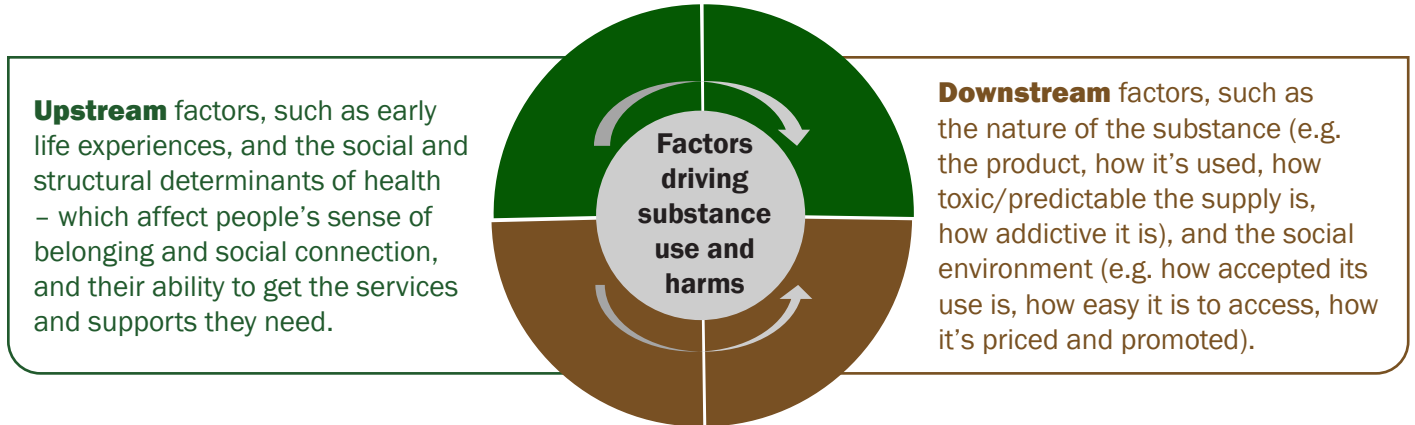
- more people, who had not previously smoked tobacco, using vaping products that contain nicotine (the highly addictive substance in tobacco)
- more adults using cannabis and more cannabis-related emergency department visits
- a significant increase in alcohol toxicity deaths
- more polysubstance use (i.e. alcohol and cannabis, opioids with benzodiazepine, alcohol and/or cannabis), which increases the risk of death
- the growing number of youth in grades 7 to 12 who reported using alcohol and cannabis more frequently, and the growing number using toxic unregulated opioids.

It is time to focus attention on substance use and harms.

The Upstream and Downstream Drivers of Substance Use

Why are some people able to use substances without any apparent harm to their health or well-being, while others experience serious harms?

The likelihood that someone will develop a substance use disorder or addiction is strongly influenced by:



To reduce substance-use harms, we must invest upstream to help people develop strong relationships and social connections, and to provide more equitable access to the determinants of health that can protect them from harmful substance use (e.g. income, education, employment opportunities, housing, mental health supports). At the same time, we must put in place the downstream policies and “guardrails” that limit risks associated with specific substances.

Addressing Substance Use Harms: A Balancing Act

Ontario’s public health sector aims to help all Ontarians lead longer, healthier lives. Part of the public health sector’s legislated mandate is to prevent harms associated with substance use.

Public health has a long history of working with communities to implement effective and promising interventions that reduce substance use harms and change social norms related to substance use. As a society, we have also had experience with strategies designed to reduce substance use harms that have had unintended negative consequences (e.g. awareness campaigns that used “scare” targets and were ineffective).

The challenge is to find the balance between:

- respecting people’s autonomy – including their desire to use substances – and public health’s responsibility to protect citizens, families, and communities from substance-related harms
- the economic and societal benefits of substance use, including the jobs, wealth and enjoyment generated by the regulated alcohol and cannabis industries, and the health and social costs of substance use harms
- providing accurate information about the very real risks of substance use without stigmatizing people who use drugs
- helping people use substances, including unregulated substances like opioids, more safely while not increasing their use
- providing life-saving services to people who use opioids while also ensuring overall community safety.

An All-of-Society Approach to Improve Health and Reduce Substance Use Harms

Substance use harms are an urgent public health issue, and one that public health cannot solve on its own. This report calls for an all-of-society approach to improve health and reduce substance use harms: one that recognizes the complexity of human experience with substances, the factors that drive substance use, and the policy environment where public health policies may conflict with economic policies, and with public attitudes and perspectives.

The report challenges key partners – communities, local, provincial, federal, and Indigenous governments and agencies, social services, other organizations involved in reducing substance use harms, people with lived and living experience, the public health sector, and the health care system – to pursue a range of thoughtful, evidence-based strategies designed to address both the upstream and downstream factors affecting substance use and harms. The goals are to: build healthy families and healthy communities; and ensure Ontarians have the knowledge, skills, supports, services, and relationships to lead healthy lives and avoid substance use harms – as well as the harm reduction and treatment services they need if they use substances or develop a substance use disorder.



Substance-Specific Strategies

The report also describes the current trends and health threats for four substances – tobacco/vaping products, cannabis, alcohol, and opioids – and recommends that Ontario work with its partners to develop multi-pronged substance-specific strategies to reduce those threats.

The aim of **tobacco/vaping products strategy** is to:

- Meet the 2035 national target of fewer than 5% of the population using tobacco (e.g. increase taxes, age of purchase, and availability of smoking cessation treatment)
- Develop and enforce a broad regulatory framework (i.e. beyond tobacco) that covers all vaping and nicotine-containing products
- Review and strengthen policies that reduce smoking and vaping (e.g. tobacco/nicotine pricing and taxation)
- Prevent/reduce vaping among youth, most of whom have never smoked, are too young to legally purchase vaping products, and are highly susceptible to nicotine addiction
- Prevent non-smokers from vaping nicotine products (e.g. make them less appealing, ban flavoured products and disposable vapes)
- Limit online advertising and sales of tobacco/vaping products.

The aim of the **cannabis strategy** is to:

- Reduce high rates of cannabis use by youth and young adults whose brains are highly vulnerable to its ill effects (e.g. increase age of purchase)
- Promote Health Canada’s Low Risk Cannabis Guidelines
- Reduce high risk cannabis use behaviours, including during pregnancy, if driving, among people with mental health problems, and polysubstance use (e.g. cannabis and alcohol, cannabis and opioids)
- Work with the federal government to reduce the risks associated with edibles, including the increasing incidence of pediatric poisonings by requiring safeguards (e.g. child-proof packaging, warning labels)
- Limit online advertising and sales of cannabis products
- Train more providers in evidence-based management of cannabis use disorder.



The aim of the **alcohol strategy** is to:

- Shift social norms by making Ontarians more aware of new evidence on alcohol-related harms, particularly its carcinogenic effects, and the risks/harms associated with binge drinking, hazardous drinking, drinking and driving, and drinking during pregnancy (e.g. warning labels)
- Promote Canada's new Guidance on Alcohol and Health
- Bring down rising rates of alcohol use among youth and women
- Monitor the harms of alcohol on youth aged 19 to 21 and explore whether to revisit the current minimum legal drinking age
- Review and strengthen policies that reduce the risk of alcohol-related harms (e.g. alcohol pricing and taxation)
- Monitor the impact of any increases in alcohol retail outlets or hours of sale, and develop a strong regulatory framework to enforce alcohol regulations in all outlets where alcohol is sold
- Limit online marketing and sales of alcohol
- Increase access to effective treatments for people with alcohol use disorder.



While the multi-pronged substance-specific strategies use a similar framework and tools, the priorities and recommendations will be different because the threats are different. For example, Ontario has many decades of experience implementing a tobacco strategy and regulatory system. The province has already had significant success changing social norms and reducing smoking. Its experience with opioids – an unregulated, illegal substance – is much more recent, and the challenges are different.

The aim of the **opioid strategy** is to:

- Raise awareness of the risks associated with the toxic, unregulated drug supply
- Improve access to housing, mental health, and other services that can help people avoid or reduce unregulated opioid use and its harms
- Decriminalize simple possession of unregulated drugs for personal use as recommended by the Chiefs of Police of Ontario and has been done in other jurisdictions, including British Columbia, Oregon, and Portugal
- Develop programs that direct people who use opioids to health services rather than the criminal justice system
- Provide non-judgmental services that reduce the negative impacts of criminalization on people who use opioids (e.g. stigma, discrimination, lack of access)
- Meet the urgent harm reduction needs of people struggling with opioid addiction (e.g. consumption treatment services, naloxone kits, sterile supplies, safer supply programs) while supporting community safety
- Improve access to timely, low-barrier evidence-based treatment programs
- Enhance harm reduction program (e.g. consumption treatment services) that are integrated in the community and offer broad-based services and connections to care
- Ensure harm reduction and treatment services can adapt quickly to changes in substance use patterns (e.g. the shift from injecting to smoking/inhaling opioids)
- Support the families and friends of people who use opioids as well as workers who provide prevention, harm reduction, and treatment services.

When thousands of people are dying from preventable opioid overdoses each year, the system must first take urgent steps to keep people alive, such as creating safe spaces where people can use unregulated drugs and providing regulated pharmaceutical alternatives (e.g. opiate agonist therapy, a safer drug supply). With these harm reduction responses in place, people who are using opioids may be in a position to benefit from offers of education and treatment, and to make choices that enable them to reduce or even stop their opioid use.

The Need to Act Now

When we see preventable threats, like substance use, that harm too many people too young, devastate families, destroy communities, and reduce life expectancy, we must act.

Ontarians will continue to use substances. The challenge is to help people understand the risks, and moderate or stop their use. The recommendations in this report reflect the best available evidence on interventions that can reduce substance use harms. To keep pace with new knowledge, we will revisit these recommendations in two years, and refine our strategies as needed.

While the right toolbox of downstream public health interventions is important, Ontario also needs an all-of-society approach to prevent substance use harms and improve health and well-being. We must continue to advocate for upstream health, social, and economic policies that support strong, healthy, connected families and communities.

Why a Report on Substance Use and its Harms? Why Now?

Ontario's public health sector aims to help all Ontarians lead longer, healthier lives, to improve health for all of society, and leave no one behind.

To fulfill that goal, public health must address the risk factors, diseases, and conditions that threaten health or reduce life expectancy. In recent years, some of the biggest threats to what had been a steady increase in life expectancy in Ontario have been the COVID-19 pandemic and preventable deaths related to substance use. In past years, the Chief Medical Officer of Health's reports highlighted some drivers of substance use and its harms, such as health inequities (*Improving the Odds: Championing Health Equity in Ontario, 2016*).¹ They also identified ways to mitigate those harms, including the role of strong social connections in helping people reduce stress and build resilience (*Connected Communities: Healthier Together, 2017*),² and the need for better health, economic and sociodemographic data on communities and populations to guide health programs (*Mapping Wellness: Ontario's Route to Healthier Communities, 2015*).³

This year's report focuses specifically on substance use and effective ways to reduce substance use harms in Ontario.

Part of public health's legislated mandate is to prevent harms associated with substance use. My office works closely with our partners to monitor:

- trends in substance use across the province
- the rapidly evolving evidence on how different substances affect health
- policy changes that affect substance use and harms
- evidence-informed interventions that can reduce substance use harms.

Substance Use Harms are an Urgent Public Health Issue

Ontario knows first-hand the harms of substance use. The current opioid toxicity crisis is causing untold pain and suffering: we lost almost 3,000 lives to the toxic drug supply in 2021, and about 2,500 more in 2022.⁴ Too many of those deaths were in teens and young adults.

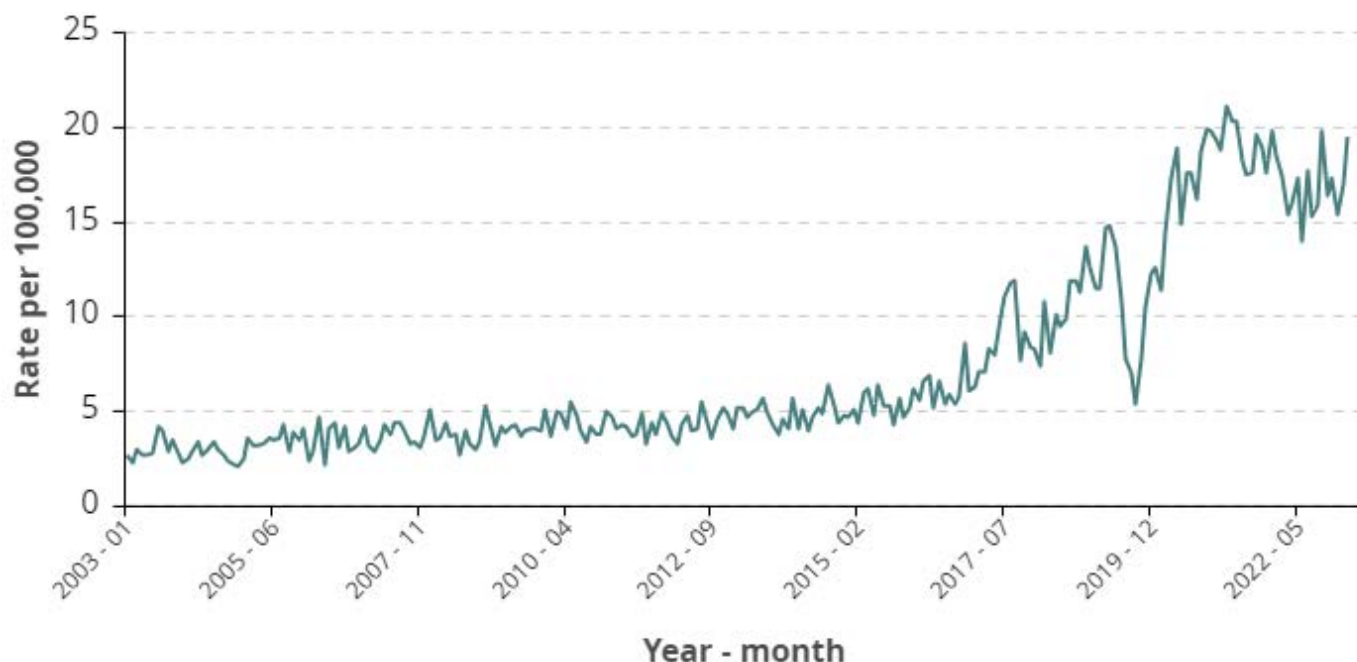
That's one tragic, preventable death from opioids about every three hours – with thousands more Ontarians seeking care in emergency departments and being hospitalized for accidental overdoses each year.

Most opioid-related overdoses and deaths in Ontario are due to fentanyl: a highly potent synthetic opioid that is often found in the unregulated drug supply, making the supply more toxic and unpredictable, and increasing the risk of overdose.

Between 2014 and 2021, the number of opioid-related deaths among teens and young adults in Ontario tripled.

Ontario Drug Policy Research Network, 2023⁵

Figure 1: Opioid toxicity deaths in Ontario, 2003 – 2022



Source: Ontario Agency of Health Protection and Promotion (Public Health Ontario). Interactive opioid tool: cases of opioid-related morbidity and mortality, Ontario, 2003 - 01 – 2023 - 06 [Internet]. Toronto, ON: King's Printer for Ontario; 2024 [modified 2024 Jan 17; cited 2024 Feb 9]. Available from: <https://www.publichealthontario.ca/en/Data-and-Analysis/Substance-Use/Interactive-Opioid-Tool>.

Opioid-related harms reach far beyond the individuals using drugs. They have a devastating impact on families and friends, communities of peers (i.e. people with lived or living experience of drug use), and frontline workers who provide health, social, housing, and other services. The stigma associated with opioid use, along with a lack of services and supports, undermines the ability of people affected by opioid overdoses or deaths to prevent and to publicly grieve the heartbreaking losses.

While toxic, unregulated street drugs – like opioids (e.g. heroin, fentanyl), cocaine, and methamphetamine – can cause stark and severe harms, they are not the only substances that threaten health. Other addictive and/or psychoactive substances, including regulated and commonly used products such as **tobaccoⁱ and vaping productsⁱⁱ, cannabis, and alcohol⁶**, can also be extremely harmful for the individuals using them, their families, their communities, and society at large – although not everyone who uses these substances experiences harms.

Tobacco and alcohol use contribute to thousands of emergency department visits, hospitalizations, and deaths every year in Ontario. Since cannabis use was legalized in 2018, the number of emergency departments visits for cannabis use disorder has increased.

ⁱ For purposes of this report, “tobacco” refers specifically to commercially manufactured tobacco/nicotine containing products that are used recreationally. It is not intended to encompass tobacco used by First Nations, Inuit and Métis communities for traditional and sacred purposes, which differ in composition, production and use.

ⁱⁱ For purposes of this report, tobacco and vaping products have been combined in one category mainly because vaping products were originally developed as a device to deliver the nicotine in tobacco while reducing the harm from other toxic substances released in tobacco smoke. We recognize that vaping products are now also used for cannabis as well as nicotine.

Table 1: Harms and Estimated Costsⁱⁱⁱ Attributable to Substance Use in Ontario, 2020

Substance use attributable harms	Tobacco ^{iv}	Alcohol	Cannabis	Opioids
Deaths	16,296	6,201	108 ^v	2,415
Hospitalizations	54,774	47,526	1,634	3,042
Emergency Department Visits	72,925	258,676	16,584	28,418
Total Costs^{vi}	\$4.18 billion	\$7.11 billion	\$0.89 billion	\$2.73 billion

Source: Canadian Substance Use Costs and Harms Scientific Working Group. (2023). Canadian substance use costs and harms 2007–2020. (Prepared by the Canadian Institute for Substance Use Research and the Canadian Centre on Substance Use and Addiction.) Ottawa, Ont.: Canadian Centre on Substance Use and Addiction. Available from <https://csuch.ca/explore-the-data/>

COVID-19 Exacerbated Substance Use and Harms

During the COVID-19 pandemic (2020-2023), we saw concerning trends in the use and harms of tobacco and vaping products, cannabis, alcohol, and opioids:

- Tobacco sales and the overall prevalence of tobacco smoking in Ontario continued to decline during the pandemic. The proportion of people who reported smoking dropped from 15% in 2018 to 11% in 2022. But more people reported using vaping products (15.5% in 2020, up from 12.3% in 2019) – including people who had not previously smoked tobacco.⁷
- More adults reported using cannabis – 33% in 2020 compared to 25% in 2019 – and more visited emergency departments for cannabis-related mental health problems and behavioural disorders.⁸
- Although the proportion of Ontarians who drink alcohol (80%) did not increase during the pandemic, more adults and youth reported binge drinking (i.e. five or more drinks on a single occasion at least once in the past month) and hazardous alcohol use (i.e. eight to 14 drinks a week in the past month).¹⁰
- Between 2018 and 2021, Ontario saw a 16% increase in alcohol toxicity deaths (from 256 to 296). Most of these deaths involved other substances as well as alcohol, and alcohol directly contributed to 13% of all substance-related deaths during that time period.¹¹
- Youth substance use patterns changed during the pandemic. Young people in grades 7 to 12 reported drinking alcohol more frequently, and were more likely to use cannabis (once the initial pandemic stay-at-home orders were lifted).¹²⁻¹⁶
- There was an increase in polysubstance-related toxicity deaths.¹¹
- More people who use opioids died without someone else present to recognize the overdose and intervene.¹⁷
- In 2023, a majority of Indigenous Friendship Centres in Ontario (72%) reported concerns about widespread substance use among Indigenous people, including the use of opioids (fentanyl), alcohol, and methamphetamines.¹⁸

Smoking rates remain persistently high in Northern Ontario.

ⁱⁱⁱ Note: Several different reports that include cost estimates for substances have been cited in this report. Because they use different methodologies, their estimates for morbidity/mortality/costs may differ.

^{iv} Refers to tobacco use only; does not include outcomes or costs related to vaping.

^v Motor vehicle accidents are the main cause of cannabis-related deaths and injuries.⁹

^{vi} Total costs include health care costs (hospitalizations, emergency department visits, paramedic services, specialized treatment, physician time, prescription drugs), lost productivity costs, criminal justice costs, and other direct costs (e.g. research and prevention costs, motor vehicle collision damage, workers' compensation).

Over the pandemic period, we also saw changes in the broader environment that may be contributing to substance use harms, including:

- people using substances to help them cope with mental health problems (e.g. stress, anxiety, depression, post-traumatic stress disorder)
- the marketing of vaping products to youth – although federal regulations implemented in 2020 did reduce overall marketing of vaping products compared to pre-pandemic times
- easier access to and availability of a greater variety of cannabis products
- more retail outlets licensed to sell cannabis and alcohol
- more marketing of alcohol to women and young adults
- the increasing toxicity and unpredictability of the unregulated drug supply, particularly opioids
- growing community concerns about some of the harms associated with substance use, such as: injuries caused by people under the influence of alcohol, cannabis or other substances; public intoxication; discarded needles; the exacerbation of existing mental health problems (e.g. psychosis); the increase in homelessness; the potential increase in crime if people steal so they can buy substances; violence related to the use of both unregulated and regulated substances (e.g. alcohol); and the lack of community-based supports and services that could reduce these harms.

Polysubstance Use

“Throughout the COVID-19 pandemic ... over 80% of alcohol and stimulant deaths, and 95% of benzodiazepine deaths also involv[ed] opioids. The complex interaction of multiple substances contributes to higher fatality rates compared to exposure to a single substance.”

The Ontario Drug Policy Research Network and Public Health Ontario. Characteristics of Substance-Related Toxicity Deaths in Ontario: Stimulant, Opioid, Benzodiazepine and Alcohol-Related Deaths. 2023.¹¹

The social costs of harms stemming from substance use – young lives lost, damaged relationships, devastated families, lost productivity, lost opportunities, and anxious and grieving communities – are tragically high. So are the economic costs.

\$1.8 Billion

In 2020, the harms associated with substance use cost Ontario about \$18 billion^{vii} – or \$1,234 per person – in health care, social and legal/policing costs.¹⁹

\$1,234 per person

5 X

Those costs are more than five times as much as the Ontario government collected in income^{viii} from alcohol sales (\$2.55 billion)²⁰ in 2021-22 and from estimated taxes on tobacco (\$840 million)²¹ and cannabis sales (\$194 million)²¹ in 2023.

4.5 X

The costs are also about 4.5 times the amount the province spent on all its population and public health programs in 2021-22 (during the COVID-19 pandemic), and almost 14 times the amount spent on population and public health programs in 2019-20 (pre-COVID)²².

^{vii} Substance use cost is based on overall costs from alcohol, tobacco, cannabis, opioids, other central nervous system depressants, cocaine, other central nervous system stimulants and other substances.

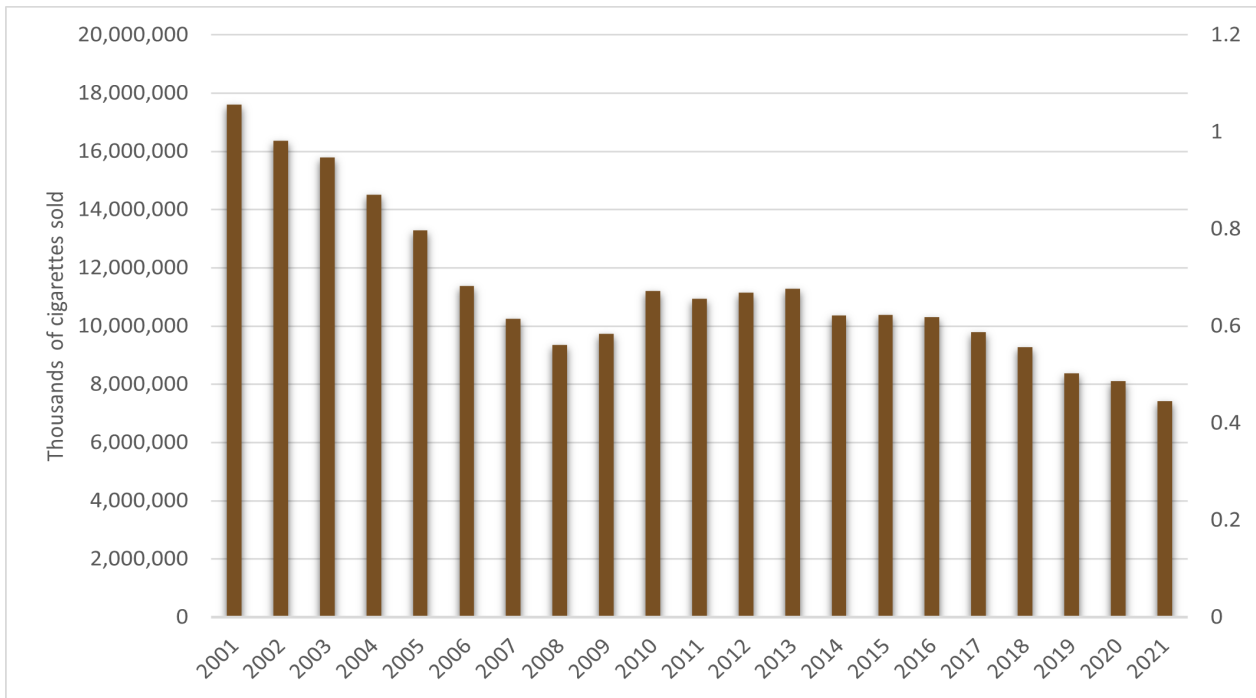
^{viii} Income generated by alcohol is based on sales as well as taxes because the provincial government has largely controlled the sale of alcohol through the Liquor Control Board of Ontario (LCBO), while estimated income from tobacco and cannabis is based on taxes on sales only.

Public Health Approaches Can Reduce Substance Use Harms

Ontario’s public health sector has a long history of implementing population health interventions designed to build healthier communities, promote safer substance use, and protect people from substance use harms, including substance use disorders or addictions.^{ix} Working collaboratively with communities, we have had marked and sustained success in changing social norms related to substance use. For example:

- Ontarians know that smoking tobacco is bad for their health. The number of Ontarians who smoke commercial tobacco products is at its lowest ever.

Figure 2: Cigarettes sold (in thousands) in Ontario, 2001 - 2021²³



- Public health has been able to work successfully with regulators and store owners to enforce regulations that limit sales of commercial tobacco, alcohol, and cannabis to youth under age 19, who are more susceptible to substance use harms.
- Over time, the legalization of cannabis has shifted a significant proportion of people who use cannabis from the illegal market to safer, regulated products: from 63% in 2021 to 67% in 2022.²⁴
- Self-reported rates of driving under the influence of alcohol and cannabis decreased between 2018 and 2022.^{16,12} However, the Ontario Provincial Police charged more than 10,000 people with impaired driving related to any substance in 2023: a 16% increase compared to 2022.²⁵ With the increase in cannabis use among youth, we continue to have serious concerns about the risks associated with people driving under the influence of cannabis.

^{ix} In this report we use the terms “addiction” and “substance use disorder” interchangeably.

Well Intentioned Efforts to Address Substance Use Can Cause Harm

We have also learned from past experiences that broader government and social strategies designed to reduce substance use harms can sometimes have unintended negative consequences. For example:

- Awareness campaigns developed in the 1980s and 1990s to prevent substance use, such as “DARE” and “Scared Straight,” were ineffective.²⁶
- Sudden restrictions on the prescribing of regulated opioids without adequate treatment supports can push people experiencing pain or a substance use disorder to the toxic unregulated opioid market.²⁷
- Enforcement activities designed to reduce the supply of street drugs, such as drug seizures, can disrupt individuals’ usual supply, forcing them to find other less predictable sources, and increasing the risk of overdose and death.²⁸
- Safer supply programs, which improve health by providing people who are addicted to opioids access to safer regulated substances, may result in some of that supply being diverted to others for whom it was not intended, without sufficient controls in place.
- Consumption and treatment services, which provide a space where people can use opioids with supervision, are not currently designed to serve people who smoke or inhale (rather than inject) drugs. Well intentioned efforts to provide harm reduction services that prevent overdoses and deaths may not be keeping pace with changing trends in substance use.
- Enforcement of restrictions on regulated substances (e.g. pricing policies) may result in people selling unregulated products (e.g. tobacco, cannabis) without warning labels or approved packaging, providing products that are less safe or predictable but cost less, and marketing them to minors.³⁰
- People arrested for possession of substances can end up with a criminal record, which can limit their ability to find work or housing, and affect their long-term health and well-being.
- People who use substances such as opioids who have been incarcerated are at higher risk of overdose and death due to a loss of drug tolerance and risk of relapse when they are released back into the community– particularly if they are not able to access appropriate treatment and support services.

Approaches to enforcement that do not take into account the health issues related to substance use have not been as effective in reducing use or in protecting public health and safety, and may deter people who use substances from accessing health services.

Health Canada.
Strengthening Canada’s
Approach to Substance Use
Issues, 2018.²⁹

My Call for Health-First Substance Use Policy and Action

So, what is the best approach to respond to worrisome trends in substance use in Ontario? How do we find the balance between respecting people's autonomy – including their desire to use substances – and public health's responsibility to protect citizens, families, and communities from substance-related harms, prevent illness, and promote health?

How do we balance the economic and societal benefits of substance use, including the jobs, wealth, and enjoyment generated by the regulated alcohol and cannabis industries, with their health and social costs?

How do we give Ontarians accurate information about the very real risks associated with substance use – particularly the use of unregulated drugs – without stigmatizing people who use drugs? How do we balance policies designed to support people struggling with opioid use disorder and keep them alive (e.g. safer supply programs) with our responsibility to protect communities from exposure to toxic drugs?

How do we balance our efforts to help people use substances more safely (e.g. regulation) without increasing their use? How do we communicate clearly to Ontarians that efforts to make access to and consumption of substances safer do not make the substances “safe” – that there are still real health risks and harms from using them?

Substance use harms are a public health issue, but the public health sector cannot solve the problems associated with substance use on its own. Ontario needs a comprehensive all-of-society approach that engages:

- all levels of government: federal, provincial, territorial, local and Indigenous
- all partners currently involved in substance use issues, including: the regulatory system, the commercial system, finance and taxation systems, the social service system, the child welfare system, the health care system, and the justice system at local, provincial and federal levels
- clinicians and researchers
- communities and populations most affected by substance use harms, including First Nations, Inuit, Métis, and other Indigenous peoples
- citizens – including people with lived or living experience of substance use – who will contribute their expertise and perspectives (i.e. tacit knowledge – see box).

Including the voices of citizens in policy-making increases public interest in, and understanding of, evidence and political processes, which in turn enhances the legitimacy of policy decisions as well as societal trust.

Tacit knowledge helps contextualize research evidence and find effective ways to address issues where research is either uncertain, value laden or contested. This process of community engagement also helps build consensus and trust.

World Health Organization. (2022). Implementing Citizen Engagement within evidence-informed policy making³¹

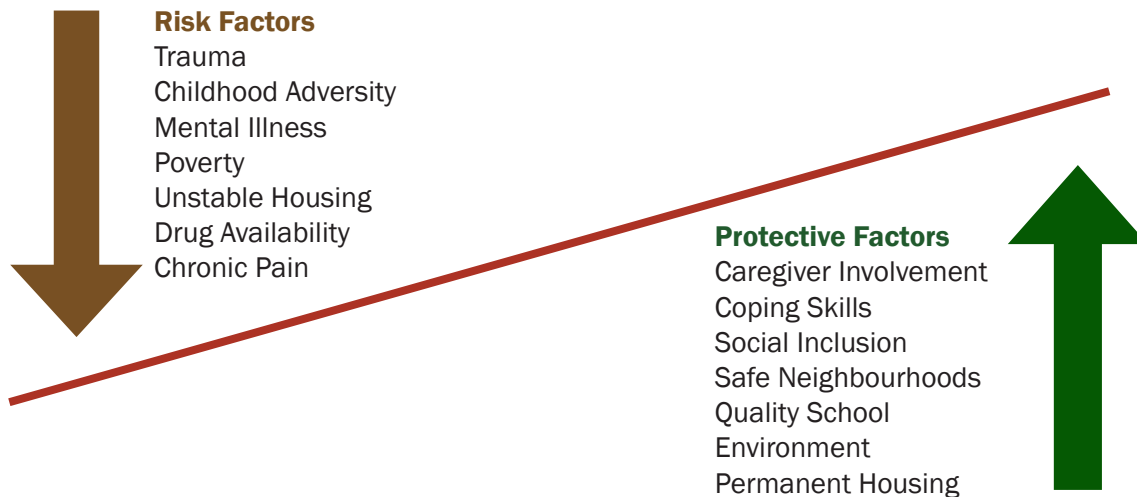
I am calling on Ontario to recognize that:

1. Human experience with substances is complex.

Substance use is widespread in Ontario. Many people use substances, and report personal and social benefits from that use; however, others suffer real harms. The challenge is to help Ontarians understand the benefits and risks, and make safer, more informed decisions about their substance use while, at the same time, implementing the right mix of effective policies and interventions to support the health of people who use substances and reduce substance use harms.

- ## 2. The drivers of substance use are complex.
- Substance use is influenced by genetics, early life experiences (e.g. trauma, adverse childhood events, family history of mental health or substance use issues), other mental health conditions, social determinants of health, health inequities, and the social/cultural context, including – for Indigenous peoples – the impacts of colonization. To reduce substance use harms, we must invest upstream to ensure that people have equitable access to income, education, employment opportunities, housing, mental health supports, and other determinants of health as well as strong relationships and social connections that can protect them from harmful substance use. We must also understand culture as a social determinant of health and invest in culturally responsive, community-based programs as a way to improve health outcomes. At the same time, we must put in place the kind of downstream policies and “guardrails” that limit risks associated with specific substances.

Figure 3: Risk and Protective Factors for Substance Use Related Harms



Source: Health Canada. The Canadian drugs + substances strategy: the Government of Canada’s approach to substance use related harms and the overdose crisis. Ottawa, ON: His Majesty the King in Right of Canada, as represented by the Minister of Health; 2023. Figure 3. Risk and protective factors for substance use related harms; p.9. Available from: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/canadian-drugs-substances-strategy-approach-related-harms-overdose-crisis.html>

3. The policy environment is complex. Many of the drivers of substance use harms – including the product itself and its potency, predictability, price, promotion, packaging and placement (availability/ accessibility) – can be influenced by policy. However, public health policies designed to reduce substance use harms can conflict with other economic and social policies. The public health system must work closely with other government policy makers and industry to find a better balance between the immediate economic benefits of regulated substance use, and the responsibility to minimize short- and long-term substance use harms, including health, societal, and economic costs.

Addiction is not a choice. It is a chronic health condition: one that people can manage with the right supports and treatment.³³ To support Ontarians experiencing substance use harms, we need to build communities that promote safer substance use, and provide compassionate, evidence-based harm reduction and treatment services on demand for people struggling with substance use.

This report:

- Provides a brief overview of substance use in Ontario, including the factors that drive those harms, and the populations most at risk
- Calls on Ontario to build on existing upstream initiatives to create healthier communities that engage citizens, and provide programs that address the underlying social and economic determinants, including systemic harms and discrimination, that drive substance use harms
- Looks at the current trends and impacts of four substances – tobacco/vaping products, cannabis, alcohol, and opioids – and recommends specific strategies to reduce the harms associated with those substances.

Substance use harms are – first and foremost – a health issue that requires a comprehensive all-of-society, health-first strategy. We cannot and should not continue to look to the criminal justice and regulatory systems to solve health problems associated with substance use.

Note: This report does not directly address other unregulated substances that can be harmful, such as cocaine, crystal methamphetamine, benzodiazepines, or ecstasy. However, many of the recommendations can be adapted and used to reduce the harms of those substances.

I. Understanding Substance Use in Ontario

People have been using substances like tobacco, alcohol, cannabis, and opioids for thousands of years. In many ancient cultures, these substances were part of medicinal practices as well as social celebrations and spiritual rituals that brought community together. Some substances were used for enjoyment. Some were used to reduce anxiety, relieve depression, manage pain, and cope with stress and trauma.

People still use these substances for these purposes today, and most do so without experiencing harm to their health or well-being.³⁴ However, because these substances affect the brain, alter mood and behaviour, and can be addictive, some people will experience harms. Substance use can also have negative effects on people's health, lives, and relationships.

Addiction refers to the problematic use of a substance. Addiction is associated with the presence of the 4 Cs:

- **Craving**
- Loss of **Control** of amount or frequency of use
- **Compulsion** to use
- Use despite **Consequences**

[Centre for Addiction and Mental Health \(CAMH\)](#)³⁵

What are the Factors Driving Substance Use and Harms?

Why are some people able to use substances without any apparent harm to their health or well-being, while others will experience serious harms?

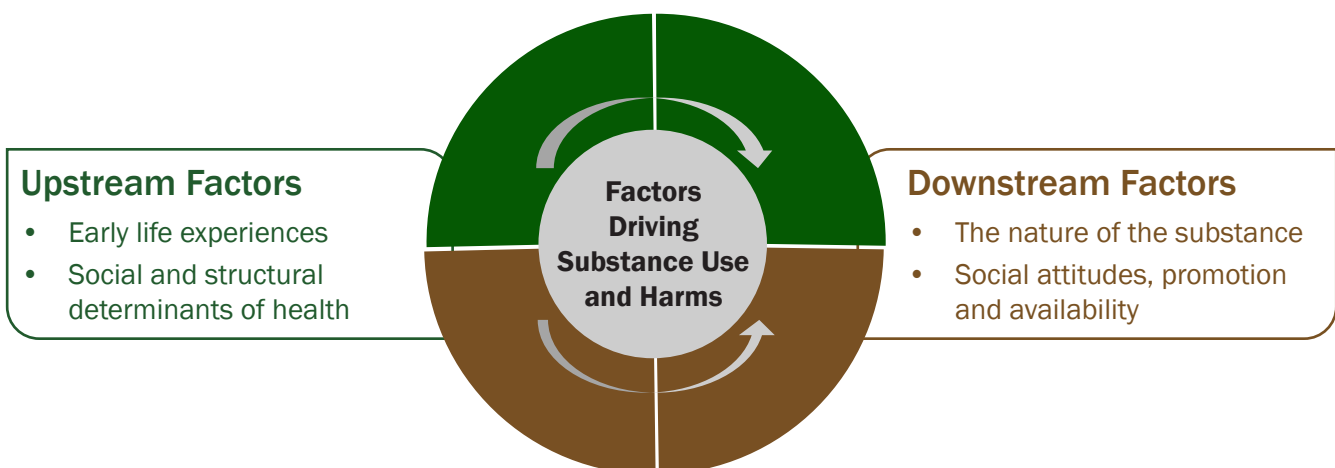
The best antidote to problematic substance use and addiction is connection: connection to family and friends, to community, and to society.

The likelihood that someone will develop a substance use disorder or addiction is strongly influenced by early life experiences and other upstream social and structural determinants of health that affect people's sense of belonging and social connection, and their ability to get the services and supports they need.

It is also influenced by downstream factors, such as the nature of the substance (e.g. how it's used, how toxic/predictable the supply is), and the social environment (e.g. how accepted its use is, how easy it is to access).

Individual and societal harms and benefits of substances are driven by interactions among biopsychosocial and economic conditions, the informational environment, growth/production of substances, other supply and demand variables, availability, accessibility, context, social norms and the laws that govern many of these activities. The interaction of these factors leads to use patterns.

Health Officers of British Columbia,
2011.³⁶



Upstream Factors

Early life experiences

Individuals and groups most at risk of harm from substance use are often those who were exposed to certain predisposing factors **early in life** including:

- **biological or genetic factors**
- **adverse childhood experiences (ACEs)**³⁷ between the ages of 0 and 17 including:
 - o experiencing physical, sexual or emotional violence or abuse
 - o being physically or emotionally neglected (including inadequate supervision)
 - o witnessing violence in their home or community
 - o growing up in a household with substance use or mental health conditions (including being exposed to alcohol or other substances prenatally)
 - o having a family member attempt suicide or die by suicide
 - o living with instability due to parental separation or divorce
 - o having a parent or household member in jail or prison
- **mental health conditions**, including mental health disorders and poor mental health.

The more ACEs a child experiences, the greater the risk of substance use harms, including developing a substance use disorder later in life.

Social and structural determinants of health

Broader social, economic, and structural factors can create health inequities and increase the risk of substance use harms, including:

- inadequate **income** and **housing/living conditions**
- living in neighbourhoods or communities with high rates of **poverty, violence and/or substance use**
- lack of access to **education /health literacy**³⁸
- lack of **employment opportunities and unhealthy working conditions**
- **not fitting in socially or experiencing peer pressure** to use substances
- lack of access to timely **health services, including mental health services, harm reduction resources, and addiction treatment services**
- lack of **healthy alternatives to substance use** (e.g. recreational opportunities, physical activities, social connections, hobbies and interests)
- **colonizing and marginalizing social structures, and structural forms of racism, stigma and discrimination**
- **criminalization** of substance use that may drive that use underground, and keep people from using substances more safely or seeking treatment services

Health equity is created when individuals have the fair opportunity to reach their fullest health potential. Achieving health equity requires reducing unnecessary and avoidable differences that are unfair and unjust. Many causes of health inequities relate to social and environmental factors including: income, social status, race, gender, education and physical environment.

[Public Health Ontario](#)³⁹

These social, economic and structural factors affect risk in complex ways. For example, people may use substances as a way of coping with poverty, violence, unemployment or other health inequities or negative life experiences. The experiences of colonization, racism, marginalization, stigma, and discrimination are drivers of substance use among Indigenous peoples, members of 2SLGBTQ+ communities, and Black and other racialized populations in Ontario. For Indigenous peoples, those traumas have been reinforced by policies that created the residential school system, and continue to contribute to substandard living conditions, racism, and worse access to services in many communities as well as in the broader health care system.

Social and structural inequities increase the risk that a person will start using substances and that their substance use will become harmful.

Downstream Factors

The nature of the substance

The extent to which a substance can cause harm depends on:

- How **addictive** the substance is. Nicotine, opioids, and drugs like methamphetamines are highly and quickly addictive for many, while it typically takes longer for people to become dependent on cannabis or alcohol.
- The **product** itself and its form, which can affect its appeal and impact. For example, edible forms of cannabis may be more appealing and safer than smoking cannabis for many people, but the drug takes effect more slowly when ingested than when cannabis is smoked or vaped. Edibles may reduce risks associated with smoking but they increase the risk that people will consume a higher dose than they expect.
- Its **potency/toxicity**. Some cannabis products available today, including synthetic cannabis, are more potent than they were in the past. Synthetic opioids, like fentanyl and carfentanyl, are also more toxic than other opioids (e.g. morphine, heroin).
- How **predictable/safe** the substance is. Does the person using the substance know what's in the substance? Has it been adulterated with other substances that can cause harm? In the unregulated drug market, opioids are often mixed with other substances, such as benzodiazepines and xylazine. The unpredictability of the current unregulated opioid supply contributes to overdoses and deaths.
- The **impact** substance use has **on health** and whether people are aware of those risks. In addition to the risk of addiction associated with nicotine, the smoke from cigarettes, cigars, and pipes contains at least 80 chemicals that can cause cancer. People who smoke cannabis or opioids face similar risks associated with inhaling smoke. There are also serious health risks associated with injecting opioids and other drugs, including abscesses/infections, endocarditis, and bloodborne infections.
- Whether the substance is used alone or **combined with other substances** – either unintentionally or intentionally. For example:
 - o People often use drugs from the unregulated supply not knowing exactly what other substances may be present (i.e. unintentional polysubstance use), which increases their risk.
 - o Some people choose to use alcohol and cannabis together, or take benzodiazepines or stimulants with opioids (i.e. intentional polysubstance use). Substances used simultaneously may interact in ways that exacerbate the risks: using cannabis and alcohol together leads to more impaired driving, while using benzodiazepines with opioids increases the risk of sedation, respiratory depression, and death.

The Ps that affect substance use and harms:

- Product
- Potency
- Predictability
- Price
- Promotion
- Placement

Social attitudes, promotion and availability

- How **socially acceptable or stigmatized** a particular substance is within families, cultures, and broader society. For example, in most communities in Ontario, alcohol use is more socially acceptable than smoking cigarettes or cannabis. It is also more acceptable than opioid use. Both acceptability and stigmatization can be harmful. High acceptability can increase use and harms, while stigmatization can cause people to use substances in unsafe environments or to not seek care they need.
- How **appealing** the substance or its delivery device is. For example, flavoured cigarettes and vaping products, the design of vaping devices and the way they are **packaged** can make vaping more appealing – particularly to youth – and drive use.
- The **price** of the substance, which determines how accessible it is.
- How effectively substances are **promoted** by the industries that sell them (see box).
- The **placement** of the product and how **easy it is to access** through the regulated market (e.g. outlet density), the unregulated market, and family and friends.
- The level of **popular support for policies** that limit access and promotion, such as pricing policies or restrictions on where substances can be sold and marketed.
- How **willing and able different regulatory systems are to enforce** legal restrictions on substance use, such as age limits, and the distribution and sale of regulated products, like tobacco and cannabis, outside the regulated system.
- The **public health messages** people receive about how safe or risky a substance is, and whether they trust public health and believe those messages.

Public awareness of the health risks associated with substance use is key to reducing substance use harms. For example, it was not until people were aware of the negative impacts of smoking tobacco – both on their own health and on the health of the people around them – that smoking rates began to drop. Even now, most smokers still underestimate the harms that smoking does to their health.

The marketing of legal regulated substances can be a powerful force in affecting choice and driving use, particularly among youth:

- Over the past few years, the alcohol industry has actively targeted women with pink drinks and slogans like “mummy wine time,” and [women’s alcohol use and alcohol-related hospitalizations have increased](#).⁴¹
- Tobacco companies that created vaping projects have used [sleek, colourful and flavourful products to target youth](#).⁴²
- The dramatic uptick in prescriptions for medicinal opioids, which planted the seeds for the current opioid toxicity crisis, can [be traced directly to a pharmaceutical company’s aggressive and deceptive marketing to physicians](#).⁴³

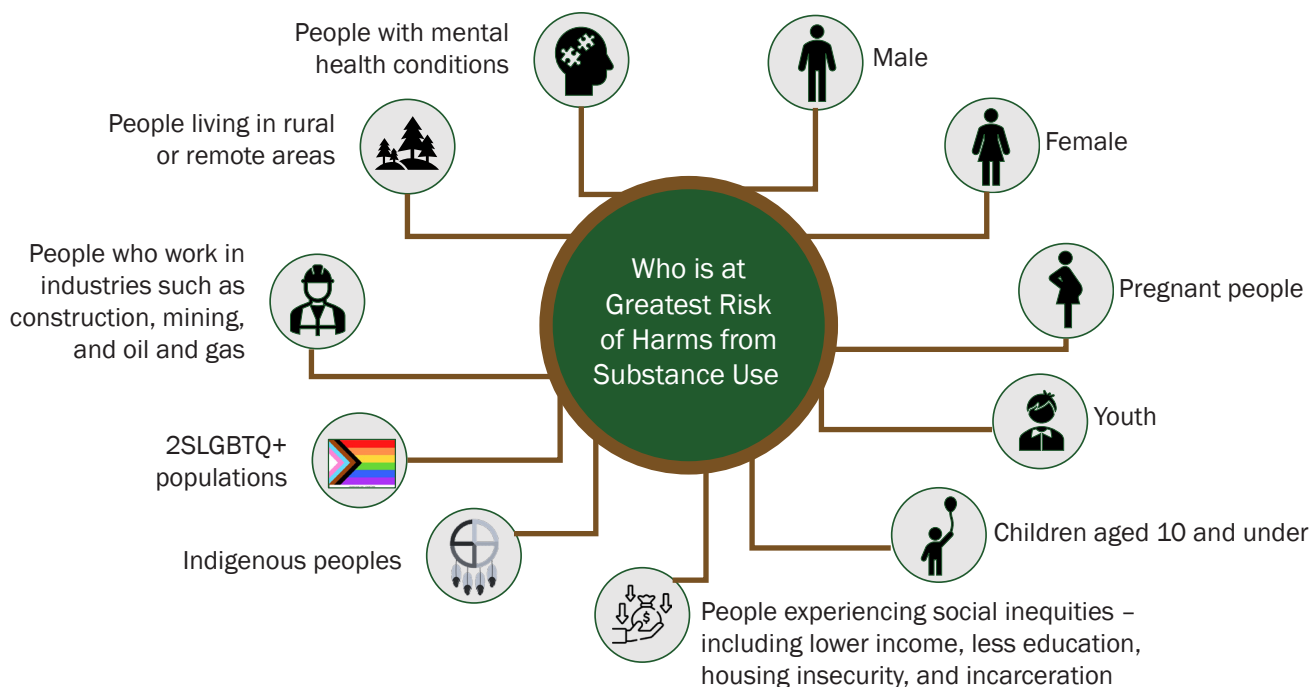
In a soon-to-be published study with people who drink alcohol, 60% were not aware that alcohol causes cancer.

2024 email from E Hobin
(Public Health Ontario)

Who is at Greatest Risk of Harms from Substance Use?

While everyone is vulnerable to the harms of substance use, some groups have higher rates of substance use and related harms.^x As noted above, risks are influenced by factors such as genetics,⁴⁴ gender, age, occupation, geographic location, and social determinants of health and health inequities – as well as by the presence of other health conditions.

Note: Ontario does not have detailed information on all populations at risk (e.g. racialized populations), so this list is not comprehensive. Risks can also be cumulative or layered: people may fall into two or more populations at higher risk of substance use harms.



Males. Males are more likely than females to smoke, use cannabis – both long-term and more frequently – and use opioids. They also tend to consume more alcohol, and experience more alcohol-related harms.

Females. Although males drink more alcohol and consume more cannabis than females, the gender gap for the use of both substances is narrowing.⁴⁵ Females – particularly professional women – are now drinking more alcohol than they did in the past: between 2013 and 2017, heavy drinking increased by 22% among females while remaining stable in men.⁴⁶ Increases in alcohol use and heavy drinking among females are concerning as evidence demonstrates **females are more susceptible to alcohol-related harms: they develop alcohol-related problems (e.g. liver disease) and alcohol use disorders sooner and at lower levels of alcohol use than males.**^{47,48}

A recent Canadian study also showed higher substance use among **people who are non-binary** compared to people who identify as male or female.⁴⁹

Pregnant people. In addition to the risks that these four substances pose to the health of pregnant people themselves, they also threaten the pregnancy, and the health and well-being of the fetus.⁵⁰

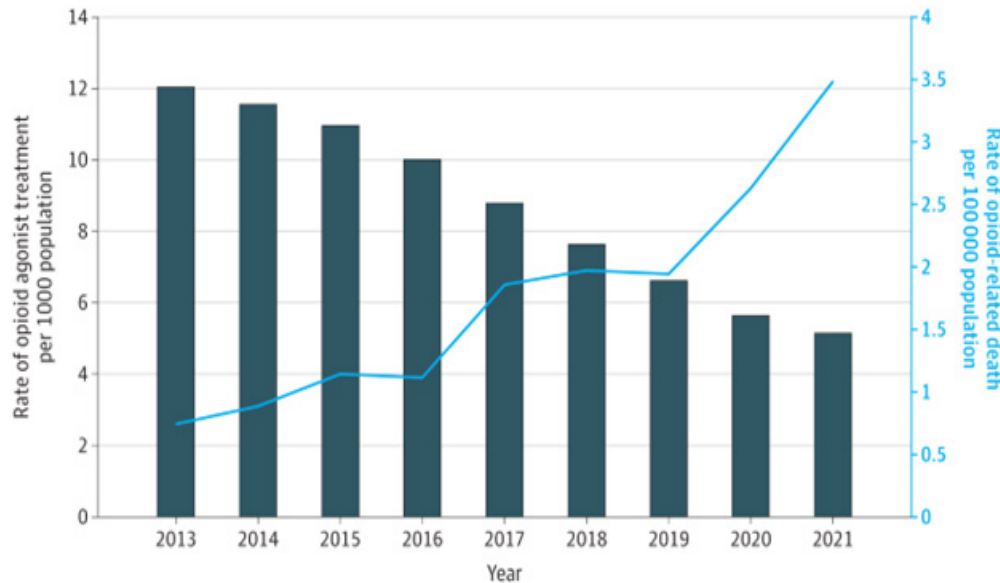
Males account for 75% of all alcohol-attributable deaths, 85% of hospitalizations, and 71% of emergency department visits in Ontario.¹³²

Since the start of the COVID-19 pandemic, 3 in 4 people who died from opioid toxicity in Ontario were male.¹¹

^x Note: This list is not comprehensive, and it relies on available data and may miss key groups.

Youth. Young brains are highly susceptible to the harms associated with substance use,⁵¹ and young people's use of many substances is increasing. Youth use cannabis more heavily and more frequently than people in other age groups.¹²⁻¹⁶ Young people reported more hazardous alcohol drinking during the COVID-19 pandemic.¹⁰ Rates of fatal and non-fatal opioid toxicity have increased substantially in the past decade in Ontario for adolescents and young adults age 15 to 24,⁵ with the number of deaths increasing from 48 in 2013 to 225 in 2021. Over that same period, the rate of opioid agonist therapy (OAT) decreased by 55.9% in Ontario youth.⁵²

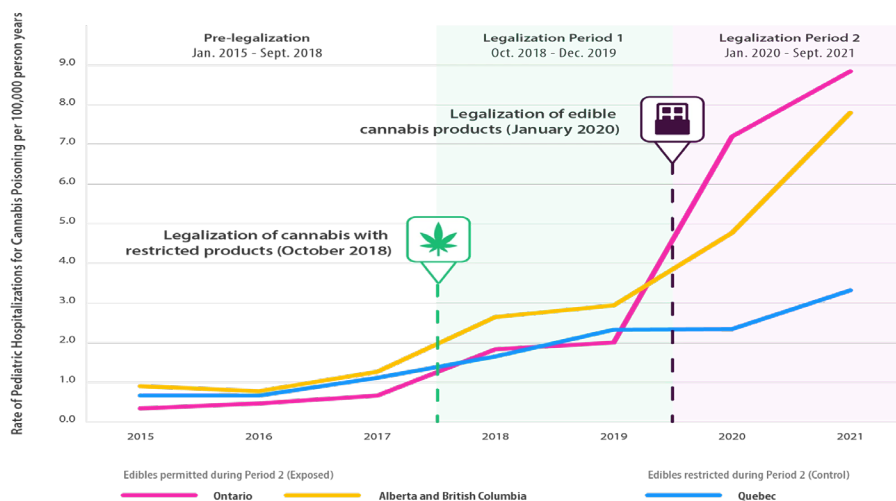
Figure 4: Rates of Opioid Agonist Treatment and Opioid-Related Deaths for Youths in Ontario, Canada, 2013-2021



Source: Rosic T, Kolla G, Leece P, Kitchen S, Gomes T. Trends in Rates of Opioid Agonist Treatment and Opioid-Related Deaths for Youths in Ontario, Canada, 2013-2021. JAMA Netw Open. 2023;6(7):e2321947. doi:10.1001/jamanetworkopen.2023.21947

Children aged 10 and under. With edible forms of cannabis becoming more available and popular, young children are now at higher risk of serious health problems from accidentally eating products that contain cannabis.⁵³ After the legalization of cannabis edibles in January 2020, Ontario saw a sharp spike in cannabis poisoning in children under age 10. The number of children who visited an emergency department increased from 81 (between January 2016 and September 2018 or pre-legalization) to 317 (between February 2020 and March 2021). Almost 40% of children who were taken to an emergency department for cannabis poisoning had to be hospitalized.⁵⁴ Rates of hospitalization were higher in Ontario than other provinces. And particularly higher than in Quebec, where there are additional restrictions on cannabis edibles - they cannot be made of anything that would make them attractive to those under 21 years old, including anything sweet or any added colouring.⁵⁵

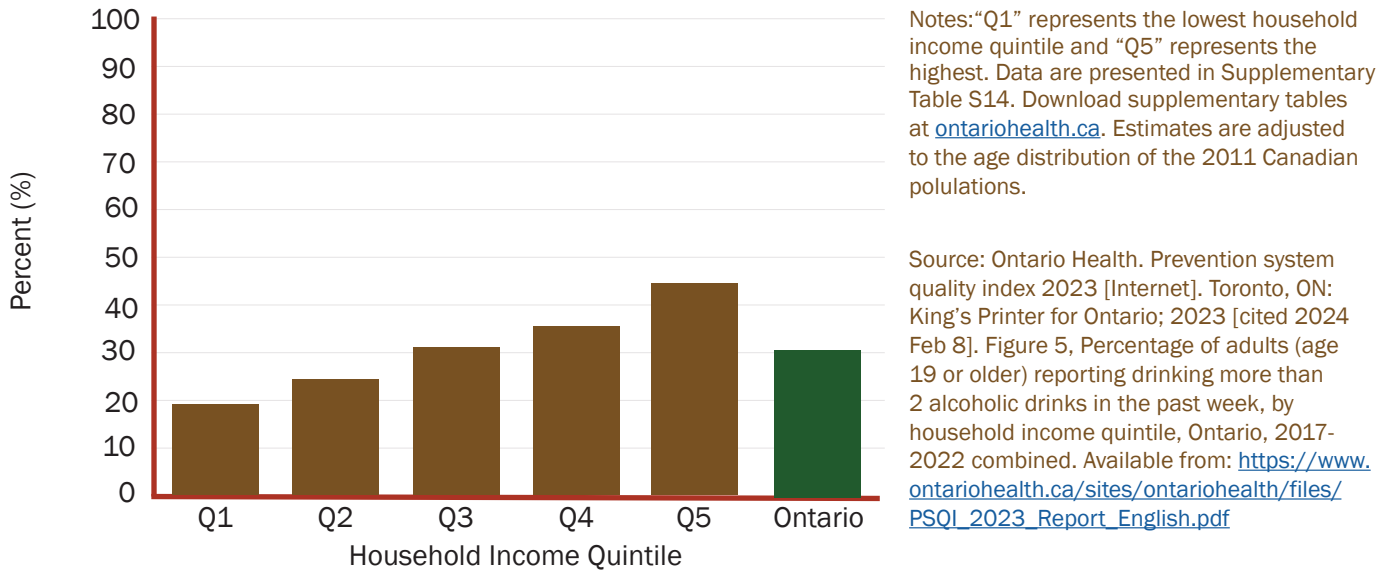
Figure 5: Rate of hospitalizations due to cannabis poisoning in children aged 0-9 years in four Canadian provinces, 2015 to 2021.



Source: Hospital for Sick Children (SickKids). Hospitalizations for unintentional cannabis poisoning among Canadian children surged after legalization [Internet]. Toronto, ON: SickKids; 2022 [cited 2024 Feb 9]. Changes in hospitalizations due to cannabis poisoning in children 0-9 years between 2015 and 2021. Available from: <https://www.sickkids.ca/en/news/archive/2022/hospitalizations-for-unintentional-cannabis-poisonings-among-Canadian-children-surged-after-legalization/>

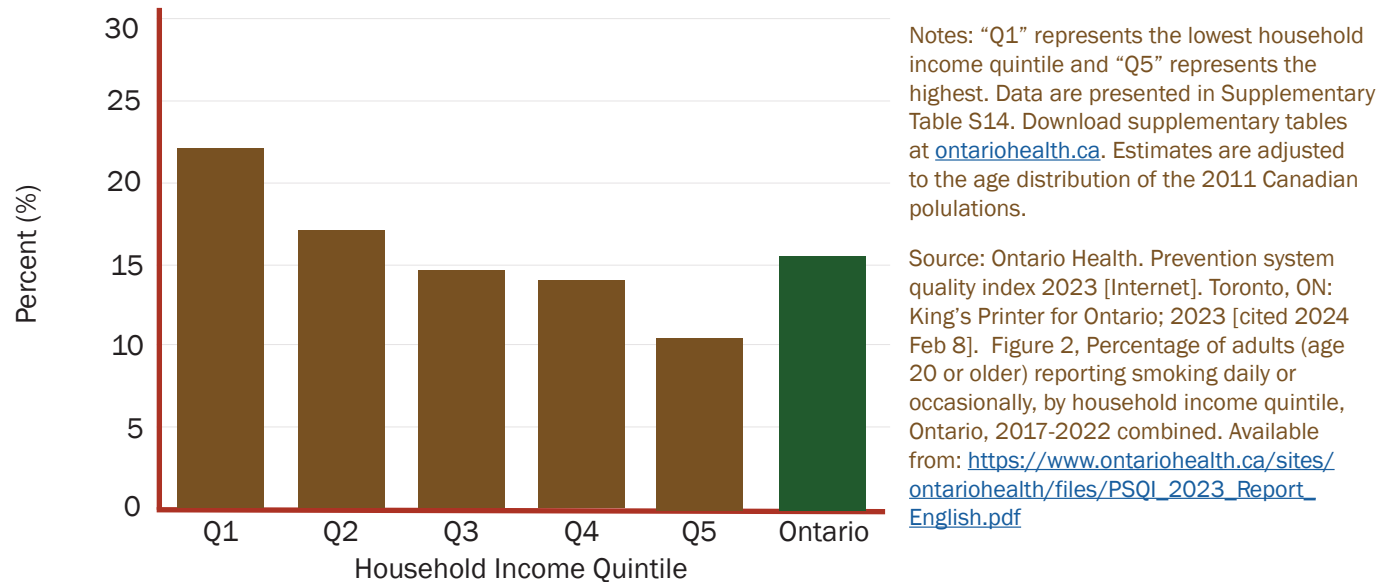
People experiencing social inequities –including lower income, less education, housing insecurity, and incarceration. If we look more deeply at other factors that affect substance use harm, both income and education appear to play a more important role than a person’s level of substance use. For example, adults in Ontario with higher household incomes are more likely to consume two or more alcoholic drinks in a week or report heavy drinking than those with lower household incomes (see Fig 6) – however, those with lower incomes and less education are at higher risk of alcohol-related harms.^{38,56}

Figure 6: Percentage of adults (age 19 and older) reporting drinking more than 2 alcoholic drinks in the past week, by household income quintile, Ontario, 2017 to 2020



Smoking is more common in adults with lower household incomes.⁵⁷

Figure 7: Percentage of adults (age 20 and older) reporting smoking daily or occasionally, by household income quintile, Ontario, 2017 to 2020



Opioid-related emergency department visits and deaths are also more common among adults with low incomes.¹¹

During the COVID-19 pandemic, one in six opioid-related deaths occurred among people experiencing **homelessness** – up from one in eight before the pandemic.⁵⁸

More than one in four people who died from opioid toxicity in Ontario between 2015 and 2020 had recently been **incarcerated**.⁵⁹

Indigenous peoples. Indigenous peoples experience a disproportionately large burden of harms related to substance use, including criminalization and violence.⁶⁰ The rate of drug toxicity death was almost 6 times higher for First Nations people in BC compared with other BC residents in 2022,⁶¹ and the rate of opioid toxicity death was 7 times higher for First Nations people compared with non-First Nations people in Ontario in 2021.⁶²

Most of the available data on substance use among Indigenous peoples come from studies at the national or federal level, which found:

- rates of commercial tobacco smoking two to five times higher among Indigenous peoples compared to non-Indigenous populations.⁶³
- higher rates of cannabis use among Métis adults and youth than in others in the general population. Métis youth were also more likely to have used alcohol, smoked tobacco, and taken other drugs than their non-Métis peers. Those who consumed high levels of these substances were more like to report experiencing risk factors including poverty and deprivation, physical and/or sexual abuse, and/or the loss of a family member to suicide.⁶⁵
- lower rates of alcohol use or binge drinking in First Nations adults (42.6%) than other adults in Canada - however, among those who do use alcohol, binge drinking (i.e. five or more drinks on one occasion) is common. Those who drink alcohol and avoid some of the harms (i.e. do not binge drink), tend to be individuals who have greater access to the social determinants of health (e.g. more education, greater career responsibilities).⁶⁶

[Substance use among Indigenous peoples](#) is driven by health inequities, including the long-term and ongoing impact of colonization and the residential school system, experiences of stigma and discrimination, intergenerational trauma and substandard living conditions in many Indigenous communities.⁶⁴

The Chiefs of Ontario (COO) and the Ontario Drug Policy Research Network (ODPRN) have been collaborating to study trends in opioid use among First Nations people in Ontario. The most recent update found:⁶⁷

- an increase in opioid-related toxicity events, despite a decrease in opioid prescriptions for the treatment of pain.
- higher opioid use among members of First Nations who live outside their community.
- Almost 3 times the rate of deaths from opioid toxicity among First Nations in Ontario from 2019 to 2021 compared, from 4.1 per 10,000 people to 11.4 per 10,000 people, with 190 deaths in First Nations people in 2021.

The substance use harms experienced by Indigenous peoples, which are impacted by intergenerational trauma from colonial policies and practices such as residential schools, can manifest in ongoing cycles of substance use and addictive behaviours. The risk of harms is also exacerbated by systemic anti-Indigenous racism and discrimination in the health care system, and the lack of culturally appropriate mental health and addictions care.⁶⁸

In Ontario, 88% of all Indigenous peoples live off-reserve in cities, towns, and rural communities,⁶⁹ and particular attention must be paid to addressing their needs. It is also important to understand that Indigenous people are the fastest growing population and the youngest population in Canada.⁷⁰ Indigenous youth make up a significant proportion of the provincial youth population and need access to culturally responsive services.⁷⁰

“The opioid epidemic has been disrupting families and communities across Ontario ... The decades long war on drugs has not worked, especially for our people who are already over-represented in the criminal justice system. People need to be supported culturally and spiritually in dealing with mental health and substance use disorders.”

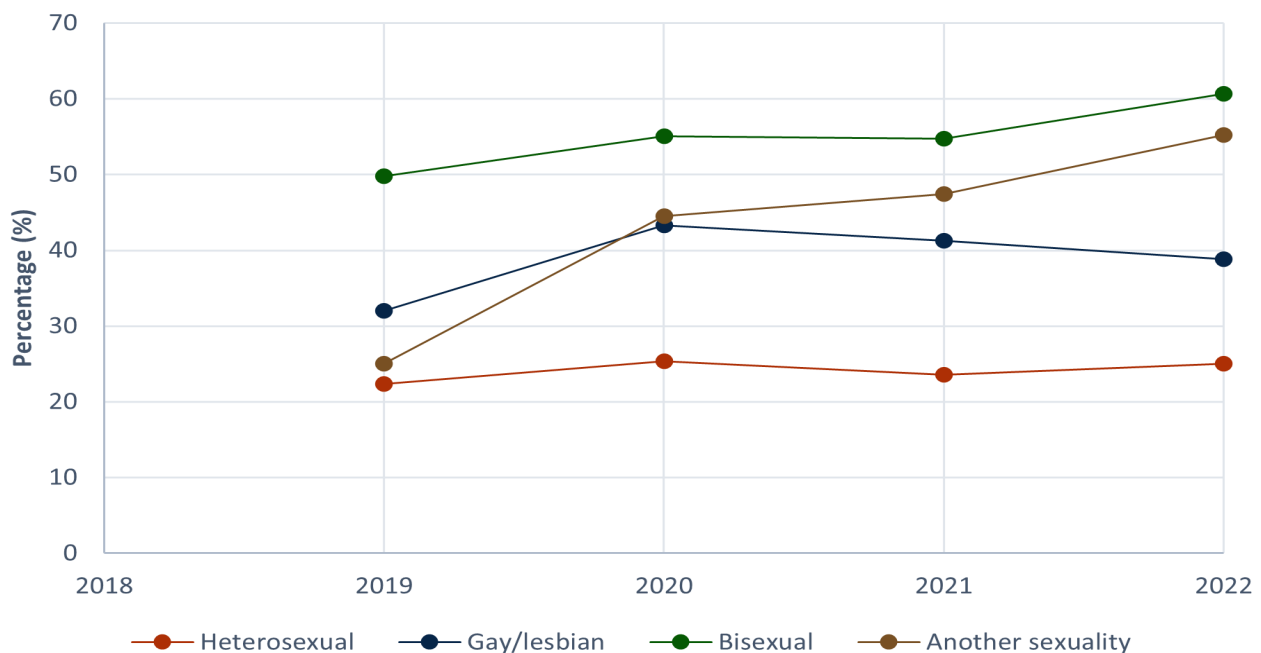
[Ontario Regional Chief, Glen Hare](#)⁶²

2SLGBTQ+^{xi} populations. 2SLGBTQ+ people experience higher rates of substance use than heterosexual people. Substance use harms in this population are linked to childhood experiences of bullying, homophobia, discrimination, and physical and sexual abuse, as well as isolation, alienation, and loss of family or social supports, which result in higher rates of depression, anxiety, obsessive-compulsive and phobic disorders, suicidality and self-harm, as well as double the risk of post-traumatic stress disorder (PTSD).⁷¹ These conditions may cause people to turn to substance use to help them cope. For example: use of alcohol, tobacco, and other substances may be two to four times higher than among heterosexual people.

[An Ontario-based study of trans people](#) found that 20% had experienced physical or sexual assault due to their identity, and that 34% were subjected to verbal threats or harassment. Their identity can also affect their access to the social determinants of health: trans people in both Canada and the U.S. report high levels of violence, harassment, and discrimination when seeking stable housing, employment, health or social services.⁷²

- Use of alcohol, tobacco, and other substances may be two to four times higher than among heterosexual people.⁷²
- Smoking and vaping rates are more than twice as high among members of 2SLGBTQ communities, and estimates suggest use ranges from 24% to 45% across different groups.⁶³
- Individuals who identify as gay/lesbian (39%) or bisexual (61%) have higher rates of cannabis use than those who identify as heterosexual (25%).⁷³

Figure 8: Past 12-month cannabis use (%) by sexual orientation, Ontario



Source: Canadian Cannabis Study, 2019-2022¹³⁻¹⁶

- Studies done in the U.S. and elsewhere report higher rates of alcohol-related problems among lesbian and bisexual women than heterosexual women.⁷⁴
- 2SLGBTQ+ youth face approximately 14 times the risk of suicide and substance use than their heterosexual peers.⁷²

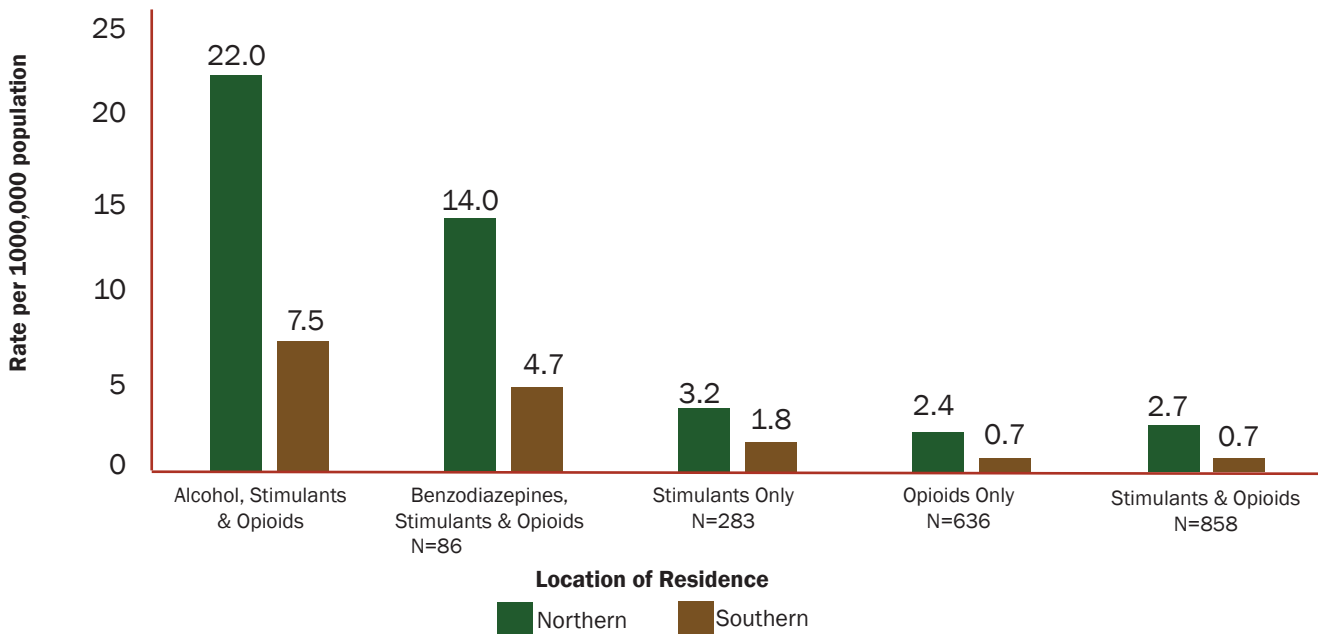
^{xi} Two-spirit, lesbian, gay, bisexual, trans, queer plus other gender and sexual identities

People who work in industries such as construction, mining, and oil and gas. People working in the construction industry, who make up 3.6% of the entire Ontario population and 7.2% of all employed people in Ontario in 2021, have been disproportionately affected by the opioid toxicity crisis. A 2021 report showed that one-third of those who were employed when they died from an opioid overdose worked in the construction industry.⁵⁸ The nature of these jobs – physically demanding, long hours, stressful – means that workers are prone to injuries and chronic pain, which may contribute to their opioid use.⁵⁸ Research currently being conducted by the Institute for Work & Health and the Occupational Cancer Research Centre reinforced these findings: previously injured workers in sectors including construction, mining, and forestry are more likely to end up needing emergency department services or hospitalization due to opioid-related harm than workers in other sectors in Ontario.⁷⁵

People living in rural or remote areas. Compared to those living in urban areas, a greater proportion of Ontarians living in rural areas (37% vs 30.5%) drink more alcohol than recommended by alcohol drinking guidelines.⁵⁷ According to the CAMH Monitor (2022), current rates of smoking and the average number of cigarettes smoked daily varies significantly across the province, and both are highest in Northern Ontario.^{xii} A recent analysis by the Ontario Drug Policy Review Network and Public Health Ontario also found significantly higher rates of substance-related toxicity deaths in Northern Ontario than Southern Ontario, at 47.9 vs. 16.9 per 100,000.¹¹

The highest rates of opioid-related deaths in the province are occurring in the Northern Ontario.

Figure 9: Rates of toxicity deaths from the 5 most common substance combinations, by residence in Northern or Southern Ontario, 2021¹¹



Note: Unknown Northern/Southern location ranged from 0.8% to 4.1% across substance combinations.

People with mental health conditions. The use of all four of these substances is often associated with efforts to cope with mental health issues, such as stress, anxiety, and depression. For example, cannabis use is highest among people with poor mental health, and lowest among those who report good mental health. Cannabis-related harms are also higher for people with a family history of mental health conditions, such as psychosis, depression, and anxiety. Some people use cannabis to cope with stress or poor mental health, but its use can make existing mental health conditions worse, and contribute to people developing a mental health disorder.⁷⁶

^{xii} Northern Ontario covers the part of Ontario north of Lake Huron (including Georgian Bay), the French River, Lake Nipissing, and the Mattawa River. It includes almost 87% of the province but only six per cent of the province's population lives in the area.

II. Taking an All-of-Society, Health-First Approach to Reduce Substance Use Harms

Public health has been effective in reducing substance use harms because it strives to address both the upstream and downstream factors that drive substance use. Public health goals are to:

- Create healthy communities where everyone has the opportunities, services and supports they need to thrive (i.e. to address the social and structural determinants of health)
- Prevent adverse childhood experiences that make people more vulnerable to mental health conditions and substance use harms
- Protect people from exposure to addictive substances during critical stages of development (e.g. pregnancy, childhood, youth)
- Make the substances people use less harmful whenever possible
- Educate people about the risks associated with different substances
- Influence social attitudes towards substance use
- Encourage low-risk or moderate use of substances (i.e. less is better) by making substances less attractive, harder to access, and more expensive (e.g. pricing, taxation, distribution, marketing policies).

In the all-of-society, health-first approach I am recommending, all partners – including citizens with lived and living experience of substance use – will work collaboratively to:

- Support initiatives that have the potential to change social and structural environments and reduce health inequities, such as Ontario's Poverty Reduction Strategy,¹⁷ affordable housing policies, programs for families that reduce the risk of adverse childhood experiences and domestic violence, initiatives to improve social circumstances, opportunities for Indigenous peoples to decolonize services, and efforts to address stigma and discrimination within the health care system and society
- Provide clear, evidence-based information and education about the risks associated with the use of different substances so people can make informed decisions about their substance use
- Regulate the quality and safety of legal substances
- Continue to find effective ways to limit the supply and use of unregulated substances without having a negative impact on the health of people using those substances
- Implement a range of substance-specific policies that create “guardrails” that help people who use substances do so more safely – similar to the way we use seat belt laws and speed limits to reduce the risk of traffic injuries
- Provide timely access to effective mental health, harm reduction, and addiction treatment services.

Interventions focused on upstream drivers are more effective at enhancing population health and improving health equity, which will reduce harmful substance use and have benefits across other important aspects of health.

An effective all-of-society approach requires:

Empathy

for the people and families experiencing substance use harms

Engagement

of people with lived and living experience of substance use and their families, as well as all levels of government, organizations, services, and industries

Empowerment

of individuals, families, and communities to protect and enhance health

Environments

that support and promote health and connection

Education

to help individuals make healthy choices

Economic investment

in effective, evidence-based interventions – both upstream and downstream

Engineering

products and processes to reduce harm and risk

Enforcement

of legal measures to reduce harms

Elimination

of harms whenever possible

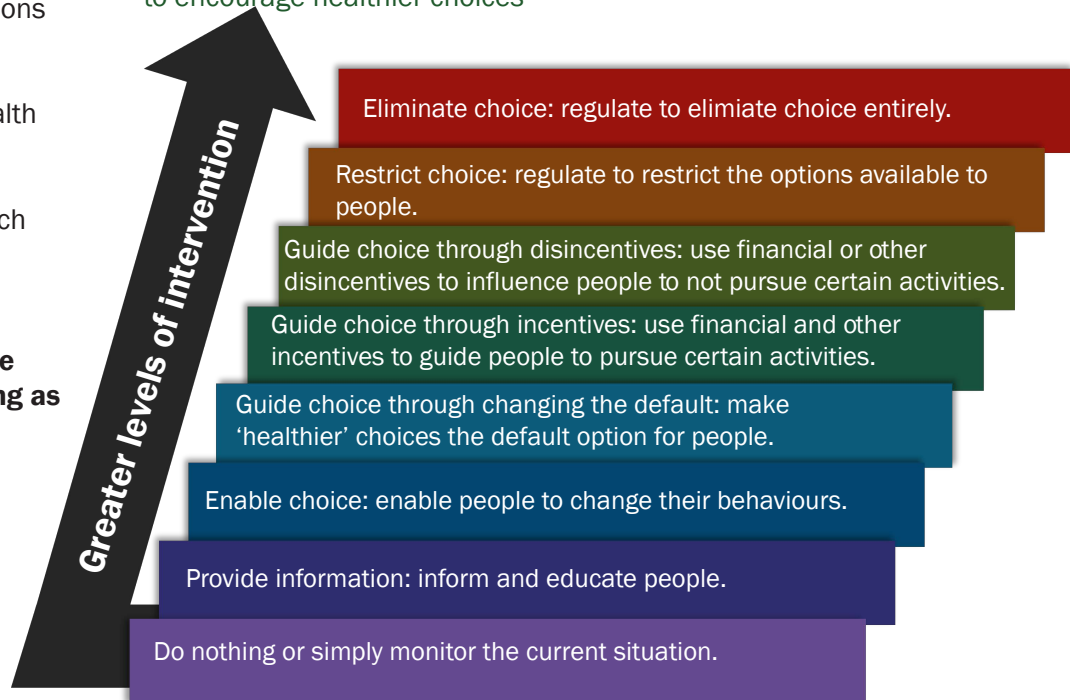
Ontario has already put in place many policies and initiatives designed to influence the drivers of substance use. However, as we learn more about substances and their impact on health, and as the substances themselves, the market for them, and the populations most at risk evolve, we must continually assess and adapt our policies.

Using a Balanced, Progressive Strategy to Reduce Harms

To develop a thoughtful, comprehensive range of interventions that can help people who use substances reduce their risk and protect their health, the public health sector uses a practical tool: the Nuffield Intervention Ladder (see Figure 10).⁷⁸ The ladder approach begins with the least intrusive interventions and progresses to those that are more intrusive only if and when needed. **Less intrusive interventions are preferred as long as they are effective.**

Adapted from: Nuffield Council on Bioethics. Public health: ethical issues [Internet]. London: Nuffield Council on Bioethics; 2007 [cited 2024 Jan 24]. The intervention ladder. Available from: <https://www.nuffieldbioethics.org/publications/public-health/guide-to-the-report/policy-process-and-practice>

Figure 10: Nuffield Intervention Ladder: Using public health policies to encourage healthier choices⁷⁸



If we apply this ladder to, for example, reducing harms associated with tobacco smoking, we see that, over the past 20+ years, collaboration across all levels of government and health organizations resulted in effective interventions at each step of the ladder – which led to a shift in societal norms and acceptability:



If we were to apply this ladder to unregulated opioids, the strategies would be different because the threats are different. When thousands of people are dying from preventable overdoses each year in Ontario, the system must take urgent steps to keep people alive, such as creating safe spaces where people can use drugs, and providing regulated pharmaceutical alternatives (e.g. a safer supply of drugs). With these harm reduction responses in place, people who use opioids may be in a better position to benefit from offers of education and treatment, and to make choices that enable them to reduce or even stop their opioid use.

While the Nuffield Ladder has mainly been used to address downstream drivers of substance-specific harms, it can be a critical part of a broader effort to address all the factors driving substance use, including ongoing upstream efforts to change social and structural environments, and to ensure individuals and populations at highest risk have access to services that address the social determinants of health. The interventions would focus less on restricting or eliminating choice and more on reducing the health inequities that drive substance use and helping people who are experiencing or at risk of substance use harms to develop stronger social connections and find less harmful ways to cope with stress and pain.

Using the ladder’s progressive, tiered approach, I believe it is possible to find the balance between: long-term, upstream efforts to build healthy communities whose citizens have the knowledge, skills and supports to avoid substance use harms; and more immediate, short-term efforts to respond to substance-specific challenges and opportunities, like the opioid toxicity crisis.

A comprehensive whole-of-society population health approach requires interventions across the full spectrum of substance use, from prevention to harm reduction to treatment, and at each step of the ladder.

Effective and Promising Substance Use Interventions

The following are examples of effective and promising interventions that can influence both upstream and downstream drivers of substance use and reduce harms.

Targeting Upstream Drivers

Effective upstream interventions focus on building stronger families and stronger, more connected communities, addressing systemic and structural determinants of health, and improving health equity.

Building stronger families

Healthy Babies, Healthy Children, a program funded by the Ministry of Community and Social Services and administered by public health units, provides services to pregnant people, their partners, and their children from birth up to school age. Public health nurses and family home visitors help families: prepare for the baby’s arrival, develop a strong relationship with the baby, learn parenting skills, be knowledgeable about their child’s health, behaviour, nutrition, growth and development, and find helpful services in the community.⁸¹

In 1997, the province committed to providing 100% of the funding for the Healthy Babies, Healthy Children program; however, with the exception of one increase in base funding in 2012 to add public health nursing positions (as part of the 9,000 Nurses Commitment), the program’s budget has been flat-lined since 2008. As a result, public health units are not able to fully meet the urgent and growing demand for these services.⁸²

The **Nurse-Family Partnership** is an evidence-based home-visiting program developed in the United States that is now being evaluated in Canada. It partners public health nurses with first-time, low-income mothers from early in pregnancy through until the child is two years old. The nurses develop a strong therapeutic relationship with the mother, support the health needs of moms and babies, coordinate care and referrals in the community, and focus on helping them access the social determinants of health. For mothers who have a history of substance use, the goal is to reduce the risk factors that predispose them to substance use harms and replace them with protective factors that support healthy child development and reduce the likelihood of future substance use.⁸³ The program, which has been in place for more than 20 years in the U.S., has been shown in randomized controlled trials to improve the health, well-being, and self-sufficiency of first-time parents and their children,⁸⁴ reduce childhood injuries, improve mothers’ parenting and economic self-sufficiency, and improve child mental health and cognitive development. As of the beginning of 2024, 10 health units in Ontario were involved in delivering and evaluating the impact of the program, alongside their Healthy Babies, Healthy Children program.

Improving youth mental health

Ontario has established a network of 22 **Youth Wellness Hubs** across the province that provide integrated services co-designed with youth for youth.⁸⁵ The hubs, funded by the Ministries of Health and Education, were established to fill gaps in the youth mental health system. They provide youth ages 12 to 25 with convenient and free mental health, substance use, and primary care services in a safe, welcoming, youth-friendly space. Youth can drop in for counselling or peer support, book an appointment, or access services virtually. Youth who have more specialized and intensive care needs are connected with the right supports and services in the community.

Youth Wellness Hubs Ontario is also leading the provincial implementation of **PreVenture**⁸⁶ by: working with School Mental Health Ontario and school boards to deliver the program in grades 7 to 12, and by providing the program in the local hubs. PreVenture is a targeted prevention program that reduces the risk of substance use by giving young people the skills to cope with challenges. Youth learn useful coping skills, set long-term goals, and channel their personality traits to achieve their goals. The program has proven effective in: reducing drug and alcohol use by 50% and tobacco use by 30%; delaying initiation of alcohol use; reducing bullying; and reducing anxiety, depression, and suicidal ideation.

Effective January 2024, all school boards in Ontario are now required to provide **mandatory education about mental health, including substance use, and to have a mental health and addictions strategy.**⁸⁷

All four school boards in Ottawa along with health authorities (Ottawa Public Health, Ontario Health East) and community-based organizations that serve youth have come together to form **project step**.⁸⁸ a cross-sector, community-wide, collective impact initiative that works to ensure young people and their families have access to **support, treatment, education, and prevention** of harms related to substance and technology use. The partners have created formal linkages between their systems to: deliver addictions counselling, prevention education, and support in every publicly funded high school and five community-based schools in Ottawa (57 in total), and to provide live-in treatment at two centres – one in each official language – so young people can receive long-term care close to home. The goal of project step is to address substance and technology use challenges early, and stop the cycle of addiction before it begins.

In 2022, 86% of youth who accessed **project step** counselling in community improved their academic or employment success, and 76% had improved mental health outcomes.

Community agencies across the province have also developed programs that help parents develop strong parenting skills, and provide opportunities for young people to be involved in meaningful, well supervised school and community activities. When young people have the opportunity to develop social-emotional learning skills throughout early childhood and the school-age years, they enjoy better overall health and well-being and positive mental health. They also build resilience and thrive.⁸⁹

Preventing initiation and escalation of youth vaping

Youth use of e-cigarettes has grown since these devices entered the market. When the Ontario Tobacco Research Unit conducted a literature review on behalf of the Simcoe Muskoka District Health Unit and the Central East Tobacco Control Area Network, they found little evidence about effective prevention interventions for youth, so they developed an Ontario-based program. **Not An Experiment** aims to prevent the initiation and escalation of vaping among youth in grades 7 to 12.⁹⁰ The project was informed by:

- best practices from youth smoking prevention
- youth engagement – messaging and health promotion activities were informed by and piloted with youth at multiple stages in the planning process
- input from adult stakeholders (e.g. educators, parents, public health colleagues across Ontario).

Not An Experiment has produced a range of interactive and fun resources and activities to communicate important health messages, which are available on its web site (NotAnExperiment.ca). It appears to be a promising practice that can help prevent youth vaping. In a post-activity survey of the program, youth in grades 7 to 12 reported that: they had a better understanding of the harmful effects of vaping (82%); the game gave them good reasons not to try or continue vaping (84%); and they are now more aware of how the tobacco industry makes youth want to try vaping (90%).

Decolonizing practices and interventions for Indigenous peoples

Indigenous people are cultural experts who hold the knowledge to ensure programs and services are wholistic, trauma-informed, safe, accessible, community-focused, and culturally abundant. Across the country, Indigenous communities are leading unique and innovative programs to address harms associated with substance use. These Indigenous-centred approaches include traditional healing practices, language-based services, culture- and arts-based programs, land-based programs, system navigation, and services embedded in the community. They work by:⁹¹

- creating space for Indigenous practices, languages and culture
- promoting self-determination in planning and delivery programs
- engaging people with lived experience in program planning and delivery
- destigmatizing programs and communities
- creating programs that are person-centred
- respecting each person's personal journey.

The OFIFC's approach to vaping cessation strategies reflects the community-driven research principles of Utility, Self-Voicing, Accessibility, and Inter-relationality (USAI).

[OFIFC. \(2012\). USAI Framework⁹²](#)

Youth-led strategies for vaping cessation

In 2023, the Ontario Federation of Indigenous Friendship Centre-Indigenous **Youth Council (OFIFC IYC)** launched the **Youth-Led Strategies for Vaping Cessation in Urban Indigenous Communities in Ontario Project**. The project moves beyond “anti-vaping” or “vaping cessation” messages to focus on traditional tobacco use in Indigenous communities. Community-grounded relationships and teachings take priority, and the project seeks to advise, inform, and guide health-related policy and consultation within and outside of urban Indigenous communities.

Project activities centre on youth engagement and community education, and include:

- holding a two-part workshop exploring traditional tobacco use and teachings with a recognized community Elder as well as a two-spirit, trans-youth knowledge carrier from the OFIFC IYC
- creating and sending bundles of essential items used in tobacco ceremonies (e.g. a cedar tree, the four sacred medicines, a copper mug, a shell, feathers) to support ongoing education efforts to promote long-term engagement with the Friendship Centre's health-related activities, and foster learning about the role of traditional tobacco, how to care for it, and its purpose in wholistic community wellbeing
- stressing the importance and impact of youth direction and involvement in research on and solutions to issues that directly affect them.

Supporting Indigenous youth who have to leave their communities for high school

Many students who live in First Nations communities in Northern Ontario must leave their communities to attend high school. In Ontario, Indigenous youth are less likely than their non-Indigenous peers to report being in excellent or good health (57% vs 72%),^{93,94} to graduate from high school (40% vs 57.5%),⁹⁵ or to find employment (59% vs 70%).⁹⁵ To address these disparities as well as the challenges Indigenous youth face making the transition from their homes to unfamiliar communities and schools, the Northwestern Health Unit and the Keewatin-Patricia District School Board collaborated to create the **Community Pathways Partnership** program. Culturally competent student support navigators work with Indigenous and other at-risk students to ensure they can access health and social services, and that their basic needs are met. The navigators differ from community health workers in that they focus on preventing problems and coordinating community supports rather than on treatment. The program actively engages the whole Indigenous student population rather than working only with students who have sought out services on their own. In addition to supporting Indigenous students, the program aims to focus the community health and social service systems on addressing the social determinants of health – the root causes of poor health and academic performance – as well as low graduation rates. The program, now in place in four high schools in the district (Dryden, Beaver Brae, Sioux North, Fort Francis) builds on the existing Four Directions Graduation Coach program, and is based on the Pathways Community HUB model, a recognized best practice approach and effective strategy for achieving improved health, social, and behavioural outcomes.

Building stronger communities

Planet Youth (the Icelandic prevention model) is a promising community-based framework to reduce alcohol and drug consumption among young people. It involves: analysing the predisposing (i.e. risk) and protective factors in each community, building a coalition of stakeholders, and developing interventions that will work in the local context. For example, implementation of this framework in Iceland involved: working with parents to develop their parenting skills and encourage more parental supervision; providing more organized leisure time activities for youth; creating new social norms, such as establishing curfew hours for children under a certain age and encouraging family dinners; and supporting the community with strong alcohol policies.⁹⁶

The Planet Youth model has been adopted in Lanark County, Ontario. See: <https://planetyouthlanark.ca/>

Housing First programs provide affordable supportive housing for Ontarians living with mental health and addiction issues. These programs enhance physical and mental health, decrease stress, improve sleep and diet, and make people feel safer. People who are stably housed are more likely to participate in treatment programs and manage their addiction.⁹⁷

Creating healthier workplaces

The **Opioids and Work Data Tool**, an interactive data visualization tool, uses data from about 1.7 million Ontario workers to understand how many were diagnosed with opioid-related harm and who was most likely to have an opioid-related injury (e.g. age, sex, occupation, industry, and health region).⁹⁸ Workplaces can use this information to develop targeted prevention programs. The National Institute of Environmental Health Sciences in the U.S. has developed a series of training tools on the prevention of occupational exposure to opioids, and on the impact of the opioid toxicity crisis on workers, the workplace, and the community.⁹⁹ A group representing Ontario construction companies is launching a campaign to raise awareness of the risk of opioid use by workers, and urging companies to take action to create safer, more supportive workplaces.¹⁰⁰ In terms of harm reduction, the Ontario government now requires high-risk workplaces to have naloxone on site.¹⁰¹

Diverting people from the justice system to the health system

Decriminalization of simple possession of unregulated substances for personal use reduces or eliminates the risk that people will be arrested simply because they use drugs. Decriminalization of simple possession also allows the justice and enforcement systems to focus their resources on stopping the organizations and individuals profiting from unregulated drug sales rather than on people who use substances whose needs would be better met in the health system.

As the 2020 statement from the Ontario Association of Police Chiefs supporting decriminalization of simple possession notes: “Ontario police services recognize the benefits of addressing the simple possession of drugs through health channels rather than a criminal justice response. Decriminalization of simple possession of drugs must be accompanied by a framework of diversion program options to provide frontline police with established pathways to health, rehabilitation, and recovery support. The policing lens will maintain its focus on public safety and wellbeing by combatting organized crime and targeting the illegal production, sale, and import/export of drugs and the various substances used in their production.”¹⁰²

Because opioid use is highly stigmatized, some of these policies and interventions are controversial. However, the public health sector has a responsibility to try a range of evidence-based strategies to slow and stop opioid-related illnesses and deaths, while also supporting the health of people who use unregulated opioids.

Mental health conditions and substance use disorders account for between 11% and 15% of the burden of disease in Ontario. However, only 7% of health care dollars are invested in services to treat these conditions, and wait times for these services are often long. Many services are only available through private insurance or private pay.

Institute for Health Metrics and Evaluation (2018). [Global Burden of Disease Study – GBD compare data visualizations.](#)¹⁰⁴

Other ways to divert people from the criminal justice to the health system include **multidisciplinary crisis response programs** and **drug treatment courts**.¹⁰³ Culturally responsive and trauma-informed crisis response programs, where social or mental health workers accompany police on mental health crisis calls and wellness checks, help ensure that people struggling with mental health conditions are connected with health services rather than being arrested. In communities with drug treatment courts, people arrested for possession are referred to treatment and supportive services instead of being sent to jail. Depending on how they are implemented, drug treatment courts have the potential to reduce the harms associated with incarceration, as well as the risk of overdoses and deaths when people are discharged from prison, while also improving access to treatment.

Targeting Downstream Drivers

Educating people about the risks

Both Health Canada and the Ontario Ministry of Health provide information/education about the risks associated with different substances – tailored to populations most at risk of harms. They also actively promote low-risk alcohol and cannabis use guidelines. For example, with the legalization of cannabis, Ontario and Canada:

- provided information/education on the effects of cannabis on the brain and mental health, particularly for youth and young adults
- reinforced the risks and consequences of cannabis-impaired driving
- provided information on how to avoid pediatric cannabis poisonings, including storing edibles safely
- promoted Cannabis Low Risk Use guidelines and the importance of choosing legal products to reduce risk.

Most recently, a number of public health initiatives are trying to raise public awareness of the carcinogenic (i.e. cancer-causing) effects of alcohol.

Figure 11: Ontario Central East’s Regional Cancer Program social media campaign – June 2023

The graphic is divided into several sections:

- Top Left:** A photograph of various alcoholic beverages in glasses and bottles.
- Top Center:** Text reads "You don't smoke because you know it can increase your risk of cancer."
- Center:** Text reads "Did you know that drinking alcohol also increases your risk of cancer?"
- Bottom Center:** Text reads "Now you know." Below this is an image of a green alcohol bottle and a pack of cigarettes, both with "DANGER CARCINOGEN" labels.
- Bottom Left:** Text reads "Both of these can cause cancer" above a photograph of a person smoking a cigarette. Below that, it says "The risks from 1 glass of alcohol are similar to 1 cigarette." and "For more information visit www.cercp.ca".
- Bottom Left (Small Text):** "Central East Regional Cancer Program Ontario Health (Cancer Care Ontario)"
- Bottom Center (Small Text):** "Central East Regional Cancer Program Ontario Health (Cancer Care Ontario) www.lakeridgehealth.on.ca/alcoholandcancer"
- Right Side (Grid):** A 3x2 grid of panels. Each panel has a text box on the left and a photograph on the right.
 - Top Left: "I just wanted to have fun with my friends..." (Photo: people at a bar)
 - Top Right: "I just wanted to relax at home..." (Photo: two men sitting on a couch)
 - Middle Left: "I just wanted a break..." (Photo: a person with a face mask)
 - Middle Right: "I did not know drinking alcohol increased my risk of cancer." (Photo: a woman hugging a man)
 - Bottom Left: "Now you know." (Photo: a woman hugging a man)
 - Bottom Right: "Now you know." (Photo: a woman hugging a man)
- Bottom Right (Small Text):** "Central East Regional Cancer Program Ontario Health (Cancer Care Ontario)"

Source: Central East Regional Cancer Program. Community resources [Internet]. Scarborough, ON: Central East Regional Cancer Program; [cited 2024 Jan 24]. Printable handouts. Available from: <https://cercp.ca/community-resources/>

Education programs also make people aware of the predisposing factors, such as a mental health condition, that can affect a person’s response to a substance, and encourage pregnant people to protect their children from being exposed to substances prenatally.

Regulatory Measures

Regulatory systems establish the **minimum legal age** to buy substances, which helps protect youth from substance use harms.

Because of the negative impact of substance use on young brains, Ontario restricts the sale of tobacco, vaping products, alcohol, and cannabis to people aged 19 or older, which is consistent with most other provinces and territories. However, some jurisdictions have established a higher minimum age to legally purchase some substances, such as Prince Edward Island for tobacco (21), Quebec for cannabis (21), and the U.S. for alcohol and nicotine products (21).¹⁰⁵

Table 2: Minimum legal age to purchase tobacco, alcohol, and cannabis by province/territory

Province/Territory	Minimum Legal Age for Tobacco and Nicotine Vaping Products	Minimum Legal Age for Cannabis	Minimum Legal Age for Alcohol
Alberta	18	18	18
British Columbia	19	19	19
Manitoba	18	19	18
New Brunswick	19	19	19
Newfoundland and Labrador	19	19	19
Northwest Territories	19	19	19
Nova Scotia	19	19	19
Nunavut	19	19	19
Ontario	19	19	19
Prince Edward Island	21	19	19
Quebec	18	21*	18
Saskatchewan	19	19	19
Yukon	19	19	19

*increased from 18 on January 1, 2020

There is a growing sense that the minimum legal age may be an underused and – in the case of alcohol – an underrated intervention that could prevent serious harms among young people.¹⁰⁶⁻⁷ A recent review of alcohol control policies classified laws that increase the minimum legal drinking age as best practice,¹⁰⁸ and research from the US and Canada has identified that increasing the legal drinking age is associated with decreases in alcohol-related deaths and crime among those below the minimum legal drinking age.¹⁰⁸ However, the evidence regarding the health impacts of changing the minimum legal drinking age is inconsistent, and there are challenges to quantifying these impacts.^{107,109} More research would help to understand the potential impacts of increasing the minimum legal drinking age to 21 for Ontarians, in particular on impacts on alcohol-attributable mortality and morbidity in young people.

The minimum legal age to purchase alcohol in Ontario (19) is consistent with most other provinces but lower than the U.S. (21).

Regulatory systems also:

- **control the types of products** that can be sold, **product quality and toxicity** (level of psychoactive ingredients)
- set requirements for **product packaging** (to make products less appealing) and **warning labels** (to make consumers aware of the risks)
- control **availability** (where regulated substances can be sold and consumed), **product price**, and **product marketing**.
- work with other partners to inspect retail outlets, and **enforce** relevant laws and regulations.

For example, in 2020, Ontario used the Smoke-Free Ontario Act to ban the sale of vaping products in flavours other than mint, menthol, and tobacco in non-specialty (e.g. convenience, grocery) stores – although these products, which are banned outright in other provinces/territories, can still be sold in specialty vape stores in Ontario.¹¹⁰

In terms of **availability/accessibility**, there is good evidence that the more **places** people can buy substances (i.e. retail density) and the way those products are displayed (**placement**), the more people buy and use.¹¹¹ Ontario currently limits the sale of tobacco, vaping products, alcohol, and cannabis to certain retail outlets – although it is not as strict as some other jurisdictions, and the number of outlets licensed to sell alcohol or cannabis has increased in recent years. Restricting the number of retail outlets also makes it easier for regulators/inspectors to ensure that retailers are trained to verify age, and are enforcing age restrictions.

Since vaping products became legal in Canada (2018), the number of retail outlets in Ontario selling vaping products has proliferated. (Seale et al 2022).¹¹²

All 13 provinces and territories tax tobacco, 10 of 13 tax alcohol, and the federal government taxes cannabis and shares the revenue with the provinces and territories. There is general public support for tax and **pricing policies** to reduce harmful substance use, and consistently strong evidence they are effective in reducing consumption of both tobacco and alcohol.¹¹³⁻⁴ Minimum unit pricing – that is, setting a minimum price below which a standard drink (or unit) of alcohol cannot be sold – can significantly reduce deaths and hospitalizations attributable to alcohol and address inequities in health harms,¹¹⁵⁻⁶ while increasing tax revenues. To be an effective disincentive, legislated tax rates and minimum unit prices should be automatically adjusted each year for inflation to avoid products becoming less expensive relative to other consumer goods over time.⁵⁷

Promotion (advertising) is a driver of substance use, and policies that limit advertising are effective.¹¹⁷ Both federal and provincial laws restrict the advertising and display of tobacco products – although Ontario does allow marketing of tobacco through signs in bars, price signs in convenience, grocery and some other stores, and displays of tobacco products in specialty tobacconist stores. The federal Cannabis Act prohibits advertising of cannabis products but Ontario allows specialty retail outlets to display their cannabis and vaping products under certain conditions. Ontario’s restrictions on alcohol advertising are not as comprehensive as those in some other jurisdictions. The province does prohibit advertising of alcohol to minors on traditional media outlets (e.g. television, radio, print) but neither the federal nor the provincial government limits advertising on social media platforms, which is where youth get most of their information.

Enforcement of restrictions on selling to minors is a key part of the Smoke-Free Ontario Strategy. Public Health Enforcement Officers hold retailers accountable for complying with age restrictions. They visit retail outlets, monitor their practices, and use methods such as “test-shoppers” to ensure retailers are verifying ages.¹¹⁸ This approach could be expanded and adapted to help enforce cannabis and alcohol regulations.

A number of jurisdictions have had success **taking legal action against companies** that promoted products that they knew were harmful, such as tobacco and prescription opioids. When these settlements occur, a portion of the awards should be protected to support public health efforts to reduce the use and harms of these substances.

Reducing the harms of regulated substances

Health promotion efforts support lower risk ways to use regulated substances (when available), such as using edibles or oils rather than smoking cannabis to reduce the risks associated with inhalation.¹¹⁹ The market also makes low and no-risk alternatives available. For example, the Liquor Control Board of Ontario (LCBO) began stocking non-alcoholic drinks in 2018, and it reports that sales of these products grew 20% in 2022 compared to the previous year.¹²⁰

Between 2019 and 2021, sales of edible products increased rapidly. Edible forms of cannabis reduce the risks associated with smoking, but they increase the potential risk that children will accidentally be exposed to cannabis in the home or that adults consume too much because it takes longer to feel their effects.

Reducing the harms of unregulated substances

A number of harm reduction policies and services have been developed to address the harms associated with the use of unregulated street drugs, including opioids:

- **Harm reduction supplies distribution programs** distribute sterile needles and other supplies to prevent the spread of infectious diseases when people use substances like opioids and stimulants, and collect and safely dispose of used supplies.
- **Naloxone kits**, which can be used to reverse an overdose from opioids, are now widely available through public health units, community-based organizations, pharmacies and hospital emergency departments free of charge.
- **Consumption and treatment services (CTS)** are integrated service hubs that offer seamless wraparound care for people who use drugs, including supervised consumption and overdose prevention services, mental health services, access to primary care, public health and housing services, and connection to other community-based services, including addictions treatment.
- **Drug checking services** will analyze a person's street drugs for toxic substances currently in the supply. Although these programs cannot ensure the drugs are safe, they help provide information to people who use drugs to allow them to adjust their substance use patterns in response to what is in their supply.
- **For safer supply programs**, physicians prescribe regulated or prescription opioids for people at high risk (e.g. numerous overdoses; imminent threat to their lives; unable to use opioid agonist therapies, such as suboxone and methadone) to reduce their reliance on the unpredictable unregulated toxic drug supply.
- **Monitoring** substance use trends helps the system respond quickly to changes in use patterns (e.g. inhalation versus injection).

Service providers, including peers, working with people who use opioids actively encourage them to use with other people or in a supervised setting (such as a CTS) so someone can intervene in the case of an overdose. Researchers are also working with people who use opioids to pilot the use of "spotting" services where someone who is about to consume a drug in their home calls a family member or friend who stays on the line with the person for five to 15 minutes after they take the drug to make sure they are safe.¹²¹

The **Good Samaritan Drug Overdose Act**¹²² protects bystanders who help someone who has overdosed (e.g. administers naloxone, calls 911) from a lawsuit if the person dies or suffers other harms. However, the ongoing criminalization of unregulated opioid use may discourage people from using with other people, providing assistance, or calling first responders in time of crisis for fear of legal repercussions.

Providing fast, easy access to evidence-based treatments

In March 2020, the Ontario government released Roadmap to Wellness, the province's mental health and addiction strategy.¹²³ Roadmap sets out a plan to build a mental health and addictions system that provides people across Ontario with consistent, high-quality services where and when they need them. Through the Roadmap to Wellness, Ontario has made significant investments across the mental health and addictions care continuum, including establishing developmentally appropriate substance use services for youth through the Youth Wellness Hubs Ontario program, and funding the Rapid Access Addiction Medicine (RAAM) clinics, which offer low-barrier access to addiction medicine and wrap-around supports.

Opioid agonist therapy (OAT) is the gold standard treatment for opioid use disorder: it reduces mortality, and has other positive health outcomes.¹²⁴ OAT involves treatment with methadone, buprenorphine or slow-release oral morphine (SROM), which prevent withdrawal, reduce cravings, and maintain tolerance, thereby reducing the risk of overdose as well as other substance-related harms. There are also highly effective pharmacological treatments for smoking cessation as well as alcohol use disorder. Notably, fewer than 2% of eligible people with a diagnosed alcohol use disorder in Canada are currently prescribed anti-craving medication.¹²⁵

Pharmacological treatments for substance use disorders are most effective when combined with mental health/behavioural interventions, such as cognitive behavioural therapy.¹²⁶

The Next Steps in an All-of-Society, Health-First Approach to Substance Use and Harms


Substance use is common in Ontario. Most Ontarians use substances in low-risk ways that do not threaten their health. However, some individuals, and their families and friends struggle with the heartbreaking impact of substance use disorders and addictions.


When developing policies and programs that encourage safer substance use, we must try to find the balance between supporting Ontarians to make informed choices about their substance use and protecting the most vulnerable. The role of public health is to minimize substance use harms, and help society ensure that the personal, social, health, and economic costs of a substance's use do not outweigh its benefits.

Ontario should continue to pursue a range of thoughtful, evidence-based strategies designed to build healthy communities and ensure Ontarians have the knowledge, skills, supports, services, and relationships to lead healthy lives and avoid harms from substances.


Recommendations

I recommend that our province adopt a comprehensive, whole-of-society approach to reduce the harms associated with substance use. To that end, I challenge:

 **Communities, including leaders, organizations, networks, service providers, people with lived and living experience of substance use, and their families and neighbours,** to come together to build community coalitions and create supportive local environments.

 **Local, provincial, federal and Indigenous governments and agencies to:**

- Invest in programs and services that address the upstream social factors, such as equitable access to income, education, housing, and child care, that contribute directly and indirectly to people initiating or continuing substance use
- Increase the investment in public health programs, such as Healthy Babies, Healthy Children, that support healthy child development and strong families and communities
- Enforce legislation on the sale of illegal tobacco, alcohol, and cannabis products
- Earmark a portion of any settlement from litigation against a company for knowingly marketing a substance that causes harm to fund public health measures to reduce those harms.





Public health and social services to work together and with community partners to:

- Engage with community coalitions, including non-governmental organizations, to develop community substance use committees as well as policies and resources to support local action
- increase local substance use prevention interventions, such as positive parenting, social-emotional learning, and youth hub services



Organizations at all levels (local, provincial, national, Indigenous) responsible for developing and delivering policies, programs and services to reduce substance use harms to:

- Partner and engage people with lived and living experience with substance use in the design of those interventions, recognizing their knowledge, expertise and relationships, and providing employment opportunities
- Work collaboratively with populations at greatest risk of substance use harms to enhance health equity
- Increase access to culturally competent and culturally safe, trauma-informed care and services for people who use substances – including those with addictions and those experiencing other substance use harms – and their families
- Address the systemic and structural stigma, racism and discrimination that people who use substances experience when they access health, social, housing, and legal services.



The **public health sector** to:

- Enhance the province's capacity to conduct surveillance and assess population health related to substance use, harms, risk and protective factors, equity considerations, and specific substances that are causing harms, including the toxic drug supply
- Evaluate policies and programs that may have an impact on substance use and harms and/or on health equity, to build evidence and advance healthy public policy
- Determine whether the public health standard related to substance use should be updated to meet emerging needs
- Continue to educate the public and increase awareness of substance use harms
- Continue to work with regulators to enforce age restrictions on the sale of all regulated substances.



The **health care system** to:

- Build on the Roadmap to Wellness to develop a comprehensive, connected mental health and addiction system that improves quality and access, expands existing services, and implements innovative solutions
- Provide effective and acceptable treatment for conditions that make people vulnerable to substance use and its harms, including stress, anxiety, depression and other mental health conditions, and chronic pain
- Establish recommended minimum wait times for Ontarians to access addiction and mental health treatment services
- Enhance the capacity of primary care to assess, monitor, and treat substance use disorders
- Enhance and ensure equitable access to evidence-based screening, diagnosis, crisis response, withdrawal management, and treatment for substance use disorders in primary care and acute care settings such as emergency departments and hospitals
- Enhance access to evidence-based treatment programs within correctional facilities as well as continuity of care and supports post-release
- Enhance and ensure equitable access to evidence-based treatments, including pharmacotherapy as well as longer-term and residential treatment programs

III. Adapting Our Substance-Specific Responses

Tobacco/vaping products, cannabis, alcohol, and opioids are different substances with different harms and challenges. As the number of different products grows and the market for them evolves, we must continually review and refine our efforts to reduce their harms. In addition to the all-of-society, health-first approach to substance use discussed above, I recommend that the province take specific steps to reduce the harms caused by each of these substances.

In this section of my report, we describe the current trends in each substance's use, its impacts on health, and the current policy environment, and recommend substance-specific strategies that address each substance's unique challenges.

1. Tobacco/Vaping Products

Trends and Health Impact

- Over the past 20 years, Ontario has seen a steady decline in the number of people who smoke tobacco. In 2022, only about 11% of the population reported smoking at all (including having an occasional cigarette) – down from 14% in 2019 – and only 8% reported smoking daily¹²⁷⁻⁸ – although smoking rates remain high in Northern Ontario.
- Ontario had the lowest reported smoking rate among 15-19 year olds in 2022 (2.9%) in the country.¹²⁷⁻⁸
- Cancer continues to be the #1 cause of death in Ontario. Despite the significant decrease in the number of Ontario adults who smoke, **tobacco continues to be the leading preventable cause of cancers and premature death** in Canada.¹²⁹
- There is no safe level of smoking. People who smoke have two to three times higher risk of premature death than those who do not. On average each year, smoking tobacco is responsible for about 17% of deaths (16,673), 8.7% of hospitalizations (68,046), and 3.4% of emergency department visits (125,384) in Ontarians aged 35 and older.¹³²
- Too many Ontarians are still being exposed to second-hand smoke. People who do not smoke and who live with someone who smokes have a 30% greater risk of lung cancer, heart disease, and stroke than those who live with non-smokers.¹³³
- In 2020, people in Canada reported a higher level of second-hand smoke exposure than those from the United Kingdom and the U.S.⁵⁷
- Tobacco use costs Ontario about \$4.2 billion a year in health care, disability, premature mortality, criminal justice, and other direct costs.¹³⁴
- While fewer people are smoking tobacco, more are vaping. In the first few years after vaping products were legalized, their use increased rapidly in individuals ages 15 and older. In 2020 – the first year of the COVID-19 pandemic – 15.2% of Ontario adults reported using e-cigarettes or vaping – up from 12.8% in 2019.¹⁰

[Tobacco is a carcinogen](#)¹³⁰ and can cause cancer almost anywhere in the body, including the mouth and throat, esophagus, stomach, colon, rectum, liver, pancreas, voicebox (larynx), lung, trachea, bronchus, kidney and renal pelvis, urinary bladder, and cervix. It also causes atherosclerosis, coronary heart disease, and peripheral arterial disease, increases the risk of strokes and ischemic heart disease, a risk factor for type 2 diabetes and the leading cause of chronic obstructive pulmonary disease (COPD) and death due to COPD.

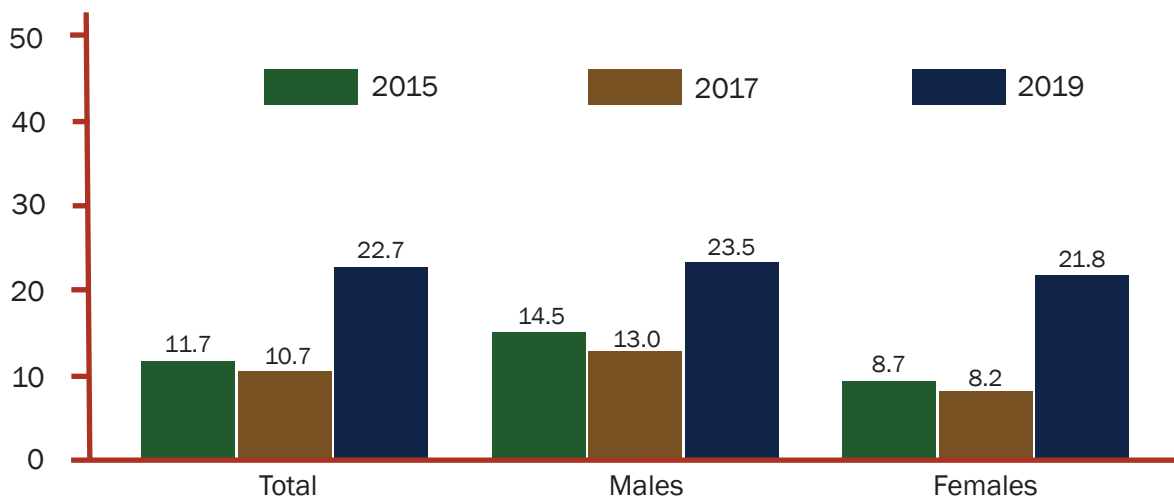
(<https://www.cdc.gov/cancer/tobacco/index.htm>)¹³¹

Vaping has increased among students across all groups by gender, ethnicity, and smoking status. The largest increases in use between 2017-18 and 2018-19 were among females.

[PHO, Youth Trends in ON](#)¹³⁵

- Vaping products that contain nicotine – and most vaping products sold in Canada do¹³⁶ – are addictive and can affect brain development, particularly in youth and young adults, who can become dependent on nicotine at lower levels than adults.¹³⁷⁻⁸
- Youth vaping rates in Canada and the U.S. went down early in the COVID-19 pandemic –when students were at home and had less access to vaping products – but they went back up again in each country post-pandemic.¹³⁹
- One of the most concerning recent trends is the rising rates of vaping among youth in grades 9 to 12, most of whom are too young to legally purchase vaping products.¹³⁵
- Youth who vape also tend to use other substances, particularly alcohol and cannabis. This polysubstance use is often related to mental health challenges: most youth who vape and use other substances report symptoms of anxiety, depression, or both.¹⁴⁰

Figure 12: Percentage of high school students (grades 7-12) in Ontario using E-cigarettes (vaping) by sex, 2015, 2017, 2019

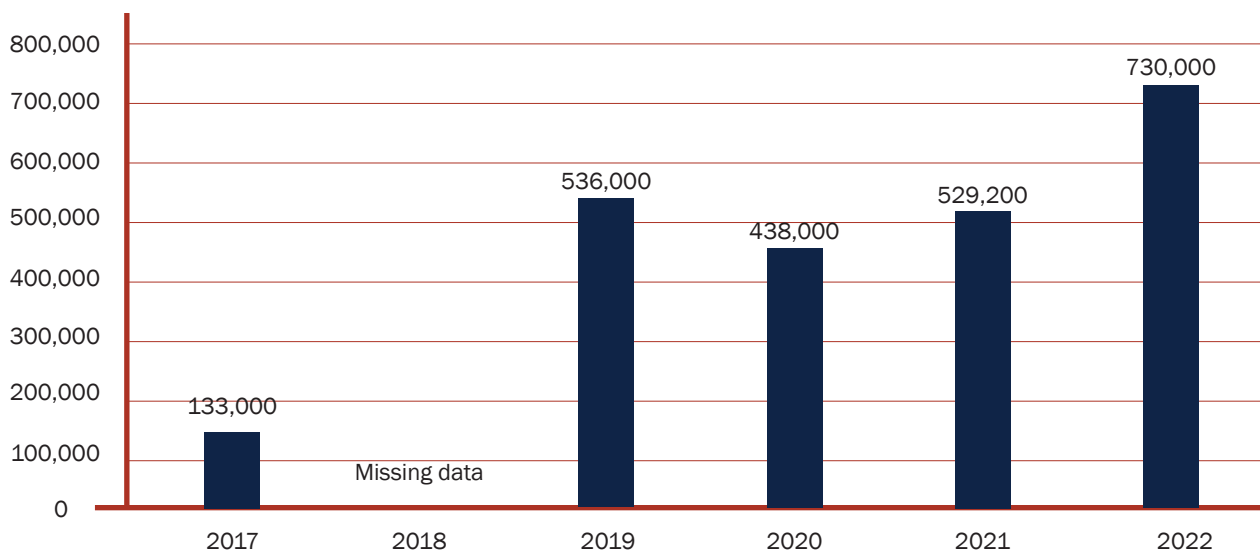


Note: significant increase between 2015 and 2019 for the total sample, and for males and females (p<01)

Source: Boak A, Elton-Marshall T, Mann RE, Hamilton HA. (2020). Drug use among Ontario students, 1977-2019: detailed findings from the Ontario Student Drug Use and Health Survey (OSDUHS). Toronto, ON: Centre for Addiction and Mental Health; 2020. Figure 3.3.11, Past year e-cigarette use (vaping) by sex, 2015–2019 OSDUHS (Grades 7–12); p.62. Available from: https://www.camh.ca/-/media/files/pdf--osduhs/drugusereport_2019osduhs-pdf.pdf

- Another concerning trend is the growing number of individuals who have never smoked who are vaping. People exposed to nicotine through vaping are more likely to develop a nicotine addiction and to start using tobacco later in life.

Figure 13: Number of Canadians who vape but who have never smoked, 2017 and 2019-2022



Sources: Canadian Tobacco, Alcohol and Drugs Survey (CTADS),⁴⁵ 2017 and Canadian Tobacco and Nicotine Survey (2019-2022).^{128, 142-4}

- A third disquieting trend is the development of non-tobacco nicotine products, such as nicotine pouches, that can lead to nicotine addiction and future tobacco use. These products do not fall under tobacco control legislation and are not adequately regulated. To address this emerging threat to health, Ontario needs a broad, overarching framework for nicotine regulation and control that goes beyond tobacco-based products.¹⁴⁶
- In addition to containing highly addictive nicotine, most vaping products contain and emit many toxic substances that can affect the respiratory, immune, and cardiovascular systems, cause coughing and wheezing, and exacerbate asthma.¹⁴⁷

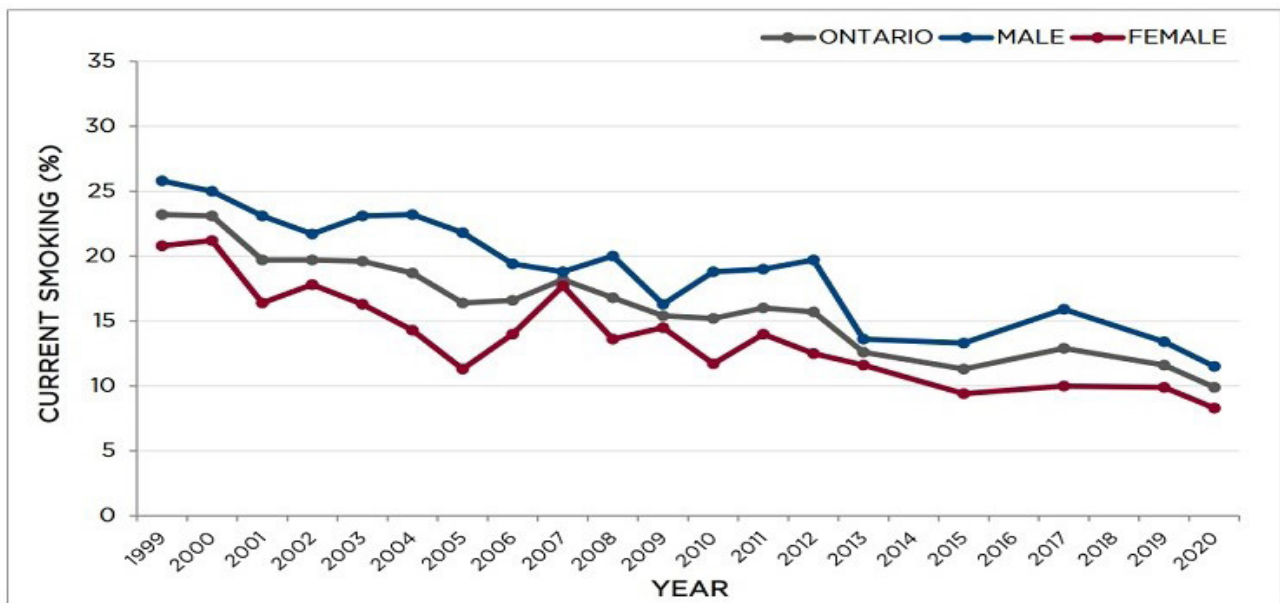
The health effects of exposure to second-hand aerosol from vaping devices are currently unknown.¹⁴⁵

The Policy Environment/Challenges

Tobacco

The serious harms associated with smoking tobacco were identified almost 60 years ago,¹⁴⁸ and Ontario – like many jurisdictions – has introduced a range of initiatives, such as the Smoke-Free Ontario Strategy, designed to help people who smoke stop smoking, and to keep those who don’t smoke from starting. As a result, the trend in tobacco use in Ontario is different from the other substances in this report. Between 1999 and 2020, the province saw a significant and steady decline in the number of people who smoke tobacco,^{xiii} and in smoking rates across all age groups.

Figure 14: Current smoking prevalence* for people in Ontario, by sex and overall, 1999 to 2020

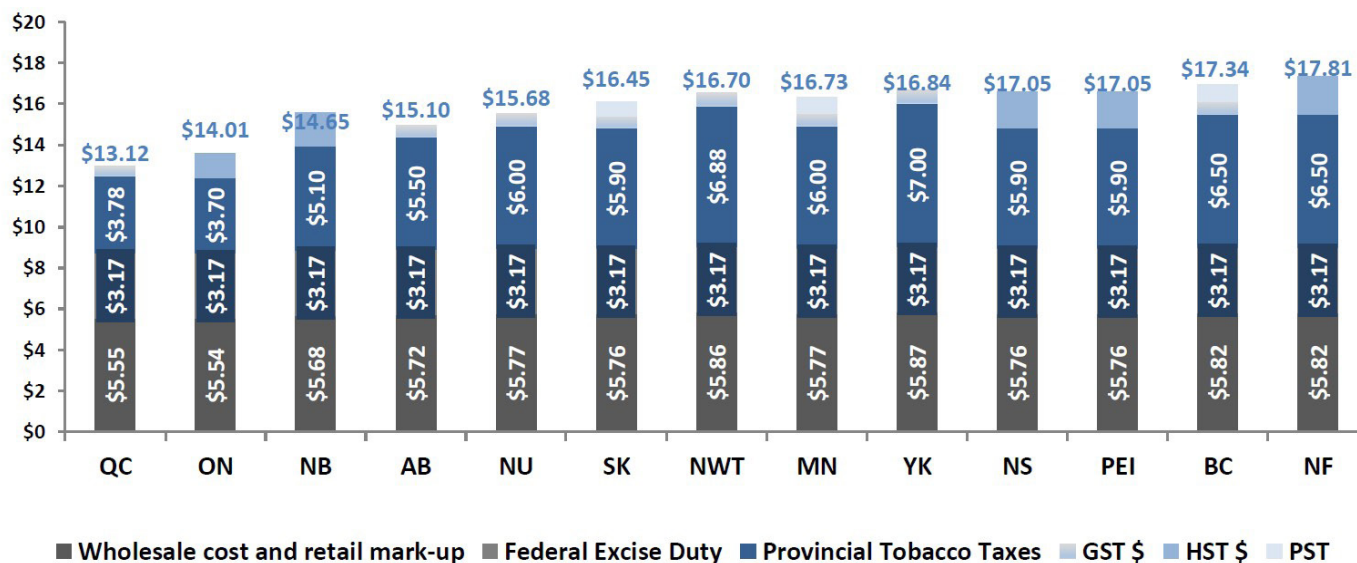


Source: Reid JL, Hammond D, Burkhalter R, Rynard VL. Tobacco use in Canada: patterns and trends: 2022 edition [Internet]. Waterloo, ON: University of Waterloo; 2022 [cited 2024 Feb 8]. Figure 2.15: Current smoking prevalence* among males and females, Ontario, 1999-2020; p.29. Available from: https://uwaterloo.ca/tobacco-use-canada/sites/default/files/uploads/files/tobacco_use_in_canada_2022_4.pdf

Despite that progress, Ontario has fallen behind other provinces in its use of taxation policy to reduce smoking. As Figure 15 indicates, the provincial/territorial tobacco tax rate on cigarettes is lower in Ontario than any other province or territory except Quebec, and it has not increased since 2018.¹⁴⁹ It also falls short of covering the health care and other costs associated with tobacco use. To be an effective deterrent, the tax on cigarettes should be increased each year to keep pace with inflation otherwise it will effectively become cheaper over time compared to products that rise with inflation.

^{xiii} Includes both daily and occasional smokers

Figure 15: Provincial/territorial tobacco taxes per carton of 200 cigarettes, December 2023



Source: Physicians for a Smoke-Free Canada. Taxes on cigarettes in Canadian jurisdictions [Internet]. Ottawa, ON: Physicians for a Smoke-Free Canada; 2024 [cited 2024 Feb 8]. Price of a hypothetical ‘average’ pack of cigarettes in Canadian provinces and components of this cost, January 1, 2024; p.2. Available from: https://www.smoke-free.ca/pdf_1/taxrates.pdf

Both Prince Edward Island and the United States have 21 years as their legal age of tobacco purchase. Ontario lags behind other provinces and jurisdictions in terms of restricting where smoking is allowed, and how it is marketed (e.g. number of signs allowed in retail locations), and in managing tobacco retail density. Ontario currently does not require tobacco retailers to pay an annual licensing fee as it does for alcohol retailers. Despite the health risks associated with water pipe smoking,¹⁵⁰ Ontario does not prohibit smoking of water pipe products in places where smoking is banned.

The same policies used to reduce use of tobacco products should also be applied to new non-tobacco nicotine products, and the sale of nicotine pouches which, because they don’t contain tobacco, are not covered by current regulations. These products do contain nicotine and are being actively marketed to youth and people who do not smoke.

Vaping Products

Efforts to reduce tobacco use and harms have been complicated by the relatively recent introduction of electronic cigarettes (e-cigarettes) and other vaping devices and products. E-cigarettes – first introduced into the U.S. market in 2006 – were originally promoted by companies as an alternative to traditional tobacco products: a way for people to use nicotine in places where smoking is not permitted – although all provinces and territories, and many municipalities have now passed by-laws that restrict vaping in public spaces (e.g. workplaces, public spaces, parks, beaches, transit facilities).

Vaping devices were also seen as a potential harm reduction and smoking cessation tool: a way for people to obtain the nicotine in tobacco without breathing in the other toxins in tobacco smoke and, perhaps, a way for people to stop smoking. Recent findings from a Cochrane Review¹⁵¹ found strong evidence that nicotine e-cigarettes are more effective than traditional nicotine-replacement therapy (NRT) in helping people quit smoking for at least six months. However, this review has been criticized on the basis of its methodology.¹⁵² Studies comparing nicotine e-cigarettes to usual care/no treatment suggest only a small benefit, and the long-term (i.e. longer than two years) benefits and harms of e-cigarette use are largely unknown due to short follow-up of current studies. The World Health Organization (WHO) recommends that “any government pursuing a smoking cessation strategy utilizing e-cigarettes should control the conditions under which the products are accessed to ensure appropriate clinical conditions and regulate the products as medicines.”¹⁵³

Although originally developed as an alternative for people who smoke, vaping products are increasingly and alarmingly being used by people who have never smoked, including significant numbers of youth and young adults. While using vaping products may be less risky than smoking tobacco, these products can still cause harm. They contain different concentrations of nicotine, which can lead to dependence or addiction and interfere with brain development in youth. Vaping products sold in Ontario are required by law to list their ingredients, including concentrations of nicotine. However, in a number of instances, products that contain nicotine have been mislabelled as “nicotine-free,” which means consumers can unknowingly be exposed to nicotine and its associated health risks. Vaping products also contain a variety of substances, including propylene glycol and/or glycerol (vegetable glycerin) as well as chemicals used for flavouring which, when they are vaped, are harmful to health.¹⁴⁵

To increase the appeal and use of vaping products, manufacturers are actively marketing them to people who do not smoke. They have also created flavoured products that appeal to youth. While Ontario limits where flavoured vaping products can be sold, it has not gone as far as some other provinces and territories, which have banned all flavours except tobacco in all retail locations.

Vaping products are also now sold in single-use disposable units that create plastic waste as well as toxic hazardous waste from the nicotine, lead, and other chemicals they contain. The full environmental impact of these new disposable products is not yet known.¹⁵⁵

In December 2023, the World Health Organization issued a call for urgent action to protect children and prevent the uptake of e-cigarettes.¹⁵³ To reduce demand for vaping products, particularly among youth, Ontario announced that it will join the federal vaping tax, imposing an additional tax on vaping products that will double the current federal duties.¹⁵⁶ The policy will not only increase the price to help deter consumption, it will generate approximately \$49.4 million in annual revenues, which can be reinvested in health care and disease prevention.¹⁵⁴ However, Ontario still falls short of many of the World Health Organization recommendations to protect children, including banning flavours as well as any features that could appeal to youth.¹⁵³

Figure 16 illustrates how Ontario compares to other provinces and territories in terms of regulating the sale of and access to vaping products.

To keep pace with rapid changes in the vaping product industry, Canada legalized the use of vaping devices and products in 2018, and began to establish a regulatory framework to mitigate their harms. More work must be done to understand and minimize the potential harms associated with vaping.

“Taxation is one of the more effective policy measures to reduce consumption and it is particularly impactful among price-sensitive youth. [...] We’ve seen through tobacco control efforts that an increase in price prevents initiation and increases quit rates. Preliminary results from other regions show a similar outcome, with vape rates among youth declining after a vape tax is implemented.”¹⁵⁴

Dr. Lesley James, Director,
Health Policy & Systems,
Ontario at Heart & Stroke

Figure 16: Overview of federal, provincial, and territorial regulatory measures to prevent youth from initiating vaping, November 2023

Regulatory measures to protect youth from initiating vaping	REC	CA	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NFLD	YT	NWT	NU
Price and Tax															
Tax on vaping device/ liquid	✓	2022													
Price restrictions															
Manufacturers' Licence Fee															
Retail															
Retail Licensing/Registration	✓														
Age 21	✓														
Proof of age if under 25															
Reduced retail density	✓														
Ban on ads in stores (excl. adult)	✓														
Display ban (excl. adult stores)	✓														
Sold in specialty stores only															
Ban/Restriction on internet sales															
Ban on incentives to retailers															
Controls on non-tobacco flavours															
19+ vape stores for flavoured															
19+ vape stores except tob-men															
Only tobacco flavour allowed	✓														
Only tobacco, mint-menthol															
Advertising and sale															
Ban on broadcast advertising	✓														
Ban on billboards/outdoor signs	✓														
Ban on lifestyle ads	✓														
Ban on sponsorships	✓														
Ban on youth-appealing ads	✓														
Product controls															
Max nicotine levels (mg/ml)	✓	20	20							20					
Ban on nicotine salts	✓														
Health warnings	✓														
Plain/plainer packaging	✓		X												
Other															
Reporting requirements															

■ Legislation passed; date shown when measure comes into force
■ Stated intention to implement ■ Stated intention, but no specific measure identified
■ Federal measures apply X Measure implemented then rescinded
✓ Measure recommended by the Council of Chief Medical Officers of Health, January 2020.

Source: Physicians for a Smoke-Free Canada. At-a-glance: provincial restrictions on vaping products: November 2023 [Internet]. Ottawa, ON: Physicians for a Smoke-Free Canada; 2023 [cited 2024 Feb 8]. Overview of federal and provincial regulations on marketing of electronic cigarettes; p.1. Available from: <https://www.smoke-free.ca/SUAP/2020/Provincial%20regulations%20on%20vaping%20promotions.pdf>

Figure 17: Overview of provincial and territorial minimum age for legal sale of vaping products, November 2023

	BC	AB	SK	MB	ON	QU	NB	NS	PEI	NL	YK	NWT	NU
Minimum legal age for sale	19	18	19	19	19	18	19	19	21	19	19	19	19
Ban on youth possession													

Source: Physicians for a Smoke-Free Canada. At-a-glance: provincial restrictions on vaping products: November 2023 [Internet]. Ottawa, ON: Physicians for a Smoke-Free Canada; 2023 [cited 2024 Feb 8]. Overview of federal and provincial regulations on marketing of electronic cigarettes; p.1. Available from: <https://www.smoke-free.ca/SUAP/2020/Provincial%20regulations%20on%20vaping%20promotions.pdf>

Figure 18: Overview of places where vaping products may not be sold*, November 2023

	BC	AB	SK	MB	ON	QU	NB	NS	PEI	NL	YK	NWT	NU
Non-specialty vape stores													
Hospitals													
Long term care													
Some other health facilities													
Pharmacy													
Post Secondary Campus													
Schools													
Child care settings													
Vending machines													
Government buildings													
Amusement Park/arcades													
Theatres													
Recreation Centres													
Library & Cultural Centres													
Casinos													
Bars and Restaurants													
Temporary facilities													
Internet Sales													
	Sales banned in these locations												
	Sales of some flavours banned in these locations (Ontario, British Columbia)												
	Measures proposed												

*Generally the same as for tobacco sales, other than BC and Ontario which restrict some types of e-cigarettes to specialty stores.

Source: Physicians for a Smoke-Free Canada. At-a-glance: provincial restrictions on vaping products: November 2023 [Internet]. Ottawa, ON: Physicians for a Smoke-Free Canada; 2023 [cited 2024 Feb 8]. Overview of federal and provincial regulations on marketing of electronic cigarettes; p.1. Available from: <https://www.smoke-free.ca/SUAP/2020/Provincial%20regulations%20on%20vaping%20promotions.pdf>

Figure 19: Overview of places where vaping products may not be used, November 2023

	BC	AB	SK	MB	ON	QU	NB	NS	PEI	NL	YK	NWT	NU
Healthcare facilities													
Child care facilities													
School properties													
Post secondary													
Workplaces													
Indoor Public places*													
Restaurant and bar patios													
Public transit/vehicles													
Private vehicles with minors													
Playgrounds													
Outdoor recreational facilities													
Outdoor cultural events													
Parts of provincial parks													
Public beaches (some or all)													
	Use banned in these locations by provincial or territorial law.												
<i>*Includes bars, restaurants, shops, casinos, theatres, recreation centres, retailers, etc.</i>													

Source: Physicians for a Smoke-Free Canada. At-a-glance: provincial restrictions on vaping products: November 2023 [Internet]. Ottawa, ON: Physicians for a Smoke-Free Canada; 2023 [cited 2024 Feb 8]. Overview of federal and provincial regulations on marketing of electronic cigarettes; p.1. Available from: <https://www.smoke-free.ca/SUAP/2020/Provincial%20regulations%20on%20vaping%20promotions.pdf>

While existing laws prohibit retail stores from selling vaping products to youth, these rules are not always enforced. In 2022, at least 23% of specialty vape stores and 9% of non-specialty stores in Ontario^{xiv} were non-compliant with laws that ban the sale of vaping products to youth. More work must be done to enforce the restrictions designed to protect young people and delay initiation of vaping. Some public health units have been using Section 13 orders under the Health Protection and Promotion Act – which can be used to eliminate health hazards – with vaping product retailers who are persistently non-compliant.

Enforcement within physical retail settings is only one part of the problem. Many youth (and adults) are ordering vaping products online. E-commerce now accounts for ~34% of vaping product sales in Ontario, which is the highest of any province or territory in Canada.¹⁵⁷ Enforcement of age-verification of online purchases is both time and labour-intensive, and it typically requires an in-person interaction with the purchaser at the point of delivery.

Ontario will need to work with its partners, including Health Canada, the Canada Border Services Agency, and Canada Post, to develop new strategies to reduce the potential harm of online sales – domestic and international – as well as new policies to address the growing use of new generations of personal vaping devices to deliver other regulated substances, such as cannabis, as well as unregulated substances, like fentanyl, and crystal methamphetamine.¹⁵⁸

Recommendations

Reinvigorate the Smoke-Free Ontario Strategy, focusing on populations and regions with high rates of tobacco use. Expand the strategy to create a comprehensive, coherent public health-oriented framework for regulating vaping and all nicotine-containing products.

Targets

- Adopt Health Canada’s target of less than 5% tobacco use by 2035
- Develop aggressive targets to prevent the use of vaping products by youth and people who do not smoke

Health Promotion

- Continue to raise awareness among Ontarians, particularly youth, of the risks associated with tobacco and vaping products

Regulatory Measures

Minimum legal age of purchase

- Increase the minimum legal age to purchase tobacco and vaping products from 19 to 21 years old
- Consider progressively increasing the minimum legal age to purchase these products over time as a way to ban the purchase of these products by future generations

Product Controls

- Ban flavours for all tobacco and vaping products
- Expand restrictions on where people can smoke or vape (i.e. not in social housing, near building entrances, exits and air intakes, in all outdoor spectator stands, beaches, and specified parts of provincial parks)
- Require apartment landlords and condominium boards to have a smoking/vaping policy
- Ban the use of water pipes in all places where smoking is banned
- Expand the current regulatory framework to include specified non-tobacco nicotine products, such as nicotine pouches, and prevent their sale and promotion to youth and people who do not smoke
- Ban the sale of disposable vaping products
- Establish product controls to prevent the evolving risk of vaping devices being used to deliver other drugs, such as cannabis, fentanyl, and crystal methamphetamine

^{xiv} Note: the level of non-compliance was even higher based on Health Canada compliance checks.

Availability

- Restrict physical store locations where tobacco and vaping products can be sold, including prohibiting any new stores within 200 metres of an elementary or secondary school or an existing tobacco/vaping retail outlet, and capping the total number of retail locations in a municipality/region (i.e. retail density)
- Impose a licensing fee for retailers of tobacco and vaping products
- Explore measures to reduce illegal, untaxed tobacco sales outside of First Nations communities
- Work with the federal government to ban online retail sales of tobacco and vaping products without in-person age verification at delivery

Pricing and Taxation

- Increase the provincial sales tax on tobacco products and increase the tax each year to keep pace with inflation
- Maintain provincial sales tax on vaping, and increase annually to keep pace with inflation

Promotion

- Work with the federal government to restrict:
 - online and social media advertising of tobacco and vaping products
 - the design, appearance, and branding of e-cigarettes to reduce their appeal to youth
- Reduce or eliminate the number of price signs allowed in tobacco and vaping retail settings visible to youth
- Prohibit manufacturers from offering incentives to retailers (e.g. bonuses for reaching sales volume targets, chances to win vacations or entertainment tickets, lower prices based on volumes purchased), and prohibit retailers from passing incentives on to consumers

Enforcement

- Issue time-limited suspensions for retail outlets that repeatedly sell vaping products to minors, as is done for tobacco
- Enforce the current limitations on nicotine concentration in vaping products (20 mg/ml), determine whether companies are using product strategies to undermine the 20 mg/ml standard, and restrict the capacity of tanks, pods and refill containers

Treatment

- Increase access, including free products, to evidence-based smoking cessation therapies and supports, such as the Ottawa Model for Smoking Cessation¹⁵⁹
- Increase research and training on vaping cessation therapies and supports for youth and adults

Monitoring and Reporting

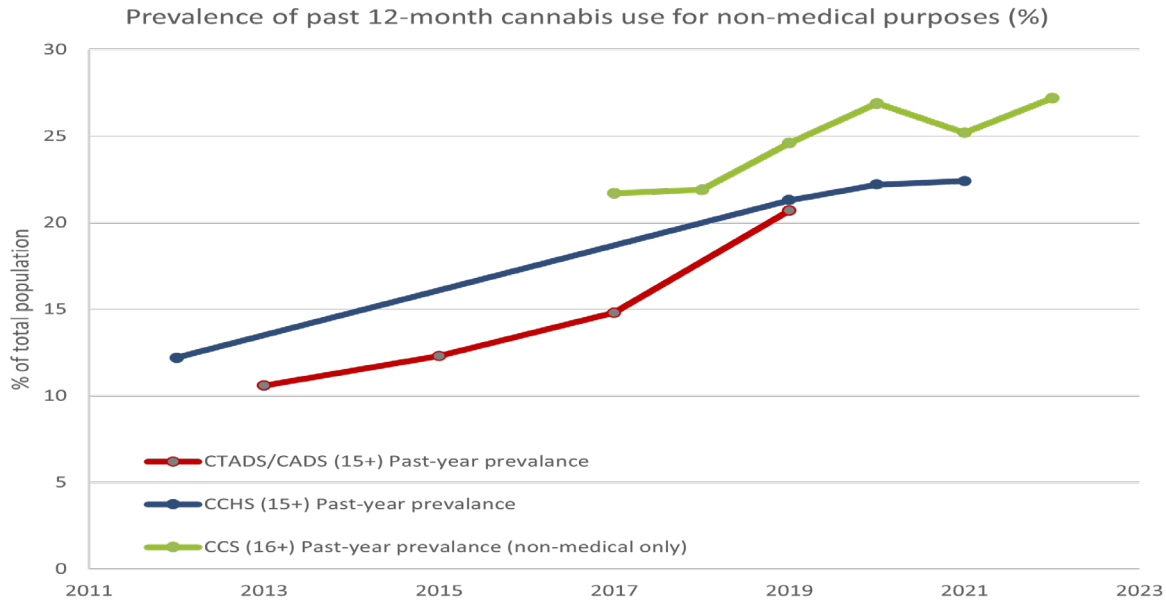
- Establish key performance indicators for public health inspectors and others involved in enforcing tobacco and vaping policies designed to protect minors and non-smokers
- Work with Public Health Ontario and with federal, provincial, territorial and Indigenous partners to continue to:
 - Monitor the impact of tobacco and vaping on health
 - Review new evidence on vaping and other non-tobacco nicotine use
 - Assess the impact/effectiveness of tobacco and vaping policies
 - Issue regular public reports on Ontario's progress (key performance indicators) in reducing harms associated with tobacco and vaping use

2. Cannabis

Trends and Health Impact

- Cannabis use began increasing before legalization (2018) and has grown steadily since. It is now the second most commonly used psychoactive substance in Canada after alcohol.^{16,160}

Figure 20: Prevalence of past 12-month cannabis use for non-medical purposes (%)^{16,160}



- In 2022, more than half of Ontario adults (54%) reported having used cannabis at least once in their lifetime, and a third (33%) reported using cannabis in the past 12 months. More concerning: 19% reported problematic cannabis use.¹⁶¹ Cannabis use and frequent cannabis use (i.e. five or more days a week) is highest among those between the ages of 20 and 34.¹⁶²
- Ontario limits the sale of cannabis to people age 19 and older, which is younger than the 21 age-limit in Quebec. Despite the age restrictions on cannabis sales, a significant proportion of youth in grades 7 to 12 reported using cannabis in 2021: almost 1 in 4 (22%) had tried cannabis, 14% said they used it at least once to cope with a mental health problem, and 12% reported using alcohol and cannabis together.¹⁰
- Canadian youth and young adults have some of the highest rates of cannabis use among developed countries.¹⁶²⁻³
- The rates of cannabis use are highest among youth ages 15 to 18, and young adults ages 18 to 24. The highest rates of increase are among youth 18 to 24.¹⁶⁴⁻⁵
- While most people who use cannabis smoke it (70%),⁷³ there has been an increase in Ontarians using cannabis in the form of edibles and vaping products.¹⁶⁶
- Polysubstance use – cannabis and alcohol, cannabis and opioids – is common, and has a significant impact on judgement.
- The long-term impacts of cannabis use are not fully understood but evidence suggests the health risks include: becoming dependent on cannabis, developing a mental health condition (e.g. cannabis use disorder, psychosis, schizophrenia),¹⁶⁷ problems concentrating and making decisions, slower reaction times (e.g. when driving), and developing bronchitis from smoking cannabis.¹⁶⁸ A growing number of people who use cannabis long-term are experiencing cannabis hyperemesis syndrome (CHS): recurring episodes of nausea, vomiting, dehydration, and abdominal pain that result in frequent visits to emergency and possible health complications.¹⁶⁹ Between January 2014 and June 2021, the monthly rate of emergency department visits for CHS in Ontario increased 13-fold.¹⁷⁰

- Since 2015, Ontario has seen a marked increase in the number of adults – most between the ages of 19 and 24 – hospitalized for mental health and behavioural problems related to cannabis use. Cannabis-induced psychosis doubled between 2015 and 2019.¹⁷¹
- While cannabis edibles reduce the harms associated with smoking cannabis (which are similar to those associated with smoking tobacco), they create the risk of other harms. As noted earlier, Ontario has seen a sharp spike in emergency department visits and hospitalizations for cannabis poisoning in children under the age of 10 since the legalization of cannabis edibles in January of 2020. These trends are related to commercialization and availability of cannabis, and highlight the challenges associated with regulating substances that can cause harm.¹⁷² However, restrictions on edible product formulations, as required in Quebec, are associated with a much smaller increase in pediatric poisoning hospitalizations post-legalization.⁵⁵
- A recent study found that among children younger than 18 presenting to the Emergency Department of the Children’s Hospital of Eastern Ontario for unintentional cannabis ingestion, 76% had been exposed to edible products.¹⁷³ The majority of these injuries have occurred post legalization. Of 581 pediatric hospitalizations for cannabis poisoning for children younger than 10 years old between January 2015 and September 2021, 79% occurred after cannabis use was legalized in October 2018.¹⁷⁴
- Cannabis use during pregnancy, which became more common after cannabis was legalized,¹⁷⁵ increases the likelihood of preterm birth, low birth weight, small-for-gestational age, major congenital anomalies, learning problems, and depression.¹⁷⁶⁻⁷
- Rates of cannabis-related emergency department visits for traffic injuries in Ontario increased significantly after cannabis use was legalized. Those most likely to be in cannabis-related motor vehicle collisions were younger age males, and individuals with low household incomes.¹⁷⁸
- In 2020, Ontario’s total cannabis-use attributable costs was \$890 million.¹⁷⁹ However, Ontario had one of the lowest per capita cannabis-use costs at \$60.45 compared to other provinces. The total costs in 2020 were over 8 times what Ontario collected in taxes on cannabis products in 2020 (\$106 million).¹⁸⁰

A recent study found that 76% of children presenting to the Emergency Department with unintentional cannabis ingestion had been exposed to edible products.¹⁷³

Coret & Rowan-Legg, 2022

Health care accounted for about \$122 million or 13% of cannabis costs in 2020; the majority of the costs were criminal justice related.

The Policy Environment/Challenges

Canada legalized the sale of cannabis in 2018. Over the past five years, the market for legal cannabis in Ontario has grown steadily, particularly among young males.

Health Canada is currently in the process of its five-year review of the national cannabis legislation,¹⁸¹ which has identified successes as well as opportunities to strengthen the legislation and reduce harms. The review’s recommendations are expected in 2024. In the meantime, Ontario has identified pressing challenges with trends in cannabis use in the province.

In July 2023, the Council of Chief Medical Officers of Health and Public Health Physicians of Canada submitted a joint statement, that I signed on to, outlining the public health challenges and recommendations for the future of national cannabis policy.¹⁸²

In addition to the high rates of cannabis use among youth and the increase in emergency department visits and hospitalizations in the province noted above, Ontario has identified a number of issues that must be addressed. Although the legislation has been effective in shifting people to the regulated market, the unregulated market still exists and continues to make unregulated products widely available at lower prices and higher concentrations of tetrahydrocannabinol (THC), the principal psychoactive constituent of cannabis, than legal, regulated cannabis products.

Legalization of cannabis drew people away from the unregulated market, and reduces the risk that they will purchase and use substances that are more potent or toxic than they expect.

While cannabis legislation sets limits on the concentrations of THC in products that can be sold in the legal market, information about the content of different products (e.g. leaf, edibles, oils/extracts) is not clearly or consistently communicated to purchasers, so they are less able to make informed choices about their use.^{183,119} This is a gap that should be addressed.

The Public Health Agency of Canada published Low Risk Cannabis Use Guidelines (LRCUG) in 2019.¹⁸⁴ and a follow-up Lower-Risk Cannabis Use Guidelines for Psychosis (LRCUG-PSYCH) was published in 2023.¹⁸⁵ Both are evidence-based recommendations to reduce the harms of cannabis use. Complete with posters, brochures, and other tools that make the information more accessible, the guidelines are designed for individuals who are either using or thinking about using cannabis, and for clinicians to encourage non-judgmental conversations with their clients about the risks of cannabis use and safer cannabis practices.



There is also a youth version of the LRCUG, developed for youth by youth.¹⁸⁶ However, research has shown that – despite the availability of these guidelines – Ontario service providers treating problematic substances use in youth are not aware of low-risk use guidelines or had not mentioned them to the youth they treated.¹⁸⁷

The researchers also found that legalization of cannabis has made its use more acceptable and normalized, affecting youth's perception of the risks. As one provider said, "Cannabis is widely considered normal and a rite of passage for youth. It is also legal (for adults) and even considered a medical treatment, natural, 'good for you' by many people in Canada. As such, youth tend to think it's not a big deal to use it often and/or to self-medicate."¹⁸⁷ This message is reinforced by the number of cannabis retail outlets, and by the way cannabis is promoted on retailers' web sites.¹⁸⁷

Families also struggle to find providers who have been trained in evidence-based management of cannabis use disorder. The research highlighted the urgent need to educate and train providers, reduce access to and availability of cannabis, increase public education, and improve availability of health and addiction services, particularly for youth.¹⁸⁸

Recommendations

Develop a comprehensive cannabis strategy designed to reduce cannabis-related harms, focusing on youth and young adults who have the highest rates of cannabis use.

Health Promotion

- Actively promote Canada's Low Risk Cannabis Use Guidelines
- Continue to educate Ontarians about the risks associated with:
 - o the impacts of different forms and concentrations of cannabis, very high THC content products, and oral versus inhaled cannabis use
 - o driving under the influence of cannabis
 - o cannabis use exacerbating mental health problems, including risks of developing cannabis use dependency, disorder and psychosis
 - o cannabis use during pregnancy
 - o accessibility of cannabis products in the home by young children

Regulatory Measures

Minimum legal age of purchase

- Increase the minimum age to purchase cannabis to 21 years old as Quebec has done

Product Controls

- Work with the federal government to:
 - Limit the potency of cannabis products
 - Set maximum concentrations of THC for all cannabis products
 - Maintain the limit of 10 mg THC per package of edible cannabis to reduce the likelihood and severity of unintentional pediatric poisonings
 - Require plain packaging and health warning labels (e.g. don't use and drive) for all cannabis products
 - Develop and promote safeguards to reduce harms from edible products (e.g. lockboxes, child-proof packaging, limiting appeal of edible products)

Availability

- Restrict physical store locations where cannabis products can be sold, including prohibiting any new stores within 200 metres of an elementary or secondary school or an existing cannabis retail outlet, and capping the total number of retail locations in a municipality/region
- Work with the federal government to ban online retail sales of cannabis products without in-person age verification at delivery

Pricing and Taxation

- Consider tiered taxation based on the THC content of the cannabis product

Promotion

- Work with the federal government to restrict online and social media advertising of cannabis products

Enforcement

- Enforce legislation related to the legal sale of cannabis products, age verification to purchase cannabis, packaging, and promotion

Treatment

- Increase access to mental health and addiction services for youth and young adults
- Improve access to treatment for cannabis use disorder:
 - Educate health care and social service providers on the treatment of cannabis use disorder
 - Increase access to primary care, emergency, and other health professionals trained to identify and treat cannabis use disorder
 - Increase emergency room capacity to respond to cannabis-related conditions

Monitoring and Reporting

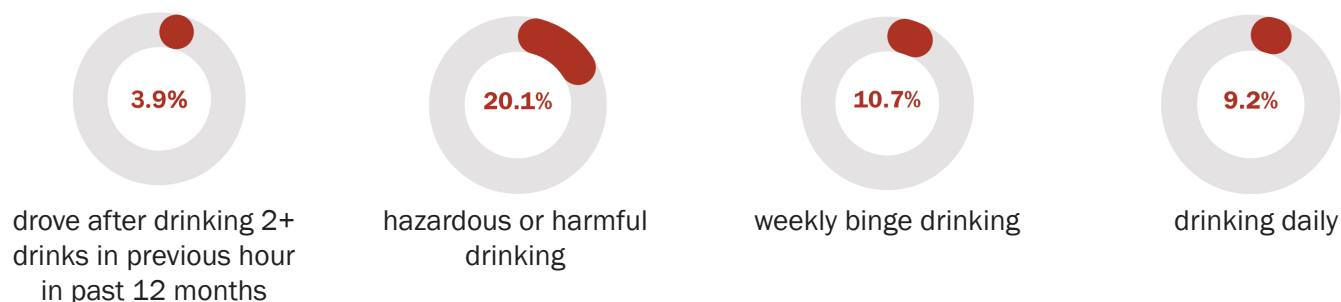
- Establish a “standard unit” of cannabis to improve surveillance and research on cannabis use and its associated harms
- Establish key performance indicators for those involved in enforcing cannabis regulations and policies
- Work with Public Health Ontario and with federal, provincial, territorial, and Indigenous partners to continue to:
 - Monitor the impact of cannabis on health, including the impact of the illegal cannabis market
 - Review new evidence on cannabis use
 - Assess the impact/effectiveness of cannabis policies
 - Issue regular reports on Ontario's progress (key performance indicators) in reducing harms associated with cannabis use

3. Alcohol

Trends and Health Impact

- Alcohol is the most widely used substance in Ontario. About 8 in 10 Ontarians ages 15 and older (80%) report using alcohol.¹⁰ During the COVID-19 pandemic, Ontarians who use alcohol reported drinking more, and alcohol consumption was higher in Ontario than in other provinces. More adults reported consuming 5 or more drinks – the equivalent of a bottle of wine – on the days they used alcohol during the pandemic, and more reported hazardous use.¹⁸⁹ Reasons for the increase in drinking included: lack of a regular schedule, boredom, and stress.^{57,190}

Figure 21: Percentage of adults in Ontario reporting higher risk alcohol use,* 2022¹⁰



* Hazardous/harmful drinking is defined as a score of 8+ on AUDIT. Binge drinking is 5 or more drinks on a single occasion at least once weekly in the past month.

- Although men drink more than women on average, women’s alcohol consumption and the associated harms have been increasing at a faster rate, and the gender gap is narrowing. Between 2008 and 2018/19, emergency visits and hospitalizations in Ontario related to alcohol use increased by 37% and 300% for females compared to 2% and 20% for males.¹⁹¹
- In 2021, 60% of students in grades 7 to 12 reported trying alcohol, 24% using alcohol in the past month, 8% binge drinking (i.e. five or more drinks on one occasion at least once in the past month), and 5% hazardous drinking (i.e. 8 to 14 drinks per week in the past month).¹⁹²
- Alcohol is a leading cause of preventable death in Ontario and a significant cause of serious health harms. In an average year in Ontario, about 4,330 (4.3%) deaths, 22,009 (2.1%) hospitalizations, and 195,693 (3.7%) of emergency department visits among people aged 15 and older can be attributed to alcohol use.¹³² Most alcohol-attributable deaths in Ontario are from cancers (e.g. breast, colon, throat, mouth, larynx, esophagus, and liver) while most hospitalizations are for neuro-psychiatric conditions, such as alcohol withdrawal, amnesic syndrome and other mental and behavioural disorders, and most emergency department visits are for unintentional injuries such as falls or alcohol poisoning.¹³²
- Even a small amount of alcohol per week (i.e., more than 2 standard drinks) can be damaging to health.¹⁹³ And the risk of alcohol-related harm increases with how frequently people drink and the amount they drink at one time.⁶⁶
- Although lower levels of alcohol consumption may have a protective effect for some diseases, such as ischemic heart disease, people cannot selectively experience the potential benefits of low alcohol consumption while avoiding its carcinogenic effects. “Less is better” is the best message when talking to patients about alcohol.¹⁹⁴

Alcohol is a carcinogen, and even low levels of exposure to a carcinogen are likely to have adverse health effects, especially if the person has other risk factors for cancers caused by alcohol.⁶⁶

Paradis C, Butt P, Shield K, Poole N, Wells S; Low-Risk Alcohol Drinking Guidelines Scientific Expert Panels. 2023.

- Alcohol use is particularly harmful during pregnancy as it interferes with fetal growth and development. Exposure to alcohol in utero can lead to fetal alcohol spectrum disorder (FASD), a lifelong disability that affects the brain and body, and results in physical, mental, behavioural, and/or learning problems. There is no safe amount or type of alcoholic beverage, and no safe time to drink alcohol during pregnancy.¹⁹⁵
- Alcohol is frequently associated with violent and aggressive behaviour, including intimate partner violence, male-to-female sexual violence, and other forms of aggression and violence between adults. Alcohol can also increase the severity of violent incidents. No exact dose-response relationship can be established, but consuming alcohol increases the risk of alcohol-related violence.⁶⁶
- Alcohol plays a significant role in injuries and accidental deaths, including those that occur when people are driving under the influence.⁶⁶
- Economically, alcohol and its related harms cost Ontario \$7.1 billion in 2020 – significantly more than other substance use including tobacco (\$4.1 billion) and opioids (\$2.7 billion).¹³⁴

Compared to other substances, alcohol has the highest cost to the criminal justice system: higher than the use of opioids.

Canadian Centre on Substance Use and Addiction (CCSA)²⁰³

The Policy Environment and Challenges

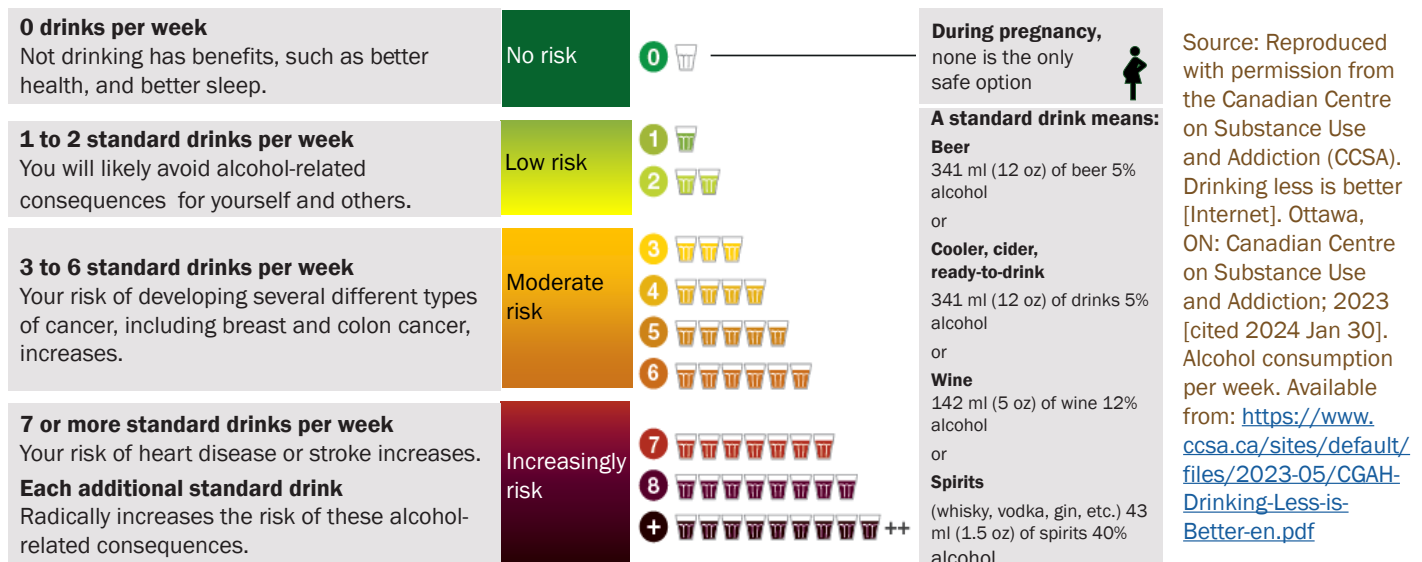
Alcohol is the most commonly used substance in Ontario. Binge drinking and hazardous drinking both increased during the COVID-19 pandemic.

Health Canada funded an initiative to update Canada’s Low-Risk Drinking Guidelines to reflect the most recent evidence on alcohol and health (see box).¹⁹³ Developed by the Canadian Centre on Substance Use and Addiction (CCSA) and released in January 2023, the new guidelines represent a marked change in public health messaging about alcohol consumption. They note that “no amount of alcohol is good for your health. It doesn’t matter what type of alcohol it is – wine, beer, cider or spirits. Drinking alcohol, even a small amount, is damaging to everyone, regardless of age, sex, gender, ethnicity, tolerance or lifestyle. That’s why, if you drink, you should drink less.”

Canada’s Guidance on Alcohol and Health recommends that if you drink more than 2 drinks a week, you should not exceed 2 drinks on any day to reduce the risk of injuries or violence.

The key message is “less is better.” The guidelines acknowledge that the health risks of alcohol are greater for females than males, but they no longer suggest different alcohol consumption thresholds by sex. They encourage Ontarians to balance any benefits they derive from alcohol use against its negative health effects.¹⁹⁴

Figure 22: Spectrum of Risk from Alcohol Use



Despite research on the health impacts of alcohol and the new guidelines, public awareness is low regarding the links between alcohol and risks such as cancer.¹⁹⁶ Alcohol warning labels – similar to those used on tobacco products – are one possible tool to raise awareness of the risks. According to a recent (2022) systematic review, 43 countries currently require alcohol warning labels, including 14 countries in the Americas. In the United States, alcohol warning labels have been shown to be effective in raising awareness, particularly among higher risk drinkers, and stimulating discussions about alcohol consumption. They appear to have the potential to change the conversation about alcohol, and may play a role in shifting social norms to reduce risks.¹⁹⁷

Evidence-informed efforts to reduce alcohol harms by, for example, limiting its availability (i.e., where and when alcohol can be sold) are often in conflict with economic policies designed to support the alcohol and restaurant industries as well as reflect societal preferences. For example:

- In 2015, the province expanded alcohol sales to certain grocery stores. Ontario now has 2.1 alcohol retail outlets per 10,000 population, which is slightly higher than the 2.0 per 10,000 maximum retail density recommended by the Canadian Alcohol Policy Evaluation (CAPE),¹⁹⁹ an ongoing research project that provides rigorous assessments of the progress that provinces, territories and the federal government are making in implementing policies proven to reduce alcohol-related harms.
- During the COVID-19 pandemic, Ontario introduced policies that permitted:
 - o alcohol take-out and delivery from licensed establishments
 - o alcohol sales and service on docked boats
 - o lower minimum alcohol delivery fees
 - o extended hours for alcohol sales in authorized grocery and alcohol stores.
- In 2019, Ontario passed legislation that gave municipalities the authority to permit alcohol consumption in public parks. In August 2023, Toronto began a two-month pilot project allowing people aged 19 and older to drink alcohol in 27 select parks in the city. That pilot was extended to March 31, 2024.
- The province may allow convenience stores, gas stations, and remaining grocery stores in Ontario to sell beer – in which case, Ontario will exceed the CAPE recommendations for alcohol retail density.

If the number of retail outlets for alcohol increases, the province will need to invest in services to monitor whether these new sites are complying with laws related to minimum age of purchase, products, and promotion. It will need to consider other measures to reduce potential harms, such as fines and license fees, progressive enforcement up to and including loss of license, and enforcing restrictions related to the distance/proximity of these outlets to places like schools and daycares.

Public health-driven alcohol pricing strategies can also run up against policies enacted for other social and economic reasons. For example:

- Pricing has long been used as a way to reduce how much people drink. In 2021, Ontario reduced wholesale alcohol prices to help businesses, including bars and restaurants, affected by the COVID-19 pandemic. Businesses saved 20% compared to retail prices, which reduced the cost of alcohol sold at licensed establishments, making it easier for people to buy more.
- In 2022, Ontario delayed the basic beer tax increase to 2023 to support beer brewers.

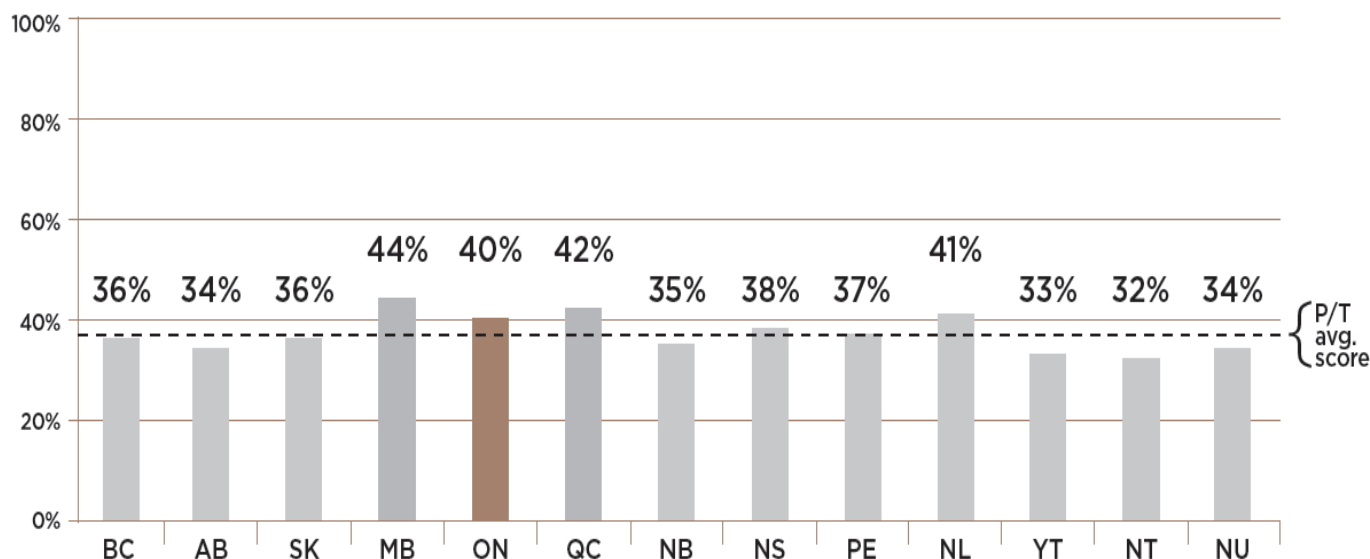
No type of alcohol product (beer, wine, spirits) meets the World Health Organization’s recommended minimum unit price of \$1.97 per standard drink in 2022 dollars. The gap between the recommended minimum price and the actual retail price in Ontario has been increasing since 2013.⁵⁷

While these types of policy changes can benefit the industry, they can also cause health harms. For example, the expansion of alcohol sales in Ontario in 2015 was associated with a 17.8% increase in emergency department visits attributable to alcohol, which was more than twice the rate of increase for all emergency department visits over this period.¹⁹⁸ Ontario must continually monitor the impact of recent pricing and other policy changes on rates of alcohol consumption and alcohol-related harms.

Ontario restricts alcohol advertising in traditional media, but those restrictions do not extend to online media where many people- including most youth- get their information. Youth and young adults are particularly vulnerable to sophisticated social media alcohol marketing campaigns. In recent years, there has been a marked increase in alcohol advertising targeting both youth and women, which is likely a factor in the increase in women’s rates of alcohol use and harms.

Ontario does have a graduated licensing program as well as a requirement that all young drivers 21 and under, regardless of license class, have a blood alcohol level of zero. These types of restrictions on young drivers, including zero-tolerance for drinking and driving, help mitigate some of the harms associated with a minimum legal drinking age of 19. The province also has a relicensing program for people who lose their license for driving impaired. However, that program falls short of the CAPE recommendations. As Figure 23 shows, Ontario has yet to implement the full range of effective, evidence-based alcohol policies/interventions (e.g. pricing, taxation, number and location of outlets, marketing controls, enforcement) recommended by CAPE.¹⁹⁹ If it were to do so, it could make significant progress in preventing or reducing alcohol harms.

Figure 23: Score for Ontario and other provinces and territories on assessment of implementation of best practice policies for alcohol



Source: Canadian Institute for Substance Use Research; Naimi T, Stockwell T, Giesbrecht N, Wettlaufer A, Vallance K, Farrell- Low A, et al. Canadian Alcohol Policy Evaluation 3.0: Results from Ontario. 2023. Available at: <https://www.uvic.ca/research/centres/cisur/assets/docs/cape/cape3/on-results-en.pdf>.

In December 2023, in light of the new guidance on alcohol and health, and growing evidence on the effectiveness of different alcohol policies and interventions, the Association of Local Public Health Agencies (aLPHa) recommended that Ontario create a provincial alcohol strategy. I endorse that recommendation as well as the CAPE policies and interventions that have the potential to reduce harms associated with alcohol use.

When it comes to treatment for alcohol use disorder, the health care system has been slow to adopt highly effective pharmaceutical treatments. As noted earlier in this report, fewer than 2% of eligible people with a diagnosed alcohol use disorder in Canada are currently prescribed anti-craving medication,¹²⁵ and fewer still have access to the mental health/behavioural interventions such as cognitive behavioural therapy, dialectical behavioural therapy, and trauma therapy that are critically important in helping people recover from alcohol addiction and improve their health and wellbeing.

Recommendations

Develop and implement, in collaboration with stakeholders, including local public health units and the alcohol regulatory system, and in consultation with the alcohol industry, a comprehensive alcohol strategy designed to reduce alcohol-related harms.

Health Promotion

- Launch a wide-reaching evidence-informed education/multimedia campaign designed to improve public awareness and understanding of the health risks and harms of alcohol over consumption – particularly its carcinogenic effects as well the risks of driving under the influence, alcohol-related violence, alcohol use during pregnancy, and addiction.
- Encourage clinicians to communicate to patients that alcohol consumption, even at low levels, has adverse effects on health.

Regulatory Measures

Minimum legal age of purchase

- Continue to monitor:
 - The impact of the minimum legal drinking age on the health of Ontarians
 - Evidence supporting a higher minimum legal drinking age
 - Public support for increasing the minimum legal drinking age
- Explore the value of increasing the legal minimum drinking age from 19 to 21 in terms of youth morbidity and mortality as well as longer-term health outcomes
- Require proof of age verification for anyone purchasing alcohol online or by phone

Product controls

- Continue to limit/control the potency/toxicity of alcohol products sold in Ontario
- Work with the federal government to require that all alcohol products have warning labels and signage that describe the risks/harms of alcohol use (e.g. cancer risk, standard drink size, national alcohol guidance, calories)

Availability

- Continue to implement strategies to control alcohol availability:
 - Establish and maintain a moratorium on alcohol privatization (i.e. no further privatization of the alcohol distribution system, and no expansion of existing private retail channels)
 - Implement an evidence-informed, quantity-based system to manage outlet density
 - Maintain or reduce current per-capita levels of retail outlet density
 - Limit or prevent further extension of hours of sale in both on- and off-premise outlets

Pricing and Taxation

- Continue to use Ontario's alcohol pricing system to help reduce alcohol related harms:
 - Increase the legislated tax rates and minimum pricing per standard drink for all beverage types sold both on- and off-premises
 - Automatically adjust the taxes and minimum prices annually to keep pace with inflation so alcohol does not become less expensive relative to other goods over time

Promotion

- Work with the federal government to restrict alcohol advertising – particularly online and social media marketing that targets youth and/or women

Enforcement

- Ensure a strong regulatory and funding framework to support enforcement of alcohol regulations, including licensure, age verification, hours of operation, advertising, and signage, with all alcohol retailers.
 - Explore the potential for the Alcohol and Gaming Commission of Ontario to invest in additional enforcement to enhance inspections and prevent youth access to alcohol in convenience stores.
 - Explore the potential for the Ministries of Health and the Attorney General, the Alcohol and Gaming Commission of Ontario, and public health units to collaborate to implement a referral system – similar to the existing system for the Tobacco Tax Act – to ensure all convenience stores licensed to sell alcohol comply with liquor laws, including age limits and verification, hours of operation, promotion, and signage (e.g. public health unit inspectors who observe non-compliance with liquor laws during their regular tobacco and vaping product inspections would refer those incidents to the Alcohol and Gaming Commission of Ontario)
 - Explore the potential to support the Alcohol and Gaming Commission of Ontario in implementing a youth test-shopping program to ensure compliance with age limits and verification requirements to purchase alcohol, like the ones in place for tobacco and vaping products
- Adopt the CAPE 2023 recommendations to keep pace with best practices and reduce harms related to impaired driving:
 - Strengthen the graduated licensing program by making stage 1 a minimum of 12 months and stage 2 a minimum of 24 months, and implement a stage 2 night-time driving ban
 - Extend the zero-tolerance for alcohol to all new drivers with less than five years' driving experience, and set penalties for all graduated licensing program and new driver violations
 - Impose stricter penalties for people driving under the influence of alcohol and another substance (e.g. cannabis)
 - Impose comprehensive mandatory administrative license suspensions and automatic vehicle identifications that increase based on blood alcohol level and repeat occurrences
 - As a condition of relicensing, continue to require all first and repeat federal convictions for driving under the influence to successfully complete the ignition interlock program (i.e. driver must blow into a breathalyzer on the device before being able to start or operate the vehicle), and offer incentives for people to enroll in the program to discourage unlicensed/uninsured driving

Treatment

- For people who are experiencing harms related to alcohol use, enhance access to screening, brief interventions, harm reduction services (e.g., managed alcohol programs), withdrawal management, and treatment for alcohol use disorder:
 - Make training in the health impact of alcohol use and treatment of alcohol use disorder mandatory in medical and nursing schools
 - Continue to train and update health professionals in primary care, emergency departments, and hospitals
 - Promote the use of best practice guidelines for the treatment of alcohol use disorder
 - Facilitate mobile/online and in-person care
 - Increase access to evidence-based treatments, including residential treatment and pharmacotherapy

Monitoring and Reporting

- Work with Public Health Ontario and with federal, provincial, territorial, and Indigenous partners to:
 - monitor alcohol-related indicators in Ontario
 - review new evidence on the effects of alcohol use
 - assess the impact of alcohol policies implemented across Canada and internationally
 - identify opportunities to strengthen provincial policies
 - issue biennial public reports on progress (key performance indicators) to guide Ontario's alcohol strategy

4. Opioids

Trends and Health Impact

Over the past decade, both Canada and Ontario have seen a dramatic and tragic increase in harms associated with opioid use, including deaths and illness (e.g. fatal and non-fatal overdoses) related to the toxic unregulated drug supply.

- The rate of opioid-related deaths in Canada is 2.5 times higher than the average of other Organization for Economic Co-operation and Development (OECD) countries.²⁰⁰
- The number of people who died from opioid toxicity – which was already high in 2019 (1,559 deaths) – almost doubled in 2021 (2,857 deaths).⁴
- Fentanyl contributed to most (84%) opioid-related toxicity deaths in Canada in the first half of 2023.²⁰¹ Fentanyl and fentanyl analogues are highly potent, synthetic opioids that are now widely present in the unregulated opioid supply, making the unregulated supply more toxic and more likely to result in death.
- Every year between 2013 and 2022, Ontario saw an increasing number of opioid-related visits to emergency departments and deaths. In 2020, opioid-related emergency department visits were up over 50% (28,419 visits) compared to 2013 (15,275 visits).²⁰³
- Non-fatal overdoses can cause serious and lasting harms. Approximately 1 out of 25 people hospitalized for opioid toxicity is diagnosed with an anoxic brain injury.²⁰⁴
- As high as the number of opioid-related deaths and emergency visits are,²⁰⁵ they do not show the actual extent of opioid use. We do not have good population-level data on the extent of opioid use, but we do know that, in 2022, 4 of every 1,000 people in Ontario received opioid agonist therapy to treat opioid use disorder.²⁰⁵ We also know that people who have **not** been diagnosed with an opioid use disorder are at risk of harm from the toxic unregulated drug supply: approximately one-third of Ontarians who die from opioid toxicity have no indication of having been diagnosed with an opioid use disorder in the last five years.²⁰⁶
- There is a substantial treatment gap in Ontario. People who could benefit from opioid agonist therapy are either not receiving it or not retained in treatment. From 2005 to 2019, the proportion of people retained in opioid agonist therapy for six months decreased, and those living in rural areas and/or with a history of a mental health diagnosis were less likely to be on OAT and to stay on OAT for 6 months or longer.¹²⁴
- Access to OAT is remarkably low even for people with opioid use disorder who access hospital-based care for opioid toxicity in Ontario. During the first quarter of 2020, only 5.6% of people accessed OAT within 7 days after an emergency department visit for opioid toxicity or after being discharged from hospital for opioid toxicity.²⁰⁷
- The opioid toxicity crisis has placed extreme pressure on ambulance and paramedic services, as well as on community outreach and harm reduction workers, many of whom are peers. The stress of responding daily to so many overdoses and deaths can cause trauma and burnout,²⁰⁸ and reduce the level of these services available to respond to other emergencies.
- To meet the needs of the broad range of people in our communities at risk of opioid harms, we need comprehensive services and supports.

The toxicity of the unregulated drug supply has caused thousands of accidental deaths in Ontario.²⁰²

The Policy Environment/Challenges

Of the four types of substances in this report, opioids are the only substance that is not fully regulated in Ontario. There is a legal, regulated supply of prescription opioids and an unregulated supply of opioids, which is often unpredictable and contaminated with other substances. It is also the only one of the four substances discussed in this report for which simple possession for personal use is a criminal offence.

Ontario has responded to the opioid toxicity crisis by funding a range of responsive, evidence-based harm reduction services that help prevent overdoses and deaths, including naloxone programs, and consumption and treatment services (CTSs), where people who inject drugs can use substances safely, with someone nearby to intervene in the case of an overdose and provide access to other health services. Ontario is also actively supporting efforts to reduce opioid-related harms among Ontario workers.²⁰⁹

The challenge for Ontario is to stop the overdoses and deaths – that is, reduce the harms – while, at the same time, addressing the drivers of opioid use.

However, the existing CTS programs are not widely available across the province, and they do not allow people to smoke or inhale opioids, which has become an increasingly common form of use: people who only smoke rather than inject opioids now account for about one-third of opioid toxicity deaths.⁵⁸ Because the substances that people use and how they take them are continually changing, harm reduction policies must be more nimble. To be effective, harm reduction services must be able to adapt quickly to changes in patterns of substance use.

While there is public support for compassionate, supportive services for people dealing with opioid use disorder, there are also public concerns about the impact of the opioid toxicity crisis on neighbourhood safety, including discarded needles, public substance use, and people who sell drugs being attracted to CTS sites. Many of these problems can be addressed through the way services are planned and delivered. Providing a wider array of harm reduction and treatment services (e.g. more supportive housing, less stigma) and changing existing services (e.g. more CTS sites and allowing inhalation so that people can use substances within CTS rather than outdoors) would help to meet the urgent harm reduction needs of people who use opioids while promoting community safety.

Criminalization of simple possession for personal use increases the risk of people using drugs alone, and overdosing and dying. It also makes people less willing to call 911 in the event of emergency, or to help someone who is overdosing for fear they, too, could be charged for possession. People who use opioids who experience incarceration are often at greater risk of overdose when they are released from custody because of inadequate access to treatment while in prison, lost tolerance for the drug while incarcerated, and poor continuity with community-based health care and other services after release.

Diverse organizations, including the Ontario Association of Police Chiefs,²¹⁰ the Registered Nurses Association of Ontario (RNAO),²¹¹ the Centre for Addiction and Mental Health (CAMH),²¹² the Association of Local Public Health Agencies (ALPHA) in Ontario,²¹³ and organizations of people who use drugs²¹⁴⁻⁵ have all called for decriminalization of the simple possession of opioids for personal use, along with the services required to support people who are using unregulated drugs.

Arresting, charging, and incarcerating people who use drugs has failed as a strategy to reduce harmful opioid use.

Some jurisdictions (e.g. Portugal, Oregon, BC) have decriminalized simple possession of small amounts of opioids. Ontarians are carefully watching the experience in these jurisdictions to determine the best way to move forward with a public health-based and evidence-based approach to opioid use. In March 2023, the City of Toronto put forward its proposed approach to decriminalizing drugs for personal use: instead of charging and arresting people who had drugs for personal use, police would give them a referral card that contains information about a range of health and social supports, legal rights, and youth programming. The goal is to “reduce the mental, physical, and social harms associated with criminalizing people for possessing drugs for their personal use,” with “the potential to meaningfully improve the health and wellbeing of all Torontonians.”²¹⁶

The model would apply to all areas of the city except around child care facilities and K-12 schools – where provincial laws prohibit alcohol, cannabis, and unregulated drug use – and airports, which fall under federal jurisdiction.

Even without the legal changes required to decriminalize possession for personal use, Ontario has seen a marked decrease in possession charges. In response to a 2020 directive asking federal crown attorneys to avoid prosecuting people for possession, about 85% of drug possession charges were dropped in 2021 (compared to 44% in 2019).²⁴⁷ The directive was an effort to establish a community standard and reduce backlogs in the system. It also reflects the growing recognition that charging people for possession is not the most effective way to address a health issue like opioid use.

In coming to grips with the negative impacts of criminalization, Ontario has had some success diverting people arrested for possession of opioids away from jails into drug treatment courts where they receive access to harm reduction services, treatment, and comprehensive health care and supports. However, access to these services is extremely limited and inequitable. The programs tend to be concentrated in larger urban centres rather than in parts of the province, like Northern Ontario, where there are relatively high rates of opioid use, overdoses, and deaths. Depending on how they are implemented, drug treatment courts have the potential to reduce the harms associated with incarceration as well as the risk of overdoses and deaths when people are discharged from prison, while also improving access to treatment.

It is also extremely difficult for people experiencing opioid use disorder and their families to access effective, evidence-based treatment and support services. There are long waits for addiction treatment services in most communities, including for youth.

Recommendations

Develop and implement, in collaboration with stakeholders– including people with lived or living experience with substance use – a comprehensive strategy designed to reduce opioid-related harms.

Health Promotion

- Increase access to evidence-based education, mental health, and supportive housing programs and services that have the potential to prevent people from developing an opioid use disorder
- Continue to raise awareness of the risks associated with the toxic, unregulated drug supply
- Raise awareness of the Good Samaritan Drug Overdose Act to encourage people to respond effectively (e.g. administering naloxone, calling 911) when they see someone experiencing an overdose

Regulatory Measures

Decriminalization

- Decriminalize the simple possession of unregulated drugs for personal use as recommended by the Ontario Association of Chiefs of Police
- Develop a framework of diversion program options to provide front-line police with established pathways to refer people to health services, and rehabilitation and recovery supports
 - o Develop policies and programs to increase access to evidence-based programs that divert people from the criminal justice system (e.g. drug treatment courts)
 - o Involve nurses and mental health workers on emergency teams responding to people experiencing problems related to their substance use
- Engage people who use drugs in the process of implementing decriminalization of simple possession and creating service pathways

Toxic Drug Supply Controls/Availability

- Work with the federal government to protect the community from exposure to toxic drugs
- Work with the federal government,²¹⁸ local law enforcement, and other partners to develop effective, timely strategies to:
 - monitor and understand the local impact of the toxic drug supply (e.g. overdose monitoring platform)
 - help communities detect and respond to a sudden increase or spike in overdoses
- Avoid the unintended negative consequences of disruptions and unpredictable toxicity in the illegal drug supply:
 - Increase access to evidence-based safer supply programs²¹⁹⁻²⁰
 - Continue to evaluate safer supply programs for any risk of diversion, and address broader public concerns about diversion

Enforcement

- Work with the federal government, the Canada Border Services Agency, and the U.S. and other international governments to control the illegal drug supply and address the role of organized crime in the production, distribution (i.e. trafficking), and diversion of toxic drugs:
 - Disrupt shipments of illegal drugs and precursor chemicals
 - Dismantle illegal drug labs
 - Share intelligence among different enforcement and regulatory agencies responsible for reducing harms related to the toxic drug supply
 - Use forensic accounting services to help find and break up organized crime groups
- Provide new training and tools for enforcement officers to reduce drug stigma

Harm Reduction

- Increase access to integrated harm reduction services for people who use opioids, including:
 - Supervised consumption services (including for smoking/inhalation)
 - Naloxone kits, including for people who use drugs other than opioids and any others who may be at risk of experiencing opioid toxicity or witnessing opioid toxicity²²¹
 - Distribution of sterile supplies
 - Peer-led outreach supports
 - Links to public health and health services, including RAAM (rapid access addiction medicine) clinics and wrap-around services
- Increase investment in drug checking services, and continue to evaluate their ability to reduce harms
- Continue to evaluate and learn from experiences in Ontario and other jurisdictions (e.g. Portugal, Oregon, B.C.) about effective ways to locate, structure, implement, and manage harm reduction programs
- Ensure equitable access to harm reduction services that are tailored to the specific needs of rural, remote, and northern communities
- Work with Indigenous communities to increase access to Indigenous-led culturally appropriate, responsive harm reduction programs and interventions
- Integrate access to harm reduction services in housing/shelter supports for people who use substances
- Work with people who use substances, harm reduction programs, communities, and police to ensure community safety

Treatment

- **Increase access to timely, low-barrier evidence-based treatment for people with opioid use disorder:**
 - o Develop integrated, culturally appropriate care/service hub models for people who use opioids that:
 - Build on existing services, including RAAM (rapid access addiction medicine) clinics and other health system partners
 - Provide a full spectrum of evidence-based services based on each person's goals (e.g. harm reduction, medications for opioid use disorder, support for abstinence)
 - Include psychosocial supports, peer support, counselling, and/or psychotherapy
 - Include residential treatment models, including longer-term assisted living and supportive housing that may be required for individuals living with acquired brain injuries or other sequelae or co-occurring conditions
 - o To reduce the risk of overdose and death for people released from prison, ensure continuity of opioid agonist therapy and access to coordinated community-based treatment and harm reduction services
 - o Ensure opioid use disorder treatment services in Ontario meet the forthcoming national standards for mental health and substance use services
 - o Expand the Ontario Drug Benefit (ODB) formulary to include injectable forms of opioid agonist treatment
 - o Provide multiple types of low-barrier treatment and withdrawal management services in primary care, emergency departments, and specialized clinical settings, such as the RAAM (rapid access addiction medicine) clinics, including:
 - Same-day access to care and agonist therapies
 - Inpatient and outpatient, virtual and mobile models of care
 - Injectable opioid agonist treatment
 - Expansion of addiction medicine consulting services.
 - o Work with correctional services to address the health needs of people with opioid use disorder who are incarcerated, including ensuring access to first-line treatment options (i.e. opioid agonist therapy) and harm reduction services

Services for Families, Friends and Workers

- Address the impacts of grief and loss caused by the opioid toxicity crisis:
 - o Provide compassionate mental health and counselling services, and other forms of grief and loss programs and supports for family members, peers, and friends
 - o Provide support for memorializing activities and cultural ceremonies

Monitoring and Reporting

- Work with Public Health Ontario, the Chief Coroner, police, local public health units, and with federal, provincial, territorial, and Indigenous partners to enhance surveillance:
 - o Monitor the impact of the toxic drug supply on the health of Ontarians
 - o Assess the effects of provincial opioid-related policies and programs
 - o Develop more integrated data reporting tools, such as a comprehensive dashboard, that could be used to identify opportunities to strengthen Ontario's response to the opioid toxicity crisis
 - o Identify best-practice interventions to reduce harms associated with opioid use
 - o Issue regular reports on Ontario's progress (key performance indicators) in addressing the opioid toxicity crisis

Conclusion

Public health aims to help all Ontarians lead longer, healthier lives. We focus on entire populations across the life course from birth to death. When we see preventable threats, such as substance use, that harm too many people too young, devastate families, destroy communities, and reduce life expectancy, we have no choice but to act.

But the public health sector cannot solve the problem of substance use harms on its own. We need an all-of-society approach that engages communities, governments, public health and social services, and individuals – including people with lived and living experience of substance use.

Our approach must recognize the complexity of human experience with substances – many people use substances without experiencing harms while some struggle and suffer – as well as the complex factors that drive substance use, and the complex policy environment in which health policies sometimes conflict with economic policies and with public attitudes and preferences.

Ontarians will continue to use substances. How can we help them understand the risks, moderate their use (less is better), and use in ways that are less risky?

If we do not invest upstream, more Ontarians will die preventable deaths, families will continue to suffer, and the province will continue to spend billions each year to cover the health care, social and legal/policing costs of substance use harms.

We must be focused. We must strive to find a way to balance the benefits and risks of substance use, leveraging the full toolbox of effective and promising public health interventions to reduce harms and improve health.

We must be responsive. The health care system must be able to provide quick easy access to effective, on-demand harm reduction, and mental health and addiction treatment services for Ontarians at risk of or experiencing substance use harms and their families.

We must be nimble. We need to actively monitor how specific substances are affecting health, and how those threats are changing (e.g. new products in new forms, delivered in different ways, targeting different people, promoted through new channels). We must be able to quickly adapt our **downstream** programs, services, policies, and regulations – the guardrails we have put in place to protect the most vulnerable – to counter evolving threats.

We must be strategic. At the same time that we are constantly refining our downstream interventions, we must continue to invest **upstream** to create the social conditions that can prevent harmful substance use and help people find other, healthier ways to cope with stress, anxiety, depression, pain, and trauma. The best antidote for addiction and other substance use harms is connection and a sense of belonging: strong, healthy, connected families and communities

We must take action. There are concrete steps and actions we can take now to reduce harms from tobacco/vaping, cannabis, alcohol and opioids.

We must be determined. Working together in an all-of-society approach, we must continue to advocate for health, social, and economic policies – at all levels – that will build stronger communities, and help all of us enjoy longer lives in good health.

Acknowledgements

External Advisory Committee:

Nicole Blackman, Indigenous Primary Health Care Council
Leslie Buckley, Addictions Division Centre for Addictions and Mental Health
Chelsea Combot, Ontario Federation of Indigenous Friendship Centres
Kit Young Hoon, Northwestern Public Health Unit
Tessa Jourdain, Ontario Federation of Indigenous Friendship Centres
Surkhab Peerzada, Ontario Federation of Indigenous Friendship Centres
Gord Garner, Community Addictions and Peer Support Association
Tara Gomes, Ontario Drug Policy Research Network
Angie Hamilton, Families for Addictions Recovery
Erin Hobin, Public Health Ontario
Pamela Leece, Public Health Ontario
Kwame McKenzie, Wellesley Institute Centre for Addictions and Mental Health
Linda Ogilvie, Chiefs of Ontario
Bernadette deGonzague, Chiefs of Ontario
Hasan Sheikh, Mental Health and Addictions Centre of Excellence, Ontario Health
Lisa Simon, Simcoe Muskoka District Health Unit

Content Leads:

Fiona Kouyoumdjian, Associate Chief Medical Officer of Health
Michelle Murti, Associate Chief Medical Officer of Health

Writer:

Jean Bacon

Project Manager:

Raveena Sajjan, Office of the Chief Medical Officer of Health

Design:

Zoe Liu, Office of the Chief Medical Officer of Health

Staff, Office of the Chief Medical Officer of Health:

Mary Farruggio, Catherine Fraser, Joseph Garand, Taylor Holmes, Joshua Lau, Vicki Leung, Carol Ma, Gillian MacDonald, Kate Allan

And with thanks to the Office of the Chief Medical Officer of Health Internal Advisory Committee, Robert Cunningham (Canadian Cancer Society), Public Health Ontario, and wider partners for their contributions.

Appendix

Ontario Public Health Units with Vacant Medical Officer of Health (MOH) Positions* Filled by Acting MOHs as of December 31, 2023

Chatham-Kent Health Unit
Halton Region Health Department
Peel Public Health
Timiskaming Health Unit
Total = 4 Public Health Units with MOH Vacancies

*Under 62. (1)(a) of the *Health Protection and Promotion Act*, every board of health shall appoint a full-time medical officer of health.

Ontario Public Health Units with Vacant Associate Medical Officer of Health (AMOH) Positions* as of December 31, 2023

Durham Regional Health Unit
Grey Bruce Health Unit
Halton Region Health Department
Niagara Region Public Health Department**
North Bay Parry Sound District Health Unit
Northwestern Health Unit
Peel Public Health
Sudbury and District Health Unit
Thunder Bay District Health Unit
Windsor-Essex County Health Unit
Total = 10 Health Units with AMOH Vacancies

*Under 62 (1)(b) of the *Health Protection and Promotion Act*, every board of health may appoint one or more associate medical officers of health.

**Vacancies may include less than or more than one FTE position per health unit and include positions filled by qualified physicians awaiting appointment by boards of health and ministerial approval.

References

1. Williams D. Improving the odds: championing health equity in Ontario. 2016 annual report of the Chief Medical Officer of Health of Ontario to the Legislative Assembly of Ontario. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: https://www.simcoemuskokahealth.org/docs/default-source/hu-library/reports/cmoh_18.pdf?sfvrsn=0
2. Williams D. Connected communities: healthier together. 2017 annual report of the Chief Medical Officer of Health of Ontario to the Legislative Assembly of Ontario. Toronto, ON: Queen's Printer for Ontario; 2019. Available from: <https://files.ontario.ca/moh-2017-annual-report-chief-medical-officer-health-en-2023-03-09.pdf>
3. Williams D. Mapping wellness: Ontario's route to healthier communities. 2015 annual report of the Chief Medical Officer of Health of Ontario to the Legislative Assembly of Ontario. Toronto, ON: Queen's Printer for Ontario; 2017. Available from: https://www.simcoemuskokahealth.org/docs/default-source/hu-library/reports/cmoh_2015_annual-rep_low-res.pdf?sfvrsn=2
4. Public Health Ontario. Interactive Opioid Tool [Internet]. Toronto, ON: King's Printer for Ontario; c2024 [cited 2024 Jan 8]. Available from: <https://www.publichealthontario.ca/en/Data-and-Analysis/Substance-Use/Interactive-Opioid-Tool>
5. Ontario Drug Policy Research Network (ODPRN); Ontario Agency for Health Protection and Promotion (Public Health Ontario); Office of the Chief Coroner for Ontario; Ontario Forensic Pathology Service. Opioid toxicity and access to treatment among adolescents and young adults in Ontario [Internet]. Toronto, ON: ODPRN; 2023 [cited 2024 Feb 8]. Available from: <https://odprn.ca/wp-content/uploads/2023/06/Opioids-among-Adolescents-and-Young-Adults-Report.pdf>
6. National Native Network. Keep it sacred: traditional vs. commercial tobacco [Internet]. Sault Sainte Marie, MI: National Native Network; c2015 [cited 2024 Feb 8]. Available from: <https://keepitsacred.itcni.org/tobacco-and-tradition/traditional-v-commercial/>
7. Nigatu YT, Elton-Marshall T, Rehm J, Hamilton H. CAMH monitor eReport 2020: substance use, mental health and well-being among Ontario adults. Toronto, ON: Centre for Addiction and Mental Health. Available from: <https://www.camh.ca/-/media/files/pdfs---camh-monitor/2020-cm-full-report-pdf.pdf>
8. Canadian Institute for Health Information (CIHI). National ambulatory care reporting system (NARCS) metadata. Toronto, ON: CIHI; 2024 [cited 2024 Feb 8]. Available from: <https://www.cihi.ca/en/national-ambulatory-care-reporting-system-nacrs-metadata>
9. Fischer B, Imtiaz S, Rudzinski K, Rehm J. Crude estimates of cannabis-attributable mortality and morbidity in Canada-implications for public health focused intervention priorities. *J Public Health (Oxf)*. 2016;38(1):183-8. Available from: <https://doi.org/10.1093/pubmed/fdv005>
10. Nigatu YT, Hamilton HA. CAMH monitor e-report: substance use, mental health and well-being among Ontario adults, 2022. Toronto, ON: Centre for Addiction and Mental Health; 2022. Available from: https://www.camh.ca/-/media/files/pdfs---camh-monitor/camh-monitor-2022_ereport_dec-19_final-pdf.pdf
11. Gomes T, Leece P, Iacono A, Yang J, Kolla G, Cheng C, et al; Ontario Drug Policy Research Network; Ontario Agency for Health Protection and Promotion (Public Health Ontario). Characteristics of substance-related toxicity deaths in Ontario: stimulant, opioid, benzodiazepine, and alcohol-related deaths [Internet]. Toronto, ON: Ontario Drug Policy Research Network; 2023 [cited 2024 Feb 8]. Available from: <https://odprn.ca/wp-content/uploads/2023/09/Substance-Toxicity-Report-Final.pdf>
12. Health Canada. Canadian cannabis survey 2018: summary [Internet]. Ottawa, ON: Government of Canada; 2018 [modified 2018 Nov 19; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/services/health/publications/drugs-health-products/canadian-cannabis-survey-2018-summary.html>
13. Health Canada. Canadian cannabis survey 2019: summary [Internet]. Ottawa, ON: Government of Canada; 2019 [modified 2019 Dec 13; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/publications/drugs-health-products/canadian-cannabis-survey-2019-summary.html>
14. Health Canada. Canadian cannabis survey 2020: summary [Internet]. Ottawa, ON: Government of Canada; 2020 [modified 2021 Aug 12; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/research-data/canadian-cannabis-survey-2020-summary.html>
15. Health Canada. Canadian cannabis survey 2021: summary [Internet]. Ottawa, ON: Government of Canada; 2021 [modified 2021 Dec 23; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/research-data/canadian-cannabis-survey-2021-summary.html>

16. Health Canada. Canadian cannabis survey 2022: summary [Internet]. Ottawa, ON: Government of Canada; 2022 [modified 2021 Dec 23; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/research-data/canadian-cannabis-survey-2022-summary.html>
17. Ontario Drug Policy Research Network; Office of the Chief Coroner for Ontario/Ontario Forensic Pathology Service; Ontario Agency for Health Protection and Promotion (Public Health Ontario); Centre on Drug Policy Evaluation. Preliminary patterns in circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic [Internet]. Toronto, ON: Ontario Drug Policy Research Network; 2020 [cited 2024 Feb 8]. Available from: https://odprn.ca/wp-content/uploads/2020/11/Opioid-Death-Infographic_FINAL.pdf
18. Ontario Federation of Indigenous Friendship Centres (OFIFC). OFIFC's report on the mental health and addictions environmental scan 2022 [Internet]. Toronto, ON: OFIFC; 2023 [cited 2024 Jan 9]. Available from: <https://ofifc.org/wp-content/uploads/2020/03/2023-05-16-MHA-Environmental-Scan-Submission.pdf>
19. Canadian Substance Use Costs and Harms Scientific Working Group. Ontario Profile: Canadian Substance Use Costs and Harms (2007–2020) [Internet]. Ottawa, ON: Canadian Centre on Substance Use and Addiction; 2023 [cited 2024 Jan 9]. Available from: <https://csuch.ca/substance-use-costs/provincial-territorial-costs/>
20. Liquor Control Board of Ontario (LCBO). 2021-22 annual report of the Liquor Control Board of Ontario. Toronto, ON: LCBO; 2023 [cited 2024 Feb 8]. Available from: <https://aem.lcbo.com/content/dam/lcbo/common/pdfs/LCBO-FY2022-Annual-Report-Final-AODA-Compliant-EN.pdf>
21. Westoll N. Ontario budget 2023: cigarette, alcohol, cannabis tax money to fall, but gambling could rise. City News [Internet], 2023 Mar 23 [cited 2024 Jan 9]. Available from: <https://toronto.citynews.ca/2023/03/23/ontario-budget-2023-cigarettes-alcohol-cannabis/#:~:text=Officials%20said%20it's%20expected%20the,increased%20usage%20of%20vaping%20products>
22. Ontario. Treasury Board Secretariat. Expenditure estimates for the Ministry of Health (2021-22). Toronto, ON: King's Printer for Ontario; 2021 [updated 2022 Jan 26; cited 2024 Jan 9]. Available from: <https://www.ontario.ca/page/expenditure-estimates-ministry-health-2021-22>
23. Health Canada. Page 2: national and provincial/territorial tobacco sales data 2019 [Internet]. Ottawa, ON: Government of Canada; 2020 [modified 2021 May 31; cited 2023 Feb 8]. Cigarette sales in Canada from 2001-2019. Available from: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/federal-provincial-territorial-tobacco-sales-data/page-2.html>
24. Health Canada. Canadian cannabis survey 2022: summary [Internet]. Ottawa, ON: Government of Canada; 2022 [cited 2024 Feb 20]. Sources and purchasing. Available from: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/research-data/canadian-cannabis-survey-2022-summary.html>
25. Arsenych A. More than 10,000 impaired driving charges laid in Ontario this year: OPP. City News [Internet], 2023 Dec 27 [cited 2024 Feb 8]; Toronto. Available from: <https://toronto.ctvnews.ca/more-than-10-000-impaired-driving-charges-laid-in-ontario-this-year-opp-1.6702282>
26. West SL, O'Neal KK. Project D.A.R.E. outcome effectiveness revisited. *Am J Public Health*. 2004;94(6):1027-9. Available from: <https://doi.org/10.2105/ajph.94.6.1027>
27. Jones W, Vojtila L, Kurdyak P, Fischer B. Prescription opioid dispensing in Canada: an update on recent developments to 2018. *J Pharm Policy Pract*. 2020;13:68. Available from: <https://doi.org/10.1186/s40545-020-00271-x>
28. Bradley R, Korzeniewski SJ, Mohler G, Carroll JJ, Del Pozo B, Victor G, et al. Spatiotemporal analysis exploring the effect of law enforcement drug market disruptions on overdose, Indianapolis, Indiana, 2020–2021. *Am J Public Health*. 2023;113(7):750-8. Available from: <https://doi.org/10.2105/AJPH.2023.307291>
29. Health Canada. Strengthening Canada's approach to substance use issues. Ottawa, ON: Her Majesty the Queen in Right of Canada, as represented by the Minister of Health; 2019. Available from: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/what-we-heard-strengthening-approach-substance-use-issues.html>
30. Ontario. Ministry of Finance. Illegal tobacco [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Jan 9]. Consequences of having illegal tobacco. Available from: <https://www.ontario.ca/page/illegal-tobacco#:~:text=Consequences%20of%20having%20illegal%20tobacco,201%20to%201%2C000%20unmarked%20cigarettes>
31. World Health Organization. Implementing citizen engagement within evidence-informed policy-making: an overview of purpose and methods. Geneva: World Health Organization; 2022. Available from: <https://www.who.int/publications/i/item/9789240061521>

32. Knibb-Lamouche J. Appendix A, Culture as a social determinant of health. In: Anderson K, Olson S, editors. Leveraging culture to address health inequalities. Washington, DC: National Academies Press; 2012. Available from: https://www.ncbi.nlm.nih.gov/books/NBK201294/pdf/Bookshelf_NBK201294.pdf
33. American Society of Addiction Medicine. Definition of addiction [Internet]. Rockville, MD: American Society of Addiction Medicine; [2019] [cited 2024 Feb 8]. Available from: <https://www.asam.org/quality-care/definition-of-addiction>
34. Health Canada. Canadian drugs and substances strategy: overview [Internet]. Ottawa, ON: Government of Canada; 2023 [cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy.html>
35. Centre for Addiction and Mental Health (CAMH). Addiction [Internet]. Toronto, ON: CAMH; c2023 [cited 2023 Dec 1]. Available from: <https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/addiction>
36. Health Officers Council of British Columbia. Public health perspectives for regulating psychoactive substances [Internet]. Vancouver, BC: City of Vancouver; 2011 [cited 2024 Feb 9]. Available from: <https://healthofficerscouncil.net/wp-content/uploads/2012/12/regulated-models-v8-final.pdf>
37. Centers for Disease Control and Prevention (CDC). Adverse childhood experiences (ACES) [Internet]. Atlanta, GA: CDC; 2020 [cited 2024 Jan 9]. Available from: <https://www.cdc.gov/violenceprevention/aces/index.html>
38. Smith BT, Warren CM, Andreacchi AT, Schwartz N, Hobin E. The joint effect of education and alcohol use on 100% alcohol-attributable hospitalization or death in Canada. *Epidemiology*. 2024;35(1):64-73. Available from: <https://doi.org/10.1097/EDE.0000000000001674>
39. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Health equity [Internet]. Toronto, ON: King's Printer for Ontario; c2024 [modified 2023 Aug 29; cited 2024 Jan 29]. Available from: <https://www.publichealthontario.ca/en/health-topics/health-equity>
40. Health Canada. Toxins in tobacco smoke [Internet]. Ottawa, ON: Government of Canada; 2023 [cited 2024 Feb 8]. What are toxins in tobacco smoke? Available from: <https://www.canada.ca/en/health-canada/services/health-concerns/tobacco/legislation/tobacco-product-labelling/tobacco-smoke-toxins.html>
41. BBC. The feminisation of alcohol marketing. BBC [Internet], 2020 Sep 24 [cited 2024 Feb 8]; Business. Available from: <https://www.bbc.com/worklife/article/20200924-the-feminisation-of-alcohol-marketing>
42. Global Center for Good Governance in Tobacco Control (GGTC). You are not smoking: you are taught to be a smoker [Internet]. Rangsit, Thailand: GGTC; [cited 2024 Feb 8]. Available from: <https://ggtc.world/actions/global-media-competition/past-entries/you-are-not-smoking-you-are-taught-to-be-a-smoker>
43. Bavli I. Industry influence and Health Canada's responsibility: lessons from the opioid epidemic in Canada. *Addiction*. 2020;115(9):1605-6. Available from: <https://doi.org/10.1111/add.14929>
44. National Institute for Drug Addiction (NIDA). New NIH study reveals shared genetic markers underlying substance use disorders [Internet]. Gaithersburg, MD: NIDA; 2023 [cited 2024 Feb 8]. Available from: <https://nida.nih.gov/news-events/news-releases/2023/03/new-nih-study-reveals-shared-genetic-markers-underlying-substance-use-disorders>
45. Health Canada. The Canadian Tobacco, Alcohol and Drugs Survey (CTADS): alcohol use among Canadians [Internet]. Ottawa, ON: Government of Canada; 2020 [cited 2024 Feb 8]. Available from: <https://health-infobase.canada.ca/alcohol/ctads/>
46. Keyes KM, Jager J, Mal-Sarkar T, Patrick ME, Rutherford C, Hasin D. Is there a recent epidemic of women's drinking? A critical review of national studies. *Alcohol Clin Exp Res*. 2019;43(7):1344-59. Available from: <https://doi.org/10.1111/acer.14082>
47. Erol A, Karpyak VM. Sex and gender-related differences in alcohol use and its consequences: contemporary knowledge and future research considerations. *Drug Alcohol Depend*. 2015;156:1-13. Available from: <https://doi.org/10.1016/j.drugalcdep.2015.08.023>
48. Foster KT, Hicks BM, Iacono WG, McGue M. Alcohol use disorder in women: Risks and consequences of an adolescent onset and persistent course. *Psychol Addict Behav*. 2014;28(2):322-35. Available from: <https://doi.org/10.1037/a0035488>
49. Health Canada. Canadian student tobacco, alcohol and drugs study [Internet]. Ottawa, ON: Government of Canada; 2023 [cited 2024 Feb 8]. Available from: <https://www.oacp.ca/en/news/oacp-statement-decriminalization-for-simple-possession-of-illicit-drugs.aspx>

50. National Institute of Drug Addiction (NIDA). Substance use while pregnant and breastfeeding [Internet]. Gaithersburg, MD: NIDA; 2024 [cited 2024 Feb 8]. Available from: <https://nida.nih.gov/publications/research-reports/substance-use-in-women/substance-use-while-pregnant-breastfeeding#:~:text=Research%20shows%20that%20use%20of,severe%20health%20consequences%20for%20infants>
51. Hamidullah S, Thorpe HHA, Frie JA, Mccurdy RD and Khokhar JY. Adolescent substance use and the brain: behavioral, cognitive and neuroimaging correlates. *Front Hum Neurosci*. 2020;14:298. Available from: <https://www.frontiersin.org/articles/10.3389/fnhum.2020.00298/full>
52. Rosic T, Kolla G, Leece P, Kitchen S, Gomes T. Trends in rates of opioid agonist treatment and opioid-related deaths for youths in Ontario, Canada, 2013-2021. *JAMA Netw Open*. 2023;6(7):e2321947. Available from: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2806862>
53. Varin M, Champagne A, Venugopal J, Li L, McFaul SR, Thompson W, et al. Trends in cannabis-related emergency department visits and hospitalizations among children aged 0-11 years in Canada from 2015 to 2021: spotlight on cannabis edibles. *BMC Public Health*. 2023;23(1):2067. Available from: <https://doi.org/10.1186/s12889-023-16987-9>
54. University of Ottawa. Cannabis poisoning in young children increased nine times after legalization [Internet]. Ottawa, ON: University of Ottawa; 2022 [cited 2024 Jan 29]. Available from: <https://www.uottawa.ca/about-us/media/news/cannabis-poisoning-young-children-increased-nine-times-afterlegalization>
55. Éducaloi. 7 things you should know about cannabis in Quebec [Internet]. Quebec, QC: Éducaloi; c2024 [cited 2024 Feb 9]. Available from: <https://educaloi.qc.ca/en/capsules/7-things-you-should-know-about-cannabis-in-quebec/>
56. Benny C, Andreacchi AT, Schwartz N, Hobin E, Smith BT. Socioeconomic differences in emergency department visits for wholly alcohol-attributable acute and chronic harms in Canada, 2003-2017. *Drug Alcohol Rev*. Forthcoming 2024.
57. Ontario Health. Prevention system quality index, 2023 [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Feb 9]. Available from: https://www.ontariohealth.ca/sites/ontariohealth/files/PSQI_2023_Report_English.pdf
58. Gomes T, Murray R, Kolla G, Leece P, Bansal S, Besharah J, et al.; Ontario Drug Policy Research Network; Office of the Chief Coroner for Ontario; Ontario Agency for Health Protection and Promotion (Public Health Ontario). Changing circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic [Internet]. Toronto, ON: Ontario Drug Policy Research Network; 2021 [cited 2024 Jan 19]. Available from: <https://www.publichealthontario.ca/-/media/documents/c/2021/changing-circumstances-surrounding-opioid-related-deaths.pdf?la=en>
59. Butler A, Croxford R, Bodkin C, Akbari H, Bayoumi AM, Bondy SJ, et al. Burden of opioid toxicity death in the fentanyl-dominant era for people who experience incarceration in Ontario, Canada, 2015–2020: a whole population retrospective cohort study. *BMJ Open*. 2023;13:e071867. Available from: <https://doi.org/10.1136/bmjopen-2023-071867>
60. Ontario Agency for Health Protection and Promotion (Public Health Ontario); Indigenous Primary Health Care Council. Substance use services with, and for, Indigenous communities [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Feb 8]. Joint publication with Indigenous Primary Health Care Council. Available from: https://www.publichealthontario.ca/-/media/Documents/S/2023/substance-use-services-indigenous-communities.pdf?rev=c50da5f26fea491caf6bfc937a0d9060&sc_lang=en
61. First Nations Health Authority. First Nations and the toxic drug poisoning crisis in BC [Internet]. Vancouver, BC: First Nations Health Authority; 2022 [cited 2024 Feb 8]. Available from: <https://www.fnha.ca/Documents/FNHA-First-Nations-and-the-Toxic-Drug-Poisoning-Crisis-in-BC-Jan-Dec-2022.pdf>
62. Chiefs of Ontario; Ontario Drug Policy Research Network. Opioid use, related harms, and access to treatment, among First Nations in Ontario annual update, 2013-2021 [Internet]. Toronto, ON: Chiefs of Ontario; 2023 [cited 2024 Feb 8]. Available from: <https://odprn.ca/wp-content/uploads/2023/11/Opioid-Use-Among-First-Nations-Annual-Update-2023.pdf>
63. Health Canada. Overview of Canada's tobacco strategy [Internet]. Ottawa, ON: Government of Canada; 2018 [cited 2024 Jan 19]. Available from: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/canada-tobacco-strategy/overview-canada-tobacco-strategy.html>
64. First Nations Information Governance Centre (FNIGC). National report of the First Nations regional health survey. Phase 3: volume one. Ottawa, ON: FNIGC; 2018. Available from: https://fnigc.ca/wp-content/uploads/2020/09/713c8fd606a8eeb021debc927332938d_FNIGC-RHS-Phase-III-Report1-FINAL-VERSION-Dec.2018.pdf

65. Mental Health Commission of Canada; Canadian Centre on Substance Use and Addiction; Métis National Council. The state of Métis knowledge on cannabis and mental health in Canada [Internet]. Ottawa, ON: Métis National Council; 2022 [cited 2024 Jan 22]. Available from: [https://www.metisnation.ca/uploads/documents/State%20of%20Knowledge%20Canabis%20Report%202022\[5\].pdf](https://www.metisnation.ca/uploads/documents/State%20of%20Knowledge%20Canabis%20Report%202022[5].pdf)
66. Paradis C, Butt P, Shield K, Poole N, Wells S; Low-Risk Alcohol Drinking Guidelines Scientific Expert Panels. Canada's guidance on alcohol and health: final report. Ottawa, ON: Canadian Centre on Substance Use and Addiction; 2023. Available from: https://www.ccsa.ca/sites/default/files/2023-01/CCSA_Canadas_Guidance_on_Alcohol_and_Health_Final_Report_en.pdf
67. Chiefs of Ontario; Ontario Drug Policy Research Network. Opioid use, related harms, and access to treatment among First Nations in Ontario: annual update 2013-2021 [Internet]. Toronto, ON: Chiefs of Ontario; 2023 [cited 2024 Jan 22]. Available from: <https://odprn.ca/research/publications/opioid-first-nations-annual-update-2013-2021/>
68. Kirkup K. Lack of services contributing to Indigenous mental health crisis: frontline workers. CTV News [Internet], 2016 Nov 17 [cited 2024 Feb 20]; Health. Available from: <https://www.ctvnews.ca/health/lack-of-services-contributing-to-indigenous-mental-health-crisis-frontline-workers-1.3178797?cache=yesclipid10406200text%2Fhtml%3Bcharset%3Dutf-80404%2F7.258454%2F7.632243%2F7.452950>
69. Statistics Canada. 2021 census of population [Internet]. Ottawa, ON: Government of Canada; 2022 [cited 2024 Feb 20]. Table 98-10-0264-01 Indigenous identity by Registered or Treaty Indian status and residence by Indigenous geography: Canada, provinces and territories. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810026401>
70. Crown-Indigenous Relations and Northern Affairs Canada. Indigenous people and communities. Ottawa, ON: Government of Canada; [2024] [modified 2024 Jan 16; cited 2024 Feb 8]. Available from: <https://www.rcaanc-cirnac.gc.ca/eng/1100100013785/1529102490303>
71. Dowling BA, Grigsby TJ, Ziomek GJ, Schnarrs PW. Substance use outcomes for sexual and gender minority adults with a history of adverse childhood experiences: a scoping review. Drug Alcohol Dep Rep. 2022;6:100129. Available from: <https://doi.org/10.1016/j.dadr.2022.100129>
72. Canadian Mental Health Association Ontario (CMHA). Lesbian, gay, bisexual, trans & queer identified people and mental health [Internet]. Toronto, ON: CMHA; 2024 [cited 2024 Jan 23]. Available from: [https://ontario.cmha.ca/documents/lesbian-gay-bisexual-trans-queer-identified-people-and-mental-health/#:~:text=Some%20research%20suggests%20that%20use,LGBT%20people%20than%20heterosexual%20people&text=A%20Toronto%2Dbased%20study%20found,than%20other%20adults%20\(17%25\)](https://ontario.cmha.ca/documents/lesbian-gay-bisexual-trans-queer-identified-people-and-mental-health/#:~:text=Some%20research%20suggests%20that%20use,LGBT%20people%20than%20heterosexual%20people&text=A%20Toronto%2Dbased%20study%20found,than%20other%20adults%20(17%25))
73. Health Canada. Canadian cannabis survey 2022: summary [Internet]. Ottawa, ON: Government of Canada; 2022 [modified 2021 Dec 23; cited 2024 Feb]. Cannabis use and products used. Available from: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/research-data/canadian-cannabis-survey-2022-summary.html>
74. Hughes TL, Wilsnack SC, Kantor LW. The influence of gender and sexual orientation on alcohol use and alcohol-related problems: toward a global perspective. Alcohol Res. 2016;38(1):121-32. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872607/>
75. Kelly L. Workers in construction, mining most impacted by opioid-related harm: research. Republic of Mining [Internet], 2023 Jul 4 [cited 2024 Jan 23]. Available from: <https://republicofmining.com/2023/07/04/workers-in-construction-mining-most-impacted-by-opioid-related-harm-research-by-lindsay-kelly-northern-ontario-business-june-30-2023/>
76. Government of Canada. Cannabis in Canada: get the facts [Internet]. Ottawa, ON: Government of Canada; [2019] [modified 2021 Mar 11; cited 2024 Jan 24]. The long-term risks of cannabis use. Available from: <https://www.canada.ca/en/services/health/campaigns/cannabis/health-effects.html#a2>
77. Ontario. Ministry of Children, Community and Social Services. Building a strong foundation for success: reducing poverty in Ontario (2020-2025) [Internet]. Toronto, ON: King's Printer Ontario; 2020 [cited 2024 Jan 24]. Available from: <https://www.ontario.ca/page/building-strong-foundation-success-reducing-poverty-ontario-2020-2025>
78. Nuffield Council on Bioethics. Public health: ethical issues [Internet]. London: Nuffield Council on Bioethics; 2007 [cited 2024 Jan 24]. Available from: <https://www.nuffieldbioethics.org/publications/public-health>
79. Health Canada. Canada to become first country in the world to require health warnings in individual cigarettes [Internet]. Ottawa, ON: Government of Canada; 2023 [cited 2024 Jan 24]. Available from: <https://www.canada.ca/en/health-canada/news/2023/05/canada-to-become-first-country-in-the-world-to-require-health-warnings-on-individual-cigarettes.html>

80. World Health Organization (WHO). Promoting taxation of tobacco products [Internet]. Geneva: WHO; 2024 [cited 2024 Jan 24]. Available from: <https://www.who.int/europe/activities/promoting-taxation-on-tobacco-products#:~:text=The%20World%20Health%20Organization%20recommends.53%20countries%20in%20the%20>
81. Ontario Ministry of Children, Community and Social Services. Healthy Babies Healthy Children program [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [updated 2023 Oct 31; cited 2024 Jan 24]. Available from: <https://www.ontario.ca/page/healthy-babies-healthy-children-program>
82. Gardner C (alPHA President, Toronto, ON). Memorandum to: Parsa M, Minister of Children, Community and Social Services. Re: 2023 review of the Child, Youth and Family Services Act, 2017 (CYFSA) [Internet]. Toronto, ON: Association of Local Public Health Agencies; 2023 [cited 2024 Jan 24]. Available from: <https://www.ontario.ca/page/2023-review-child-youth-and-family-services-act-2017-cyfsa>
83. Nurse-Family Partnerships. Nurse-Family Partnership and substance abuse [Internet]. Denver, CO: Nurse-Family Partnership; 2017 [cited 2024 Jan 24]. Available from: https://www.nursefamilypartnership.org/wp-content/uploads/2017/11/NFP-and-Substance-Abuse_final.pdf
84. Nurse-Family Partnership Canada. What is Nurse-Family Partnership? [Internet]. Hamilton, ON: McMaster University; [cited 2024 Jan 25]. Available from: <https://nursefamilypartnership.ca>
85. Ontario. Ministry of Children, Community and Social Services. Youth in Ontario [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [updated 2023 Oct 25; cited 2024 Jan 24]. Available from: <https://www.ontario.ca/page/youth-ontario>
86. PreVenture. A preventative mental health program for teens [Internet]. Montréal, QC: Conrad Venture Lab; 2022 [cited 2024 Jan 25]. Available from: https://preventureprogram.com/?gclid=CjwKCAiAvdCrBhBREiwAX6-6UoxJGD23hsGbxKHqP0fn-e0tHloOIQnzG6yDNAnGakscRIGHzJnqvxoCmRQQA_vD_BwE
87. Ontario. Ministry of Education. Policy/program memorandum 169 [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [updated 2024 Feb 5; cited 2024 Feb 20]. Section 3, Requirements for school boards. Available from: <https://www.ontario.ca/document/education-ontario-policy-and-program-direction/policyprogram-memorandum-169>
88. United Way East Ontario. Together we can prevent addiction before it becomes a problem [Internet]. Ottawa, ON; United Way; 2024 [cited 2024 Feb 9]. Available from: <https://project-step.ca>
89. Government of Ontario. Cross-curricular and integrated learning [Internet]. Toronto, ON: King's Printer for Ontario; 2024 [cited 2024 Jan 25]. Available from: <https://www.dcp.edu.gov.on.ca/en/program-planning/cross-curricular-and-integrated-learning>
90. Not An Experiment. Don't treat your health like an experiment [Internet]. Barrie, ON: Simcoe Muskoka District Health Unit; c2024 [cited 2024 Jan 25]. Available from: <https://www.notanexperiment.ca/>
91. Canadian AIDS Treatment Information Exchange (CATIE). Indigenous-centred approaches to harm reduction and hepatitis C programs [Internet]. Toronto, ON: CATIE; [cited 2024 Jan 25]. Available from: <https://www.catie.ca/indigenous-centred-approaches-to-harm-reduction-and-hepatitis-c-programs>
92. Ontario Federation of Indigenous Friendship Centres (OFIFC). USAI (utility, self-voicing, access, inter-relationality) research framework [Internet]. 2nd ed. Toronto, ON: OFIFC; 2016 [cited 2024 Feb 8]. Available from: <https://ofifc.org/wp-content/uploads/2020/03/USAI-Research-Framework-Second-Edition.pdf>
93. Statistics Canada. Canadian Community Health Survey (CCHS) – 2015 [archived; Internet]. Ottawa, ON: Government of Canada; [2015] [archived; modified 2016 Jan 11; cited 2024 Jan 24]. Available from: https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&Item_Id=238890
94. Statistics Canada. Canadian Community Health Survey (CCHS) – 2016 [archived; Internet]. Ottawa, ON: Government of Canada; [2016] [archived; modified 2018 Apr 26; cited 2024 Jan 24]. Available from: https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&Item_Id=260675
95. Statistics Canada. Census profile, 2016 census [Internet]. Ottawa, ON: Government of Canada; 2017 [modified 2021 Oct 27; cited 2024 Jan 24]. Available from: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
96. Kristjansson A, Sigfusdottir I, Sigfusson J. Planet youth – ‘the Icelandic model’: application of environmental prevention principles based on a systematic local assessment of risk and protective factors [Internet]. Lisbon: European Monitoring Centre for Drugs and Drug Addiction; 2020 [cited 2024 Jan 25]. Available from: https://www.emcdda.europa.eu/best-practice/xchange/planet-youth-%E2%80%94-icelandic-model-application-environmental-prevention-principles-based-systematic-local-assessment-risk-and-protective-factors_en#:~:text=The%20Iceland%20model%20is%20an,drug%20consumption%20among%20young%20people

97. Canadian Mental Health Association (CMHA), Ontario. Housing first: the path to recovery [Internet]. Toronto, ON: CMHA Ontario; 2021 [cited 2024 Jan 25]. Available from: https://ontario.cmha.ca/wp-content/uploads/2021/07/CMHAOn_Housing_First_2020_FINAL.pdf
98. Institute for Work & Health; Occupational Cancer Research Centre; Ontario Health. Opioids and work data tool [Internet]. Toronto, ON: Institute for Work & Health; 2022 [cited 2024 Jan 25]. Available from: <https://www.opioidsandwork.ca/data-tool>
99. National Institute of Environmental Health Sciences (NIEHS). Opioids and substance use: workplace prevention & response [Internet]. Durham, NC: NIEHS; 2022 [cited 2024 Jan 25]. Available from: <https://tools.niehs.nih.gov/wetp/index.cfm?id=2587>
100. Raza A. Ontario builders' group launches campaign to prevent opioid deaths among construction workers. CBC News [Internet], 2021 May 31 [cited 2024 Jan 25]; Toronto. Available from: <https://www.cbc.ca/news/canada/toronto/construction-opioid-deaths-campaign-1.6046833>
101. Ontario Newsroom; Ministry of Labour, Immigration, Training and Skills Development. Ontario now requires naloxone kits in at-risk workplaces [Internet]. News Release. Toronto, ON: King's Printer for Ontario; 2023 Jun 1 [cited 2024 Jan 25]. Available from: <https://news.ontario.ca/en/release/1003121/ontario-now-requires-naloxone-kits-in-at-risk-workplaces>
102. Huggins R, Farquharson T, Walker J. Ontario Association Chief of Police statement decriminalization for simple possession of illicit drugs [Internet]. OACP Statement. Toronto, ON: Ontario Association Chief of Police; 2020 [cited 2024 Jan 25]. Available from: <https://www.oacp.ca/en/news/oacp-statement-decriminalization-for-simple-possession-of-illicit-drugs.aspx>
103. Berg D, Burke H. Drug treatment courts: an evidence-based review with recommendations for improvement [Internet]. Ottawa, ON: Canadian Centre on Substance Use and Addiction; 2023 [cited 2024 Feb 20]. Available from: <https://www.ccsa.ca/sites/default/files/2023-11/Drug%20Treatment-Courts-Review-and-Recommendations-en.pdf>
104. Institute for Health Metrics and Evaluation (IHME). GBD Compare data visualization [Internet]. Seattle, WA: University of Washington; 2020 [cited 2024 Feb 8]. Available from: <http://www.healthdata.org/data-visualization/gbd-compare>
105. United States. Food and Drug Administration (FDA). Tobacco 21 [Internet]. Silver Spring, MD: FDA; 2021 [cited 2024 Feb 9]. Available from: [https://www.fda.gov/tobacco-products/retail-sales-tobacco-products/tobacco-21#:~:text=This%20legislation%20\(known%20as%20%E2%80%9CTobacco,cigarettes%E2%80%94to%20anyone%20under%2021](https://www.fda.gov/tobacco-products/retail-sales-tobacco-products/tobacco-21#:~:text=This%20legislation%20(known%20as%20%E2%80%9CTobacco,cigarettes%E2%80%94to%20anyone%20under%2021)
106. Rehm J. Minimum legal drinking age—still an underrated alcohol control policy. *Lancet Public Health*. 2023;8(5):e321-2. Available from: [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(23\)00054-3/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(23)00054-3/fulltext)
107. Canadian Centre on Substance Abuse (CCSA). The impact and effectiveness of minimum legal drinking age legislation in Canada [Internet]. Ottawa, ON: CCSA; 2019 [cited 2024 Jan 25]. Available from: <https://www.ccsa.ca/impact-and-effectiveness-minimum-legal-drinking-age-legislation-canada>
108. Babor TF, Casswell S, Graham K, Huckle T, Livingston M, Österberg E, editors. Alcohol: no ordinary commodity—research and public policy. 3rd ed. Oxford: Oxford University Press; 2023. Available from: <https://fdslive.oup.com/www.oup.com/academic/pdf/openaccess/9780192844484.pdf>
109. Baldwin R, Miller PG, Coomber K, Patafio B, Scott D. A systematic narrative review of the effects of alcohol supply reduction policies on children and adolescents. *Int J Drug Policy*. 2022;101:103581. Available from: <https://doi.org/10.1016/j.drugpo.2022.103581>
110. Smoke-Free Ontario Act, 2017, SO 2017, c 26, Sched 3. Available from: <https://www.ontario.ca/laws/statute/17s26>
111. Chaiton M, Mecredy G, Rehm J, Samokhvalov AV. Tobacco retail availability and smoking behaviours among patients seeking treatment at a nicotine dependence treatment clinic. *Tob Induced Dis*. 2014;12(1):19. Available from: <https://doi.org/10.1186/1617-9625-12-19>
112. Seale E, Sturrock SL, Widener MJ, Myran DT. The availability and distribution of vaping retailers across Ontario neighbourhoods, 2016-2019. *Can J Public Health*. 2023;114(3):493-501. Available from: <https://doi.org/10.17269/s41997-022-00718-5>
113. Felsing R, Groman E. Price policy and taxation as effective strategies for tobacco control. *Front Public Health*. 2022;10:851740. Available from: <https://doi.org/10.3389/fpubh.2022.851740>

114. World Health Organization (WHO). SAFER: raise prices on alcohol through excise taxes and pricing policies [Internet]. Geneva: WHO; 2024 [cited 2024 Jan 25]. Available from: <https://www.who.int/initiatives/SAFER/pricing-policies#:~:text=Alcohol%20taxation%20and%20pricing%20policies.of%20harmful%20use%20of%20alcohol>
115. Iacobucci G. Minimum unit pricing in Scotland is associated with 13% fall in alcohol deaths, study finds. *BMJ*. 2023;380:p672. Available from: <https://doi.org/10.1136/bmj.p672>
116. Wyper G, Mackay D, Fraser C, Lewsey J, Robinson M, Beeston C, et al. Evaluating the impact of alcohol minimum unit pricing on deaths and hospitalisations in Scotland: a controlled interrupted time series study. *Lancet*. 2023;401(10385):1361-70. Available from: <https://www.sciencedirect.com/science/article/pii/S014067362300497X?via%3Dihub>
117. National Bureau of Economic Research. The effect of advertising on tobacco and alcohol consumption. *Reporter* [Internet], 2023 Dec 1 [cited 2024 Feb 9]. Available from: <https://www.nber.org/reporter/winter-2003/4/effect-advertising-tobacco-and-alcohol-consumption>
118. Ontario. Ministry of Health. Tobacco, vapour and smoke protocol, 2021. Toronto, ON: Queen's Printer for Ontario; 2021. Available from: <https://files.ontario.ca/moh-tobacco-vapour-smoke-protocol-en-2021.pdf>
119. Canadian Centre on Substance Use and Addiction (CCSA). Cannabis legalization in Canada: observations, policy brief 2022 [Internet]. Ottawa, ON: CCSA; 2022 [cited 2024 Jan 30]. Available from: <https://www.ccsa.ca/sites/default/files/2022-06/CCSA-Cannabis-Legalization-2021-2022-Observations-Policy-Brief-2022-en.pdf>
120. Grow Trade Consulting, Inc. Non-alcoholic beverage trends in Canada [Internet]. Toronto, ON: Grow Trade Consulting, Inc.; 2023 [cited 2024 Jan 26]. Available from: <https://growtrade.ca/2023/04/26/non-alcoholic-beverage-trends-in-canada/>
121. University of Toronto. Virtual 'spotting' could help keep drug users safe during COVID-19, U of T researchers say. *U of T News* [Internet], 2021 Apr 26 [cited 2024 Jan 26]. Available from: <https://www.utoronto.ca/news/virtual-spotting-could-help-keep-drug-users-safe-during-covid-19-u-t-researchers-say#:~:text=Latest%20news-Virtual%20%27spotting%27%20could%20help%20keep%20drug%20users%20safe%20during%20COVID,model%20known%20as%20%22spotting.%22>
122. Health Canada. About the Good Samaritan Drug Overdose Act [Internet]. Ottawa, ON: Government of Canada; 2021 [cited 2024 Jan 26]. Available from: <https://www.canada.ca/en/health-canada/services/opioids/about-good-samaritan-drug-overdose-act.html>
123. Government of Ontario. Roadmap to wellness: a plan to build Ontario's mental health and addictions system [Internet]. Toronto, ON: King's Printer for Ontario; 2020 [cited 2024 Jan 26]. Available from: <https://www.ontario.ca/page/roadmap-wellness-plan-build-ontarios-mental-health-and-addictions-system>
124. Paul LA, Bayoumi AM, Chen C, Kocovska E, Smith BT, Raboud JM, et al. Evaluation of the gap in delivery of opioid agonist therapy among individuals with opioid-related health problems: a population-based retrospective cohort study. *Addiction*. 2023;118(4):686-97. Available from: <https://doi.org/10.1111/add.16096>
125. Centre for Addiction and Mental Health (CAMH). Treating high-risk drinking, alcohol use disorder: new Canadian guideline [Internet]. *CAMH News & Stories* [Internet], 2023 Oct 16 [cited 2024 Jan 26]. Available from: <https://www.camh.ca/en/camh-news-and-stories/treating-high-risk-drinking-alcohol-use-disorder-new-canadian-guideline>
126. Ray LA, Meredith L, Kiluk B, Walthers J, Carroll KM, Magill M. Combined pharmacotherapy and cognitive behavioral therapy for adults with alcohol or substance use disorders: a systematic review and meta-analysis. *JAMA Netw Open*. 2020;3(6):e208279. Available from: <https://doi.org/10.1001/jamanetworkopen.2020.8279>
127. Health Canada. Canadian Tobacco and Nicotine Survey (CTNS): 2019 detailed tables [Internet]. Ottawa, ON: Government of Canada; [2019] [modified 2020 Jul 7; cited 2024 Feb 8]. Table 2: Smoking status, by province and age group, 2022. Available from: <https://www.canada.ca/en/health-canada/services/canadian-tobacco-nicotine-survey/2019-summary/2019-detailed-tables.html#t2>
128. Health Canada. Canadian Tobacco and Nicotine Survey (CTNS): 2019 detailed tables [Internet]. Ottawa, ON: Government of Canada; [2019] [modified 2020 Jul 7; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/canadian-tobacco-nicotine-survey/2019-summary/2019-detailed-tables.html>
129. Health Canada. Smoking and your body: health effects of smoking [Internet]. Ottawa, ON. Government of Canada; 2023 [cited 2024 Jan 26]. Available from: <https://www.canada.ca/en/health-canada/services/health-concerns/tobacco/smoking-your-body.html>

130. Centers for Disease Control and Prevention (CDC). What are the risk factors for lung cancer? [Internet]. Atlanta, GA: CDC; [2023] [cited 2024 Jan 26]. Available from: https://www.cdc.gov/cancer/lung/basic_info/risk_factors.htm
131. Centers for Disease Control and Prevention (CDC). Tobacco and cancer [Internet]. Atlanta, GA: CDC; [2023] [cited 2024 Jan 26]. Available from: <https://www.cdc.gov/cancer/tobacco/index.htm>
132. Ontario Health; Ontario Agency for Health Protection and Promotion (Public Health Ontario). Burden of health conditions attributable to smoking and alcohol by public health unit in Ontario. Toronto, ON: King's Printer for Ontario; 2023. Available from: <https://www.publichealthontario.ca/-/media/Documents/B/2023/burden-health-smoking-alcohol-report.pdf>
133. Health Canada. Second-hand smoke [Internet]. Ottawa, ON: Government of Canada; 2023 [cited 2024 Jan 29]. Available from: <https://www.canada.ca/en/health-canada/services/health-concerns/tobacco/legislation/tobacco-product-labelling/second-hand-smoke.html>
134. Canadian Substance Use Costs and Harms Scientific Working Group. Ontario profile: Canadian substance use costs and harms (2007–2020) [Internet]. Ottawa, ON: Canadian Centre on Substance Use and Addiction; 2023 [cited 2024 Jan 29]. Available from: <https://csuch.ca/documents/reports/english/Canadian-Substance-Use-Costs-and-Harms-Report-2023-en.pdf>
135. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Youth trends in Ontario – vaping [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [cited 2024 Jan 29]. Available from: https://www.publichealthontario.ca/-/media/Documents/Y/2021/youth-health-trends-vaping.PDF?rev=5e2a7960d12f45ceaae1287758039253&sc_lang=en
136. Cameron JM, Howell DN, White JR, Andrenyak DM, Layton ME, Roll JM. Variable and potentially fatal amounts of nicotine in e-cigarette nicotine solutions. *Tob Control*. 2013;23(1):77-8. Available from: <https://doi.org/10.1136/tobaccocontrol-2012-050604>
137. England LJ, Bunnell RE, Pechacek TF, Tong VT, McAfee TA. Nicotine and the developing human: a neglected element in the electronic cigarette debate. *Am J Prev Med*. 2015;49(2):286-93. Available from: <https://doi.org/10.1016/j.amepre.2015.01.015>
138. Yuan M, Cross SJ, Loughlin SE, Leslie FM. Nicotine and the adolescent brain. *J Physiol*. 2015;593(16):3397-412. Available from: <https://doi.org/10.1113/JP270492>
139. Hammond D, Reid JL. Trends in vaping and nicotine product use among youth in Canada, England and the USA between 2017 and 2022: evidence to inform policy. *Tob Control*. 2023 Nov 8 [Epub ahead of print]. Available from: <https://doi.org/10.1136/tc-2023-058241>
140. Zuckermann AME, Williams G, Battista K, de Groh M, Jiang Y, Leatherdale ST. Trends of poly-substance use among Canadian youth. *Addict Behav Rep*. 2019;10:100189. Available from: <https://doi.org/10.1016/j.abrep.2019.100189>
141. Jones K, Salzman GA. The vaping epidemic in adolescents. *Missouri Med*. 2020;117(1):56-8. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7023954/>
142. Health Canada. Canadian Tobacco and Nicotine Survey (CTNS): 2020 detailed tables [Internet]. Ottawa, ON: Government of Canada; [2020] [modified 2022 Apr 27; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/canadian-tobacco-nicotine-survey/2020-summary/2020-detailed-tables.html>
143. Health Canada. Canadian Tobacco and Nicotine Survey (CTNS): 2021 detailed tables [Internet]. Ottawa, ON: Government of Canada; [2021] [modified 2023 Jul 06; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/canadian-tobacco-nicotine-survey/2021-summary/2021-detailed-tables.html>
144. Health Canada. Canadian Tobacco and Nicotine Survey (CTNS): 2022 detailed tables [Internet]. Ottawa, ON: Government of Canada; [2022] [modified 2023 Sep 19; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/canadian-tobacco-nicotine-survey/2022-summary/2022-detailed-tables.html>
145. Health Canada. Risks of vaping [Internet]. Ottawa, ON: Government of Canada; [2023] [cited 2024 Jan 29]. Available from: <https://www.canada.ca/en/health-canada/services/smoking-tobacco/vaping/risks.html>
146. Gottlieb S, Zeller M. A nicotine-focused framework for public health. *New Eng J Med*. 2017;377(12):1111-4. Available from: <https://doi.org/10.1056/NEJMp1707409>
147. Health Canada. Risks of vaping [Internet]. Ottawa, ON: Government of Canada; [2023] [cited 2024 Jan 29]. Other chemicals in vaping aerosol. Available from: <https://www.canada.ca/en/health-canada/services/smoking-tobacco/vaping/risks.html#a3>

148. Hecht SS, Szabo E. Fifty years of tobacco carcinogenesis research: from mechanisms to early detection and prevention of lung cancer. *Cancer Prev Res.* 2014;7(1):1-8. Available from: <https://doi.org/10.1158/1940-6207.CAPR-13-0371>
149. Physicians for a Smoke-Free Canada. Taxes on cigarettes in Canadian jurisdictions [Internet]. Ottawa, ON: Physicians for a Smoke-Free Canada; 2024 [cited 2024 Jan 29]. Available from: https://www.smoke-free.ca/pdf_1/taxrates.pdf
150. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Evidence brief: health impacts of waterpipe smoking and exposure [internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2024 Jan 29]. Available from: <https://www.publichealthontario.ca/-/media/Documents/E/2021/eb-waterpipe-smoking-exposure.pdf?rev=cac98a436d3246cdb4aee6ba539daefa&la=fr>
151. Hartmann-Boyce J, Lindson N, Butler AR, McRobbie H, Bullen C, Begh R, et al. Electronic cigarettes for smoking cessation. *Cochrane Database Syst Rev.* 2022;11(11):CD010216. Available from: <https://doi.org/10.1002/14651858.CD010216.pub7>
152. Banks E, Yazidjoglou A, Brown S, Nguyen M, Martin M, Beckwith K, et al. Electronic cigarettes and health outcomes: umbrella and systematic review of the global evidence. *Med J Aust.* 2023;218(6):267-75. Available from: <https://doi.org/10.5694/mja2.51890>
153. World Health Organization. Electronic cigarettes: call to action [Internet]. Geneva: World Health Organization; [cited 2024 Jan 29]. Available from: [https://www.who.int/publications/m/item/electronic-cigarettes--call-to-action#:~:text=Download%20\(366.4%20kB\)-,Overview.health%20harms%20to%20the%20population](https://www.who.int/publications/m/item/electronic-cigarettes--call-to-action#:~:text=Download%20(366.4%20kB)-,Overview.health%20harms%20to%20the%20population)
154. Heart and Stroke Foundation of Canada. Heart & Stroke applauds Ontario government for opting into vape tax [Internet]. Toronto, ON: Heart and Stroke Foundation of Canada; 2023 [cited 2024 Jan 30]. Available from: <https://www.heartandstroke.ca/what-we-do/media-centre/news-releases/heart-and-stroke-applauds-ontario-government-for-opting-into-vape-tax>
155. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Smoke-free series: post-consumer waste of tobacco and vaping products [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Jan 29]. Available from: https://www.publichealthontario.ca/-/media/Documents/S/2021/synthesis-post-consumer-waste.pdf?rev=78625fd24cdc4641a439856645a00b15&sc_lang=en
156. Aziz S. Ontario joins federal vaping tax. What about other provinces? *Global News* [Internet], 2023 Nov 8 [cited 2024 Jan 30]. Available from: <https://globalnews.ca/news/10078342/vaping-taxes-canada/#:~:text=Ontario%20is%20the%20first%20province.in%20effect%20since%20October%202022.&text=British%20Columbia%2C%20Nova%20Scotia%2C%20Saskatchewan.in%20place%20on%20vaping%20products>
157. Euromonitor International Consulting. Study of the market size, characteristics, and growth trends of the vaping products market in Canada: a custom report compiled by Euromonitor International for Health Canada. London: Euromonitor International Consulting; 2022.
158. United States. National Institute of Justice. The evolution and impact of electronic cigarettes [Internet]. Washington, DC: Department of Justice; 2020 [cited 2024 Jan 30]. Available from: <https://nij.ojp.gov/topics/articles/evolution-and-impact-electronic-cigarettes>
159. Ottawa Model for Smoking Cessation. About the Ottawa Model [Internet]. Ottawa, ON: University of Ottawa Heart Institute; c2024 [cited 2024 Feb 9]. Available from: <https://ottawamodel.ottawaheart.ca/about-omsc/about-ottawa-model>
160. Health Canada. Canadian Alcohol and Drugs Survey (CADS): summary of results for 2019 [Internet]. Ottawa, ON: Government of Canada; [2019] [modified 2023 Jun 28; cited 2024 Feb 8]. Available from: <https://www.canada.ca/en/health-canada/services/canadian-alcohol-drugs-survey/2019-summary.html>
161. Nigatu YT, Hamilton HA. CAMH monitor e-report: substance use, mental health and well-being among Ontario adults, 1977-2023. Toronto, ON: Centre for Addiction and Mental Health; 2023. Available from: https://www.camh.ca/-/media/research-files/camh-monitor-2023-full-report_final-pdf.pdf
162. Cooke M, Milicic S, MacDonald JA, Asbridge M, Guindon E, Muhajarine N, et al.; Propel Centre for Population Health Impact. Provincial patterns and trends in cannabis use: Ontario [Internet]. Waterloo, ON: Canadian Centre on Substance Use and Addiction; 2020 [cited 2024 Jan 30]. Available from: <https://www.ccsa.ca/sites/default/files/2020-02/CCSA-Provincial-Patterns-Trends-Cannabis-Use-Youth-Ontario-Report-2020-en.pdf>
163. Fischer B, Lee A, Robinson T, Hall W. An overview of select cannabis use and supply indicators pre- and post-legalization in Canada. *Subst Abuse Treat Prev Policy.* 2021;16(1):77. Available from: <https://doi.org/10.1186/s13011-021-00405-7>

164. Hammond D, Wadsworth E, Reid JL, Burkhalter R. Prevalence and modes of cannabis use among youth in Canada, England, and the US, 2017 to 2019. *Drug Alcohol Depend.* 2021;219:108505. Available from: <https://doi.org/10.1016/j.drugalcdep.2020.108505>
165. Zuckermann AME, Battista KV, Bélanger RE, Haddad S, Butler A, Costello MJ, Leatherdale ST. Trends in youth cannabis use across cannabis legalization: data from the COMPASS prospective cohort study. *Prev Med Rep.* 2021;22:101351. Available from: <https://doi.org/10.1016/j.pmedr.2021.101351>
166. Hammond D, Corsetti D, Fataar F, Iraniparast M, Danh Hong D, Burkhalter R. International cannabis policy study - Canada 2022 summary [Internet]. Waterloo, ON: University of Waterloo; 2023 [cited 2024 Jan 30]. Available from: <https://davidhammond.ca/projects/drugs-policy/illegal-drug-use-among-youth/>
167. Myran DT, Harrison LD, Pugliese M, Solmi M, Anderson KK, Fiedorowicz JG, et al. Transition to schizophrenia spectrum disorder following emergency department visits due to substance use with and without psychosis. *JAMA Psychiatry.* 2023;80(11):1169-74. Available from: <https://doi.org/10.1001/jamapsychiatry.2023.3582>
168. Ontario. Ministry of Health. Health effects of cannabis [Internet]. Toronto, ON: King's Printer for Ontario; 2019 [modified 2022 Mar 4; cited 2024 Jan 30]. About consuming cannabis. Available from: <https://www.ontario.ca/page/health-effects-cannabis#section-1>
169. Chu F, Cascella M. Cannabinoid hyperemesis syndrome. Treasure Island, FL: StatPearls Publishing; 2024. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK549915/>
170. Myran DT, Roberts R, Pugliese M, Taljaard M, Tanuseputro P, Pacula RL. Changes in emergency department visits for cannabis hyperemesis syndrome following recreational cannabis legalization and subsequent commercialization in Ontario, Canada. *JAMA Netw Open.* 2022;5(9):e2231937. Available from: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2796355>
171. Callaghan RC, Sanches M, Murray RM, Konefal S, Maloney-Hall B, Kish SJ. Associations between Canada's cannabis legalization and emergency department presentations for transient cannabis-induced psychosis and schizophrenia conditions: Ontario and Alberta, 2015-2019. *Can J Psychiatry.* 2022;67(8):616-25. Available from: <https://doi.org/10.1177/07067437211070650>
172. Myran DT, Pugliese M, Tanuseputro P, Cantor N, Rhodes E, Taljaard M. The association between recreational cannabis legalization, commercialization and cannabis-attributable emergency department visits in Ontario, Canada: an interrupted time-series analysis. *Addiction.* 2022;117:1952-60. Available from: <https://doi.org/10.1111/add.15834>
173. Coret A, Rowan-Legg A. Unintentional cannabis exposures in children pre- and post-legalization: a retrospective review from a Canadian paediatric hospital. *Paediatr Child Health.* 2022;27(5):265-71. Available from: <https://doi.org/10.1093/pch/pxab090>
174. Myran DT, Tanuseputro P, Auger N, Konikoff L, Talarico R, Finkelstein Y. Pediatric hospitalizations for unintentional cannabis poisonings and all-cause poisonings associated with edible cannabis product legalization and sales in Canada. *JAMA Health Forum.* 2023;4(1):e225041. Available from: <https://doi.org/10.1001/jamahealthforum.2022.5041>
175. Myran DT, Roberts R, Pugliese M, Corsi D, Walker M, El-Chaâr D, Tanuseputro P, Simpson A. Acute care related to cannabis use during pregnancy after the legalization of nonmedical cannabis in Ontario. *CMAJ.* 2023;195(20):E699-708. Available from: <https://doi.org/10.1503/cmaj.230045>
176. Luke S, Hobbs AJ, Smith M, Riddell C, Murphy P, Agborsangaya C, et al; National Maternal Cannabis Working Group. Cannabis use in pregnancy and maternal and infant outcomes: A Canadian cross-jurisdictional population-based cohort study. *PLoS One.* 2022;17(11):e0276824. Available from: <https://doi.org/10.1371/journal.pone.0276824>
177. Ontario. Ministry of Health. Health effects of cannabis [Internet]. Toronto, ON: King's Printer for Ontario; 2019 [modified 2022 Mar 4; cited 2024 Jan 30]. Health effects during pregnancy and while breastfeeding. Available from: <https://www.ontario.ca/page/health-effects-cannabis#section-4>
178. Myran DT, Gaudreault A, Pugliese M, Manuel DG, Tanuseputro P. Cannabis-involved traffic injury emergency department visits after cannabis legalization and commercialization. *JAMA Netw Open.* 2023;6(9):e2331551. Available from: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2808961>
179. Canadian Centre on Substance Use and Addiction (CCSA); Canadian Institute for Substance Use Research (CISUR). Canadian substance use costs and harms: substance use costs in Canada in 2020 [Internet]. Ottawa, ON: Canadian Centre on Substance Use and Addiction; [2020] [cited 2024 Jan 30]. Available from: <https://csuch.ca/substance-use-costs/current-costs/>

180. Ontario. Ministry of Finance. Chapter 3: Ontario's fiscal plan and outlook [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Jan 30]. Available from: <https://budget.ontario.ca/2023/chapter-3.html>
181. Health Canada. Cannabis Act legislative review [Internet]. Ottawa, ON: Government of Canada; [cited 2024 Jan 30]. Available from: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/laws-regulations/cannabis-act-legislative-review.html>
182. Council of Chief Medical Officers of Health and Public Health Physicians of Canada. Council of Chief Medical Officers of Health and Public Health Physicians of Canada: joint submission to Cannabis Legalization Panel [Internet]. Ottawa, ON: Pan-Canadian Public Health Network; 2023 [cited 2024 Jan 30]. Available from: <https://www.phn-rsp.ca/en/position-statements/council-chief-medical-officers-health-public-health-physicians-joint-submission-cannabis-legalization-panel.html>
183. Hammond D. Communicating THC levels and 'dose' to consumers: implications for product labelling and packaging of cannabis products in regulated markets. *Int J Drug Policy*. 2021;91:102509. Available from: <https://doi.org/10.1016/j.drugpo.2019.07.004>
184. Health Canada. Canada's lower-risk cannabis use guidelines [Internet]. Ottawa, ON: Government of Ontario; 2019 [cited 2024 Jan 30]. Available from: <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/resources/lower-risk-cannabis-use-guidelines.html>
185. Canadian Substance Use Resource and Knowledge Exchange Centre (SURE). 11 recommendations to reduce risks of psychosis when using cannabis: based on the lower-risk cannabis use guidelines for psychosis (LRCUG-PSYCH) [Internet]. Ottawa, ON: Canadian Public Health Association; 2024 [cited 2024 Feb 8]. Available from: https://substanceuse.ca/sites/default/files/2024-02/2_LRCUG-PSYCH_Brochure_ENG.pdf
186. Centre for Addiction and Mental Health (CAMH), Youth Engagement Initiative; National Youth Action Council (NYAC); Canadian Research Initiative in Substance Misuse (CRISM). Lower-risk cannabis use guidelines (LRCUG) for youth [Internet]. Toronto, ON: CAMH; [cited 2024 Jan 30]. Available from: <https://www.camh.ca/en/health-info/guides-and-publications/lrcug-for-youth>
187. Kourgiantakis T, Lee E, Kosar AKT, Tait C, Lau CKY, McNeil S, et al. Youth cannabis use in Canada post-legalization: service providers' perceptions, practices, and recommendations. *Subst Abuse Treat Prev Policy*. 2023;18(1):36. Available from: <https://doi.org/10.1186/s13011-023-00550-1>
188. Mills L, Dionne A, Bingley J, Watson SL. Stumbling along, walking on eggshells, and vicious circles: what happens while families wait for youth substance use treatment. *Can J Fam Youth*. 2019;11(1):56-83. Available from: <https://doi.org/10.29173/cjfy29471>
189. Statistics Canada. Alcohol and cannabis use during the pandemic: Canadian Perspectives Survey Series 6 [archived; Internet]. Ottawa, ON: Government of Canada; 2021 [archived; modified 2021 Mar 4; cited 2024 Feb 8 Available from: <https://www150.statcan.gc.ca/n1/daily-quotidien/210304/dq210304a-eng.htm>
190. Canadian Centre on Substance Use and Addiction (CCSA); NANOS. Boredom and stress drives increased alcohol consumption during COVID-19: NANOS poll summary report [Internet]. Ottawa, ON: CCSA; 2020 [cited 2024 Jan 29]. Available from: https://www.ccsa.ca/sites/default/files/2020-06/CCSA-NANOS-Increased-Alcohol-Consumption-During-COVID-19-Report-2020-en_0.pdf
191. Smith BT, Schoer N, Sherk A, Thielman J, McKnight A, Hobin E. Trends in alcohol-attributable hospitalisations and emergency department visits by age, sex, drinking group and health condition in Ontario, Canada. *Drug Alcohol Rev*. 2023;42(4):926-37. Available from: <https://doi.org/10.1111/dar.13629>
192. Boak A, Elton-Marshall T, Hamilton HA. The well-being of Ontario students: findings from the 2021 Ontario Student Drug Use and Health Survey (OSDUHS). Toronto, ON: Centre for Addiction and Mental Health; 2022. Available from: <https://www.camh.ca/-/media/files/pdf--osduhs/2021-osduhs-report-pdf.pdf>
193. Canadian Centre on Substance Use and Addiction (CCSA). Drinking less is better [Internet]. Ottawa, ON: CCSA; 2023 [cited 2024 Jan 30]. Available from: <https://www.ccsa.ca/sites/default/files/2023-05/CGAH-Drinking-Less-is-Better-en.pdf>
194. Rani S, Laupacis A. "Less is better" is the best message when talking to patients about alcohol. *CMAJ*. 2023;195(36):E1232-3. Available from: <https://doi.org/10.1503/cmaj.231238>
195. Centre for Addiction and Mental Health (CAMH). Fetal alcohol spectrum disorders (FASD) [Internet]. Toronto, ON: CAMH; c2024 [cited 2024 Jan 30]. Available from: <https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/fetal-alcohol-spectrum-disorder>

196. Health Canada; Nanos Research, Public awareness of alcohol-related harms survey [Internet]. Ottawa, ON: His Majesty the King in Right of Canada, as represented by the Minister of Public Services and Procurement Canada; 2023 [cited 2024 Jan 30]. Available from: https://publications.gc.ca/collections/collection_2023/sc-hc/H14-460-2023-1-eng.pdf
197. Giesbrecht N, Reisdorfer E, Rios I. Alcohol health warning labels: a rapid review with action recommendations. *Int J Environ Res Public Health*. 2022;19(18):11676. Available from: <https://doi.org/10.3390/ijerph191811676>
198. Myran DT, Chen JT, Giesbrecht N, Rees VW. The association between alcohol access and alcohol-attributable emergency department visits in Ontario, Canada. *Addiction*. 2019;114(7):1183-91. Available from: <https://doi.org/10.1111/add.14597>
199. Canadian Institute for Substance Use Research; Naimi T, Stockwell T, Giesbrecht N, Wettlaufer A, Vallance K, Farrell-Low A, et al. Canadian Alcohol Policy Evaluation 3.0: results from Ontario [Internet]. Victoria, BC: University of Victoria; 2023 [cited 2024 Jan 30]. Available from: <https://www.uvic.ca/research/centres/cisur/assets/docs/cape/cape3/on-results-en.pdf>
200. Organization for Economic Co-operation and Development (OECD). Health at a glance 2023 country note: Canada [Internet]. Paris: OECD; [2023] [cited 2024 Jan 30]. Available from: <https://www.oecd.org/canada/health-at-a-glance-Canada-EN.pdf>
201. Federal, provincial, and territorial Special Advisory Committee on the Epidemic of Opioid Overdoses. Opioid- and Stimulant-related Harms in Canada. Ottawa: Public Health Agency of Canada; December 2023. [cited 2024 Feb 8]. Available from: <https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants>
202. Larnder A, Saatchi A, Borden SA, Moa B, Gill CG, Wallace B, et al. Variability in the unregulated opioid market in the context of extreme rates of overdose. *Drug Alcohol Depend*. 2022;235:109427. Available from: <https://doi.org/10.1016/j.drugalcdep.2022.109427>
203. Canadian Centre on Substance Use and Addiction; Canadian Institute for Substance Use Research. Canadian Substance Use Costs and Harms (CSUCH): how to use the CSUCH Visualization Tool [Internet]. Ottawa, ON: Canadian Centre on Substance Use and Addiction; c2023 [cited 2024 Feb 8]. Available from: <https://csuch.ca/explore-the-data/>
204. Health Canada. Opioid-related poisoning and anoxic brain injury in Canada: a descriptive analysis of hospitalization data [Internet]. Ottawa, ON: Government of Canada; [2021] [cited 2024 Feb 9]. Available from: <https://www.canada.ca/en/health-canada/services/opioids/opioid-related-hospitalizations-anoxic-brain-injury.html>
205. Ontario Drug Policy Research Network. Ontario opioid tool [Internet]. Toronto, ON: Ontario Drug Policy Research Network; [cited 2024 Feb 8]. Available from: <https://odprn.ca/ontario-opioid-indicator-tool/oat/>
206. Gomes T, Murray R, Kolla G, et al, on behalf of the Ontario Drug Policy Research Network, Office of the Chief Coroner for Ontario and Ontario Agency for Health Protection and Promotion (Public Health Ontario). Patterns of medication and healthcare use among people who died of an opioid-related toxicity during the COVID-19 pandemic in Ontario [Internet]. Toronto, ON: Ontario Drug Policy Research Network; 2022 [cited 2024 Feb 8]. Available from: <https://odprn.ca/research/publications/opioid-related-deaths-and-healthcare-use/>
207. Hu T, McCormack D, Juurlink DN, Campbell TJ, Bayoumi AM, Leece P, et al. Initiation of opioid agonist therapy after hospital visits for opioid poisonings in Ontario. *CMAJ*. 2023;195(49):E1709-17. Available from: <https://doi.org/10.1503/cmaj.231014>
208. Taha S, King S, Atif S. Experiences of harm reduction service providers during dual public health emergencies in Canada: substance use in Canada 2022. Ottawa, ON: Canadian Centre on Substance Use and Addiction; 2022. Available from: <https://www.ccsa.ca/experiences-harm-reduction-service-providers-during-dual-public-health-emergencies-canada>
209. Ontario. Ministry of Labour, Immigration, Training and Skills Development. Naloxone in the workplace [Internet]. Toronto, ON: King's Printer for Ontario; 2022 [cited 2024 Jan 25]. Available from: <https://www.ontario.ca/page/naloxone-workplace>
210. Ontario Association of Chiefs of Police (OACP). OACP statement: decriminalization for simple possession of illicit drugs [Internet]. Toronto, ON: OACP; 2020 [cited 2024 Jan 25]. Available from: <https://www.oacp.ca/en/news/oacp-statement-decriminalization-for-simple-possession-of-illicit-drugs.aspx>
211. Registered Nurses' Association of Ontario (RNAO). Policy & political action: #DecriminalizeNow [Internet]. Toronto, ON: RNAO; c2024 [cited 2024 Jan 25]. Available from: <https://rnao.ca/policy/decriminalizenow>

212. Centre for Addiction and Mental Health (CAMH). Statement on the decriminalization of substance use [Internet]. Toronto, ON: CAMH; 2021 [cited 2024 Jan 30]. Available from: <https://www.camh.ca/-/media/files/pdfs--public-policy-submissions/camh-statement-on-decriminalization-sep2021-pdf.pdf>
213. Association of Local Public Health Agencies (ALPHA). ALPHA resolution A22-4: priorities for provincial action on the drug/opioid poisoning crisis in Ontario [Internet]. Toronto, ON: ALPHA; 2023 [cited 2024 Jan 24]. Available from: https://cdn.ymaws.com/www.alphaweb.org/resource/collection/9DD68D5D-CEFD-443B-B2B5-E76AE0CC6FCB/A22-4_Drug_Poisoning_Crisis.pdf
214. Pivot Legal Society. Vancouver Area Network of Drug Users & Pivot Legal Society joint statement [Internet]. Vancouver, BC: Pivot Legal Society; 2020 [cited 2024 Jan 30]. Available from: https://www.pivotlegal.org/vandu_pivot_joint_statement
215. Canadian Association of People Who Use Drugs (CAPUD). The Canadian Association of People Who Use Drugs (CAPUD) and four individuals file charter lawsuit against the Government of Canada seeking decriminalization of drug possession and necessity drug trafficking [Internet]. Dartmouth, NS: CAPUD; 2021 [cited 2024 Jan 30]. Available from: <https://drugdecrimcanada.com/wp-content/uploads/2021/09/2021-09-02-CAPUD-Press-Release-Drug-Decriminalization-Litigation.pdf>
216. Toronto Public Health. Toronto's model of decriminalizing drugs for personal use [Internet]. Toronto, ON: Toronto Public Health; 2023 [cited 2024 Jan 24]. Available from: <https://www.toronto.ca/wp-content/uploads/2023/03/94de-Torontos-Model-of-Decriminalizing-Drugs-for-Personal-use-March-22-2023-FINAL.pdf>
217. McMillan D. Drug possession charges dropped across Ontario at an unprecedented rate. CBC News [Internet], 2021 Sep 7 [cited 2024 Jan 24]; Toronto. Available from: <https://www.cbc.ca/news/canada/toronto/drug-charges-dropped-unprecedented-rate-ontario-1.6162632>
218. Health Canada. Canadian Drugs and Substances Strategy: substance controls [Internet]. Ottawa, ON: Government of Canada; 2023 [cited 2024 Feb 9]. Available from: <https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy.html>
219. Ontario Drug Policy Research Network (ODPRN). Safer opioid supply: a rapid review of the evidence [Internet]. Toronto, ON: ODPRN; 2023 [cited 2024 Feb 8]. Available from: <https://odprn.ca/wp-content/uploads/2023/07/Safer-Opioid-Supply-Rapid-Review.pdf>
220. Slaunwhite A, Min JE, Palis H, Urbanoski K, Pauly B, Barker B, et al. Effect of risk mitigation guidance opioid and stimulant dispensations on mortality and acute care visits during dual public health emergencies: retrospective cohort study. *BMJ*. 2024;384:e076336. Available from: <https://doi.org/10.1136/bmj-2023-076336>
221. Kleinman RA. Characteristics of individuals witnessing drug overdoses in Canada. *J Gen Intern Med*. 2023;38(14):3263-5. Available from: <https://doi.org/10.1007/s11606-023-08268-3>