

**Preventing Opioid Related Overdoses/Poisonings and Deaths by
Addressing the Determinants of British Columbia's Opioid
Overdose Emergency**

By

The Health Officers Council of British Columbia

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Background

Given the current opioid overdose/poisoning¹ public health emergency in BC, it is important to recognize the multiple interacting determinants of the emergency, as well as the preventive actions based on this recognition that are needed.

While the recent rapid increase in overdose/poisoning deaths is directly attributable to illegally-manufactured synthetic opioids, particularly fentanyl and carfentanil, it is also important to remember that two to three hundred people a year died from illegal drug overdoses in BC prior to the appearance of illegal fentanyl. A response that seeks to prevent all overdose/poisoning deaths, rather than simply taking the number who die back to the pre-emergency baseline, is necessary.

In this paper we focus on the determinants of overdoses/poisonings, deaths, and substance use disorders that are contributing to the emergency, and close with recommended actions to address these determinants.

It is important to understand that the deaths and severe outcomes related to overdoses/poisonings are the tip of a much larger continuum of harms, as shown in Figure 1. Addressing the origins and causes of problematic drug use will reduce the frequency of people with health problems and deaths related to drug use.

Figure 1: Pyramid of Substance Use Harms



¹ Although “overdose” has been more frequently used to describe these events, some observers note that “poisoning” may be a better term, and it may also change the way people perceive the crisis. “Overdose” suggests a voluntary risk, and some people who use drugs may think “that was an overdose; I am smarter and I will be more careful in managing the risk” whereas they may be more likely to think that there is a poison out there if the term “poisoning” is used. Also, the term “poisoning” may reinforce the emphasis on preventing contaminated drugs from entering the “market”. We have chosen to use both terms in this paper. See also “Is the fentanyl situation an overdose crisis or a poisoning crisis?” at <http://www.cbc.ca/1.4269917>

Determinants of British Columbia's Opioid Overdose Emergency

How Does the Regulatory Environment Contribute to the Overdose Emergency?

- 1) One of the primary determinants of the overdose/poisoning emergency is the use of illegally produced products containing toxic contaminant(s) of unknown concentration (e.g. illegally produced fentanyl). The illegal, unregulated market arises due to the prohibition and criminalization of possession and distribution of some psychoactive substances. Besides overdosing on/being poisoned by illegally produced heroin contaminated with fentanyl, people intending to use cocaine, MDMA or other drugs have unwittingly been poisoned due to these drugs being contaminated with fentanyl. A public health oriented framework for regulating all psychoactive substances would not rely on prohibition and criminalization. Rather it would protect and promote health and safety by ensuring oversight and quality control of production, distribution, and sale of substances; and would improve consumer knowledge thereby avoiding preventable deaths from consumption of substances of unknown composition and potency (1, 2).
- 2) Other government policies contribute to overdose mortality through the creation of barriers to implementation of proven harm reduction interventions. For example, the federal *Controlled Drugs and Substances Act* imposes inordinate hurdles to approval of supervised consumption sites, for what are life-saving provincial and local health services. Federal regulatory hurdles also impede the implementation of drug checking services, which would allow people who use illegal drugs to have samples analyzed for adulterants/contaminants and provide potentially life-saving information about these currently unregulated products.

At the provincial level the bulk distribution of income assistance cheques is associated with periodic increases in overdose mortality (3).

Organizational policies, such as housing policies (e.g. in some supportive recovery housing facilities) which threaten discharge, eviction or punishment if people use substances can push people into using drugs in high-risk environments (e.g. alleys, locked rooms or washrooms) in an attempt to hide their use.

How Does Stigmatization Contribute to the Overdose Emergency?

- 1) People with a substance use disorder, similarly to those with a mental disorder, are often regarded negatively and stigmatized as different, held in contempt, and shunned or rendered socially invisible because of social disapproval. The sources of stigmatization are multifactorial, including the human tendency to react negatively to "differentness", and being afraid of something that is not understood. On top of this, criminalization of possession of drugs, which is state sponsored stigmatization, further marginalizes and results in discrimination of people who use drugs.
- 2) People who use drugs alone are at high risk of dying from an overdose as no one is aware of their use or checking in on them and hence not able to respond by calling for help and/or administering naloxone. Stigma surrounding drug use and substance use disorders can lead to social isolation and unwillingness to engage with health care and an increased likelihood of using drugs alone. Encountering stigma and judgment from service providers, including insensitive use of language (13) can create barriers to accessing health and housing services. Improving social support and reducing stigma by promoting compassion, inclusion, resilience and engagement in health care and with social services should help reduce isolation and decrease harm associated with drug use.
- 3) Stigmatization of people who use drugs contributes to society's unwillingness to address harms associated with drug use, and has slowed the implementation of effective solutions (e.g. supervised consumption

sites, oral opioid agonist therapy, prescription heroin treatment programs (4)). Treating problematic drug use as a public health rather than criminal justice issue, decriminalizing possession, regulating drugs from a public health perspective, scaling up harm reduction, and providing evidence-based treatment and prevention has been an effective approach for reducing stigma and harms associated with drug use (1, 2).

How Do Access Challenges to Treatment Contribute to the Overdose Emergency?

- 1) For people with substance use disorders, particularly those with opioid use disorders who do not have access to a regulated pharmaceutical grade supply of drugs of choice, there is an increased risk that they will be exposed to illegal fentanyl. Therefore, individuals with an opioid use disorder are at highest risk for overdose/poisoning. However, individuals who use drugs on an irregular or casual basis are also at risk due to their low tolerance, and because they may be less likely to access harm reduction services.
- 2) There are currently numerous barriers to evidence-based substance use disorder treatment, including limited access generally and limited access to the full spectrum of opioid agonist treatments, unsafe withdrawal management practices, and lack of health professional training and education about substance use disorders and pain management. The gap between what we should be doing and what we are doing in terms of providing cost saving, accessible substance use disorder treatment is substantial. This results in significant downstream harms, both in terms of physical damage (e.g. infectious diseases, end organ damage, long term disability, and death) and mental damage (e.g. brain injury, long term disability). It is also more cost-effective to treat opioid use disorder with appropriate clinical care and social supports than to leave patients untreated, leading to much higher expenditures related to crime, violence, policing, courts, jails, prison, ambulances, ER visits, hospitalizations, long term care and so forth

What Determinants Increase the Risk of Developing Problematic Drug Use and Substance Use Disorders?

- 1) While drug use is a necessary condition for drug overdose, drug use itself should not be considered the root cause of this emergency. Demand for and use of psychoactive substances is a universal human behavior. Approaches that aim to reduce drug use through prohibition and criminal justice have been shown to be ineffective at reducing usage rates, and actually increase the harms associated with drug use (10, 11). Instead, policies and interventions should focus on preventing problematic substance use and reducing the associated harms.
- 2) Addressing the demand for drugs by addressing the social determinants of health and modifying socio-environmental drivers such as social isolation, unemployment, poverty, poor housing conditions, and homelessness is an essential component of prevention, treatment and recovery. Poverty is recognized globally as the single most important determinant of health (8), and drives demand. Childhood poverty is associated with increased exposure to trauma, stressful life events and substance use in others, which in turn contribute to an increased risk of developing mental and substance use disorders (9). Addressing poverty, particularly childhood poverty, ensuring adequate income and supporting / facilitating meaningful employment offer clear pathways to improving the population health generally and of those most impacted by this emergency.
- 3) Preventing or delaying the initiation of drug use by youth and other vulnerable populations offers a pathway to reducing drug use related harms associated. Exposure to early childhood adversity, trauma, social isolation, and peers/parents who use drugs all elevate an individual's risk of drug use initiation and developing substance use disorders (12). Genetic and environmental factors (e.g. trauma, pain, adverse childhood experiences such as childhood abuse and neglect, household dysfunction (5-7)) increase the likelihood of substance use disorder development. On the other hand, healthy pregnancy and early

childhood development, encouraging social and emotional development, positive school experiences and fostering supportive relationships with peers and adults can all contribute to building resilience in children and youth, which in turns helps prevent or delay initiation of substance use and mitigate the likelihood of problematic use/substance use disorders among those who do use drugs. The prominent role of psychological and physical trauma as a determinant of substance use disorder highlights the importance of trauma informed care, and the lack of trauma informed care practices can unintentionally re-traumatize.

- 4) The supply of drugs increases the risk of population levels of substance use disorder through increased exposure, availability and accessibility. This has been clearly demonstrated by the dramatic rise in overdoses/poisonings in the US concurrent with the substantial increase in opioid prescribing for non-cancer pain (7).

How Do Pain Management and Prescribing Practices Contribute to Opioid Use Disorders and Overdoses?

- 1) The opioid overdose epidemic is driven in part by the rapid rise in the volume of opioids being promoted by the pharmaceutical industry and prescribed for pain in North America since the 1990s (7). The movement of people between the prescribed market and illegal market is a particular risk for serious outcomes. The introduction of new opioid prescribing guidelines, while important in stemming the tide of inappropriate prescribing and excess supplies of pharmaceutical opioids, has raised concerns about physicians rapidly tapering opioid prescriptions without adequate consideration of unintended consequences, or alternate treatments such as opioid agonist treatment.
- 2) Non-pharmacologic pain therapies, especially for chronic pain, are not as well established, practiced or funded in western health care systems as are pharmaceutical treatments, which results in an over reliance on pharmaceutical treatments to relieve pain. The evidence strongly suggests that the risk of opioid pain medications for chronic pain conditions outweighs any benefits (14).

Recommended Actions

Actions to mitigate the opioid overdose/poisoning emergency should include, but not be limited to:

1. Children and Youth Health Promotion
 - 1.1. Increase investments in evidence-based prevention of early initiation of substance use, prevention of problematic substance use and early intervention for children and youth who are on a trajectory leading to a substance use disorder.
 - 1.2. Enhance programs that promote perinatal health, early childhood development, and positive childhood experiences and that prevent adverse and traumatic childhood experiences.
 - 1.3. Reduce inequitable distribution of wealth and other determinants of childhood poverty.
 - 1.4. Build resilience in youth.
2. Stigma Reduction
 - 2.1. Call on the federal government to decriminalize possession for personal so that people who use drugs are not stigmatized when seeking clinical care. Promote local police procedural change to help rather than criminalize people who use drugs while working with the federal government on decriminalization.

- 2.2. Implement general population and service provider specific stigma reduction programs to reduce discriminatory activities and barriers to accessing housing, health and other services that support at-risk populations.
3. Public Health Oriented Regulation of Opioids
 - 3.1. Develop a public health oriented regulated market for opioids and all other psychoactive substances, including tobacco and alcohol, which:
 - applies a consumer safety lens to protect people who use drugs for medical and non-medical purposes and improves the safety of the drug supply,
 - promotes health by enabling people who use opioids for whatever reason to be informed of the risks and to access opioids and of a known composition and concentration, and
 - fosters connections with health and social services.
4. Scale up Prevention and Harm Reduction, including Drug Checking
 - 4.1. Lead and coordinate action is needed by all levels of government to address the social determinants of health and socio-economic inequities through strategies with legislated goals, budgets and timelines.
 - 4.2. Increase evidence-based public education, social marketing, and school and family based prevention initiatives.
 - 4.3. Increase availability of harm reduction programs such as overdose prevention services, supervised consumption services, and needle and other drug use supply provision programs.
 - 4.4. Make naloxone more available through increased access to 'take home' supplies and the expanded use of nasal spray format (for first responders uncomfortable with injections).
 - 4.5. Implement low-threshold anonymous drug checking services, allowing people who use currently illegal drugs to have samples tested using high-quality laboratory technologies to determine their contents and detect adulterants/contaminants.
 - 4.6. Develop low threshold opioid agonist provision models to displace use of street opioids.
5. Build an Evidence-based Treatment, Care, Recovery and Rehabilitation System
 - 5.1. Fund a low barrier entry continuum of care, which will improve treatment cost effectiveness by providing an evidence-based, comprehensive, secure and supportive treatment and recovery system across a wide geographic area for people via primary care and specialized services. This system would include:
 - training health care providers, including training in trauma informed care practice
 - low barrier opioid agonist treatment options, including injectable options such as diacetylmorphine (heroin) and hydromorphone in addition to buprenorphine, methadone, and oral slow release morphine
 - counselling, psychosocial supports and supportive residential care to enable transition from opioid agonist treatment, when desired by the person, to abstinence, return to family, community and work
 - integration of evidence-based recovery services
 - peer support
 - addressing tobacco dependence and all substance use disorders
 - addressing unsafe mental health practices (e.g. polypharmacy, benzodiazepines, misdiagnosis, etc.) for individuals with substance use disorder
 - an integrated information management system to allow for performance management, monitoring, evaluation and quality improvement
 - social supports e.g. income, housing, food, social support, education

- vocational supports, education upgrading, skills and job training, including training and education for employment such as peer counselling and other peer related work

6. Improve Pain Management

- 6.1. Improve pharmacologic treatment of pain. Individuals on opioid pain medications must be supported with thoughtful strategies to address both pain and iatrogenic opioid dependency. Individuals with chronic pain who have not been prescribed opioids should be protected from unsafe and ineffective opioid prescribing.
- 6.2. Institute a prescription monitoring program to improve prescribing practices and use of pharmaceutical medications.
- 6.3. Call on the federal government to closely monitor and maintain tight control of pharmaceutical industry activities that promote the use of opioids and other pain medications.
- 6.4. Develop provincial and regional health system pain management strategies, including investing in evidence-based non-pharmacologic pain management options.

7. Modernize Organizational Policies

- 7.1. Call on the federal government to rescind federal policies and laws that are an impediment to provincial and local initiatives, and orient federal policies and laws to support provincial and local initiatives e.g. streamline or eliminate federal requirements for supervised injection sites.
- 7.2. Eliminate health care, housing, and other institutional policies which threaten discharge, eviction or punishment if people use substances, as these can push people into using drugs in high-risk environments.
- 7.3. Change income assistance cheque distribution methods in a way that decreases overdose risk.

8. Enhance Monitoring, Evaluation and Research

- 8.1. Support strengthening national, provincial and local capacity to monitor problematic substance use and harms including improving data collection, linkage, analysis, sharing and reporting, tracking de-stigmatization measures and measuring cost-effectiveness of programs to evaluate interventions and drive continuous quality improvement.
- 8.2. Improve evaluation of the effectiveness of therapeutic interventions based on clinical outcomes.
- 8.3. Support innovative research which will assist in improving outcomes of prevention, treatment and recovery services.

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