



Improving Data Collection for Substance Use Treatment

Key Considerations

- Reliable data on populations accessing substance use treatment services are needed to inform operations and strategic planning, and to ensure that effective treatment services are available and accessible.
- The provision of health care, including substance use treatment services, varies across jurisdictions, and this constrains national data collection and reporting efforts.
- Currently, national data collection on substance use treatment services is not optimized to fully meet international reporting requirements.
- Jurisdictions across Canada face a range of challenges for collecting and reporting data on substance use service utilization.
- Increased investment to improve data management systems is urgently needed to help jurisdictions better collect and report data on substance use treatment and related healthcare services.
- Prioritizing resources to collect, manage and analyze data on substance use treatment will improve these services and help mitigate the costs and harms of substance use to society.

The Issue

Alcohol and drug use are significant health, economic and social issues. In 2017, it was estimated that substance use led to over 277,000 hospitalizations, more than 74,800 deaths and over 867,500 criminal incidents, and cost Canadians \$46 billion dollars, including \$20 billion in lost productivity (Canadian Substance Use Costs and Harms Scientific Working Group, 2020).¹ Though many Canadians use alcohol and other substances without significant impacts on their lives, some experience substantial legal, social and health consequences because of substance use.

People who experience harms due to substance use require access to treatment services designed to stop or reduce harmful substance use. Reliable data on the populations accessing these services are needed to inform operations and strategic planning, and to ensure that effective treatment services are available and accessible. Basic information on the number of Canadians accessing specialized services for substance use each year and on current or emerging trends and patterns

¹ Lost productivity is the value of work lost due to premature mortality, long-term disability and short-term disability (absenteeism and presenteeism).



across different substances is necessary.² Collecting and reporting these data can help ensure that the treatment system is operating in a way that meets population needs and trends. However, ongoing challenges in data management restrict Canada's ability to have an accurate national estimate for treatment utilization.

Not enough consistent data are being collected across Canada to effectively inform practice and policy, including appropriate investment in substance use treatment services. This policy brief outlines what has been done in Canada to collect national treatment data, as well as ongoing challenges and next steps for having reliable, national-level data on substance use treatment utilization. The brief is intended to support those at both the federal and jurisdictional levels in making a business case for increased allocation of resources for data collection and reporting.³

Current Status of Substance Use Treatment in Canada

Healthcare Provision Across Jurisdictions

In Canada, provinces and territories are responsible for health services in their own jurisdiction, guided by the provisions of the *Canada Health Act*.⁴ Substance use treatment is under the umbrella of health services, and includes community-based treatment programs,⁵ hospital-based treatment programs and primary care services. Jurisdictions can tailor the mix of these treatment services to best meet the needs of their populations. This results in differences in how services are funded or delivered or both, and differences in how data is collected and reported. In the end, data collected at the national level are generally not comparable across jurisdictions.

Current Trends in Care Provision

The delivery of substance use treatment across Canada is often in a state of flux and it can be difficult to make data collection and reporting processes responsive to ongoing change. Two important examples of recent changes are regionalization of healthcare delivery⁶ and integration of addiction and mental health services. These changes will be important for improving access and quality of services (Centre for Addiction and Mental Health, 2010), but could pose additional challenges to data collection efforts. As substance use treatment becomes more embedded in mental health and other complementary health and social services, data collection processes will need to be able to capture information specific to substance use. In the context of data management, there is currently no national framework to provide guidance on integrating these services.

What Other Countries Are Doing

Several countries offer examples of a national process to collect standardized data for substance use treatment. The United Kingdom, Australia and United States have all developed **centralized national data systems** that enable comparisons within the country, in addition to comparisons with other countries and regions. The European Monitoring Centre on Drugs and Drug Addiction (EMCDDA) collects a core set of indicators on treatment from countries in the European Union with

2 The main classes of substances are alcohol, cannabis, opioids, cocaine, amphetamine-type stimulants, sedatives and tranquilizers, hallucinogens, and solvents and inhalants.

3 This policy brief is based on an unpublished report, which is available upon request (Atif & Konefal, 2020).

4 Excluding some populations served through federal programs, including federal prisoners, Indigenous populations living on reserves and members of the Canadian Forces.

5 Community-based treatment consists of specialized services that exclude primary care services or hospital admissions.

6 Regionalization refers to the process of integrating healthcare resources to better coordinate these services across the province and improve access to community-based care. This has resulted in fewer regional health authorities in several jurisdictions.



standardized data collection parameters applied across all member states. The EMCDDA deals with a similar situation as Canada at the national level, in the sense that each province and territory in Canada is like a separate country when it comes to delivery of substance use treatment services.

The United Nations Office on Drugs and Crime (UNODC) collects data on a set of core indicators on substance use treatment, used for the world drug reports produced by the World Health Organization. Countries that contribute data to these reports not only support the ongoing development of an international picture of substance use treatment, but can also gain insights into how their country compares to others. Canada has international reporting responsibilities and Health Canada is obligated to submit national treatment data to the UNODC. Historically, Canada has not reported on all the indicators collected by the UNODC on substance use treatment because data collected at the level of provinces and territories can be difficult to accurately roll up to form a national picture.

The National Treatment Indicators Project

The National Treatment Indicators (NTI) project began in 2009 with the goal of developing recommendations for a system for the collection and analysis of national addiction treatment data in Canada. The NTI project is led by the Canadian Centre on Substance Use and Addiction (CCSA), in collaboration with the NTI Working Group, which consists of representatives from the provinces and territories, as well as from other national organizations involved with substance use treatment delivery or reporting. Since its inception, the NTI project has collected national data on substance use service utilization, and the NTI reports continue to be the only synthesis of national reporting on publicly funded, community-based, residential and non-residential substance use treatment⁷ data across Canada. The NTI project is currently working to improve consistency across all jurisdictions in reporting the UNODC international indicators on treatment utilization. This work will help Canada optimize its data collection efforts to meet international reporting requirements. However, increased investment in improving data management systems is urgently needed to help jurisdictions better collect and report data on substance use treatment and related healthcare services.

Jurisdiction Challenges

CCSA conducted key informant interviews with NTI Working Group members and their colleagues from jurisdictions across Canada to understand the challenges jurisdictions have with reporting on a core set of indicators and substance use treatment data more broadly. The analysis of these interviews uncovered a range of challenges faced by jurisdictions:

1. Data collection processes are not set up to optimize reporting of aggregate-level data.

The key informant interviews revealed that many jurisdictions rely on antiquated data management systems that are inefficient and inflexible. Key informants also reported that data collection processes and systems are siloed or fragmented, and have not caught up to the integration of substance use and mental health services.

⁷ Residential treatment includes programs in which overnight accommodation is provided for the purpose of substance use treatment (excluding youth or homeless shelters, prison facilities or mental health facilities). Non-residential treatment refers to outpatient services as well as services offered by facilities such as halfway houses, youth shelters, mental health facilities and correctional facilities, where the primary purpose of residence is not the provision of substance use treatment services.



2. Jurisdictions report substantial gaps in the primary data⁸ collected from individuals accessing treatment services, leading to pronounced limitations in data for certain indicators.

Primary data collected from individuals accessing treatment services vary across jurisdictions and often do not align with the specific categories, constructs and definitions of treatment indicators. Regional differences in the scope of the treatment services on which jurisdictions report affect data comprehensiveness. For example, regions with significant rural populations or sparsely populated areas have limited access to most healthcare services, which also limits the data that can be collected.

3. Many jurisdictions report limited resources for collecting comprehensive and accurate data.

Key informant interviews revealed that resources of all types – budgetary, human and time – shape whether and to what extent jurisdictions can report on the treatment indicators.

Options for Improvement

Consistently collected treatment data is needed to support investment in substance use services, and to ensure that these services are operating in a way that meets population needs and trends. Given the challenges outlined above, what steps can be taken to support the efforts of the NTI project and of the jurisdictions in achieving this collective goal? Based on the results from the key informant interviews, CCSA and the NTI Working Group have proposed three changes, which some jurisdictions have already begun to implement:

1. Provide a framework for standardized data collection.

Jurisdictions need a framework for developing their substance use treatment systems, that includes guidance on how substance use treatment is embedded in healthcare provision broadly. Further, a framework would help ensure that as systems change in each jurisdiction, they align with national standardized data collection protocols.

2. Obtain data from other sources.

Informants pointed out the value in obtaining additional data from other diverse, more inclusive sources than the ones to which the NTI Working Group has usually turned. These data sources could provide a fuller picture of substance use treatment, enabling jurisdictions to close gaps in data reporting. Examples include data from other non-governmental sources, community organizations, Indigenous organizations and governments, and frontline workers.

3. Streamline data reporting within jurisdictions.

Data reliability would be enhanced if providers were all trained to collect and enter data into the system in a standardized way. Data entry practices and quality assurance for substance use treatment should be aligned with other healthcare services to further streamline reporting.

Jurisdictions across Canada have already made substantial progress in implementing some of these options for improving data collection, management and reporting systems. However, the scope and sophistication of these efforts vary substantially, as some jurisdictions do not have the necessary resources to commit to these improvements.

⁸ Primary data originates from and is collected directly from a source. For treatment and other data about healthcare utilization, the source is the healthcare provider that has gathered information about the client and how they are accessing services.



A Call to Action

With competing priorities for healthcare resources, it has been challenging for health authorities responsible for administrating and delivering healthcare to Canadians to prioritize investment in data collection infrastructure. Although there have been recent increases in resource allocation for substance use prevention, harm reduction and treatment, substance use services have historically fallen outside of investments and initiatives in improving health information systems. However, data collection and reporting remain essential for improving the delivery and quality of healthcare, including substance use treatment services. Data collection and reporting also ensure that additional funding for substance use treatment services are managed wisely.

A clear mandate and dedicated resources to collect, manage and analyze data on the utilization of substance use treatment services in Canada will improve system planning and access to care. Active buy-in from stakeholders at all levels, including data entry, analysis and application, will ensure that data collection and reporting can have an impact. CCSA and the NTI Working Group have started to address some of the challenges underlying data management for substance use treatment services. Increased awareness of jurisdictional challenges supports the prioritization of resources to better serve data collection and reporting needs at the national and international levels.

CCSA continues to work with jurisdictions to improve both data standardization of substance use treatment indicators and their alignment with international reporting requirements. CCSA has also developed methods to model utilization of substance use treatment services where data does not meet reporting standards, and plans to align data collection and reporting efforts across a wider continuum of services provided in Canada. Ultimately, this work will better support treatment system planning and evaluation, while also better serving monitoring and surveillance needs at the national and international levels.

References

- Atif, S., & Konefal, S. (2020). *Challenges to reporting substance use treatment indicators in Canada: A qualitative analysis*. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction. (Available upon request)
- Canadian Substance Use Costs and Harms Scientific Working Group. (2020). *Canadian substance use costs and harms 2015–2017*. (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.
- Centre for Addiction and Mental Health. (2010). *Best practices. Concurrent mental health and substance use disorders*. Toronto, Ont.: Author.



CCSA was created by Parliament to provide national leadership to address substance use in Canada. A trusted counsel, we provide national guidance to decision makers by harnessing the power of research, curating knowledge and bringing together diverse perspectives.

CCSA activities and products are made possible through a financial contribution from Health Canada. The views of CCSA do not necessarily represent the views of the Government of Canada.