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State of Policies and Practices on Substance Use in Safety-sensitive Industries in Canada

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Definitions

Acronym/Term	Definition
CAMH-M	Centre for Addiction and Mental Health Monitor
CTADS	Canadian Tobacco, Alcohol and Drugs Survey
DSM (IV/V)	*Diagnostic and Statistical Manual (version IV or V) of Mental Disorders*
EAP, EFAP	Employee Assistance Program, Employee and Family Assistance Program
IME	Independent medical evaluation
MRO	Medical review officer
POCT	Point-of-care/collection-testing
SAP/SAE	Substance abuse professional/substance abuse expert
SCC	Supreme Court of Canada
TTC	Toronto Transit Commission
US DOT	United States Department of Transportation

Executive Summary

Background

Substance use that affects the workplace is a growing concern among employers, employees and other stakeholders, particularly those working in safety-sensitive industries. Although various efforts have been made to prevent and address the harms and costs related to substance use in the workplace context, they have been largely fragmented, reactive and driven by concerns over liabilities of employers, court decisions and arbitration rulings. In an effort to be proactive and better understand the current context of substance use workplace policies and practices, the Canadian Nuclear Safety Commission (CNSC) contracted the Canadian Centre on Substance Use and Addiction (CCSA) to prepare this report on the *State of Policies and Practices on Substance Use in Safety-sensitive Industries in Canada*.

This report describes findings from five specific areas related to substance use and safety-sensitive industries of interest to the CNSC:

- Context of substance use polices across specific safety-sensitive industries;
- Prevalence of substance use in provinces with high-security nuclear facilities;
- Provincial and territorial legislation related to health professionals and their role in monitoring and evaluating substance use;
- Potential impacts of cannabis legalization and regulation on the workplace and fitness for duty; and
- Effectiveness and Impact of Workplace Substance Testing: A Brief Review of the Literature.

Context of Substance Use Polices Across Specific Safety-Sensitive Industries

To investigate the extent of policies and best practices in use by Canadian safety-sensitive industries, qualitative and quantitative evidence from six select safety-sensitive sectors (aviation, marine, rail, oil and gas, construction and law enforcement) was collected through an environmental scan, national survey and key informant interviews.

Method

To conduct the environmental scan, publicly available policies were identified by examining organization websites, searching the Canadian Industry Statistics (CIS) website and searching through Google's search engine, and then analyzed for content. To obtain more details about organization policies and practices, a bilingual web-based survey, consisting of largely multiple choice and matrix-style questions, was used to collect additional data through a convenience sample of non-random participants who were likely to have the authority or experience to report on their organization's policies (e.g., human resources professionals, safety managers, presidents). The survey was exploratory in nature and the results cannot be generalized to the wider population of industries. To provide further details on best practices and to obtain specifics about developing and implementing policies — including successes, challenges and effectiveness of policies — key informant interviews were conducted with particular individuals from five of the six selected safety-sensitive industries (excluding law enforcement) and including transportation. Interviews were

conducted in the official language of the key informant's choice. Organizations believed to have comprehensive substance use policies in place were targeted for this research.

Environmental Scan

Approximately 300 organizations from the six selected safety-sensitive industries were scanned and analyzed for their substance use policies. Findings revealed that most larger organizations or industry associations typically had well-developed, comprehensive and detailed substance use policies; smaller organizations and some specific industries (e.g., law enforcement) did not appear to have policies or they were not publicly available; and, among those with stated policies, several policies were brief (e.g., one to two paragraphs), broad (e.g., failed to differentiate between prescription and illicit substances, or between dependency and recreational use) and generally punitive (e.g., employee will be terminated).

National Survey and Key Informant Interviews

The survey was sent to individuals who represented organizations across Canada in the six select safety-sensitive industries and yielded a total of 87 completed surveys. A total of 12 interviews were conducted over a seven-week period at the convenience of the key informant via the telephone. The results from the national survey and key informant interviews showed that:

- The most prevalent response to suspected employee substance use affecting the workplace reported by participants was to refer the employee for assessment or to an assistance program of some type.
- Development of substance use policies was largely informed by management, human resources, lawyers and unions; employees and medical professionals were less frequently involved.
- A best practice identified by key informants was to create a comprehensive, well-developed policy informed by legal and regulatory requirements, involvement of other stakeholders (e.g., unions, professional associations) and the education of employees about policies and their obligations.
- Among survey respondents, most policies were reported to contain procedures that outlined the consequences of non-compliance and procedures for termination, but somewhat fewer discussed treatment, support and return-to-work programs, demonstrating that punitive measures appeared to be more often discussed than supportive measures. Only two of the 12 key informants indicated that employees were immediately terminated for substance use, while the remainder conducted further investigations.
- The most frequently used approaches to identify substance use affecting the workplace were investigations based on reasonable cause (e.g., employee behaviour, decline in performance, supervisor or co-worker concern), an incident that caused injury or damage or a near-miss incident.
- Some key informants indicated that treatment and support was handled by unions, which sometimes created challenges in verifying the effectiveness of programs or monitoring employee progress.
- For an employee to be able to return to work, the majority of organizations required a recommendation from professionals or groups who specialize in substance use, primarily a

substance abuse professional/substance abuse expert (SAP/SAE) or completion of a substance use program.

- Less than half of all survey respondents reported that their organization evaluated its policies and practices for effectiveness in addressing substance use affecting the workplace, and even fewer did this on a regular basis (e.g., annually). Key informants indicated that their policies were typically evaluated annually or as needed due to court or arbitration decisions; however, policies were largely evaluated for content and did not appear to use specific indicators to measure effectiveness.
- Several key informants indicated that the biggest factor related to success in reducing substance use affecting the workplace was employee commitment to recovery and the treatment program.
- An important best practice identified by key informants was to create a workplace culture that sets out expectations that impairment from substance use will not be tolerated and that encourages a trusting and supporting environment for those affected by substance use issues.
- The majority of respondents and informants reported that they were concerned about the legalization and regulation of cannabis in Canada.

Prevalence of Substance Use in Regions with High-Security Nuclear Facilities

To gain a better understanding of the extent of substance use and the characteristics of people who use different substances in areas where high-security nuclear facilities exist, data from the Canadian Tobacco, Alcohol and Drugs Survey (CTADS) on Ontario and New Brunswick, as well as Canada (to provide a national picture) were analyzed to determine prevalence rates of substance use. Analyses revealed that:

- Rates for some substances were higher among certain populations (e.g., alcohol and young males or pain medications and females).
- Cannabis use across Canada has increased and alcohol remains the most commonly used substance at 76.9%.
- Cannabis use was higher among males than females and use peaked among those aged 19 to 24.
- Cannabis use was significantly more prevalent in Ontario than in New Brunswick; the use of sedatives was significantly more prevalent in New Brunswick.

Given the greater concentration of nuclear facilities in Ontario, data from the Centre for Addiction and Mental Health Monitor (CAMH-M) were also analyzed to determine prevalence rates of substance use in select regions (i.e., Chalk River, Bruce and Pickering/Darlington). The findings from this analysis revealed:

- Alcohol, similar to Canada in general, was the most commonly reported substance used.
- Highest alcohol use was found among those aged 35 to 54, and heavy drinking was most common among those aged 18 to 34.
- Prescription opioids and cannabis were found to be the second and third most commonly used substances, respectively.

- Similar to the CTADS analyses, cannabis use was most common among those aged 18 to 24 and those who were never married.

Potential Impacts of Cannabis Legalization and Regulation on the Workplace and Fitness for Duty

With the decision by the Government of Canada to legalize and regulate cannabis, businesses, agencies and organizations, particularly safety-sensitive organizations such as those licensed by the CNSC, have expressed increased concern about what the impact will be on their operations. To gain a better understanding of the potential impact that the legalization and regulation of cannabis could have on the Canadian workforce, a brief examination of three related areas was conducted: the effects of cannabis on employees and the workplace; experiences and evidence from other jurisdictions that have legalized cannabis; and the legal context and fitness for duty.

The acute effects of cannabis can profoundly hinder the ability to perform one's job in a safe and prudent manner. The physical effects of cannabis, such as impaired balance, coordination and motor control, can have obvious implications for one's own safety as well as that of co-workers, the public and the environment, particularly for those whose profession involves physical skills, specifically fine motor control. The cognitive effects of cannabis are considerably more subtle and can include deficits in attention, memory and learning, and time-distortion and are associated with impaired decision-making, increased errors of commission and omission and risk-taking. In the workplace, these effects can create dangerous situations and put others at risk.

Although more research is needed, based on initial findings from the Colorado and Washington state experiences, the legalization of cannabis was associated with increased use among older populations and drivers. These experiences could be replicated in Canada and could result in increased use in populations that have typically not used cannabis, particularly adults in the workforce.

Social norms, that is, the perceptions about substance use by others, attitudes of use by others and the behaviour of others related to use, have been shown to increase and sometimes intensify use by individuals. The experiences in Colorado and Washington, as well as other evidence, provide some insights into the potential impact of legalization on social norms, which may occur in Canada. For instance, decreasing public support for punitive responses to cannabis use provides preliminary evidence that Canadians' attitudes toward use are already becoming more tolerant.

There are ways in which organizations and other stakeholders can respond to help mitigate the potential impact of cannabis legalization and regulation. For instance, studies have shown that clear, evidence-informed messaging that explains risks associated with certain behaviours can have a positive effect in reducing harms (e.g., impaired driving and tobacco smoking); however, this will need to be done in collaboration with experts in various areas to avoid unintended consequences.

The legal context suggests that medical cannabis will likely be treated as a prescription medication. Addressing fitness for duty, particularly in safety-sensitive industries, might benefit by focusing on impairment of any kind and workplace safety through comprehensive policies and practices. Although safety-sensitive industries have been represented in various court cases in Canada with differing outcomes, these cases have not involved highly dangerous or extremely hazardous workplaces such as nuclear facilities, which may warrant more specialized approaches in the courts. Previous court cases led to a heavy burden on employers to justify the need for random testing, yet more recent and ongoing cases might result in changes to this requirement, such as the recent decision to uphold the Toronto Transit Commission's policy for random testing, among other cases.

Provincial and Territorial Legislation Related to Health Professionals and Their Role in Monitoring and Evaluating Substance Use

Experts in addiction play an important role in the context of substance use affecting the work place. SAPs/SAEs often perform this role for organizations, particularly in the monitoring and evaluation of employees affected by substance use issues. However, in contrast to medical professionals such as doctors or psychiatrists, there is no legislative framework to enforce the work or decisions of SAPs/SAEs related to substance use issues in the workplace.

At the arbitration and court level, although SAPs/SAEs have provided testimony on occasion, cases have typically relied upon doctors or psychiatrists. Nonetheless, the evidence from the legal perspective demonstrates that medical professionals can disagree and, therefore, it is important that employers have an individual who can provide clear, current and, most importantly, credible medical information, particularly as it relates to addiction.

When choosing a SAP/SAE or other professional to provide fitness-for-duty and return-to-work recommendations, it is recommended to use an expert who would be considered by an adjudicator to have a high level of expertise and authority in the area of specialization, knowing that all reports and recommendations will not only form the basis for treatment, return-to-work and last chance agreements, but will be used as evidence should a grievance be filed.

Effectiveness and Impact of Workplace Substance Testing: A Brief Review of the Literature

A brief review was conducted to examine the literature concerning effectiveness and impact of workplace substance testing to deter use or reduce injuries or accidents. The results of this summary revealed that it is not possible at this time to conclude that workplace substance testing is effective at deterring or reducing injuries or accidents. Methods used by the majority of studies were weak and had a variety of methodological issues. These methodological limitations and the conclusion that, due to these limits, it is not possible to state that substance testing is effective based on current research was consistent across the literature reviews and stated in some individual studies.

Since the majority of studies have used weak or poor quality methods to test for effectiveness, "...one is not permitted to conclude that random drug testing does not work; the proper conclusion is that there is an absence of evidence" (Christie, 2015). Additionally, most of the reviewed studies noted correlations between the presence of substance testing and lower positive tests by employees and reduced injuries or accidents. Several of these correlations were found to be significant. It is therefore possible that substance testing may be contributing some form of effect on deterrence and injury or accident reduction. More robust and quality research is required.

It was also found that other factors (e.g., policies, education and EAPs) may help contribute to deterrence. Environments that discourage substance use and provide support for those affected by this disability may contribute to an overall better workplace culture (Pidd & Roche, 2014). As such, any potential effectiveness of substance testing may be improved upon by introducing an entire, well-balanced comprehensive program around substance use affecting the workplace.

Workplace substance testing can have other impacts on organizations, including increased financial costs or challenges in meeting ethical and legal requirements. Poor implementation of substance testing and, in particular, testing policies and practices perceived as unfair, can have a detrimental effect on employee commitment to the organization or work performance. Testing may also result in

potential job candidates self-selecting out of applying to organizations who use testing. These and a number of other impacts suggest that organizations need to consider a broader range of implications with substance testing since they may counter or diminish any potential anticipated benefits from testing.

Report Summary and Discussion

In an effort by the CNSC to better understand the current context of substance use workplace policies and practices, and to be proactive in responding to substance use affecting the workplace, this report was prepared to address five areas of interest to the CNSC about substance use: the context of workplace policies among select safety-sensitive sectors; prevalence rates of substance use in Ontario, New Brunswick, Canada and select regions of Ontario; health professionals and their role in monitoring and evaluating substance use; and the potential impact of the legalization and regulation of cannabis on the workplace.

The environmental scan and national survey of the six selected safety-sensitive industries revealed a number of important findings, as well as areas for further investigation. Organizations in some safety-sensitive sectors (e.g., construction, oil and gas) appear to have developed comprehensive policies that address several critical areas to responding to substance use affecting the workplace. The forthcoming results from the key informant interviews will be beneficial to explaining some of these data. In particular, the report might be able to provide some of the reasoning behind the use of certain procedures and practices, as well as decisions made with respect to treatment, investigation, testing, return to duty and evaluation.

Findings from analyses of the CTADS and CAMH-M data provide some context to the current substance use situation in regions with nuclear facilities and for Canada. Across Canada, cannabis use has increased and alcohol remains the more commonly used substance. In Ontario, cannabis use was significantly higher than New Brunswick, and use of sedatives was higher in New Brunswick. Use of different substances varied between males and females as well as by age, meaning that substance use in general and potential impairment can have implications for different groups of workers at Canada's high security nuclear facilities if they fall within one these various populations. Nonetheless, these results reflect the general population and only a study of employee substance use would be able to provide the most accurate picture.

The legalization and regulation of cannabis has the potential to impact the workplace in various ways. At the organizational level, employee impairment can have implications for the safety of the employee, fellow employees, and, for safety-sensitive organizations, the public. Although evidence from the experiences of other jurisdictions is still developing and more research is required, legalization of cannabis demonstrated increased use among adults and drivers, while social norms appear to demonstrate increased tolerance of cannabis use. Legally, medical cannabis is likely to be treated as a prescription medication. Organizations, such as those in the safety-sensitive industry, might benefit most with comprehensive policies and practices that address impairment in general that can affect workplace safety and fitness for duty more specifically.

Experts in addiction are an important element in the context of substance use affecting the workplace. SAPs/SAEs often perform the role of monitoring and evaluation of employees affected by substance use, but medical professionals, such as doctors and psychiatrists can also be involved. In contrast, within the legal environment, doctors and psychiatrist are more often relied upon to provide expert testimony. The implications for any employer is that, whether in day-to-day operations or in arbitration or court contexts, whichever professional the organization chooses to engage with, it is

critical that the individual be an expert in addiction and be able to provide clear, current and credible medical information.

Finally, substance testing in the workplace is a highly debated issue in Canada; however, many safety–sensitive organizations consider the practice as one of the various tools to help them address potential workplace impairment. A review of the literature on workplace testing revealed that there is not yet enough evidence to conclude that testing is effective or not effective in deterring substance use or in reducing injuries or accidents. This is largely due to the weak and poor methodologies used by the majority of studies to investigate testing. At the same time, a number of studies have found varying correlations between testing and reduced use, injuries and accidents, suggesting that there may be potential effects. Further research is needed. Importantly, it was found that comprehensive and well-developed policies and practices that address multiple aspects of substance use in the workplace are likely to have a better impact on substance use that affects the workplace.

1 State of Policies and Practices on Substance Use in Safety-sensitive Industries in Canada

1.1 Introduction

The Canadian Centre on Substance Use and Addiction (CCSA) has prepared this report as part of its Memorandum of Understanding (MOU) with the Canadian Nuclear Safety Commission (CNSC) to further the Commission's understanding of workplace policies and practices about substance use in safety-sensitive industries. Substance use affecting the workplace is gaining increasing attention in Canada as the legal and regulatory landscape changes. There have been some provincial and regional efforts to prevent and address the harms and costs related to substance use affecting the workplace; however, these have been largely fragmented and reactive, and driven by concerns over liabilities of employers, court decisions and arbitration rulings. Employers are increasingly faced with difficult decisions on how to address issues of substance use and the workplace, including balancing public safety, employee productivity and human rights compliance, and providing effective and appropriate employee support among others.

This report describes findings on five specific areas related to substance use and safety-sensitive industries of interest to the CNSC:

- Context of substance use polices across specific safety-sensitive industries;
- Prevalence of substance use in provinces with high-security nuclear facilities;
- Potential impacts of cannabis legalization and regulation on the workplace and fitness for duty;
- Provincial and territorial legislation related to health professionals and their role in monitoring and evaluating substance use; and
- Effectiveness and Impact of Workplace Substance Testing: A Brief Review of the Literature.

The sections of this report are organized according to these five areas. The evidence presented here incorporates and builds upon evidence presented in a previous high-level summary report prepared by CCSA for the CNSC in the spring of 2017. The findings for this current report were prepared for an upcoming CNSC meeting on a draft regulatory framework that describes potential requirements and guidance for managing worker fitness for duty.[1]

[1] For the regulatory document, see CNSC (2015). *Human Performance Management: Fitness for Duty (REGDOC-2.2.4)*. Ottawa, Ont.: Author. Retrieved from www.nuclearsafety.gc.ca/pubs_catalogue/uploads/REGDOC2-2-4-Fitness-for-Duty-eng.pdf.

2 Context of Substance Use Polices Across Specific Safety-Sensitive Industries (Task 2)

A wide range of Canadian businesses, agencies and organizations have implemented some form of an alcohol and/or drug policy. At the same time, there are many that have not yet developed policies, and, even among those that have, the contents and details across each policy vary extensively. In many cases, variance appears to be partially a factor of the type of industry. Some organizations, such as those in the safety-sensitive industry, have developed more comprehensive policies where employee impairment is likely to have a serious impact on the employee's safety and potentially the safety of other employees or the public. In contrast, other organizations, such as those in the service industry, do not have or have limited substance use policies. Although there are many reasons for the limited presence of policies in some of these other industries, one overriding factor is likely that the lack of their safety-sensitive nature does not immediately require it.

To better understand the context of workplace policies among Canadian safety-sensitive industries, an environmental scan, national survey and key informant interviews were conducted across six industries of interest to the CNSC. The six CNSC priority sectors included aviation, marine, rail, oil and gas, construction, and law enforcement. This section describes the findings from the environmental scan, survey and the key informant interviews.

Influence of the United States Department of Transportation Regulations

The CNSC preferred that Canadian organizations that adhere to or are subject to the United States (U.S.) Department of Transportation (DOT) regulations (which includes reference to the Substance Abuse and Mental Health Services Administration [SAMHSA] and the U.S. Department of Health and Human Services [DHSS] regulations) not be included in the scan. However, certain organizations have international components, such as aviation, and excluding these would have resulted in little to no results for some of the sectors of interest. Additionally, it is not always possible to identify if an organization adheres to U.S. DOT regulations since these stipulations may not be included in policy documents, but rather may be implied or listed under other corporate operations, procedures or policies. Nonetheless, this should not detract from the overall objective of the scan, which was to establish the context of workplace policies in selected safety-sensitive industries.

2.1 Method

To investigate the extent of policies and best practices in use by Canadian safety-sensitive industries, qualitative and quantitative evidence from six select safety-sensitive industries (aviation, marine, rail, oil and gas, construction, and law enforcement) was collected through an environmental scan, national survey and key informant interviews. CCSA contracted PRA Inc., a Canadian research firm, to assist in the data collection and analyses.

Environmental Scan

Environmental scans allow for the examination of a broad range of data as a means to identify strengths, observe commonalities and patterns, detect gaps, and inform recommendations for making future changes and decisions (Costa, 1995). The objectives of the environmental scan were to obtain a general picture of workplace policies across the selected industries, and to help identify

organizations that would be well-suited to participate in the national survey and the key informant interviews.

To collect well-developed, comprehensive policies within the six selected industries, convenience sampling was used. Large, safety-sensitive organizations (e.g., national operations, large workforce) were targeted as it was likely that these types of organizations would have well-developed policies. Organizations that were also known to have policies (e.g., through CCSA's networks, discussed in the media), were also targeted. Policies were also identified by searching the Canadian Industry Statistics (CIS) website,[2] which lists organizations that self-identify with specific sectors. Since searching by individual organizations sometimes produced limited results and was not efficient, searches were also made using key words and phrases (e.g., alcohol policy, drug policy, substance use) through Google's search engine.

Approximately 300 organizations from the six safety-sensitive industries were scanned for publicly available policies and, where not available, we examined codes of conduct, if available. (Corporate positions and policies were often described in the organization codes.) Data were reviewed to determine what comprised key the components of the policies (e.g., scope, testing, unique approaches), and if the organization would be a good candidate for the national survey or key informant interviews or both.

Survey

A web-based survey was used to collect additional data on policies and to obtain details about practices and experiences of organizations, which was not possible through the environmental scan. Online surveys, when combined with an introductory email, can be effective in the collection of large amounts of data from target populations, as well as allowing for greater comparative analyses of responses (Evans & Mathur, 2005; Solomon, 2001). The survey was targeted to organizations operating within the six-selected safety-sensitive industries.

The survey was bilingual and consisted of a mix of multiple choice, Likert scale and matrix-style (a table of related questions and answers) questions. Participants were asked twenty questions in total (some questions had multiple parts). Survey questions were primarily closed-ended; however, open-ended response options were included as necessary to allow participants to clarify their responses (for example, after selecting the "other" option from a list of response options).

In addition to demographic information related to the organizations represented by respondents, participants were asked specific questions about their organization's substance use policies, detection and testing procedures, practices related to treatment and return to duty, policy evaluations, and concerns related to the potential impacts of cannabis legalization and regulation. Skip logic was used to ensure that respondents were only asked questions that applied to them, and that the survey focussed primarily on respondents who indicated that their organization included safety-sensitive positions and had a specific substance use policy. Therefore, the number of responses to questions generally declined over the course of the survey.

Survey respondents were identified using the same methods as in the environmental scan (i.e., a convenience sample from the CCSA network, CIS and Google searches), as well as from the results of the environmental scan. A list of potential survey contacts was developed that contained over 700 individuals who were likely to have the authority and experience to report on their organization's substance use policies (e.g., human resources professionals, safety managers, presidents). To

2 Refer to strategis.ic.gc.ca/app/scr/app/cis/search-recherche#brwseinds.

ensure only one response was received per organization, an individualized survey invitation containing a unique link to the survey was sent to only one individual per organization.

As no incentive was provided to participate in the survey, a second list of potential contacts was developed to ensure the highest number of possible responses. This list contained email contacts to over 30 associations from the six safety-sensitive industries. As associations were not likely to share their membership list, a request to distribute an open link to the survey to association members was sent to a contact in the association.

The survey was open for a total of five weeks (April 24, 2017, to May 26, 2017). Four reminder emails were sent to encourage responses. On average, participants completed the survey in 20 minutes and 30 seconds. No responses were considered incomplete or removed for analytical purposes.[3] Respondents were skipped to the final survey question at various stages so that they would not be asked questions that did not apply to them. These skips are described further in the discussion of survey findings. Without the ability to track how many organizations or individuals received the open survey link, the survey response rate could not be calculated.

The Statistical Package for the Social Sciences (SPSS), version 19, software was used for the analysis of survey results. The results were analyzed by subgroups to explore any subgroup differences in responses.[4] The following subgroups were used in the analyses:

- **The organization's industry or sector of work**. Cross-tabulations were run to explore potential differences in responses between the six safety-sensitive industries targeted in this research.
- **The nature of the safety-sensitive organization**. For analytical purposes, responses were grouped into two broad categories: 1) private sector organizations, which included any for-profit businesses, as well as industry associations represented by respondents; and 2) public-sector organizations, which included federal, provincial and municipal government departments or agencies; not-for-profit organizations; Crown corporations; and educational institutions.
- **The geographic extent of the organization's operations**. Responses were grouped into two categories: 1) Canada only; and 2) Canadian and international operations, which includes North American organizations, as well as those with operations beyond North America.
- **The region where the largest number of the organization's employees work**. Response options included each of the Canadian provinces or territories, the United States (considered as one region for the purpose of this survey), and outside of Canada or the United States.
- **The organization's size, as measured by the number of employees**. Responses were grouped into three categories: small organizations (100 or fewer employees); medium-sized organizations (101 to 500 employees); and large organizations (more than 500 employees).
- **Unionization of the organization's Canadian workforce**. Two broad categories were considered in cross-tabulations: 1) organizations with only non-unionized employees; and 2) organizations in which at least some employees were unionized.

Differences were identified using a test of statistical significance that applied a Pearson's chi-square. Since the survey's sample was based on a non-random stakeholder database and the number of completions within the subgroups was less than optimal for testing statistical significance,

[3] Four respondents were skipped to the end of the survey after the second question, as the majority of questions did not apply to them.

[4] For some survey questions (in particular, those with a greater number of response options), the counts for each response option were very small. Grouping response options into broader categories as described was necessary to reduce the degrees of freedom in cross-tabulations and enable meaningful comparison.

statements about tendencies among the subgroups should be interpreted as a starting point for further exploration and analysis, rather than as conclusive or statistically significant findings. This report only discusses cross-tabulations that resulted in a chi-square p-value of less than 0.05. Analyses by geographic extent of operations, organization size and unionization yielded statistically significant results for at least some questions. Regional analyses produced no significant differences.

Key Informant Interviews

To provide further details on best practices and to obtain specifics about developing and implementing policies — including successes, challenges and effectiveness of policies — key informant interviews were conducted with particular individuals from the six selected safety-sensitive industries. Organizations believed to have comprehensive substance use policies in place were targeted for this research. Interviews were used as they can be effective for gathering detailed data and enable the exploration of unique differences between organizational approaches and experiences to workplace substance use that cannot be achieved from environmental scan and survey data alone (Qu & Dumay, 2011).

Similar to the survey, interview questions were developed from the published and grey literatures, as well as from findings in the environmental scan. There were a total of 19 questions (some with multiple parts) that followed the same format as that used in the online survey, but asked for specific details about workplace procedures and practices (e.g., What criteria or methods does your business use to evaluate whether an employee is fit to return to duty/work? What is the procedure for accommodating an employee who cannot return to their existing position, if any?).

A total of 49 potential informants were contacted across the six industries: aviation (eight informants), marine (10 informants), rail (eight informants), oil and gas (seven informants), construction (six informants), law enforcement (nine informants), and one additional interviewee in the transportation industry. The goal was two completed interviews for each industry. Emails were repeated on a weekly basis (or more frequently, when appropriate) until an interview was scheduled, the individual declined, two interviews were completed for that industry, or the interview timeline elapsed.

Achieving the requisite number of interviews was challenging, primarily due to low response rates. Of those contacted, 17 did not respond, 15 declined, and several others could not be completed within the allotted timeframe due to scheduling difficulties. The most common reason for declining, when offered, was a lack of time. Notably, no key informants representing the law enforcement industry participated in an interview. While two interviews with law enforcement representatives were scheduled, these key informants cancelled their scheduled interviews upon reviewing the interview questions. These and other law enforcement representatives noted that their organization did not have its own substance use policy; instead, their organizations' substance use policies and procedures were set externally through legislation, such as the Royal Canadian Mounted Police (RCMP) Act of the Government of Canada.[5] In order to compensate for this sector, an individual from another safety-sensitive sector, the transportation industry, was interviewed and the results included in this report.

Names of individuals and organizations were removed from the raw data, and results were then discussed in aggregated format for the report. Since the purpose of the interviews was to gain detailed information on the implementation of and experiences with substance use policies, the

[5] See Royal Canadian Mounted Police Act, R.S.C., 1985, c. R-10 at http://laws-lois.justice.gc.ca/PDF/R-10.pdf.

interview questions were emailed to interviewees in advance to improve efficiency and to ensure they were prepared with information for the discussion.

Limitations

There were some limitations associated with this examination of substance use policies and practices. The environmental scan was limited to analysis of publicly available policies posted on the internet. Organization policies are typically private and not shared with the public, thus there is more data that could be analyzed in future studies.

With respect to the survey, the inability to obtain email addresses for key individuals (e.g., human resources professionals, safety managers) from some organizations likely lowered the number of responses to the survey. It is also possible that some contacts or email filters might have categorized the email request as spam. Although the survey distribution methods sought only one response per organization, the distribution of the open link (and completion of the survey through this link) to those on the association list could not be tracked. Therefore, it was not possible to eliminate the chance for more than one individual within an organization to respond. If more than one respondent answered questions about the same substance use policy, it could have produced a duplicative effect on responses to certain questions. The limited responses and the inability to collect data from a representative sample of safety-sensitive organizations prevents generalizing the results to the broader population of industries.

There were some challenges in obtaining key informant interviews as some organizations indicated they could not discuss their policies outside of their organization or, some required that CCSA submit an application for research, which was not possible to complete in the five-week time frame of the interviews.

2.2 Environmental Scan Results

Detailed results from the environmental scan are provided in Appendix A, where they are organized by industry sector. The following sections present an overview of the key findings in each of the six sectors.[6]

2.2.1 Aviation

The scan looked at a variety of aviation organizations based in Canada, including commercial and private airlines, as well as flight schools and colleges and universities with aviation disciplines. Among the major airlines such as Aviation 1 and Aviation 2, and those in the navigation sector such as Aviation 3, references to policies within the codes of conduct appeared to suggest they are comprehensive in nature and might provide details on employee expectations and how the organization will respond to substance use issues. All of the codes of conduct explicitly prohibited working while impaired and some extended this prohibition to the possession, distribution and selling of substances. For instance, Aviation 1 noted that “employees are prohibited from reporting to work under the influence of alcohol or any illegal drug or controlled substance”; Aviation 2 stipulated that “You cannot use, possess, distribute, sell or consume illegal drugs or alcoholic beverages while working on or off [Aviation 2] premises or in [Aviation 2] aircraft or other equipment”; and Aviation 3 mentioned that its “Drug & Alcohol Policy sets out expectations and aims to eliminate the risk of impaired performance due to illegal, illicit or inappropriate substance use.”

[6] Organizations whose policies were analyzed for the scan have been reported anonymously. Titles correspond to those in Appendix A.

Upon initial investigation, there appeared to be differences among the aviation organizations in terms of employee expectations. The code of conduct for Aviation 2 explained that all employees must be made aware of, and read, the alcohol and drug policy, and participate in testing as well as seek advice for treatment and to encourage co-workers to do the same. In contrast, wording in the Aviation 3 code of conduct appeared to put more of the onus on employees to determine when, for instance, prescription substances might impair their performance, and the wording appeared more negative (e.g., violations, termination) rather than neutral. These differences might be subtle but the potential is that, because Aviation 2 appeared to depict a more open and supportive culture towards addressing substance use, this could improve employee engagement and acceptance of policies.[7] Further investigation of the actual policies and practices of these and other organizations is needed to determine the actual nature of the programs. However, examination of the experiences of some organizations, such as one utility contractor based in Canada but operating internationally,[8] discovered that employee engagement with substance use policies and practices took time to cultivate to a level where employees felt comfortable. It is anticipated that the key informant interviews will reveal more insights into these experiences.

Overall, substance use policies were generally not publicly available for, or referenced by, smaller airlines operating solely in Canada. Flight schools, colleges and universities with aviation disciplines tended to require some sort of drug and alcohol assessment prior to entry. However, there was little publicly available information about substance use policies for students once they were admitted. Nonetheless, some aviation schools, such as Aviation 4 and Aviation 5, noted admission to their schools required individuals to meet the medical requirements set out by Transport Canada prior to acceptance. It could be that smaller organizations rely upon Transport Canada regulations as the basis for their policies. Although a good starting point, this could be problematic as policies should be tailored to the individual organizations, such as the type of operations (e.g., public or private), positions (e.g., safety sensitive or not), and source of employee (e.g., union or non-union) among other considerations. Blanket policies run the risk of missing issues specific to the organization and could result in problems if not properly addressed.

2.2.2 Marine

A number of Canadian-based marine organizations were examined for the environmental scan, but very few mentioned substance use policies. Some, such as Marine 1, only provided a brief, one-page document about its alcohol and drug policy, while others, such as Marine 2, referenced use of the BC Maritime Employers Association policy. These examples suggest that policies might not be well-developed among some within the marine sector. Similar to aviation, other maritime organizations, such as Marine 3, mentioned alcohol and drug policies within their code of conduct, but the policies were not publicly available. Common among the limited policies and phrases within the codes of conduct was the explicit prohibition of being under the influence of drugs or alcohol while at work.

2.2.3 Rail

A variety of rail organizations, including many Canadian-based freight and passenger railways, as well as commuter rail systems, were examined for their substance use policies. Policies were publicly available for larger rail organizations (e.g., Rail 1, Rail 2, Rail 3 and Rail 4), but only referenced in codes of conduct, other documents or not at all for smaller organizations. Among the available

[7] It is anticipated that aspects related to positive and supportive workplace cultures will be revealed through the key informant interviews, the results of which will be included in this report once the interviews are completed and analyzed.

[8] Information and research about the utility contractor was obtained through other research collected and analyzed by CCSA through a project on workplace substance use policies. As such, the results are not reported in Appendix A of this report.

policies, the contents included guidelines for testing (e.g., pre-employment, for cause and random), conducting searches, employee termination, hosting policies and evaluation criteria. Some of these organizations also possessed their own medical services (e.g., a medical review officer [MRO]) to conduct substance use evaluations and possibly to make determinations or recommendations about employees.

Unions appear to have had a strong influence on the rail sector. Some organizations referenced within their policies a special clause in their agreements with unions referred to as the "by-passes" by Transport Canada. For instance, the collective agreement for one union working with Rail 1 had a Rule G Bypass Agreement/Memorandum of Understanding that stated: "Employees who have consumed alcohol and/or drugs while subject to duty or while on duty will not be dismissed on the first occasion when the incident is reported by a co-worker to management." In essence, employees could be protected from punitive measures for their first substance use offence.

Protection of the rights of union members has been a notable challenge for some organizations across different sectors wishing to implement substance use policies, which might be seen as infringing on employee rights. Currently, the initiative of the Toronto Transit Commission (TTC) to launch a random drug testing policy on March 1, 2017, as part of its Fitness for Duty policy has made media headlines and was subject to an ongoing arbitration dispute. Its largest union, the Amalgamated Transit Union Local 113, fought the policy on the grounds that the Supreme Court had ruled random testing "unlawful unless the employer can show justification" (Spurr, 2016).[9] This argument is based on the results of previous court cases (e.g., the Suncor case), which are discussed in greater detail in the legal section below. The TTC case is discussed further in the legal section of the current report under The Potential Impact of the Legalization and Regulation of Cannabis (Task 4).

Lessons learned from other organizations and their experiences with unions can be informative. In particular, the utility contractor mentioned above conducted substantial engagement activities with its unions to obtain buy-in on their substance use policies, which proved successful when launching their substance use workplace program. Although efforts were made to find out more about the utility contractor's experiences and lessons learned, the organization was not in a position at the time of this research to share its information.

2.2.4 Oil and Gas

Similar to the rail sector, several large oil and gas organizations (e.g., Oil and Gas 2, Oil and Gas 5, and Oil and Gas 6) have well-developed and publicly accessible policies, while many small organizations either mentioned policies in their codes of conduct or did not refer to any policies. Those policies that were available were detailed and comprehensive, and included a number of features, such as policies for drug and alcohol testing, cut-off limits for various substances, searches

[9] "Random testing" is understood or applied differently by different organizations, which can create confusion when attempting to apply or understand differences between its use by organizations. Among some organizations, random testing can be used more broadly and interchangeably to refer to testing that occurs through a random selection of employees or through unannounced testing, without distinguishing between the two. However, some organizations make the distinction that random testing refers specifically to a random selection of employees for testing that might or might not occur at pre-determined dates and times, and that unannounced testing is performed at unknown dates and times on employees selected at random or specifically (e.g., for monitoring during return to work period).

Random testing is also applied inconsistently in different contexts. Although some organizations distinguish between general, ongoing testing that is carried out as part of normal business operations with any employee as a prevention measure, post-incident and reasonable cause testing, and aftercare and return-to-work monitoring, some organizations use the term random testing interchangeably for all three contexts. For some organizations, and in terms of legal implications, these distinctions may be important.

The CNSC uses the term random testing to apply specifically to general, ongoing testing and not in reference to post-incident and reasonable cause or monitoring testing.

of worksites and personal items, organization-hosted events and differentiation between illegal drugs and inappropriate use of alcohol or medications. Additionally, some policies appeared to use more neutral or less adversarial wording and included references to support systems.

Of note, several organizations referenced Enform, or likely developed their policies based on Enform. Enform is a safety association for the oil and gas industry and it provides a wide-range of tools and resources for employers to help develop a comprehensive policy, including:

- Alcohol and Drug Policy Model (provides templates on how to develop a corporate alcohol and drug policy);
- Gap Analysis Matrix;
- Considerations when Evaluating an Alcohol and Drug Program;
- Alcohol and Drug Testing Guide;
- Overview of point-of-collection-testing (POCT) - provides definitions and explains how POCT works for organizations that conduct testing at the workplace; and,
- Alcohol & Drug Policy Development and Implementation Worksheet.

By creating a toolkit for its members, Enform has made it easier for organizations to develop and adopt substance use policies that are tailored to their operations.

In addition to expectations and policies for organization employees, some organizations also described policies or expectations for contractors and other workers that might not be directly employed by the organization. This observation is important since small or independent contractors might not have policies in place and therefore might be held to the standards of the employing organization. In situations where both the host organization and the contractor each have policies, it appeared that for some organizations their policy took precedence if there was a contradiction between the two. Further research is required to determine the details in these situations.

2.2.5 Construction

Findings for the construction industry, similar to that of other industries already discussed above, were mixed. Larger organizations appeared to have in place or reference more detailed policies, while smaller organizations referenced brief policy statements or did not mention policies. A number of organizations often referenced the standards or policies developed by three industry organizations: Construction 1, Construction 2 and Construction 3. Each of these organizations has developed detailed policy manuals or guides that cover such elements as differentiating between prescription and non-prescription medications, testing procedures and methodology, performance indicators to monitor staff, cut-off limits for testing of different substances in bodily fluids, procedures for assisting employees (e.g., “must” inform employees of assistance, encourage employees to use Employee and Family Assistance Programs (EFAPs), etc.), and how to deal with the costs associated with testing. Construction 2 also offers training courses for alcohol and drug supervisors and a downloadable pocket guide.

Similar to the oil and gas sector, the construction sector comprises large numbers of contractors and unionized employees and therefore faces similar constraints in terms of organization-contractor substance use policies and union efforts to protect their members.

2.2.6 Law Enforcement

Several law enforcement agencies across Canada as well as the Royal Canadian Mounted Police (RCMP) were reviewed for their substance use policies. Generally speaking, the agencies appear to be governed by Acts of legislation that outline their duties with little or no mention of substance use policies. The limited mention of guidelines about substance use in the Acts usually requires officers to perform their duties free of impairment due to alcohol, drugs or other substances. Several agencies discuss some form of expectations of being fit for duty within their codes of conduct. Beyond these statements, references to substance use policies were limited or non-existent.

2.3 Survey and Interview Results

The survey was sent to individuals representing organizations in the six select safety-sensitive industries and yielded a total of 87 completed surveys. These respondents included 60 individuals who received the unique survey link and 27 individuals who completed the survey through the open link distributed by industry associations.[10] As discussed in the Method section, the results of the survey cannot be generalized to the broader industry sectors and instead serve as a starting point for further discussion and research.

A total of 12 interviews were conducted at the convenience of the interviewee via the telephone in the official language of the interviewee's choice. The interviews lasted approximately 45 minutes. Each individual possessed detailed knowledge and the authority to discuss their organization's substance use policies on behalf of their organization. Each organization was responsible for identifying the individual best placed to respond to the interview questions. The majority of key informants (nine) were managers; five of those were roles in health and safety. One interviewee was a chief medical officer and one was a policy advisor in the human resources department. A number of key informants emphasized the important role of unions and professional associations in the development and administration of substance use policies; however, as none of the key informants were representatives of unions or professional associations, the perspective of these organizations was not captured directly in the interview findings.

2.3.1 Profile of Responding Organizations

The first portion of the survey asked respondents a series of questions to gather background information about their organization. This section of the report presents a profile of the organizations based on responses to these questions.

Industry Representation

Table 1 reveals that the largest number of respondents represented organizations belonging to the law enforcement, construction and oil and gas industries. This sector-based profile of respondents appeared to reflect, to some degree, the relative industry sizes, as more respondents participated from the larger construction (23%) and oil and gas (18%) industries, and fewer respondents participated from the smaller marine and rail industries. However, the response from the law enforcement sector (32%) is relatively large, given the size of the law enforcement industry in Canada. This somewhat disproportionate representation of law enforcement representatives might

[10] As discussed in the methodology, those who were likely to have the authority or experience to report on their organization's substance use policies (e.g., human resources professionals, safety managers, presidents) were targeted for this survey.

result from the fact that three of the five industry associations that agreed to distribute the open survey link were law enforcement associations and so reached greater numbers of respondents.

While most respondents identified their organization as belonging to one of the six safety-sensitive industries that were the focus of this research, six individuals (8%) identified another safety-sensitive industry to which their organization belonged. Other safety-sensitive industries identified by respondents included transportation (of the public or goods), storage or management of goods or waste, and energy production. Two key informants represented each of the select safety-sensitive sectors with the exception of law enforcement, where there were no key informants. Additionally, rail was represented by three informants. Although transportation was more broadly represented across all of the select safety-sensitive industries (i.e., transportation of goods or people), one additional interview was conducted with a representative from an organization whose primary operations were road transportation.

Table 1: Q1. To which of the following sectors does your organization belong?		
(n=87)	Count	%
Aviation	14	16%
Marine	6	7%
Oil and gas	16	18%
Rail	6	7%
Construction	20	23%
Law enforcement	28	32%
Other		
Transportation (public or goods)	3	3%
Storage/management of goods or waste	2	2%
Energy production	2	2%
Note: Respondents could provide more than one answer; totals can sum to more than 100%.		

For the majority of the oil and gas (81%), law enforcement (68%) and construction (50%) sector organizations represented by survey respondents, the largest number of their workers are employed in the province of Alberta (see Table 2). Given the large oil and gas industry in Alberta, the corresponding number of responses might not be surprising. In terms of construction, one survey respondent from Alberta expressed strong interest in the survey and made concerted efforts to promote and encourage other organizations from this sector and region to participate in the survey.

Table 2: Sector, by region, in which largest number of employees work Q1. To which of the following sectors does your organization belong? Q5. In what region does the largest number of your organization's employees work?						
	Aviation (n=14)	Marine (n=6)	Oil and gas (n=16)	Rail (n=5)	Construction (n=20)	Law enforcement (n=28)
British Columbia	28%	33%	6%	-	10%	0%
Alberta	36%	33%	81%	40%	50%	68%
Saskatchewan	14%	-	13%	-	15%	11%
Manitoba	7%	-	-	20%	4%	4%
Ontario	14%	-	-	20%	25%	11%
Quebec	-	33%	-	20%	-	7%
Note: Columns might not sum to 100% due to rounding.						

Safety-sensitive Positions

This survey targeted only organizations operating within safety-sensitive sectors, but organizations that operate within a safety-sensitive industry do not necessarily have safety-sensitive positions.[11] Due to this possibility, respondents were asked to identify whether their organization includes safety-sensitive positions.

The vast majority of respondents (n=83, or 95%) indicated that their organization did have safety-sensitive positions. Individuals who said that their organization did not include these positions were skipped to the end of the survey and did not participate in the remainder of the survey. All organizations targeted for the key informant interviews had safety-sensitive positions.

Nature of Organization and Workforce

Table 3 shows the types of organizations represented by survey respondents. Roughly two-thirds of respondents indicated their organization fell within the private business arena, where the majority identified belonging to private sector organizations (60% of all who responded to this question) and a smaller proportion indicated they represented industry associations (5%). Slightly less than one-third of respondents (30% of all who responded to this question) completed the survey on behalf of a municipal government department or agency. Very few respondents indicated that their organizations represented other levels of government or other public-sector institutions, such as Crown corporations and educational organizations (only 1% of respondents selected each of these options). Organizations represented by key informants fell largely within the private sector and often were controlled by Government of Canada or Transport Canada regulations.

Table 3: Q3. Which of the following best describes the nature of your organization?		
(n=83)	Count	%
Private sector	50	60%
Federal government department/agency	1	1%
Provincial government department/agency	1	1%
Municipal government department/agency	25	30%
Crown corporation	1	1%
Educational (university/college/school)	1	1%
Industry association	4	5%
Note: Percentages might not sum to 100% due to rounding.		

Table 4 shows the extent of unionization among Canadian employees of organizations represented by survey respondents. For two-thirds of respondents (66%), their organization's Canadian workforce included at least some unionized employees, with the vast majority of these indicating that over half of their workforce was unionized. Roughly one-third (33%) of respondents indicated that their organization had no unionized employees. Among the key informants, the majority of organizations represented had some degree of unionized employees.

[11] For the purposes of this research, safety-sensitive positions were defined as those in which impaired employee performance could result in a significant incident affecting the health and safety of the individual, other employees, customers or the public, or could cause property damage. Respondents were informed that safety-sensitive positions could include any full-time, part-time, contract or other employee performing work for their organization.

Table 4: Q7. Which of the following best describes your organization's Canadian workforce?		
(n=83)	Count	%
Non-unionized employees	27	33%
Less than 50% unionized	6	7%
50% or more unionized	49	59%
Unsure/don't know	1	1%

Geographic and Regional Profile

Respondents were asked to identify the geographic extent of their organization's operations, as well as the region in which the largest number of the organization's employees are located. As Table 5 shows, nearly three-quarters (71%) of organizations represented by respondents operate solely within Canada. Less than one-third of respondents indicated that their organization's operations also extend beyond Canada's borders, operating within other North American countries (15%) or internationally in countries beyond North America (15%).

Table 5: Q4. Which of the following best describes the geographic extent of your organization's operations?		
(n=83)	Count	%
Canada only	59	71%
North America	12	15%
International	12	15%
Note: Percentages might not sum to 100% due to rounding.		

Table 6 shows that 54% of respondents indicated that the largest number of their employees work in Alberta, while approximately one-tenth each reported that the largest number of their employees work in Ontario (13%), Saskatchewan (12%), and British Columbia (11%). Only a few respondents indicated that the largest number of their organization's employees was located in either Manitoba (4%) or Quebec (5%). No respondents indicated that the largest number of their organization's employees worked in the Maritimes, any of the territories, the U.S. or any location outside of Canada or the U.S. All of the organizations represented by key informants were headquartered in Canada. Many operated in North America, several operated internationally, and a few operated in Canada only. The majority of organizations operated in more than one province or territory.

Table 6: Q5. In what region does the largest number of your organization's employees work?		
(n=83)	Count	%
Alberta	45	54%
Ontario	11	13%
Saskatchewan	10	12%
British Columbia	9	11%
Quebec	4	5%
Manitoba	3	4%
Unsure/don't know	1	1%
Note: Respondents were also given the following response options: New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, Nunavut, Yukon, Northwest Territories, United States, and outside of Canada or the United States.		

Organization Size

Respondents were asked to select their organization's size by providing an estimate of the number of individuals their organization employs in Canada. Table 7 shows that respondents were relatively well distributed between those representing small (100 employees or less, 28%), medium (101 to

500 employees, 41%), and large organizations (501 or more employees, 31%). Key informants were not asked about the specific number of employees their organizations employed; however, a profile of their businesses indicated that many were large employers having more than 500 employees.

Table 7: Q6. Please indicate the approximate number of all individuals employed by your organization in Canada.		
(n=83)	Count	%
1 to 10 employees	5	6%
11 to 20 employees	5	6%
21 to 100 employees	13	16%
101 to 500 employees	34	41%
More than 500 employees	26	31%

2.3.2 Substance Use Procedures and Policies

The second section of the survey gathered information from respondents about their organizations' practices related to suspected substance use, as well as general information about the substance use policies that their organization had in place at the time of the survey. Similar questions were asked of key informants during the interviews. Key informants were also asked details that went beyond the survey questions regarding specific experiences and best practices related to substance use policies, which are also described below.

Initial Responses to Suspected Substance Use

All survey respondents were asked to identify how their organization responds to suspected instances of substance use in the workplace. Respondents were asked this question regardless of whether their organization had a specific substance use policy in place.

As shown in Table 8, the most commonly-selected response was referral to assessment or testing. Nearly half (48%) of respondents indicated that their organization responds to a first-time incident of suspected workplace substance use by referring the employee for further assessment or testing or both. This response was echoed in the key informant interviews; many key informants said that their organization's initial response to suspected substance use involved gathering more information in relation to the suspected substance use.

Table 8: Q8. When an employee is suspected of substance use in the workplace for the first time, what is your organization's response?		
(n=83)	Count	%
Give employee a warning	28	34%
Refer employee for assessment/testing	40	48%
Refer employee to a medical doctor	5	6%
Refer employee to an Employee Assistance Program/Employee Family Assistance Program or equivalent	32	39%
Offer employee leave with pay	3	4%
Offer employee leave without pay	4	5%
Dismiss/terminate employee	3	4%
No response from organization	0	0%
Other		
Initial response varies with/depends on employee's position or circumstances	8	10%
No personal/organizational experience yet with suspected substance use	2	2%
Various other responses	3	4%
Unsure/don't know	6	7%
Note: Respondents could provide more than one answer; totals can sum to more than 100%.		

Other commonly selected responses included referring employees to an Employee Assistance Program, Employee and Family Assistance Program (EAP, EFAP) or equivalent (39%), and giving employees a warning (34%). Only a small proportion of respondents indicated that their organization responds to an employee's first incident of suspected workplace substance use by referring them to a medical doctor (6%); offering them leave with or without pay (4% and 5%, respectively); dismissing or terminating them (4%); or using another response (6%).[12] A number of respondents (10%) made a point of identifying that the specific response taken by their organization varied with the employee's position within the organization or the circumstances that surrounded the suspected substance use. No respondents indicated that their organization does not respond to suspected substance use in the workplace. Among key informants, investigations of suspected substance use included referral to a substance abuse professional or substance abuse expert (SAP/SAE), referral to human resources, or referral to a medical doctor. Some investigations might also involve post-incident or reasonable cause testing. Among unionized employees, organizations often deferred to the union to address and manage any potential substance use issues. A couple key informants indicated that employees were immediately terminated. These various responses are discussed in further detail below.

Policy Development and Promotion

The vast majority of survey respondents (91%) said that their organization had a specific policy on employee alcohol and drug use (see Table 9). As the survey was designed to target organizations with specific substance use policies, those who reported that their organization did not have a policy, or were unsure or did not know were skipped to the end of the survey, and did not respond to the remainder of the survey questions.

Table 9: Q9. Does your organization have a policy on employee alcohol and/or drug use?		
(n=80)	Count	%
Yes	73	91%
No	6	8%
Unsure/don't know	1	1%

As the key informants were targeted for interviews because of the likelihood that their organizations would have substance use policies, each reported having a policy in place. Among them, nearly all had a policy in place for 10 years or more, with only two having implemented one within the last six years and one implemented in 2017. Policies applied to all employees in 10 out of 12 cases. The two exceptions were in construction, with one organization applying the policy only to field employees and one limiting the policy to certain sites, rather than particular employees. However, five of the 10 organizations with universal policies noted that the requirements for different positions under the policy would vary, in particular for safety-sensitive positions. Therefore, while the policy applied to all employees, those in safety-sensitive positions would be subject to different triggering conditions and potential consequences for violating the policy than those in non-safety-sensitive positions. For example, one organization noted that if an employee operating rail equipment were to fall down, that would trigger the possibility of drug and alcohol testing; similar behaviour from an office employee may not.

In the rail and aviation industries, safety-sensitive positions are defined by legislation. For rail employees, those in direct control of train operation are considered safety-sensitive under the legislation. Additionally, other safety-sensitive positions are defined in conjunction with the unions or

[12] Other responses identified by respondents included: removing the employee from safety-sensitive work; and observing the employee for a period of time to determine if other responses (such as reasonable cause testing) were required.

by the organization. In aviation, any employees involved in flight operations (e.g., pilots, ground crew, flight attendants) are considered safety-sensitive.

Key informants representing other industries presented more varied definitions of safety-sensitive positions, with some organizations having extremely detailed and restrictive definitions, and at least one organization having no pre-set definition. The most restrictive definition of safety sensitive was held by an organization that carried out random substance testing. This organization defined a safety-sensitive position as one in which employees must both: 1) have a key and direct role in an operation where impaired performance could result in a catastrophic incident affecting the health and safety of employees, contractors, customers, or the public; and 2) have none, or very limited supervision, to provide frequent operational checks. According to the key informant speaking on behalf of this organization, this definition was necessary to establish random testing as a bona fide occupational requirement.

In terms of policy development, survey respondents who reported that their organizations have policies were asked to provide information about the development and promotion of those policies. As Table 10 shows, nearly all (93%) respondents reported that management was involved in developing their organization's substance use policy. Human resources groups or personnel were also involved in policy development for a large majority of the organizations represented by respondents (over three-quarters — 78%). Nearly half of respondents (47%) indicated that lawyers were involved in policy development. Unions (34%), other employees (27%), external consultants (25%), medical doctors (16%) and other medical professionals (19%) were less commonly involved in developing the organizations' substance use policies, as only around one-fifth to one-third of respondents identified the involvement of any of these groups. Insurance companies (8%) and other stakeholders (8%) — including workplace health and safety departments and industry associations — were involved in policy development for only a small proportion of the organizations. Among key informants, several mentioned the importance of engaging with unions and contractors, that is, to work with these groups in the development and implementation of policies. One informant mentioned the importance of consulting with key individuals (e.g., lawyers, doctors) to ensure the policy is well-developed and addresses multiple potential issues that could arise.

Table 10: Q11. Please indicate whether or not representatives from the following groups or positions were involved in the development of your organization's substance use policy.

(n=73)	Involved		Not involved		Unsure/Don't know	
	Count	Row %	Count	Row %	Count	Row %
Management	68	93%	1	1%	4	6%
Human Resources	57	78%	6	8%	10	14%
Employees	20	27%	36	49%	17	23%
Lawyer	34	47%	21	29%	18	25%
Medical doctor or physician	12	16%	36	49%	25	34%
Medical professional (e.g., Substance Abuse Expert or Substance Use Professional)	14	19%	34	47%	25	34%
Union	25	34%	35	48%	13	18%
Insurance company	6	8%	39	53%	28	38%
External consultant	18	25%	27	37%	28	38%
Other	6	8%	37	51%	30	41%

Note: Row percentages might not sum to 100% due to rounding.

Respondents were asked to identify which employees within their organization receive orientation or education related to the organization's substance use policy. Table 11 shows that, for the vast majority (80%) of organizations represented by the survey, all employees, regardless of their position

within the organization, receive education or orientation about substance use policies. Only a small proportion of organizations educated just those in management or safety-sensitive positions (6% for each). One-tenth of the organizations represented by the survey do not offer employees specific education or orientation about their substance use policies, relying instead on employees to read about the policies independently.

Table 11: Q10. Within your organization, which employees (if any) receive orientation and/or education about your organization's substance use policy?		
(n=73)	Count	%
All employees	58	80%
Management	4	6%
Employees in safety-sensitive positions	4	6%
Employees do not receive orientation/education about substance use policies (employees are expected to read company policies on their own)	7	10%
Other	2	3%
Note: Respondents could provide more than one answer; totals can sum to more than 100%.		

A number of key informants indicated that their supervisors or upper management received education and training on substance use and how to observe for, and recognize, potential impairment and other safety issues. One informant described the importance of ongoing education and understanding of the policy among all employees; this organization conducts two training sessions per year to remind employees of the policy and reinforce skills among front-line managers to handle potential substance use issues: "We host training sessions twice per year to make sure people have a chance to get re-exposed on the policy and its desired outcomes." Employees are also educated about the organization's standards and expectations for fitness for duty, as well as receive training on how fitness for duty can be compromised by other factors such as fatigue. The nature of the organization's operations also affected the extent of training for management. For one organization whose operations were located over a large area of North America, training of supervisors did not make sense as these individuals are not in regular contact with the employees. Instead, the organization relies on trained individuals at the community level to help monitor and address potential impairment.

Policy Content

Respondents were asked to identify the topics and components included in their organizations' substance use policies. As Table 12 illustrates, alcohol use and illegal drug use were covered in the substance use policies for nearly all (99%) of the organizations represented by survey respondents. A large majority of respondents (88%) also identified that their organizations' substance use policies address the use of prescription drugs and painkillers (when not used as directed). Respondents reported on these policy aspects with a high degree of certainty.[13]

[13] Only 1–4% of respondents indicated that they were uncertain about whether their organization's substance use policy included these components.

Table 12: Q12. Please indicate whether or not each of the following topics or components are addressed or included in your organization's substance use policy.						
(n=73)	Addressed/ Included		Not addressed/ Included		Unsure/Don't know	
	Count	Row %	Count	Row %	Count	Row %
Alcohol use	72	99%	0	0%	1	1%
Illegal drug use (e.g., recreational cannabis, cocaine, speed, street opioids)	72	99%	0	0%	1	1%
Prescription drugs and painkillers not used as directed (e.g., codeine, morphine, anxiety medications, fentanyl, diazepam, Demerol©)	64	88%	6	8%	3	4%
Medical cannabis	21	29%	40	55%	12	16%
Drug and/or alcohol screening or testing procedures	40	55%	27	37%	6	8%
Procedures or methods for evaluating employee substance use	43	59%	22	30%	8	11%
Treatment options and/or support services	49	67%	13	18%	11	15%
Return-to-work program	42	58%	18	25%	13	18%
Procedure for monitoring employees who return to work	38	52%	18	25%	17	23%
Accommodations (i.e., adjusting to employee needs when they return to work)	30	41%	26	36%	17	23%
Procedures/actions for non-compliance with policy	55	75%	9	12%	9	12%
Procedures/actions for dismissal/termination	55	75%	8	11%	10	14%
Other	5	7%	33	45%	35	48%
Note: Row percentages might not sum to 100% due to rounding.						

The survey results in Table 12 indicated somewhat greater uncertainly among respondents about the inclusion of other topics and components. Similarly, the key informant interviews revealed considerable variability in both the comprehensiveness and content of substance use policies. The policies described by key informants ranged from very well developed policies that included detailed drug and alcohol testing procedures to very basic policies that avoided explicit mention of substance testing. For one organization, the substance use policy had just been developed and implemented. Although policies may vary in content, in terms of implementation one key informant stressed that organizations:

> [D]on't make broad, sweeping standards that everyone has to adhere to. … You have to take each case and look at it individually. It takes a lot of effort and time but it typically pays off at the latter end because you can demonstrate you haven't discriminated against that person, because you haven't made one broad statement.

Despite the uncertainty and variability in policy development, the survey results indicated that the following topics and components were included in substance use policies for the majority of the organizations represented by respondents:

- Procedures or actions for non-compliance with the policy (75%);
- Procedures or actions for the dismissal or termination of employees (75%);
- Treatment options or support services (67%);
- Procedures or methods for evaluating employee substance use (59%);

- Return-to-work program (58%);
- Drug or alcohol screening or testing procedures (55%); and
- Procedures for monitoring employees who return to work (52%).

It is worth noting that medical cannabis was the only topic that the majority (55%) of respondents indicated was not a part of their organization's substance use policy. During the interviews, several key informants indicated that they were reviewing their policies in light of the new legislation and regulations and recognize addressing cannabis in their policy will be necessary. Whether or not cannabis was addressed in the organization's policy, testing for cannabis was still carried out as part of the panel of screened substances. Some key informants pointed out that the science for detecting impairment by tetrahydrocannabinol (THC) is considerably less developed, which may explain — at least in part — why organizations would exclude medical cannabis from their substance use policies. As some key informants reported, testing indicates the presence of THC but it does not tell the organization if the employee is impaired. Other steps must be taken to determine impairment, such as a medical review.

A relatively high proportion of respondents (37%) also indicated that drug or alcohol screening or testing procedures are not a part of their organizations' policies. Key informants highlighted the considerable legal risk that surrounds drug testing in Canada, and noted that this risk deters some organizations from explicitly mentioning testing procedures in their policies. For instance, one key informant stated that "our policy is weak and generic, [in this way] legal uncertainty of testing has been avoided." Some key informants stated that rather than describe testing procedures in policies, these were instead described in their organization's medical manuals and procedures. Nonetheless, some key informants indicated the importance of well-developed policies that include the organization's standards, expectations and procedures related to substance use issues and testing.

Survey results provided some evidence that the inclusion of drug and alcohol testing procedures in substance use policies might be related to organization size. Larger organizations (those with more than 500 employees) were more likely than smaller organizations (those with 100 or fewer employees) to report that their organization's policies address testing procedures (chi-square = 0.001). Key informant interviews also demonstrated a similar pattern where larger organizations tended to have more well-developed policies and comprehensive procedures in place and only the most comprehensive substance use policies tended to include explicit substance testing requirements and procedures.

Survey results also provided evidence of an association between the geographic extent of an organization's operations and inclusion of drug and alcohol testing procedures in substance use policies. In comparison to those respondents whose organizations operated only within Canada (44%), respondents from organizations with international (92%) or North American (64%) operations were more likely to state that their policies addressed testing procedures (chi-square = 0.051). Again, this association was supported by observations from the key informant interviews, as some informants pointed out that Canada's legal system limits workplace drug testing practices more than other countries' legal systems, the U.S. in particular. As one key informant stated:

> The American model – and if you read the library of parliament opinion piece on drug testing in the workplace, it says that the US drug testing model is partially put in place to limit supply. In the US the use of any limit narcotics is prohibited at any time. Means you can't go on vacation to Jamaica, it's illegal period if you work in a regulated position. Canadian jurisprudence has said an employer in Canada cannot do that. There has to be evidence of impairment.

2.3.3 Detection and Testing

The third section of the survey gathered information on the processes and methods used by respondents' organizations to both identify and address workplace substance use issues.

The most common approaches to identifying substance use issues among employees used by organizations represented in this survey involved conducting investigations once there was reason to suspect a substance use issue. As Table 13 shows, the majority of respondents confirmed that their organization identified substance use issues through investigations:

- Based on reasonable cause (81%);
- After an incident involving injury or damage has occurred (74%); and
- After a near-miss incident has occurred (64%).

Table 13: Q13. To identify substance use issues among employees, does your organization…

(n=73)	Yes		No		Unsure/Don't know	
	Count	Row %	Count	Row %	Count	Row %
Investigate substance use issues based on reasonable cause (e.g., employee behaviour, decline in performance, supervisor/co-worker concern)	59	81%	7	10%	8	10%
Investigate substance use issues after an incident involving injury or damage has occurred	54	74%	10	14%	9	12%
Investigate substance use issues after a near-miss incident has occurred	47	64%	14	19%	12	16%
Conduct pre-determined (e.g., monthly) drug and/or alcohol testing for employees or applicants	12	16%	59	81%	2	3%
Conduct random testing of all employees	3	4%	68	93%	2	3%
Conduct random testing of specific employees (such as those in safety-sensitive positions)	9	12%	62	85%	2	3%
Conduct searches for evidence of drug and/or alcohol use	12	16%	57	78%	4	6%
Conduct drug and/or alcohol testing after non-compliance with policy	34	47%	31	43%	8	11%
Conduct drug and/or alcohol testing after employees undergo treatment for substance use	33	45%	26	36%	14	19%
Rely on employees to report their own substance use	37	51%	24	33%	12	16%
Other	5	7%	36	49%	32	44%

Note: Row percentages might not sum to 100% due to rounding.

Similarly, the majority of key informants indicated that investigation is the first approach used to identify potential substance use issues. Investigations frequently involved SAPs/SAEs or medical professionals and were often conducted based on reasonable cause or post-incident situations.

Substance Testing

According to the survey respondents, identification methods that involved testing for substances and searching for evidence of substance use appeared to be far less used by organizations. Almost all (93%) respondents indicated their organization does not conduct random testing of all employees. Those who indicated their organization does conduct random testing of all employees identified their organization as belonging to the oil and gas industry.

Similarly, a large proportion of respondents identified that their organization does not conduct either random testing of specific employees, such as those in safety-sensitive positions (85% selected "no"), or pre-determined drug and alcohol testing (i.e., periodic testing such as monthly or other repetitive time frames) for employees or applicants (81% selected "no"). Once again, those representing organizations in the oil and gas industry appear to be more likely than those in other sectors to indicate that their organization does conduct random testing of specific employees. Roughly 30% of respondents who identified their organization as belonging to the oil and gas industry selected "yes" to this question in comparison to 17% of those who identified their organization as belonging to the aviation industry and 16% of those who identified their organization as belonging to the construction industry. The nature of the organization might also have an effect on whether an organization conducts random testing of specific employees, as no respondents representing public sector organizations selected "yes" to this question, in comparison to 18% of those who represented private sector organizations (chi-square = 0.031).

Survey results indicated that respondents' organizations were somewhat more likely to conduct testing after either non-compliance with the policy (47%) or after an employee had undergone treatment for substance use (45%). The results revealed that almost equal numbers of respondents selected "yes" and "no" in relation to testing for non-compliance (47% and 45% for yes and no respectively), which suggests that organizations represented in this survey might be just as likely to conduct a test as to not conduct a test.

Most key informants stated that their organization performs substance testing of some kind. Similar to the survey respondents, however, the most common forms of testing were post-incident and reasonable cause testing and only two informants reported that their organization conducted random testing as part of its ongoing process (i.e., not part of return-to-work testing). One key informant noted that their organization was working on a testing process and that it had not yet been implemented. Only one organization represented in the interviews did not include substance testing as part of their policy; for this organization, substance testing was only undertaken if required by a treatment program.

With respect to random testing, this procedure was mostly restricted to safety-sensitive employees in the sample of key informants, with the exception of specific executives in one organization who also underwent random testing, and not those in non-safety-sensitive positions.[14] In the two organizations where random testing was part of an ongoing process, for one organization, random testing was required by the United States Department of Transportation (U.S. DOT), and only carried out for truck drivers crossing the US border. In the other case, random testing was determined to be a bona fide occupational requirement and was applied to all safety-sensitive employees. However, the scope of the definition of safety sensitive was narrow and specific, as described above:

> Because we random test employees, and because random testing is somewhat controversial and confrontational in the courts, and is challenged quite frequently, we've picked a very narrow definition for what safety sensitive should mean so we can truly tell the courts this a bona fide occupational requirement.

[14] Some key informants also referred to random testing as unannounced testing and ad hoc testing. Understanding what is meant by different types of testing (e.g., random, unannounced, periodic, post-incident, ongoing, etc.) can be challenging given the various ways in which organizations interpret and define these terms (see footnote above regarding defining terms). During the interviews, the meaning of the term random testing was either clarified by informants or understood in the context of the discussion. When used by informants, random testing referred either to general ongoing testing (which the majority of organizations did not conduct) or to random testing as part of return-to-work procedures or programs.

In contrast to general and ongoing random testing, unannounced testing was more typically conducted during return-to-work situations (also known as follow-up testing).

Pre-employment and site-specific or site-access (pre-entry) testing varied in the rigour of the test. In some cases, it was part of a full medical examination to determine the possibility of a substance use disorder. This was most common when entering into long-term employment with an organization. In industries where employees were drawn from a common labour pool and assigned to specific jobs or projects — for example, construction and marine — pre-employment testing was often described as being linked to site access. In these cases, the nature of the tests required could change based on where the work was taking place and the requirements of the client for whom the work was being done. In one case, the informant indicated that pre-employment testing was sometimes ironically referred to as an "intelligence test", implying that the test was easily circumvented by prospective employees and failed to effectively detect substance use issues. In contrast, another informant explained that pre-employment medical testing was more comprehensive:

> In pre-employment medical testing, drug testing is done as part of an overall assessment of medical fitness for work.... What flows from that is that if we are not doing any medical assessment, then we are not doing drug testing. Sometimes we do medical assessments with no drug testing, but we never do drug testing with no medical assessment.

Point-of-care/collection-testing (POCT) was used by many organizations, with one additional organization indicating that they intended to implement it. POCT was used most frequently in connection to post-incident or site access testing.

Return-to-work or aftercare testing was conducted by several organizations. Key informants indicated that this type of testing was generally unannounced (although one informant stated that management in that organization would know in advance if unannounced testing was going to occur). According to some key informants, SAP/SAEs or physicians determined the frequency and duration of unannounced testing for individual employees. However, one informant indicated that the laboratory company conducting the tests determined when unannounced testing should occur.

Survey respondents who indicated that their organization conducts some sort of drug and alcohol testing (i.e., responded "yes" in any of the responses that corresponded to conducting tests listed in Table 13) were further asked to specify the substances for which their organization tests (see Table 14). Over four-fifths of these respondents identified that their organization tests for alcohol (83%) and illegal drugs (88%), and nearly two-thirds (60%) confirmed that their organization's substance testing also covered prescription drugs.

Table 14: Q13.c) For which substance(s) does your organization test?

(n=42)	Count	%
Alcohol	35	83%
Illegal drugs (e.g., non-medical cannabis, cocaine, speed or other street drugs)	37	88%
Prescription drugs and painkillers or impairing substances found in these drugs (e.g., codeine, morphine, anxiety medications, fentanyl, diazepam, Demerol©)	25	60%
Unsure/don't know	5	12%

Note: Respondents could provide more than one answer; totals might sum to more than 100%.

2.3.4 Treatment and Return to Duty

The fourth section of the survey gathered information about the ways in which organizations manage employee substance use issues once they have been identified and confirmed.

Response to Confirmed Substance Use

Table 15 highlights the various ways in which the organizations represented in this survey respond to confirmed substance use issues. Most commonly, respondents indicated that their organization responds to confirmed substance use by referring employees to an EAP, EFAP or equivalent (56%), or to specific treatment, wellness or prevention programs (43%). Key informants highlighted that one of the primary factors to consider in the response to substance use at work was the determination of whether the employee was addicted, as opposed to using substances, whether non-medically or otherwise, at work. Under Canadian law, addiction is considered a disability, for which employers are legally obligated to make accommodations.

Table 15: Q14. If an employee's substance use is confirmed (for example, through positive test results), how does your business or organization respond?

(n=73)	Count	%
Give employee a warning	18	25%
Refer employee to a medical doctor	16	22%
Refer employee to a specific treatment/wellness/prevention program	31	43%
Refer employee to an Employee Assistance Program/Employee Family Assistance Program or equivalent	41	56%
Offer leave with pay	10	14%
Offer leave without pay	6	8%
Provide support to return to work	20	27%
Require employee to complete a Relapse Agreement	17	23%
Suspend employee	16	22%
Dismiss/terminate employee	13	18%
Require employee to undergo further testing	15	21%
Other		
Response varies with circumstances/position (multiple steps prior to termination for repeat offenses)	7	10%
Various other responses	6	8%
Unsure/don't know	11	15%

Note: Respondents could provide more than one answer; totals might sum to more than 100%.

About one-quarter of respondents indicated that their organization responds to confirmed substance use issues in one or more of the following ways:

- Support employee in returning to work (27%);
- Give employee a warning (25%);
- Require employee to complete a Relapse Agreement (23%);
- Refer employee to a medical doctor (22%);
- Suspend employee (22%); and
- Require further testing (21%).

The least common response for organizations represented in the survey was to offer employees leave without pay (8%).

A small proportion of respondents (8%) identified other ways in which their organization responded to confirmed instances of employee substance use. "Other" responses identified by respondents included removing employees from safety-sensitive work or work sites, and referring employees to SAPs/SAEs.

One-tenth of respondents made a point of mentioning in the open-ended item that their organization's response was not the same in every case, but varied with the position held by the employee or the particular circumstances surrounding the employee's substance use.

Three of the 13 respondents who indicated that their organization responds to a confirmed substance use issue by dismissing or terminating the employee, selected only this option, likely indicating that dismissal or termination is their organizations' only response when substance use is confirmed. These respondents were skipped to question 17.

Key informants identified several possible responses used by their organization when an employee tested positive for a substance. One important factor in determining the response was whether a union or professional organization was involved. In the construction industry, both key informants indicated that employees were either suspended or terminated from the current contract project or job with the company. The union was then informed. The unions had treatment and return-to-work programs in place, and the employees were released to them until such time as they were certified as ready to return to work. At that time, they often returned to the same contract job with the project they were released from. The process to address substance use was essentially taken out of the hands of the employers and given over to the unions. This same sort of process was in place for longshoremen and pilots.

When cases were not handled exclusively by the unions, key informants often stated that actions were determined on a case-by-case basis. In these instances, some organizations use their own program and some use that of the laboratory testing company to address positive test results. One key informant described their process as follows:

> I get notified [of the positive result]. I'll put together all the particulars of the case: employee information, demographic information such as age, years of service, education, position, whether or not it's safety-sensitive, what location they work in because the various provinces have kind of varying differences in legal impact. We look at the actual specifics to what caused the test, whether it was an incident or whether it was reasonable cause, we look at all the facts of that situation as well as the person's prior performance, whether they have any other performance issues or any past A&D [alcohol and drug] policy violations.
>
> And then I review that with [the lawyer] to evaluate the legal risks, and then we get together with management to make a recommendation, joint recommendation from [the lawyer] and HR [human resources] policy folks (which is myself) on what we think the next steps should be, outlining the legal risks.
>
> Typically, most [employees] follow a similar pattern – they're sent for an assessment by a subject matter expert in addictions medicine, and that doctor determines if there is a dependency or not per the policy definition. And they send that back to us along with [interviewee did not finish the statement] – so if there is no dependency we head down the route of termination with or without severance. If there is a dependency we'll head down the accommodation route as required by law, we look at treatment as prescribed and then potentially an aftercare program as prescribed.

For those organizations that use a testing company, key informants indicated that they would follow the testing company's program. In some cases, this involved the company assigning the employee a nurse or doctor to work with the employee and make recommendations. Nonetheless, in aftercare situations, some key informants indicated that their organization becomes involved again and works

with the medical professional, SAP/SAE or EAP/EFAP counselor recommendations regarding determination of appropriate return-to-duty/work responsibilities and monitoring.

Two organizations indicated that a positive substance test would result in immediate termination. In other cases, however, the response was conditional on the events that triggered the test. If it was established that the individual was impaired at work, this could lead to termination. Even when it was within the bounds of the policy to terminate with cause, employees could still be terminated without cause and offered severance. This was done to mitigate the risk of legal reprisal or grievance. For several organizations, the individual would be referred for assessment by a SAP/SAE or physician, rather than being terminated. In some cases, a treatment plan was paid for by the company if the employee agreed to participate. This was also sometimes offered in cases where the employee sought help from the employer, rather than being found in violation of the policy at work. One key informant stressed the importance of determining whether or not the individual suffered from a substance use issue or dependency, which, as a disability, carries the legal obligation to accommodate.

Accommodation

Several key informants reported that accommodation was not possible within their organization. Reasons cited included staff being hired for a specific role on a project and a lack of non-safety-sensitive jobs to which employees returning to work after addressing a substance use issue could be reassigned. For those organizations that were able to accommodate, the advice of medical professionals, which could include a medical form describing the types of duty/work[15] that were appropriate for the employee, was often used in conjunction with consultation with human resources to determine what forms of work would be appropriate for accommodation. As stated by one informant:

> We assess every case independently. We look at the restrictions, limitations and implications of their disorder as well as their transferrable skills and where the person is from. Our company employs people all across the country. Based on where the person is located, this can affect the extent to which we're able to accommodate them in another position.

Accommodation was often reported to be temporary, lasting until such time as the employee could be certified as capable of returning to their original duties. Time periods between 90 days and several months were mentioned for this temporary accommodation. For instance, one key informant stated that the organization had a six to 12-week return-to-work process, depending on the severity of the addiction. Where employees were in safety-sensitive positions, initial accommodation was always in non-safety-sensitive positions, with the possibility of returning to their original role. Unions were identified as playing a key role in accommodation decisions.

Key informants who mentioned the legal obligation to accommodate when a disability was present highlighted the importance of officially diagnosing substance use or dependency issues. For these informants' organizations, when a violation of the substance use policy occurred that was determined not to be caused by a disability, that employee was terminated rather than accommodated.

[15] Key informants were provided the following definition to differentiate between return to work and return to duty: Return to duty means an employee is able to return to their previous job and perform the duties of that job. Return to work means an employee is able to return to the workplace in general, but may or may not return to their specific job.

Terminations were often preceded by an investigation to establish the facts of the case. However, with respect to return-to-duty/work situations, several organizations indicated that there was zero tolerance for relapse or failure of follow-up tests, with positive tests leading to termination. More common, however, was the indication that termination decisions were handled on a case-by-case basis. The assessment of legal risk to the organization was a prominent theme for some organizations in determining how cases were resolved and whether severance would be offered.

Determination of Fitness for Duty

Survey respondents were asked to identify the information sources used by their organization to determine if an employee with a confirmed substance use issue was ready to return to work. As Table 16 shows, a recommendation or evaluation from a SAP/SAE appeared to be the most commonly used source of information, with the majority (57%) of respondents identifying that their organization used these individuals to determine an employee's readiness to return to work.

Table 16: Q15. What source(s) of information does your organization use to determine if an employee with a confirmed substance use issue is ready to return to work?

(n=73)	Count	%
If disability benefits are provided (e.g., short-term disability), decision from insurance company	13	19%
If disability benefits are not provided, recommendation/evaluation from a medical doctor	13	19%
Recommendation/evaluation from an Employee Assistance Program/Employee Family Assistance Program or equivalent	24	34%
Recommendation/evaluation from a Substance Use Expert/Substance Use Professional	40	57%
Confirmation of an employee's successful completion of a substance use program	33	47%
Results of substance use testing that employees undergo prior to resuming work	21	30%
None	1	1%
Other	2	3%
Unsure/don't know	19	27%

Note: Respondents could provide more than one answer; totals might sum to more than 100%.

Confirmation of an employee's successful completion of a substance use program was the second most commonly identified source of information used for determining an employee's readiness to return to work, with nearly half (47%) of respondents reporting this response. Roughly one-third of respondents identified that their organization looked to recommendations or evaluations from an EAP, EFAP or equivalent (34%), or the results of substance use testing conducted prior to an employee's return to work (30%) to determine their readiness to return.

A smaller proportion (roughly one-fifth) of respondents said their organization relied on a decision from an insurance company, if disability benefits are provided (19%), or a medical doctor's recommendation or evaluation, if disability benefits are not provided (19%).

Treatment Monitoring

A number of key informants revealed that their organization used a "medical model" for determining an employee's readiness to return to work, meaning that a medical professional was involved in plans related to the employee's treatment and recovery. However, other key informants described a more "hands off" approach used by their organization, whereby unions or professional associations take the lead in handling treatment and fitness-for-duty concerns. For instance, four of the organizations had internal medical teams who were involved with ongoing treatment and monitoring.

All of these included at least a doctor as well as other medical professionals, such as nurses or case workers. However, none of these teams worked as treating physicians. Rather, employees tended to be sent for external assessment with a SAP/SAE or to recovery facilities, and the internal medical team would act as a liaison and support in managing recovery. In all cases where there was a medical team, medical information and communications with external medical professionals was handled first by this team, and then shared as appropriate with human resources and management. Professional ethics and compartmentalized data handling — information was shared as only legally appropriate and with the permission of the individuals involved — ensured privacy and security in these cases. Other organizations used external SAPs/SAEs exclusively and human resource professionals handled the exchange of information to ensure privacy and security. One organization indicated that, because they terminate for any violation, there was no ongoing monitoring or treatment.

For some organizations, however, key informants noted that treatment and return-to-work programs for certain employee types (construction workers, longshoremen and pilots) were monitored and handled by the union or professional association (as described above). These organizations had no meaningful engagement with the treatment process. The key informants representing organizations with these arrangements, therefore, had very limited details on the course of treatment and monitoring of employees until they returned and were certified fit for duty by the union/association. At that point, the organization would be informed of the schedule for any required follow-up testing and would assist in ensuring that those took place. This information was treated as confidential and was typically accessed by the human resources department or select management staff. The information was typically transmitted through phone and email, and was handled with standard precautions such as password protection. In one case, results of testing could be accessed on a registered website by only key individuals designated by the company and the union to have access.

For assessing substance use, the *Diagnostic and Statistical Manual of Mental Disorders* versions IV and V were identified as resources. Several organizations used reasonable cause checklists to identify warning signs of impairment at work. The Drug Abuse Screening Test (DAST) and Alcohol Use Disorders Identification Test (AUDIT) were also identified as tools.

Methods to Encourage Abstinence

When asked about the organization's procedures or methods to encourage abstinence when employees return to work after addressing a substance use issue, offering employees a support program was the method most commonly selected by respondents, by a substantial margin; over two-thirds (69%) of respondents identified that their organization encourages abstinence through an employee support program (see Table 17). By contrast, the majority of respondents identified that their organizations did not require employees to undergo either scheduled (67%) or random (56%) substance use testing to encourage abstinence, nor did they require regular medical reports (66%). One-quarter (26%) of respondents indicated that their organization automatically dismissed employees for further non-compliance with the substance use policy.

Table 17: Q16. Has your organization ever used or does it currently use any of the following procedures/methods to encourage abstinence when employees return to work after addressing a substance use issue?						
(n=73)	Yes		No		Unsure/don't know	
	Count	Row %	Count	Row %	Count	Row %
Require employees to undergo scheduled substance testing (e.g., quarterly)	10	14%	47	67%	13	19%
Require employees to undergo random substance testing	18	26%	39	56%	13	19%
Require regular medical reports	10	14%	46	66%	14	20%
Offer employees a support program	48	69%	13	19%	9	13%
Automatically dismiss/terminate employees for re-occurrence (i.e., for any further non-compliance with the substance use policy)	18	26%	29	41%	23	33%
Other	6	9%	37	53%	27	39%
Note: Row percentages might not sum to 100% due to rounding.						

Among key informant interviews, ensuring compliance with a treatment program or an aftercare plan was most often accomplished through joint management with SAPs/SAEs, medical teams, human resources, management and the employee. In cases where the employee was in an external treatment program, reports about the progress of the employee could be released to the medical team. Many informants referred to meetings with councillors or other support groups as part of the treatment program. Monitoring attendance to these meetings was frequently mentioned as a means to ensure compliance. Unannounced drug and alcohol testing was also used to monitor compliance. Some organizations described relapse agreements/return-to-work contracts/recovery contracts that were signed with employees that outlined the treatment plan as well as the employee's willingness to adhere to it. The most common duration for these agreements was two years.

A common theme that emerged in the informant's evaluation of the success of recovery programs was that the degree of success was closely tied to the commitment from participants. Where commitment was high, results were reported to be much better than where individuals complied only as a requirement and did not fully engage with the process. Abstinence was the most frequently-cited benchmark for success, which was monitored though unannounced testing. One key informant explained the importance of employee commitment to recovery:

> Relapse is kind of expected. We go case-by-case. We look at [the] intensity of relapse, how soon after leave, the effect of a positive test result on safety-sensitive positions, and how proactive [the] participant is in disclosing and addressing the relapse. For example, we had one [employee] that proactively removed himself from duty, but another individual who denied relapse. [With the second individual], we didn't feel we could take the risk. We couldn't trust him to stay sober; he engaged in risky behavior, so we had to discharge him.

Another key informant expressed frustration with the recovery programs as handled by the union, suggesting the union-led process was, in essence, a "rubber stamp" process that was not effective. This appeared to be dependent upon the union, which may only send the employee to a one-day free program, and sometimes the province, where regulations vary. The key informant stated that employees who went through the quick, free programs typically relapsed. Other key informants indicated that good relationships with unions helped in the return-to-work process.

The percentage of individuals estimated to have successfully returned to work after having been identified with a substance use issue ranged between 1% and 95%. Several organizations reported success rates between 85% and 95%; but, a number of informants reported difficulty in estimating this number precisely. Success was generally considered to be successful completion of a substance use program and returning to work. The higher estimates generally described the subset of employees who committed to a recovery program. Multiple informants observed, however, that these numbers are in some senses inflated, as they represent only individuals who were successfully diagnosed but also were never terminated for violation of the substance use policy or had not quit of their own volition rather than being diagnosed. The extreme low end of the range included organizations that reported immediately terminating employees for policy violation and having no program in place for return to duty/work.

2.3.5 Practical and Legal Experiences

Among key informants, a number of practices were reported to have been stricken down through legal challenges or arbitration decisions including automatic termination for positive drug test results, unilaterally defining safety-sensitive positions without union input, discipline for the presence of drug metabolites in the body, drug testing employees when there are no safety implications and random drug testing in certain locations or using specific types of tests.

Random testing was identified as a challenging legal issue. In several cases, the ability to use these tests was removed through arbitration decisions or human rights tribunals. The scope of these legal decisions varied. In one case, only a single site was affected. In another, a company was instructed to reformulate its policy surrounding random testing. Where random testing withstood legal challenge, the organization was able to produce strong evidence that it was a bona fide occupational requirement and there was considerable risk involved. In terms of returning to work, random testing was widely used in monitoring for recovery programs with the participant's consent.

Another significant challenge identified by key informants was the lack of a nationally unified legal framework that addresses substance use (e.g., defining impairment, what constitutes undue hardship, how to balance safety requirements with human rights requirements). Regulation and practices vary between jurisdictions and several organizations identified that this variability results in high costs to ensuring compliance and assessing legal risk. Several legal terms were also identified as being challenging to interpret. Examples offered included undue hardship and fitness for work. Undue hardship was raised in the context of an organization's obligation to accommodate employees insofar as it did not represent undue hardship on the organization. The lack of specific criteria for determining whether or not an employee was fit for duty or work was also identified as a barrier.

2.3.6 Evaluation of Organizational Policies, Practices, and/or Procedures

The fifth section of the survey asked respondents to provide information about any evaluations or reviews that their organization had undertaken to examine the effectiveness of their substance use policies. Only respondents who had answered "yes" to at least one of the response options under survey question 16 (see Table 17) were asked the questions in this section. (Those who did not select "yes" to any of the response options for question 16 were skipped to the final survey question and did not respond to the following questions about evaluation.)

Evaluation of Substance Use Policies, Practices and Procedures

As Table 18 shows, nearly two-thirds (65%) of respondents who were not skipped to the end of the survey and who answered this question indicated that their organization had reviewed its substance use policies, practices and procedures at least once, with the majority of them indicating that evaluations had taken place on a more frequent or regular basis. Around one-eighth (12%) of respondents indicated that their organization's policies, practices and procedures had not been evaluated for effectiveness and a further 24% were unsure if evaluation occurred.

Table 18: Q17. Have your organization's substance use policies, practices and/or procedures been evaluated or reviewed for effectiveness?

(n=59)	Count	%
Yes, annually or more frequently	16	27%
Yes, every one to five years	14	24%
Yes, at least once	8	14%
No	7	12%
Unsure/don't know	14	24%

Note: Totals might not sum to 100% due to rounding.

Analyses of the organizations' reported policy evaluation practices by various subgroups revealed some associations worth highlighting. Table 19 shows that respondents who represented private sector organizations were more likely than those who represented public sector organizations to report regular (i.e., every one to five years) or frequent (i.e., annually or more frequently) policy evaluations or reviews. By contrast, those who represented public sector organizations were more likely than those who represented private sector organizations to indicate that their organization had not evaluated or reviewed their substance use policies, practices and procedures, or that evaluations had been conducted at least once.

Table 19: Evaluation of policies, by nature of organization
Q3. Which of the following best describes the nature of your organization?
Q17. Have your organization's substance use policies, practices and/or procedures been evaluated or reviewed for effectiveness?

	Private sector (n=37)	Public sector (n=8)
Yes, annually or more frequently	41%	13%
Yes, every one to five years	38%	-
Yes, at least once	8%	63%
No	14%	25%

Note: Columns might not sum to 100% due to rounding. Cross-tabulation excluded respondents who answered "Unsure/don't know." Chi-square = 0.001

Subgroup analysis also highlighted a possible association between the size of an organization's workforce and its policy evaluation or review practices. As Table 20 shows, in comparison with mid- and large-sized organizations, small-sized organizations were more likely to report that their policies have never been evaluated for effectiveness. The majority of mid- (71%) and large-sized (83%) organizations indicated that they reviewed their policies on a regular basis (either annually or more frequently, or every one to five years).

Table 20: Evaluation of policies, by organization size Q6. Please indicate the approximate number of all individuals employed by your organization in Canada. Q17. Have your organization's substance use policies, practices and/or procedures been evaluated or reviewed for effectiveness?			
	100 or fewer employees (n=14)	101 to 500 employees (n=14)	More than 500 employees (n=17)
Yes, annually or more frequently	36%	50%	24%
Yes, every one to five years	7%	21%	59%
Yes, at least once	21%	29%	6%
No	36%	-	12%
Note: Columns might not sum to 100% due to rounding. Cross-tabulation excluded respondents who answered "Unsure/don't know." Chi-square = 0.009			

Survey results also pointed to a possible association between an organization's practices in evaluating or reviewing its substance use policies and the unionization of its workforce. As Table 21 shows, a higher proportion of respondents who represented organizations with no unionized employees (30%) reported that their organization had not evaluated its substance use policies (compared to only 4% of respondents who represented organizations with at least some unionized employees who reported doing this procedure). In other words, the majority of respondents of organizations with at least some unionized employees reported that policies were evaluated at least once or more frequently.

Table 21: Evaluation of policies, by unionization of workforce Q7. Which of the following best describes your organization's Canadian workforce? Q17. Have your organization's substance use policies, practices, and/or procedures been evaluated or reviewed for effectiveness?		
	Non-unionized employees (n=20)	At least some employees unionized (n=25)
Yes, annually or more frequently	40%	32%
Yes, every one to five years	15%	44%
Yes, at least once	15%	20%
No	30%	4%
Note: Columns might not sum to 100% due to rounding. Cross-tabulation excluded respondents who answered "Unsure/don't know." Chi-square = 0.042		

Key informants indicated that their organizations' policies were most often reviewed cyclically, either through ongoing revisions in response to changes in legislation, regulations or collective agreements, or in annual to semi-annual scheduled reviews. One key informant identified that the organization had recently reviewed its policies in light of the impending change to the legalization and regulation of cannabis.

There was widespread use of either internal or external legal counsel to evaluate substance use policies. Consultation with doctors, unions and human resources experts were also reported in maintaining and updating policies. Some key informants indicated that case law informed the ongoing review and development of their policies. If something within their policy was contradicted by a decision made in a court or arbitration case, the organization would update their policy or practices to be current. However, these informants indicated that this frequent updating was challenging and costly and their preference was for a national standard or regulation for substance use in the workplace.

Techniques Used to Evaluate Policy Effectiveness

Survey respondents who indicated that their organization had conducted some form of evaluation of their substance use policies, practices and procedures (i.e., n=38) were asked to identify the individuals or groups involved in the evaluation. The results, shown in Table 22, are summarized below.

- Among the respondents who indicated that their organization conducted evaluations, management appeared to play a key role in the process. Over four-fifths (84%) of respondents indicated that management was involved in policy evaluation.
- Roughly half of respondents who had indicated that their organization conducted evaluations indicated that these evaluations involved either external stakeholders (such as consultants, medical doctors or lawyers) (50%) or internal groups (such as committees) (47%).
- About one-quarter of respondents who had specified that their organization conducted evaluations indicated the involvement of unions (24%).
- Only a relatively small proportion of organizations that conducted evaluations (16%) involved other employees (i.e., general employees and not managers, committee members, etc.) in the evaluation of substance use policies, practices and procedures.

Table 22: Q18. Please indicate if one or more of the following people and/or techniques were used to evaluate your organization's substance use policies, practices and/or procedures.

(n=38)	Count	%
Evaluated by external individual or group (e.g., consultant, medical doctor, lawyer)	19	50%
Evaluated by union(s)	9	24%
Evaluated by internal group (e.g., committee)	18	47%
Evaluated by management	32	84%
Evaluated by employee(s)	6	16%
Evaluated for changes in the occurrence of incidents (injury or damage)	7	18%
Evaluated for changes in absenteeism	5	13%
Evaluated for changes in alcohol use	5	13%
Evaluated for changes in illegal drug use in the workplace	9	24%
Evaluated for changes in problematic use of prescription drugs in the workplace	6	16%
Evaluated for changes in productivity	2	5%
Evaluated for knowledge of the policy among employees	9	24%
Unsure/don't know	3	8%

Note: Respondents could provide more than one answer; totals can sum to more than 100%.

These results were supported by observations from the key informant interviews, as key informants said that reviews of complex policies tended to involve input by human resource departments, as well as medical and legal advisors.

Survey respondents also provided information about the focus of such evaluations or reviews (the results of which are also captured in Table 22). Most commonly, respondents identified that their organization's substance use policies were evaluated for changes in illegal drug use in the workplace, and employees' knowledge of the substance use policy (24% of respondents identified each of these factors). Less commonly, respondents indicated that evaluations considered changes in the occurrence of incidents, including injury or damage (18%), problematic prescription drug use (16%), absenteeism (13%), alcohol use (13%) and productivity (5%).

Self-reported Effectiveness of Policies, Practices and Procedures

Table 23 provides information related to the effectiveness of substance use policies in a number of key areas. These results are based on self-reported analyses and level of effectiveness was not independently verified. According to respondents, their organizations' substance use policies, practices and procedures were deemed most effective in reducing the use of alcohol and illegal drugs in the workplace; 64% of respondents indicated that policies had been either somewhat or very effective in reducing alcohol use in the workplace, and 58% of respondents indicated that policies had been either somewhat or very effective in reducing illegal drug use.

Table 23: Q19. Based on the most recent evaluation(s) of your organization's substance use policies, practices and/or procedures, how effective have they been in the following areas?

(n=38)	Very effective (5)	Somewhat effective (4)	Neither effective nor ineffective (3)	Somewhat ineffective (2)	Very ineffective (1)	N/A (not assessed by evaluation)	Unsure/ don't know
Identifying employees with substance use issues	11%	37%	16%	8%	0%	13%	16%
Improving abstinence (reducing re-occurrence of use in employees previously confirmed as affected by substance use)	21%	24%	16%	5%	0%	13%	21%
Reducing incidents involving injury/damage	21%	24%	13%	5%	0%	13%	24%
Reducing absenteeism	8%	34%	16%	5%	3%	11%	24%
Reducing alcohol use in the workplace	32%	32%	5%	3%	0%	11%	18%
Reducing illegal drug use in the workplace	21%	37%	11%	0%	3%	11%	18%
Reducing problematic use of medical prescription drugs in the workplace	18%	24%	18%	3%	3%	11%	24%
Increasing productivity	11%	24%	18%	3%	3%	18%	24%

Note: Totals might not sum to 100% due to rounding.

Slightly less than half of respondents indicated that their organization's policies were either somewhat or very effective in a number of other areas, including the following:

- Identifying employees with substance use issues (48%);
- Improving abstinence (i.e., reducing re-occurrence of use in employees previously confirmed as affected by substance use) (45%);
- Reducing incidents of injury or damage (45%); and
- Reducing absenteeism (42%).

According to respondents, substance use policies appear to have had a lesser effect on productivity, as only 35% of respondents indicated that their organization's policy was effective at increasing productivity. With the exception of reducing alcohol and illegal drug use, at least one-fifth to one-quarter of respondents reported that their policies, practices and procedures had not been effective in improving other areas (i.e., very ineffective, somewhat ineffective, and neither effective nor ineffective).

2.3.7 Best Practices

Key informants were asked to comment on best practices in the form of challenges, successes and recommendations for other organizations developing or augmenting substance use policies. An important best practice identified was fostering a cultural shift within organizations, so that there was understanding for the idea that impairment would not be tolerated in the workplace. In addition, several informants emphasized the importance of creating a culture of openness and trust where employees would feel comfortable coming forward and seeking help if they needed it.

> [The] biggest challenge is getting people to be open and coming forward and saying, "I have a problem," before they get into trouble. ... One of the most rewarding things, is a lot of times we'll send people off and they're angry at me, "I don't want to go to this program." They [come back] and they say, "I should have gone 20 years ago."

Where these cultural shifts were reported to be relatively successful, key informants described them as having strong positive impacts on practices surrounding substance use and compliance with substance use policies. Some organizations identified the process of cultural change as a continuing challenge.

Several key informants commented on the importance of having a comprehensive and well-developed policy. Informants identified that the following practices support the successful development and implementation of substance use policies:

- carefully reviewing legal and regulatory requirements across the jurisdictions where operations take place;
- involving unions and professional organizations; and
- educating staff about the policy and their specific obligations under the policy.

The term "Canadian model" was used by several key informants when describing their policies. It should be noted that the term was used in two slightly different senses by informants. One key informant characterized it as a set of general principles that distinguishes the uniquely Canadian approach to the issue of substance use and testing, primarily as compared to the US Department of Transportation approach. This informant characterized the Canadian model as approaching substance use as a medical condition to be treated in the same manner as other medical conditions, in combination with the legal ruling in Canada that — unlike in the US — the presence of drug metabolites alone cannot be used to penalize a worker. Instead, what must be established is whether the individual was impaired while performing work duties. Two other key informants representing construction companies used the term Canadian Model in a narrower sense to refer to an industry standard document of best practices for substance use policies (Construction Owners Association of Alberta (COAA), 2014). The Canadian Model was developed by the Canadian Labour Relations (Alberta) Association and is used by its members and several of its affiliates, such as the COAA. While specific to the construction industry, the policy guidelines contained in this document represent the principles of the broader use of the term Canadian Model.

With respect to unions, some key informants indicated the importance of engaging unions in the process early on and across different jurisdictions. The unions can be a partner or potentially an obstacle to developing effective policies that balance workplace safety and human rights. The legal characteristics of different jurisdictions can also pose challenges since a policy may be appropriate for one province or territory but not for another.

2.3.8 Concern about Potential Impact of Cannabis Legalization and Regulation

The final survey question asked all respondents, including those screened out at various stages throughout the course of the survey, to indicate their organization's level of concern about the potential impact of the legalization and regulation of cannabis on safety in their workplace. Overall, the majority (58%) of respondents indicated that the potential impact of cannabis legalization and regulation on workplace safety was very concerning to their organization, and only one-tenth

indicated that their organization was not at all concerned (see Table 24). However, some differences among subgroups of respondents are worth highlighting.

Table 24: Q20. How concerned is your organization about the potential impact of the legalization and regulation of cannabis on safety in your workplace?		
(n=87)	Count	%
Very concerned	50	58%
Somewhat concerned	23	26%
Not at all concerned	9	10%
Unsure/don't know	5	6%

Some differences among subgroups of respondents are also worth highlighting. Organizational size appeared to have some effect on concern for the potential impact of cannabis legalization and regulation on safety in their workplace. As Table 25 shows, the percentage of respondents who indicated that their organization was very concerned increased with organization size, from 30% of those who represented organizations with 100 or fewer employees, to 65% of those who represented organizations with 101 to 500 employees, to 83% of those who represented organizations with over 500 employees. In addition, the percentage of respondents who indicated that their organization is not at all concerned was more than three times higher among those representing organizations with 100 or fewer employees (26%) than among those representing larger organizations (less than 10%).

Table 25: Concern about legalization of cannabis on workplace safety, by number of employees Q6. Please indicate the approximate number of all individuals employed by your organization in Canada. Q20. How concerned is your organization about the potential impact of the legalization and regulation of cannabis on safety in your workplace?			
	100 or fewer employees (n=23)	101 to 500 employees (n=31)	More than 500 employees (n=24)
Very concerned	30%	65%	83%
Somewhat concerned	44%	32%	8%
Not at all concerned	26%	3%	8%
Note: Columns might not sum to 100%, due to rounding. Cross-tabulation excluded respondents who answered "Unsure/don't know" to Q20. Chi-square = 0.002			

Whether employees were unionized or not also seemed to have some effect on concern about the potential impact of the legalization and regulation of cannabis on safety in their workplace. As Table 26 shows, representatives of organizations with at least some unionized employees were twice as likely as representatives of organizations with no unionized employees to select "very concerned" in response to this survey question (74% versus 37%), and nearly four times less likely to select "not at all concerned" (6% versus 22%).

Table 26: Concern about legalization of cannabis on workplace safety, by unionization of workforce Q7. Which of the following best describes your organization's Canadian workforce? Q20. How concerned is your organization about the potential impact of the legalization and regulation of cannabis on safety in your workplace?		
	Non-unionized employees (n=27)	At least some employees unionized (n=50)
Very concerned	37%	74%
Somewhat concerned	41%	20%
Not at all concerned	22%	6%
Note: Columns might not sum to 100%, due to rounding. Cross-tabulation excluded respondents who answered "Unsure/don't know." Chi-square = 0.005		

While key informants were not specifically asked to comment about the potential impact of the upcoming legalization and regulation of cannabis on their workplace, this issue was brought up by almost half of the interviewees. Most commonly, these key informants highlighted the difficulty in testing for cannabis. Two issues were identified with testing. The first was the fact that the scientific and technical foundation for cannabis-related testing is less advanced than the testing for other substances (such as alcohol), which undermines the accuracy of these tests. The second was the lack of an identified criterion for impairment. Using alcohol as an example, informants noted that there is a defined measure of impairment: blood alcohol content of .05 or higher. There is no commensurate measure for cannabis.

One organization indicated that it had recently reviewed its substance use policy to account for the potential legalization of cannabis. However, another informant observed that the policy model which they followed for their industry does not allow a worker to be penalized simply for the presence of drug metabolites in the body. Rather, the key issue in an investigation is establishing that the employee was impaired at work at the time in question. If impairment can be established, it is immaterial whether that impairment was the result of legal or illegal drugs.

2.4 Section Summary

The environmental scan, national survey and key informant interviews of six selected safety-sensitive industries revealed a number of important findings, as well as areas for further investigation.

Environmental Scan

In general, it appeared that many of the larger organizations and industry associations in the majority of the six selected safety-sensitive fields had well-developed, comprehensive and detailed substance use workplace policies in place. Industry associations in particular provide tools and resources for developing policies and, in some instances, offer training to employers on how to develop or administer substance use policies. It was not possible to determine the nature of policies in the marine or law enforcement sectors through the environmental scan due to unavailable information; however, results of the survey and the key informant interviews will be able to provide more information.

Smaller organizations appeared to have limited or no policies in place. This gap is consistent with other studies that have found large organizations (750 or more employees) typically have substance use policies in place in comparison to small organizations (less than 50 employees), which often do not (Ames & Bennett, 2011; Linnan et al., 2008). Among those with limited policies, some organizations described brief (e.g., one to two paragraphs), broad (e.g., failed to differentiate

between prescription and illicit substances or between dependency and recreational use) and generally punitive policies (e.g., employee will be terminated). The structure of these policies calls into question whether they can be considered a true policy and might be more appropriately described as policy statements. Nonetheless, some of these organizations may believe they are operating with a functional and appropriate substance use policy and are likely to face challenges if the policy is ever put to the test. Among those that did not mention a policy, the absence did not necessarily mean that a policy does not exist, but that the policy might not be publicly available. Many organizations do not make their policies public by, for instance, posting them on their websites. In this case, the scan revealed that several organizations mentioned the existence of policies in their code of conduct, but they were not accessible. It is also possible that, at least for smaller safety-sensitive organizations, policies might be more ad hoc or implied rather than formally written.

Another important observation from the environmental scan was the reliance by some organizations on policies or regulations developed by federal or provincial governments or industry associations, or, in the case of some contractors, being subject to the host organization's policies. For a policy to be effective and appropriate, it must be tailored to the organization and its specific working context (e.g., public/private, large/small, unionized/non-unionized, contractors/full-time/part-time employees) (Ames & Bennett, 2011). The risk is that generic or blanket policies and regulations might miss workplace substance use issues that are specific to an individual organization. Furthermore, it might be difficult for employees and employers to understand or implement policies that are not written into their corporate operations, thus making them more difficult to implement. Some industry associations, such as Oil and Gas 4 and Construction 2, have attempted to make the process easier for its members by creating templates and guides that organizations can use to develop their own policies. Nonetheless, more information is needed about the experiences of, and challenges faced by, organizations using blanket policies and organizations that use contractors.

The environmental scan proved useful in providing the context of substance use policies across Canada, helped identify strong and comprehensive policies and procedures, and distinguished those sectors with less or non-existent policy information. The scan also improved understanding about how some organizations incorporate the policies and regulations of other businesses, associations or government agencies, as well as the influence of unions in certain sectors. The scan revealed that among certain industry sectors, policies appeared to be limited, non-existent or unavailable. This gap was particularly the case for marine and law enforcement, and to a lesser extent, aviation.

National Survey and Key Informant Interviews

All six-selected safety-sensitive sectors were represented in the survey. However, the majority of respondents were from the law enforcement and construction sectors, followed by oil and gas, and aviation, with only a small number from the marine and rail sectors. More than half of all respondents reported their largest number of employees were based in Alberta, followed by Ontario. In light of the inter-provincial differences in labour legislation and regulations, this overrepresentation should be borne in mind when considering policy comparisons. Approximately two-thirds of organizations had unionized employees. The majority of respondents operated only in Canada and the remainder operated within North America or internationally. Small (1–100 employees), medium (101–500 employees), and large organizations (more than 500 employees) were represented in the sample. Key informant interviews represented five of the six select industries, the exception being law enforcement, as well as one additional industry, transportation. Key informants generally represented large, established organizations that were targeted because they were likely to have

well-developed policies. For this reason, their substance use experiences were likely to be more developed and defined in comparison to the survey respondents.

Encouragingly, the most prevalent response to suspected employee substance use affecting the workplace by organizations was to refer the employee for assessment or to an assistance program of some type. Similarly, the majority of key informants indicated that their organization conducted investigations first before making a decision. Punitive actions such as giving a warning, terminating or putting on leave were less frequent. Among the limited research on substance use workplace policies, policies that are more comprehensive in nature (i.e., include multiple elements such as education, support and treatment options) and do not focus primarily on punitive measures alone are more effective in reducing substance use among employees (Pidd et al., 2015). Some respondents and key informants indicated that their organization's response would vary based on the circumstances or the position of the employee within the organization.

Nearly all of the organizations represented in the survey and by key informants had some form of policy in place on drug and alcohol use. Development of these policies was largely informed by management, human resources, lawyers and unions. However, employees and medical professionals were identified as involved less frequently. The implications are that low involvement of employees could affect their level of buy-in and minimal medical involvement could result in policies that might not be appropriate or effective in addressing substance use issues (Ames & Bennett, 2011; Attridge & Wallace, 2009). The majority of survey respondents indicated that their employees received orientation or education about their substance use policies, demonstrating a proactive approach to addressing substance use. This approach is important as some studies have shown that educating employees, particularly about drug use, significantly reduces workplace substance use (Pidd et al., 2015). Still, a few organizations only provided education to managers and staff in safety-sensitive positions, while several expected employees to read policies on their own. Education was also an important component with many of the key informant interviews, although, similar to some survey respondents, several informants indicated that education occurred more often with managers and supervisors.

Survey respondents almost unanimously reported that their organization's policy contained topics or components that addressed alcohol and illegal drug use, while the majority also reported addressing prescription drug use. Medical cannabis was not addressed in the majority of policies, which might require adjustments once cannabis is legalized and regulated. Most policies were reported to contain procedures that outlined the consequences of non-compliance and procedures for termination, but somewhat fewer discussed treatment, support and return-to-work programs, demonstrating that punitive measures appeared to be discussed more often than supportive measures. Findings for policy components were similar among key informants; however, many indicated that the impending legalization and regulation of cannabis was prompting them to re-examine their substance use policies and update as necessary. With the exception of two key informants whose organizations immediately terminate employees when substance use is detected, the majority of informants stated their organizations, or the unions to which their employees belonged, offered some form of treatment and return-to-work programs. Nonetheless, the level of support varied among key informants where smaller organizations or, in the case of one key informant where the unions handled support options, revealed that they did not offer as much support. This emphasis is consistent with other studies that found that support options are often missing from workplace policies (Pidd et al., 2015), yet some studies have shown that education, health checks, counselling and EAPs/EFAPs have demonstrated modest to favourable effects in addressing employee substance use (Ames & Bennett, 2011; Attridge & Wallace, 2009; D. E. Logan & Marlatt, 2010; Macdonald, Csiernik, Durand, Rylett, & Wild, 2006; Webb, Shakeshaft, Sanson-

Fisher, & Havard, 2009). Drug testing and screening procedures were addressed in slightly more than half of policies as reported by respondents, and there was some evidence that large organizations might be more likely than small organizations to explicitly address testing.

Among both survey respondents and key informant interviews, the most frequently used approaches to identifying substance use affecting the workplace were investigations based on reasonable cause (e.g., employee behaviour, decline in performance, supervisor or co-worker concern) and an incident that caused injury or damage or a near-miss incident. For survey respondents, somewhat less frequent was testing after a non-compliance event or for employees undergoing treatment for substance use issues. A large proportion of organizations surveyed relied on employees to report their own substance use. Relying on this method alone could be problematic as some employees might not know that a substance, such as a prescription, has an impairing effect or employees might not recognize or be willing to admit to being affected by a substance use disorder and therefore well-trained management will be necessary to also aid in observing for potential issues (Chartier, 2006; Webb et al., 2009). This was supported by some key informants who indicated that encouraging employees to admit to substance use issues was a big challenge and required trust and a cultural shift in the organization, particularly in terms of treating substance use as a medical condition rather than a moral failing. Only a small percentage of organizations surveyed reported using random testing, whether it was to test specific positions (e.g., safety sensitive) or to test all employees. Of those organizations that identified as doing some form of substance testing, the majority tested for the presence of illegal drugs or alcohol. Similarly, only two key informants indicated that their organizations conducted ongoing random testing (in contrast to return-to-work testing).

Once substance use is confirmed, respondents reported that organizations often respond in multiple ways and sometimes the response varies depending on the circumstances or employee position. For instance, many respondents reported that their organization responded in supportive ways, such as referring an employee to an EAP or EFAP, a treatment, wellness or prevention program, or a doctor, or by providing support to return to work. Nonetheless, almost as many also reported that their organization gives employees a warning or might dismiss or terminate the employee. The majority of key informants indicated that their organization or unions offered some form of support; however, this varied greatly from minimal to substantive support. Variances appeared to be attributed to different reasons, but two common themes were costs (larger organizations appeared to be in a better position to offer more supportive programs) and organization approach (whether or not the organization recognized dependency issues and incorporated accommodation procedures).

For an employee to be able to return to work, the majority of organizations required a recommendation from professionals or groups who specialize in substance use, primarily a SAP/SAE or completion of a substance use program. This finding is interesting since SAPs/SAEs are not regulated in Canada (they are regulated in the U.S.), yet survey respondents from the safety-sensitive industries in this study reported reliance on these professionals more so than any other source of information, including medical doctors. However, it should be noted that medical professionals with a specialization in addiction medicine appear to be more frequently engaged in arbitration or court cases as discussed in the following sections. Key informants also relied on SAPs/SAEs for treatment and recommendations, as well as other medical professionals. Some organizations with unionized employees were unable to comment on the support programs as this was often handled by unions, yet, some indicated mixed opinions about the effectiveness of union-driven support options, Although several of the organizations had internal medical teams, including doctors and nurses, the internal members were not a part of the treatment process. Instead, they may be involved as the first point-of-contact when a potential issues is observed and they form part of the decision-making team when developing return-to-work programs.

After an employee returns to work, the majority of survey respondents reported that their organization engages in a proactive method to encourage abstinence by offering a support program. Substance testing was used to a lesser degree by some organizations. Additionally, a number of respondents indicated that further non-compliance with the policy resulted in automatic dismissal or termination. Many key informants had return-to-duty/work programs. These were generally guided by a team (see above), included relapse agreements and involved return-to-work testing (also known as follow-up testing). Several of these organizations relied upon medical decisions to determine if an employee was dependent and would implement accommodation procedures where possible. Interestingly, some organizations were unable to accommodate employees due to the lack of suitable alternative work options or, the monitoring is undertaken by unions and employers may not be fully aware of the employee's progress. Given that organizations are required to accommodate employees up until it is determined that the organization has experienced undue hardship (Canadian Human Rights Commission, 2017), there appear to be some barriers for employers to accommodate or monitor some employees.

Less than half of all survey respondents reported that their organization evaluated its policies and practices for effectiveness in addressing substance use affecting the workplace, and even fewer did this on a regular basis (e.g., annually). This lack of evaluation is important as organizations need to determine if the substance use policies and practices they have developed and implemented are effective in their goal of reducing substance use that affects the workplace (Ames & Bennett, 2011; Atlantic Canada Council on Addiction, n.d.). In contrast, key informants indicated that their organizations typically reviewed their policies annually, but some also indicated reviews occurred in response to court and arbitration decisions. There was some evidence to suggest that organizations that evaluated their policies and practices were more often those in the private sector, those that employed unionized workers or, in the case of key informants, were those that were large and well-established. Evaluation was most frequently conducted by management, followed by external individuals or groups and internal groups (e.g., committees). Employees were minimally involved in the evaluation of policies. Of concern, few survey respondents indicated that policies were evaluated using indicators that could demonstrate effectiveness, such as changes in absenteeism, alcohol and illegal drug use, knowledge of the policy, or productivity. Similarly, key informants did not mention specific indicators to measure success other than an employee's successful completion of a treatment program; yet, many stated that success was strongly linked to employee commitment to recovery programs. Organizations who employed unionized workers and were not able to monitor employees (either because the union did the monitoring or because the employee was not returned to the contract organization, but possibly another) were generally unable to comment on employee success.

Despite the low numbers of respondents who reported use of certain indicators, the majority of respondents thought that their organizational policies were somewhat to very effective in reducing alcohol use and illegal drug use. Similar results were reported by key informants (this study did not independently verify effectiveness.) Very few organizations reported that their policies were ineffective. Of concern, more than one-third of survey respondents reported they did not know or did not assess the effectiveness of their policies in identifying affected employees, improving abstinence or reducing substance use. Likewise, key informants did not indicate they evaluated their policies for effectiveness, but rather the focus was on ensuring the policy was up-to-date and reflected legal and human rights decisions. Overall, the low numbers of organizations that evaluate their policies, particularly for effectiveness in addressing substance use, reveals an important gap in policy implementation and could leave employers and employees at risk for workplace issues if problems are not appropriately addressed.

Key informants were asked additional details in relation to practical and legal experiences as well as best practices. With respect to legal experiences, key informants indicated their biggest challenges were the changing scope of legal decisions, where policies and practices were frequently challenged and amended in courts; the issue of ongoing random testing, where safety must be balanced with human rights; and the lack of a national unified legal framework to address substance use, where different jurisdictions have varying criteria and ambiguity in the meaning of various terms. The potential implications for employers is the inability to address substance use affecting the workplace in a consistent and cost-effective manner. The potential implications for employees may be limited knowledge about what is expected of them and potential safety risks, as well as a lack of treatment and accommodation standards for employers to follow that could support employees with substance use issues. Additionally, given the CNSC's interest in exploring the implementation of ongoing random testing, the one key informant that represented an organization which used random testing (not subject to U.S. DOT regulations) explained that it was necessary to create a very specific and narrow definition of safety-sensitive positions in order to meet the legal requirements.

Key informants provided a number of recommendations for developing and implementing effective substance use policies and best practices. These included creating a workplace culture that sets the expectation that impairment from substance use will not be tolerated, but also establishing the organization as a place of trust and support for those affected by substance use issues. Also indicated as important was to create a comprehensive and well-developed policy that includes: reviewing legal and regulatory requirements across the various jurisdictions; involving unions and professional organizations; and educating employees about the policy and their obligations. Research has demonstrated that workplace culture has a strong impact on substance use, where permissive environments, unclear expectations, and minimal trust among other factors can all impede efforts to reduce substance use affecting the workplace (Chartier, 2006; Frone, 2006; Macdonald, Wells, & Wild, 1999).

The majority of survey respondents reported that they were concerned about the legalization and regulation of cannabis in Canada and, although key informants were not asked about this, most brought this up as a concern. Given that cannabis will fall on both the medical and the recreational sides of substance use, organizations will need to incorporate guidelines in their policies that address both types of use.

From the environmental scan, survey data and key informant interviews, organizations in select safety-sensitive sectors (e.g., construction, oil and gas) or large, established organizations appear to have developed comprehensive policies that address several critical areas in responding to substance use affecting the workplace. Most organizations appear to investigate potential substance use issues before terminating an employee, although some organizations still report immediately firing an employee. While many safety-sensitive organizations offer treatment and support options, the results from this investigation suggest that these vary widely and may be outside of the purview of organizations. Random testing as an ongoing process is controversial and rarely performed by those who participated in the survey or interviews. Abstinence and success appears to be connected to workplace culture and a strong commitment by the employee to recover. Overall, these results provide initial insights into the development, implementation and experiences of select safety-sensitive employers and workplace substance use policies. Additional research in these various areas and a broader sample of participants will broaden understanding and help fill gaps.

3 Prevalence of Substance Use, Abuse and Dependence in Regions with High-Security Nuclear Facilities (Task 1a)

To gain a better understanding of the extent of substance use and the characteristics of people who use different substances in areas where high-security nuclear facilities exist, the first part of this section describes the prevalence rates for the provinces of Ontario and New Brunswick using data from the Canadian Tobacco, Alcohol and Drugs Survey (CTADS). Data pertaining to Canada are also examined to demonstrate how the results of the two provinces are situated within the context of the Canadian population. Given the greater concentration of nuclear facilities in Ontario, the second part of this section examines prevalence rates within select Ontario regions using data from the Centre for Addiction and Mental Health Monitor (CAMH-M). Data collected from the 2012 Canadian Community Health Survey (CCHS) is also presented as this survey provides data on rates of substance use and substance abuse and dependence. Due to differences in the methodologies used to collect and analyze the data between the three data sets, the results cannot be directly compared. Nonetheless, overall similarities may be observed which can provide a broader context to understanding substance use, abuse and dependence.

3.1 Substance Use in Ontario, New Brunswick and Canada: CTADS Data

3.1.1 Data Description and Substance Use Indicators

Data on indicators of alcohol and drug use for Ontario, New Brunswick and Canada were obtained from the 2015 edition of the CTADS. CTADS is a biennial survey conducted by Statistics Canada on behalf of Health Canada. It is a random digit dialing telephone survey of persons 15 years of age and older living in Canada, with the exception of the Yukon, the Northwest Territories and Nunavut. The overall sample size for 2015 was equally distributed across the provinces and weighted to allow generalization to the Canadian population. In total, 15,154 interviews were completed.

CTADS provides data on several indicators of drug and alcohol use along with demographic information that can be used to establish characteristics of use within the population. This section analyzes the data according to the following substance indicators:

- **Alcohol use:** within the past 12 months;
- **Exceed LRDG:** alcohol consumption more than is recommended by the Low-Risk Drinking Guidelines (LRDG) (Canadian Centre on Substance Use and Addiction (CCSA), 2014) on one occasion (i.e., three or more drinks for females; four or more drinks for males. (Numbers provided in the tables below represent the proportion of the total population and not just those who consumed alcohol.)
- **Cannabis use:** within the past 12 months;
- **Pain medication**: use of opioid pain relievers within the past 12 months;
- **Sedatives:** use of prescription sedative medications typically used to help people sleep, calm down or relax their muscles within the past 12 months; and

- **Any 11 drugs:** use of any of 11 different drugs to get high in the past 12 months. Drugs included cannabis, cocaine, speed/methamphetamine, ecstasy (MDMA), hallucinogens, salvia, heroin, inhalants, pain relievers, stimulants and sedatives.

Information on the use of specific drugs (e.g., speed/methamphetamine, ecstasy (MDMA), hallucinogens, salvia, heroin or inhalants) is also collected but the reported incidence is relatively low. Examining these data by province, age and other demographic variables is not recommended due to the high degree of sampling variability in these estimates. Such estimates are unreliable and can lead to inappropriate conclusions, and therefore are not included in the presentation of findings.

3.1.2 Prevalence Rates According to Demographic Characteristics

The prevalence rates for the above substance use indicators are reported in the tables below according to four demographic characteristics: age, sex, marital status and residency (i.e., urban/rural). Estimates for some results have been suppressed due to high sampling variability (i.e., coefficient of variation > 33.3 or unweighted sample size <30). The suppressed estimates are indicated by an asterisk (*). The 95% confidence interval (CI) for each estimate is provided within the tables to facilitate comparisons between estimates. In comparing two estimates, if one estimate falls outside the confidence interval for the other, the two estimates are deemed significantly different from each other at the p<.05 level.[16]

Table 27, Table 28 and Table 29 describe prevalence rates according to different age groups for Ontario, New Brunswick, and Canada, respectively. Table 27 and Table 28 reveal that cannabis use in Ontario (12.8%) was significantly more prevalent than in New Brunswick (9.0%). As shown in Table 29, which describes data for Canada, the findings indicate that alcohol remains the most commonly used psychoactive substance among Canadians in all age groups. Overall, 76.9% of Canadians 15 years of age and over reported consuming alcohol in the past 12 months. Persons aged 20-24 were most likely to report exceeding the low-risk drinking guidelines (i.e., three or more drinks per occasion for females, four or more drinks per occasion for males), placing themselves at increased risk of acute harms.

Table 27: Alcohol and drug use indicators for Ontario according to age group (CTADS, 2015)

	15–19	20–24	25+	Total
Alcohol (95% CI)	56.5 (49.4–63.3)	75.4 (68.1–81.5)	74.9 (71.2–78.3)	73.6 (70.4–76.6)
Exceed LRDG (95% CI)**	5.5 (3.2–9.2)	20.4 (15.2–26.8)	11.5 (9.2–14.2)	11.8 (9.8–14.2)
Cannabis (95% CI)	19.4 (14.2–26.0)	31.2 (24.9–38.4)	10.4 (8.2–13.1)	12.8 (10.8–15.2)
Pain meds (95% CI)	6.6 (3.9–11.0)	13.1 (8.8–19.1)	15.6 (13.0–18.6)	14.7 (12.5–17.3)
Sedatives (95% CI)	*	6.2 (3.5–10.8)	10.5 (8.5–12.8)	9.6 (7.9–11.7)
Any 11 drugs (95% CI)	19.7 (14.5–26.3)	32.4 (26.0–39.6)	10.8 (8.5–13.6)	13.3 (11.2–15.7)

All results reported in percentages.
* High sampling variability, data suppressed
** Proportion of the total population

[16] For example, in Table 27 the difference in alcohol use between those aged 15–19 and those aged 20–24 is considered statistically significant because the estimate for the 15–19 age group (56.5%) falls outside the CI (68.1–81.5) for those aged 20–24.

Table 28: Alcohol and drug use indicators for New Brunswick according to age group (CTADS, 2015)				
	15–19	20–24	25+	Total
Alcohol (95% CI)	56.4 (48.5–63.9)	91.3 (86.5–94.5)	75.2 (71.6–78.5)	75.1 (72.0–78.1)
Exceed LRDG** (95% CI)	11.6 (6.7–19.3)	23.2 (17.5–30.1)	8.5 (6.3–11.5)	9.8 (7.7–12.4)
Cannabis (95% CI)	17.3 (11.4–25.2)	31.4 (23.8–40.1)	6.5 (4.6–9.2)	9.0 (7.1–11.4)
Pain meds (95% CI)	7.6 (4.7–12.0)	12.2 (8.3–17.5)	14.5 (11.8–17.7)	13.9 (11.5–16.6)
Sedatives (95% CI)	5.2 (2.9–9.2)	8.3 (4.7–14.3)	14.2 (11.5–17.5)	13.2 (10.8–16.0)
Any 11 drugs (95% CI)	17.3 (11.5–25.3)	31.7 (24.1–40.5)	6.9 (4.9–9.7)	9.4 (7.4–11.8)
All results reported in percentages. ** Proportion of the total population				

Table 29: Alcohol and drug use indicators for Canada according to age group (CTADS, 2015)				
	15–19	20–24	25+	Total
Alcohol (95% CI)	59.1 (55.7–62.4)	82.7 (79.4–85.5)	77.8 (76.2–79.4)	76.9 (75.5–78.3)
Exceed LRDG** (95% CI)	6.6 (5.3–8.2)	19.4 (16.7–22.3)	11.4 (10.2–12.7)	11.7 (10.7–12.8)
Cannabis (95% CI)	20.6 (17.9–23.7)	29.7 (26.5–33.0)	9.9 (8.8–11.1)	12.3 (11.3–13.4)
Pain meds (95% CI)	7.4 (5.9–9.3)	12.8 (10.6–15.3)	13.6 (12.3–14.9)	13.1 (12.0–14.2)
Sedatives (95% CI)	4.6 (3.4–6.2)	6.7 (5.2–8.5)	11.4 (10.3–12.5)	10.5 (9.6–11.5)
Any 11 drugs (95% CI)	21.6 (18.8–24.7)	31.3 (28.2–34.7)	10.4 (9.3–11.7)	13.0 (11.9–14.1)
All results reported in percentages. ** Proportion of the total population				

Table 30 is included to provide an indication of the extent of alcohol and drug use in smaller age groups. The numbers for each age group are sufficient to provide estimates for all of Canada. Overall, 12.3% of Canadians reported using cannabis in the past 12 months (see Table 29) and use peaked among those aged 19 to 24 at 29.6% and declined thereafter (see Table 30). The use of sedatives and opioid pain medications was higher among older age groups.

Table 30: Alcohol and drug use indicators for Canada according to age group (CTADS, 2015)							
	15–18	19–24	25–34	35–44	45–54	55–64	65+
Alcohol (95% CI)	52.6 (48.8–56.4)	82.8 (79.9–85.4)	84.5 (80.6–87.7)	82.2 (78.4–85.5)	80.8 (72.9–83.9)	76.9 (70.6–80.4)	66.2 (62.5–69.7)
Exceed LRDG** (95% CI)	4.7 (3.5–6.1)	18.6 (16.2–21.2)	16.6 (13.2–20.8)	14.3 (11.5–17.6)	9.6 (7.5–12.2)	12.0 (9.6–14.9)	5.2 (3.8–7.1)
Cannabis (95% CI)	18.3 (15.4–21.7)	29.6 (26.8–32.6)	22.4 (18.5–26.7)	12.8 (10.3–15.9)	8.0 (6.0–10.5)	5.9 (4.5–7.6)	1.6 (1.0–2.5)
Pain meds (95% CI)	6.9 (5.3–8.9)	12.3 (10.3–14.5)	14.2 (10.9–18.4)	10.9 (8.8–13.5)	15.0 (12.3–18.1)	14.3 (11.8–17.2)	13.2 (11.0–15.8)
Sedatives (95% CI)	3.6 (2.6–5.0)	6.9 (5.5–8.6)	7.0 (5.0–9.7)	11.6 (9.1–14.7)	8.9 (7.0–11.3)	13.3 (11.1–16.0)	15.6 (13.4–18.1)
Any 11 drugs (95% CI)	19.1 (16.2–22.5)	31.3 (28.4–34.3)	23.4 (19.5–27.8)	13.8 (11.1–17.0)	8.2 (6.2–10.8)	6.0 (4.7–7.8)	1.7 (1.1–2.6)
All results reported in percentages. ** Proportion of the total population							

Table 31 shows data on each of the substance indicators for Ontario, New Brunswick, and Canada according to sex. The results revealed that the use of alcohol and cannabis was higher among males than females. In contrast, females were more likely than males to use sedatives and pain medications. Table 32 presents data for the population in general and not according to sex. Individuals from Ontario were significantly more likely to use cannabis and any 11 drugs than individuals in New Brunswick. Individuals from New Brunswick were significantly more likely to use sedatives than those in Ontario.

Table 31: Alcohol and drug use indicators for Ontario, New Brunswick and Canada according to sex (CTADS, 2015)						
	Ontario		New Brunswick		Canada	
	Male	Female	Male	Female	Male	Female
Alcohol (95% CI)	78.3 (73.7–82.4)	69.2 (64.7–73.3)	80.7 (76.2–84.5)	69.8 (65.2–74.0)	81.3 (79.2–83.1)	72.7 (70.6–74.7)
Exceed LRDG** (95% CI)	14.0 (10.8–17.9)	9.8 (7.5–12.7)	14.1 (10.4–18.8)	5.7 (4.0–8.2)	14.3 (12.6–16.1)	9.2 (8.0–10.6)
Cannabis (95% CI)	14.2 (11.2–18.0)	11.5 (8.9–14.7)	12.8 (9.4–17.1)	5.4 (3.7–7.7)	14.3 (13.4–16.7)	9.2 (8.5–11.1)
Pain meds (95% CI)	13.4 (10.2–17.3)	16.0 (13.0–19.6)	11.6 (8.6–15.4)	16.0 (12.6–20.2)	12.1 (10.6–13.9)	13.9 (12.5–15.5)
Sedatives (95% CI)	6.2 (4.3–8.7)	12.9 (10.2–16.1)	9.8 (6.7–14.2)	16.5 (13.2–20.5)	7.3 (6.3–8.5)	13.6 (12.2–15.1)
Any 11 drugs (95% CI)	14.7 (11.6–18.5)	11.9 (9.3–15.2)	12.9 (9.6–17.3)	5.9 (4.1–8.5)	15.6 (14.0–17.4)	10.3 (9.1–11.8)
All results reported in percentages. ** Proportion of the total population						

Table 32: Alcohol and drug use indicators for Ontario, New Brunswick and Canada (CTADS, 2015)			
	Ontario	New Brunswick	Canada
Alcohol (95% CI)	73.6 (70.4–76.6)	75.1 (72.0–78.1)	76.9 (75.5–78.3)
Exceed LRDG** (95% CI)	11.8 (9.8–14.2)	9.8 (7.7–12.4)	11.7 (10.7–12.8)
Cannabis (95% CI)	12.8 (10.8–15.2)	9.0 (7.1–11.4)	12.3 (11.3–13.4)
Pain meds (95% CI)	14.7 (12.5–17.3)	13.9 (11.5–16.6)	13.1 (12.0–14.2)
Sedatives (95% CI)	9.6 (7.9–11.7)	13.2 (10.8–16.0)	10.5 (9.6–11.5)
Any 11 drugs (95% CI)	13.3 (11.2–15.7)	9.4 (7.4–11.8)	13.0 (11.9–14.1)
All results reported in percentages. ** Proportion of the total population			

Table 33, Table 34 and Table 35 report prevalence use data according to marital status for Ontario, New Brunswick and Canada. Alcohol use was lowest among those who reported being widowed, separated or divorced. Across Canada, those who were single (i.e., never married) were most likely to exceed the low-risk drinking guidelines and to use cannabis, but least likely to use sedatives. There were, however, some differences between provinces. For example, married individuals in Ontario were more likely to report exceeding the low-risk drinking guidelines.

Table 33: Alcohol and drug use indicators for Ontario according to marital status (CTADS, 2015)			
	Married	Widowed/ Divorced/ Separated	Single
Alcohol (95% CI)	74.2 (70.0–77.9)	63.1 (54.5–71.0)	77.5 (71.7–82.4)
Exceed LRDG** (95% CI)	12.8 (10.1–16.0)	8.5 (5.1–13.7)	10.7 (7.4–15.3)
Cannabis (95% CI)	10.3 (8.1–13.0)	11.0 (6.3–18.5)	21.1 (16.7–28.6)
Pain meds (95% CI)	15.7 (12.8–19.2)	12.6 (8.4–18.5)	11.5 (8.1–16.1)
Sedatives (95% CI)	9.6 (7.4–12.3)	12.4 (8.5–17.7)	8.7 (5.8–12.8)
Any 11 drugs (95% CI)	10.8 (8.5–13.5)	11.7 (6.8–19.4)	22.4 (17.0–29.0)
All results reported in percentages. ** Proportion of the total population			

Table 34: Alcohol and drug use indicators for New Brunswick according to marital status (CTADS, 2015)			
	Married	Widowed/ Divorced/ Separated	Single
Alcohol (%) (95% CI)	77.2 (73.4–80.6)	61.0 (51.4–69.8)	76.8 (70.9–81.8)
Exceed LRDG** (95% CI)	10.1 (7.5–13.4)	*	12.3 (8.1–18.3)
Cannabis (%) (95% CI)	8.2 (6.0–11.2)	7.4 (3.9–13.4)	14.5 (9.7–21.3)
Pain meds (%) (95% CI)	12.8 (10.1–16.1)	18.3 (11.6–27.8)	14.5 (9.8–20.9)
Sedatives (%) (95% CI)	11.7 (8.9–15.1)	23.6 (16.3–32.8)	12.6 (8.1–19.0)
Any 11 drugs (%) (95% CI)	8.7 (6.4–11.7)	7.4 (3.9–13.5)	14.6 (9.7–21.4)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population			

Table 35: Alcohol and drug use indicators for Canada according to marital status (CTADS, 2015)			
	Married	Widowed/ Divorced/ Separated	Single
Alcohol (95% CI)	77.8 (75.9–79.6)	67.6 (63.4–71.5)	79.1 (76.5–81.5)
Exceed LRDG** (95% CI)	11.9 (10.5–13.3)	8.4 (6.5–10.8)	13.0 (11.0–15.2)
Cannabis (95% CI)	9.9 (8.8–11.1)	9.7 (7.4–12.7)	21.2 (18.5–24.1)
Pain meds (95% CI)	13.0 (11.7–14.6)	15.0 (12.5–17.8)	11.9 (10.0–14.0)
Sedatives (95% CI)	9.7 (8.6–10.9)	18.5 (15.7–21.7)	9.2 (7.6–11.0)
Any 11 drugs (95% CI)	10.5 (9.3–11.7)	10.4 (7.9–13.4)	22.2 (19.4–25.2)
All results reported in percentages. ** Proportion of the total population			

Table 36 provides prevalence data according to whether people reported residing in an urban or rural location for Ontario, New Brunswick and Canada. Drug and alcohol use does not vary significantly between those who live in urban areas versus rural areas.

Table 36: Alcohol and drug use indicators for Ontario, New Brunswick and Canada according to urban or rural residence (CTADS, 2015)						
	Ontario		New Brunswick		Canada	
	Urban	Rural	Urban	Rural	Urban	Rural
Alcohol (95% CI)	72.4 (68.8–75.7)	79.0 (71.4–85.0)	77.4 (73.5–80.8)	70.7 (65.0–75.8)	76.4 (74.8–78.0)	78.7 (75.5–81.6)
Exceed LRDG** (95% CI)	11.3 (9.2–13.9)	13.3 (8.6–20.1)	9.7 (7.1–13.1)	10.3 (7.3–13.4)	11.6 (10.4–12.8)	12.0 (9.8–14.7)
Cannabis (95% CI)	13.2 (10.9–15.9)	10.4 (6.7–15.8)	8.9 (6.8–11.4)	9.3 (5.6–15.0)	12.4 (11.3–13.7)	11.2 (9.2–13.5)
Pain meds (95% CI)	14.0 (11.6–16.9)	17.8 (12.7–24.4)	14.2 (11.3–17.8)	13.3 (9.6–18.1)	12.7 (11.5–14.0)	14.6 (12.3–17.2)
Sedatives (95% CI)	10.1 (8.1–12.5)	7.9 (5.1–12.1)	13.8 (10.8–17.5)	12.0 (8.5–16.6)	10.8 (9.7–11.9)	9.7 (8.0–11.7)
Any 11 drugs (95% CI)	13.6 (11.3–16.4)	10.9 (7.1–16.5)	9.3 (7.1–12.0)	9.5 (5.8–15.4)	13.1 (11.9–14.4)	11.9 (9.9–14.2)
All results reported in percentages. ** Proportion of the total population						

Comparing 2015 CTADS data to 2013 data revealed some changes in use across the Canadian population. Overall cannabis use in Canada has increased. The increase was most prominent among those aged 25 and over and those who reported being married or living with a partner. There was evidence of a small reduction in the use of prescription pain relievers. The exception was in New Brunswick where there have been small increases across all age categories.

3.2 Substance Use in Select Ontario Jurisdictions: CAMH-M Data

3.2.1 Data Description and Substance Use Indicators

Data on indictors of alcohol and drug use were obtained from the 2015 edition of the CAMH-M. The CAMH-M is an annual survey of mental health and substance use issues in the province of Ontario, administered by the Institute for Social Research at York University for CAMH. It is a random digit dialing telephone survey of persons 18 years of age and older living in Ontario. In total, 5,013 interviews were completed.

County of residence was used to identify areas surrounding nuclear facilities in Ontario. Due to small samples sizes in some regions, it was necessary to group several counties. Although the surrounding counties included a relatively wide area, they were sufficiently separated from each other to represent distinct regions of the province. The three areas examined were:

- Chalk River, which includes the counties of Renfrew, Lanark, Nipissing and Ottawa-Carleton;
- Bruce, which includes the counties of Huron, Perth, Grey and Bruce; and
- Pickering/Darlington, which includes the counties of Durham Region, York, Peterborough, Northumberland and Kawartha Lakes.

Although the CAMH-M data allow the examination of data from these distinct and separate areas of the province, there were numerous estimates that were supressed due to high sampling variability, which limits the ability to make comparisons between the areas.

Alcohol and drug use trends in the three areas were examined using the information captured in the CAMH-M. Several of the indicators of drug and alcohol use were similar to those in the CTADS.

This report provides information on the following indicators:

- **Alcohol use:** reported alcohol use within the past 12 months. The 2015 CAMH-M does not include the "Exceed LRDG" variable; hence, the following two variables were chosen as they could be interpreted as indicators of heavy drinking.
  - **Daily drinking**: consumed at least one drink every day during the past 12 months; and
  - **5+ Drinks:** consumed five or more drinks on a single occasion at least once per month during the past 12 months.
- **Cannabis:** reported use of cannabis within the past 12 months.
- **Prescription opioid medication:** reported use of prescription opioid pain relievers within the past 12 months.
- **Prescription anxiety medication:** reported use of prescription anti-anxiety medications to reduce anxiety or panic attacks. (In contrast, CTADS asks about "sedatives" used to help people sleep, calm down or relax their muscles.)
- **Prescription depression medication:** reported of prescription medication used to treat depression.

CAMH-M also includes a question on the use of cocaine, but the prevalence is very low and the high sampling variability prevents these data from being released.

3.2.2 Prevalence Rates According to Demographic Characteristics

The prevalence rates for the above substance use indicators are reported in the tables below according to five demographic characteristics: age, sex, marital status, residency (i.e., urban/rural) and education level.[17] Table 37 to Table 40 present prevalence rates for each jurisdiction and Ontario according to age. In the province as a whole, alcohol use was highest among those aged 35–54 years and lowest among those 55 and over. Daily drinking was most common among those aged 55 and over, whereas heavy drinking (5+ drinks) was most common among those aged 18–34. The use of cannabis was most common among those aged 18–34. Use declined with increasing age.

[17] When reporting results for CTADS, urban/rural and education variables were not included in the analyses as they were for CAMH-M data. Although both CTADS and CAMH-M collect residency data by postal code, the data for CAMH-M is further categorized into urban and rural whereas CTADS classifies data into rural and population centre. As it is not clear how CTADS arrives at this distinction, the variable was not used. CTADS does not collect education data, so it could not be analyzed.

Table 37: Alcohol and drug use indicators for Chalk River area according to age group (CAMH-M, 2015)			
	18–34	35–54	55+
Alcohol (95% CI)	83.1 (72.6–90.2)	82.0 (75.1–87.3)	78.1 (72.2–83.0)
Daily Drinking** (95% CI)	*	5.9 (3.1–10.9)	13.3 (9.8–17.8)
5+ Drinks** (95% CI)	30.5 (20.7–42.4)	21.2 (15.6–28.3)	12.9 (9.2–17.6)
Cannabis (95% CI)	26.6 (17.4–38.4)	11.8 (7.7–17.6)	6.5 (3.9–10.6)
Rx Depressants (95% CI)	15.1 (8.6–25.2)	6.4 (4.0–10.3)	7.2 (4.2–12.2)
Rx Anxiety Meds (95% CI)	17.5 (10.1–28.8)	9.3 (5.5–15.4)	6.2 (3.3–10.3)
Rx Opioids (95% CI)	22.4 (13.7–34.5)	17.5 (12.4–24.1)	25.0 (19.4–31.6)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population			

Table 38: Alcohol and drug use indicators for Bruce area according to age group (CAMH-M, 2015)			
	18–34	35–54	55+
Alcohol (95% CI)	77.7 (52.3–91.7)	72.0 (54.1–84.9)	78.3 (69.2–85.3)
Daily Drinking** (95% CI)	*	*	17.3 (10.6–27.1)
5+ Drinks** (95% CI)	*	*	12.8 (7.2–22.0)
Cannabis (95% CI)	*	*	*
Rx Depressants (95% CI)	*	*	*
Rx Anxiety Meds (95% CI)	*	*	12.8 (7.4–21.4)
Rx Opioids (95% CI)	*	28.4 (14.9–47.4)	27.6 (18.6–39.0)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population			

Table 39: Alcohol and drug use indicators for Pickering/Darlington area according to age group (CAMH-M, 2015)			
	18–34	35–54	55+
Alcohol (95% CI)	83.0 (71.2–90.6)	86.4 (79.6–91.2)	72.8 (66.1–78.5)
Daily Drinking** (95% CI)	*	*	8.1 (5.0–12.7)
5+ Drinks** (95% CI)	30.1 (19.3–43.7)	25.2 (18.0–34.0)	11.5 (7.4–17.5)
Cannabis (95% CI)	38.0 (26.0–51.6)	14.6 (9.0–22.8)	4.3 (2.3–7.9)
Rx Depressants (95% CI)	*	8.4 (4.4–15.3)	9.2 (5.8–14.2)
Rx Anxiety Meds (95% CI)	*	7.9 (4.2–14.5)	11.6 (7.8–17.0)
Rx Opioids (95% CI)	19.2 (10.5–32.6)	19.4 (13.0–28.0)	25.7 (13.3–33.3)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population			

Table 40: Alcohol and drug use indicators for Ontario according to age group (CAMH-M, 2015)			
	18–34	35–54	55+
Alcohol (95% CI)	79.7 (75.6–83.3)	83.3 (80.9–85.4)	77.5 (75.7–79.3)
Daily Drinking** (95% CI)	2.3 (1.3–4.1)	4.7 (3.6–6.1)	12.6 (11.2–14.1)
5+ Drinks** (95% CI)	32.1 (27.9–36.7)	19.8 (17.6–22.3)	12.8 (11.3–14.5)
Cannabis (95% CI)	32.6 (28.3–37.2)	10.4 (8.7–12.5)	6.3 (5.3–7.6)
Rx Depressants (95% CI)	8.2 (5.8–11.5)	9.1 (7.4–11.2)	8.9 (7.6–10.3)
Rx Anxiety Meds (95% CI)	10.3 (7.6–13.7)	9.4 (7.7–11.3)	11.4 (9.9–13.0)
Rx Opioids (95% CI)	19.3 (15.7–23.6)	20.9 (18.3–23.8)	26.5 (24.3–28.7)
All results reported in percentages. ** Proportion of the total population			

The overall prevalence of alcohol and drug use in the three regions as well as in the province as a whole are presented in Table 41 and Table 42 presents these data according to sex. Alcohol use in Bruce was lower than that in the province; however, there was a greater prevalence of daily drinking. Daily drinking in Pickering/Darlington was lower than in other regions, but heavy drinking (i.e., five or more drinks on one occasion at least once per month in the past year) was more common. After alcohol, prescription opioids were reported as second most commonly used followed by cannabis, although some differences were observed when examined by sex.

Table 41: Alcohol and drug use indicators for selected regions of Ontario (CAMH-M, 2015)				
	Chalk River	Bruce	Pickering/Darlington	Ontario
Alcohol (95% CI)	80.5 (76.3–84.1)	75.5 (67.0–82.4)	80.3 (75.9–84.0)	80.0 (78.5–81.4)
Daily Drinking** (95% CI)	7.9 (5.9–10.5)	9.6 (5.9–15.1)	4.9 (3.3–7.2)	7.0 (6.3–7.9)
5+ Drinks** (95% CI)	20.8 (16.9–25.4)	15.2 (9.7–23.0)	21.4 (17.0–26.7)	20.3 (18.8–21.9)
Cannabis (95% CI)	14.1 (10.7–18.3)	*	16.8 (12.7–22.0)	14.5 (13.1–16.1)
Rx Depressants (95% CI)	9.3 (6.7–12.8)	*	8.8 (5.9–13.0)	8.7 (7.7–9.9)
Rx Anxiety Meds (95% CI)	10.7 (7.7–14.8)	7.4 (4.0–13.3)	10.9 (7.7–15.2)	10.3 (9.2–11.6)
Rx Opioids (95% CI)	21.8 (17.7–26.5)	24.3 (17.1–33.3)	21.6 (17.1–26.8)	22.6 (21.0–24.3)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population				

Table 42: Alcohol and drug use indicators for selected regions of Ontario by sex (CAMH-M, 2015)								
	Chalk River		Bruce		Pickering/Darlington		Ontario	
	Male	Female	Male	Female	Male	Female	Male	Female
Alcohol (95% CI)	84.3 (78.4–88.9)	76.2 (70.1–81.4)	72.1 (57.0–83.5)	78.3 (68.7–85.6)	83.9 (77.4–88.8)	77.5 (71.5–82.6)	83.5 (81.3–85.6)	76.7 (74.7–78.6)
Daily Drinking** (95% CI)	9.7 (6.5–14.0)	6.0 (4.1–8.8)	13.7 (7.2–24.6)	*	5.2 (2.8–9.5)	4.6 (2.8–7.6)	9.8 (8.5–11.4)	4.5 (3.8–5.3)
5+ Drinks** (95% CI)	28.6 (22.1–36.0)	12.3 (8.8–17.0)	20.9 (11.7–34.5)	*	34.4 (26.2–43.7)	11.4 (7.7–16.6)	27.6 (26.0–31.3)	12.6 (11.1–14.4)
Cannabis (95% CI)	19.5 (13.9–26.6)	8.1 (5.1–12.4)	*	*	26.4 (18.7–36.0)	9.5 (6.0–14.6)	19.2 (16.8–21.9)	10.2 (8.7–12.0)
Rx Depressants (95% CI)	6.5 (3.3–12.3)	12.6 (8.9–17.4)	*	*	*	9.6 (6.3–14.5)	6.1 (4.8–7.9)	11.1 (9.7–12.8)
Rx Anxiety Meds (95% CI)	*	15.9 (11.0–22.4)	*	*	*	12.7 (8.8–18.0)	7.7 (6.2–9.6)	12.7 (11.2–14.5)
Rx Opioids (95% CI)	17.6 (12.3–24.7)	26.6 (20.9–33.1)	21.1 (11.8–34.7)	27.1 (17.7–39.9)	21.5 (14.7–30.4)	21.6 (16.2–28.2)	21.1 (18.7–23.7)	24.1 (22.0–26.3)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population								

With respect to marital status, Table 43 to Table 46 present prevalence rates according to being married or with a partner, previously married (includes widowed, separated and divorced), or never

married. Cannabis use was most common among those who had never been married. This is consistent with the observation that 80.6% of the "never married" group were between the ages of 18 and 24 and this age group was most likely to report cannabis use.

The use of prescription medications (anti-depressants, anxiety medications and opioid pain relievers) was most prevalent among those who had previously been married. Overall, 72.5% of those in the previously married group were aged 55 or over. This age group was also most likely to report the use of these prescription medications.

Table 43: Alcohol and drug use indicators for Chalk River area according to marital status (CAMH-M, 2015)			
	Married/Partner	Previously Married	Never Married
Alcohol (95% CI)	81.0 (76.1–85.1)	80.0 (70.5–87.0)	80.0 (67.8–88.3)
Daily Drinking** (95% CI)	9.7 (7.1–13.2)	9.2 (4.9–16.6)	*
5+ Drinks** (95% CI)	16.3 (12.7–20.7)	19.7 (11.2–32.1)	34.8 (23.5–48.2)
Cannabis (95% CI)	10.0 (7.0–14.0)	*	29.2 (18.6–42.6)
Rx Depressants (95% CI)	6.1 (3.9–9.5)	27.5 (17.3–40.7)	*
Rx Anxiety Meds (95% CI)	7.9 (5.2–11.9)	19.6 (10.7–33.0)	*
Rx Opioids (95% CI)	17.7 (13.7–22.6)	42.7 (30.8–55.5)	25.3 (14.8–39.7)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population			

Table 44: Alcohol and drug use indicators for Bruce area according to marital status (CAMH-M, 2015)			
	Married/Partner	Previously Married	Never Married
Alcohol (95% CI)	74.7 (65.3–82.3)	79.8 (56.1–92.4)	75.6 (45.2–92.1)
Daily Drinking** (95% CI)	11.3 (6.7–18.5)	*	*
5+ Drinks** (95% CI)	12.0 (6.8–20.2)	*	*
Cannabis (95% CI)	*	*	*
Rx Depressants (95% CI)	*	*	*
Rx Anxiety Meds (95% CI)	*	*	*
Rx Opioids (95% CI)	30.7 (21.4–41.8)	*	*
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population			

Table 45: Alcohol and drug use indicators for Pickering/Darlington area according to marital status (CAMH-M, 2015)			
	Married/Partner	Previously Married	Never Married
Alcohol (95% CI)	82.3 (77.4–86.4)	67.1 (55.5–76.9)	82.0 (69.4–90.1)
Daily Drinking** (95% CI)	6.0 (3.8–9.4)	*	*
5+ Drinks** (95% CI)	18.3 (13.5–24.3)	26.0 (15.8–39.6)	29.7 (18.5–44.2)
Cannabis (95% CI)	9.9 (6.3–15.2)	*	41.7 (28.7–55.9)
Rx Depressants (95% CI)	5.9 (3.5–9.8)	16.2 (8.8–28.1)	*
Rx Anxiety Meds (95% CI)	7.3 (4.7–11.3)	18.1 (10.4–29.6)	*
Rx Opioids (95% CI)	20.1 (15.0–26.2)	29.8 (20.1–41.7)	23.2 (12.8–38.3)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population			

Table 46: Alcohol and drug use indicators for Ontario according to marital status (CAMH-M, 2015)			
	Married/Partner	Previously Married	Never Married
Alcohol (95% CI)	81.4 (79.8–83.0)	75.1 (71.8–78.1)	78.6 (74.3–82.4)
Daily Drinking** (95% CI)	8.6 (7.6–9.8)	8.4 (6.6–10.7)	2.1 (1.2–3.8)
5+ Drinks** (95% CI)	17.2 (15.6–18.9)	17.6 (14.6–21.1)	30.6 (26.3–35.3)
Cannabis (95% CI)	8.9 (7.6–10.3)	9.5 (7.3–12.3)	33.0 (28.5–37.8)
Rx Depressants (95% CI)	7.1 (6.1–8.4)	14.5 (11.9–17.7)	10.7 (7.9–14.5)
Rx Anxiety Meds (95% CI)	8.7 (7.6–10.0)	16.0 (13.2–19.3)	12.5 (9.5–16.2)
Rx Opioids (95% CI)	22.2 (20.3–24.2)	28.9 (25.2–32.8)	21.2 (17.4–25.6)
All results reported in percentages. ** Proportion of the total population			

Prevalence rates were also examined according to whether respondents indicated living in urban or rural[18] areas as depicted in Table 47. Overall, results for the three Ontario regions and Ontario indicate that drinking and daily drinking are higher among those who live in rural areas but the use of cannabis and prescription opioids are lower.

[18] Rural residence was derived from the first three digits of the postal code.

Table 47: Alcohol and drug use indicators for selected regions according to urban or rural residence (CAMH-Monitor, 2015)								
	Chalk River		Bruce		Pickering/Darlington		Ontario	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Alcohol (95% CI)	79.6 (75.1–83.5)	89.0 (77.3–95.1)	83.7 (73.2–90.6)	67.7 (54.7–78.4)	80.7 (76.1–84.6)	76.6 (60.4–87.5)	79.7 (78.1–81.3)	82.2 (78.5–85.4)
Daily Drinking** (95% CI)	7.5 (5.4–10.2)	*	10.4 (5.7–18.2)	*	4.6 (2.9–7.0)	*	6.9 (6.1–7.8)	8.2 (6.1–10.8)
5+ Drinks** (95% CI)	22.0 (17.8–26.8)	*	15.8 (8.5–27.5)	14.6 (7.5–26.4)	21.1 (16.5–26.7)	24.3 (12.9–40.9)	20.2 (18.6–22.0)	21.0 (17.1–25.5)
Cannabis (95% CI)	14.1 (10.5–18.6)	*	*	*	17.3 (12.9–22.9)	*	14.9 (13.3–16.6)	11.5 (8.6–15.3)
Rx Depressants (95% CI)	8.5 (5.9–12.0)	*	*	*	8.3 (5.3–12.8)	*	8.8 (7.6–10.0)	8.3 (5.9–11.6)
Rx Anxiety Meds (95% CI)	10.9 (7.7–15.3)	*	*	*	10.4 (7.1–15.0)	*	10.4 (9.2–11.7)	9.6 (6.9–13.1)
Rx Opioids (95% CI)	22.7 (18.3–27.8)	*	21.8 (12.9–34.4)	26.8 (16.5–40.4)	21.9 (17.2–27.4)	*	22.9 (21.1–24.7)	20.5 (16.7–24.8)

All results reported in percentages.
* High sampling variability, data suppressed
** Proportion of the total population

Table 48 to Table 51 present results of substance use according to highest level of education attained. Across Ontario, those with a university degree reported lower rates of heavy drinking and all drug use. To a large extent, these trends are also evident in Chalk River and Pickering/Darlington. The small samples sizes in Bruce prevented the estimates from being presented.

Table 48: Alcohol and drug use indicators for Chalk River area according to education (CAMH-M, 2015)				
	< High School	High School	Some Post-Secondary	University Degree
Alcohol (95% CI)	64.1 (43.5–80.6)	89.3 (81.9–93.9)	78.2 (69.9–84.8)	80.2 (73.4–85.6)
Daily Drinking** (95% CI)	*	*	6.9 (4.0–11.7)	10.9 (7.5–15.6)
5+ Drinks** (95% CI)	*	27.7 (17.7–40.5)	19.1 (13.4–26.4)	18.9 (13.5–25.9)
Cannabis (95% CI)	*	24.3 (15.0–37.0)	11.4 (7.1–17.8)	10.9 (6.6—17.3)
Rx Depressants (95% CI)	*	22.0 (12.1–36.5)	8.4 (4.8–14.1)	5.7 (3.5–9.2)
Rx Anxiety Meds (95% CI)	*	*	14.4 (8.4–23.6)	5.9 (3.5–9.9)
Rx Opioids (95% CI)	*	23.6 (14.8–35.3)	26.4 (18.5–36.1)	17.4 (12.3–24.1)

All results reported in percentages.
* High sampling variability, data suppressed
** Proportion of the total population

Table 49: Alcohol and drug use indicators for Bruce area according to education (CAMH-M, 2015)				
	< High School	High School	Some Post-Secondary	University Degree
Alcohol (95% CI)	66.2 (41.5–84.4)	62.0 (42.3–78.4)	86.2 (71.4–94.0)	73.2 (56.2–85.3)
Daily Drinking** (95% CI)	*	*	*	*
5+ Drinks** (95% CI)	*	*	21.7 (11.8–36.5)	*
Cannabis (95% CI)	*	*	*	*
Rx Depressants (95% CI)	*	*	*	*
Rx Anxiety Meds (95% CI)	*	*	*	*
Rx Opioids (95% CI)	*	28.3 (14.1–48.7)	21.0 (11.2–35.9)	30.2 (15.6–50.3)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population				

Table 50: Alcohol and drug use indicators for Pickering/Darlington area according to education (CAMH-M, 2015)				
	< High School	High School	Some Post-Secondary	University Degree
Alcohol (95% CI)	61.0 (43.9–75.7)	75.2 (63.9–83.9)	84.2 (77.3–89.3)	81.7 (73.8–87.6)
Daily Drinking** (95% CI)	*	*	4.8 (2.6–8.8)	*
5+ Drinks** (95% CI)	*	27.1 (17.0–40.2)	27.8 (20.1–37.1)	14.0 (8.5–22.3)
Cannabis (95% CI)	*	29.4 (18.5–43.2)	20.5 (13.4–30.1)	8.5 (4.5–15.4)
Rx Depressants (95% CI)	*	*	12.2 (6.7–21.1)	7.2 (3.8–13.3)
Rx Anxiety Meds (95% CI)	*	13.7 (7.1–24.8)	11.2 (5.9–20.1)	8.8 (5.0–15.1)
Rx Opioids (95% CI)	*	20.3 (11.6–33.1)	24.4 (16.9–33.9)	18.7 (12.6–26.8)
All results reported in percentages. * High sampling variability, data suppressed ** Proportion of the total population				

Table 51: Alcohol and drug use indicators for Ontario according to education (CAMH-M, 2015)				
	< High School	High School	Some Post-Secondary	University Degree
Alcohol (95% CI)	63.4 (57.5–68.8)	75.3 (71.8–78.6)	81.6 (79.0–84.0)	83.6 (81.2–85.7)
Daily Drinking** (95% CI)	6.7 (4.3–10.4)	8.9 (6.9–11.5)	5.0 (4.1–6.2)	8.0 (6.8–9.5)
5+ Drinks** (95% CI)	16.5 (11.9–22.3)	22.9 (19.5–26.7)	23.3 (20.6–26.3)	16.5 (14.3–19.0)
Cannabis (95% CI)	7.9 (4.7–13.0)	18.5 (15.2–22.3)	18.2 (15.6–21.2)	9.7 (8.0–11.8)
Rx Depressants (95% CI)	8.6 (5.8–12.7)	9.8 (7.5–12.8)	10.3 (8.3–12.7)	6.6 (5.3–8.1)
Rx Anxiety Meds (95% CI)	14.6 (10.5–19.9)	11.0 (8.5–13.9)	11.3 (9.3–13.7)	8.3 (6.9–10.0)
Rx Opioids (95% CI)	31.5 (25.6–38.2)	22.1 (18.9–25.7)	25.2 (22.3–28.3)	19.1 (16.8–21.8)
All results reported in percentages. ** Proportion of the total population				

3.3 Substance Abuse and Dependence at the National and Regional Levels: CCHS Data

3.3.1 Data Description and Indicators

Data on rates of substance abuse or dependence were obtained from the 2012 CCHS conducted by Statistics Canada. The CCHS is an annual survey (prior to 2007 it was biennial) that collects health-related data at different jurisdictional levels. Of interest to the current report is that the 2012 CCHS survey provides additional indicators that are useful to better understand substance use, abuse and dependence in Canada.

CCHS data is aggregated and stored in the Canadian Socio-Economic Information Management System (CANSIM), which is accessible online. The CANSIM data tables are already processed by Statistics Canada (i.e., cleaned and prepared) and partially analyzed (i.e., calculation of confidence intervals, coefficients of variation and other analytical techniques applied). The 2012 survey was completed by approximately 65,000 Canadians aged 15 and over through either computer-assisted personal interviewing or random digit calling (telephone interviews).

The 2012 survey provides results on several indicators including questions on use of alcohol, cannabis and other drugs (not including cannabis) as follows:

- **Alcohol use**: within the past 12 months (alcohol use data was collected but not published in the CANSIM datasets).
- **Cannabis/marijuana/hashish**: use at least once within the past 12 months.
- **Other drugs**: use of illicit drugs (other than cannabis) or have used medicine non-medically at least once within the past 12 months. Other drugs included substances such as club drugs, heroin, solvents, other illicit drugs and nonmedical use of prescription sedatives, analgesics or stimulants.

- **Abuse:** calculated based on those who reported one or more of the following occurring during the 12 months prior to the survey: failure to fulfill major roles at work, school or home, use in physically hazardous situations, recurrent substance related problems, or continued use despite social or interpersonal problems caused or intensified by substance use.
- **Dependence:** calculated based on those who reported three or more of the following occurring during the 12 months prior to the survey: increased tolerance, withdrawal, increased consumption, unsuccessful attempts to quit, a lot of time lost recovering or using, reduced activities, and continued use despite persistent physical or psychological problems caused or intensified by substance use. Respondents who met the criteria for dependence were excluded from meeting the criteria for abuse.

The following section of this report presents rates of substance use, abuse and dependence according to age and region.

3.3.2 Prevalence Rates According to Age and Region

The prevalence rates for substance use and substance abuse or dependence for alcohol (note that CCHS data for abuse and dependence are combined), cannabis and other drugs excluding cannabis are reported in the tables below according to age and region. Prevalence rates for alcohol use are not provided as this data was not available from the CANSIM data tables. Estimates for some results are suppressed due to high sampling variability (i.e., coefficient of variation > 33.3%) or are identified as to be used with caution due to moderate sampling variability (i.e., coefficient of variation between 16.6% and 33.3%). Suppressed results are indicated by an asterisk (*) and results to be used with caution are indicated by two asterisks (**). Included in the tables are the 95% CIs to facilitate comparison between estimates. The regions examined included Canada, British Columbia, the Prairie provinces, Ontario, Quebec and the Atlantic provinces.

Table 52 describes prevalence rates of alcohol abuse or dependence according to different age groups at national and regional levels. Youth/young adults aged 15 to 24 reported the highest rates of alcohol abuse or dependence (8.0%) and these rates decreased as individuals become older. For illustrative purposes, a look at the alcohol use rates from the CTADS data (see above) revealed that alcohol consumption was lower among those aged 15 to 19 (59.1%), increased and peaked from 20 to 24 (82.7%), and dropped slightly from 25 years old and onwards (76.9%).[19] This may suggest that as youth and young adults age, although their alcohol use increases, their ability to manage consumption may improve, which may result in a decrease in abuse or dependence. Results from the CCHS data also revealed that alcohol abuse or dependence at regional levels mirrored results at the national level and there were no significant differences between the regions. The Prairie provinces recorded the highest rates of abuse or dependence (3.9%) and Quebec reported the lowest (2.7%).

[19] As noted previously, there are methodological differences in data collection and analyses between CTADS and CCHS data sets. Direct comparisons between the two sets of data cannot be made and are thus not conclusive.

Table 52: Alcohol abuse or dependence indicator at national and regional levels according to age (CCHS, 2012)				
	15 to 24	25 to 44	45 to 64	15+
Canada	8.0 (6.8–9.2)	3.4 (2.7–4.1)	2.0 (1.5–2.6)	3.2 (2.8–3.5)
British Columbia	8.4** (5.5–11.4)	2.7** (1.5–3.9)	*	3.4 (2.4–4.4)
Prairie provinces	10.1 (7.6–12.6)	3.5** (1.9–5.1)	2.6** (1.6–3.6)	3.9 (3.1–4.7)
Ontario	6.3 (4.5–8.2)	4.2** (2.8–5.5)	1.6** (0.9–2.3)	3.1 (2.4–3.7)
Quebec	9.0 (6.1–11.8)	2.1** (1.3–3.0)	1.8** (0.7–2.9)	2.7 (2.1–3.4)
Atlantic provinces	8.6 (6.2–11.0)	3.7** (2.5–4.9)	1.7** (1.0–2.4)	3.0 (2.5–3.6)
All results reported in percentages. * High sampling variability, data suppressed. ** Use with caution (coefficient of variation from 16.6% to 33.3%).				

Table 53 and Table 54 present prevalence rates of cannabis use and cannabis abuse or dependence, respectively, according to different age groups at national and regional levels. Cannabis use was highest among Canadians aged 15 to 24 (29.2%) and this difference was significant in comparison to other age groups. Regional differences in cannabis use were not significant and British Columbia recorded the highest use (14.2%).

Table 53: Cannabis use indicator at national and regional levels according to age (CCHS, 2012)				
	15 to 24	25 to 44	45 to 64	15+
Canada	29.2 (27.1–31.3)	15.6 (14.3–16.9)	6.7 (5.9–7.5)	12.2 (11.5–12.8)
British Columbia	28.0 (22.5–33.4)	18.2 (14.8–21.6)	10.5 (7.9–13.1)	14.2 (12.4–15.9)
Prairie provinces	28.4 (24.4–32.4)	13.2 (11.0–15.4)	5.7 (4.5–7.0)	11.4 (10.3–12.6)
Ontario	28.1 (24.5–31.8)	15.5 (13.1–17.9)	6.8 (5.3–8.3)	12.1 (10.9–13.3)
Quebec	32.3 (27.5–37.0)	15.7 (12.9–18.5)	4.8 (3.3–6.3)	11.5 (10.2–12.8)
Atlantic provinces	29.7 (25.5–33.9)	17.8 (15.4–20.2)	7.6 (5.9–9.3)	12.5 (11.3–13.8)
All results reported in percentages.				

Similar to cannabis use, abuse or dependence was also significantly higher among those aged 15 to 24 (5.1%) relative to older age groups (see Table 54). Differences between regions with respect to abuse or dependence were not significant; the Atlantic provinces reported the highest rate (1.6%).

Table 54: Cannabis abuse or dependence indicator at national and regional levels according to age (CCHS, 2012)				
	15 to 24	25 to 44	45 to 64	15+
Canada	5.1 (4.1–6.1)	1.3 (0.9–1.6)	0.3** (0.1–0.4)	1.3 (1.1–1.5)
British Columbia	3.9** (1.8–6.0)	1.4** (0.7–2.1)	*	1.2** (0.8–1.6)
Prairie provinces	4.0** (2.6–5.4)	1.4** (0.6–2.3)	*	1.3 (0.9–1.7)
Ontario	4.9** (3.1–6.7)	1.0** (0.5–1.6)	*	1.2 (0.9–1.6)
Quebec	6.8** (4.2–9.4)	*	*	1.4 (1.0–1.9)
Atlantic provinces	6.7** (4.3–9.0)	1.9** (1.0–2.7)	*	1.6 (1.2–2.1)
All results reported in percentages. * High sampling variability, data suppressed. ** Use with caution (coefficient of variation from 16.6% to 33.3%).				

Prevalence rates for other drug use and other drug abuse or dependence (excluding cannabis) are described in Table 55 and Table 56 respectively. Nationally, respondents aged 15 to 24 self-reported significantly higher rates of use in comparison to other age groups, which decreased with age. At the regional level, there are almost no significant differences and, overall, Ontario respondents reported the lowest drug use (5.4%) and Quebec respondents reported the highest drug use (7.8%).

Table 55: Other drug use (excluding cannabis) indicator at national and regional levels according to age (CCHS, 2012)				
	15 to 24	25 to 44	45 to 64	15+
Canada	10.0 (8.7–11.3)	6.3 (5.4–7.1)	5.3 (4.5–6.1)	6.4 (5.9–6.9)
British Columbia	9.4** (6.1–12.8)	7.7 (5.2–10.1)	5.9** (4.0–7.8)	6.8 (5.6–8.0)
Prairie provinces	10.2 (7.9–12.6)	5.7 (4.4–7.0)	5.5 (3.9–7.1)	6.3 (5.5–7.2)
Ontario	8.0 (5.8–10.1)	5.0 (3.4–6.5)	4.5** (3.0–6.0)	5.4 (4.5–6.4)
Quebec	13.4 (10.1–16.7)	8.0 (5.6–10.4)	5.9 (4.3–7.6)	7.8 (6.7–8.9)
Atlantic provinces	10.8 (7.8–13.9)	7.2 (5.3–9.2)	5.7 (4.3–7.2)	6.5 (5.5–7.5)
All results reported in percentages. * High sampling variability, data suppressed. ** Use with caution (coefficient of variation from 16.6% to 33.3%).				

There was high sampling variability among the data for other drug abuse or dependence and therefore few results could be reported and, among those results, the majority should be used with caution. Again, respondents aged 15 to 24 self-reported the highest rates of other drug abuse or dependence (excluding cannabis).

Table 56: Other drug abuse or dependence (excluding cannabis) indicator at national and regional levels according to age (CCHS, 2012)				
	15 to 24	25 to 44	45 to 64	15+
Canada	2.0** (1.3–2.7)	0.7** (0.4–1.0)	0.4** (0.2–0.5)	0.7 (0.5–0.8)
British Columbia	*	*	*	0.8** (0.4–1.1)
Prairie provinces	3.1** (1.3–4.9)	*	*	1.0** (0.6–1.4)
Ontario	1.7** (0.7–2.8)	*	*	0.7** (0.4–0.9)
Quebec	*	*	*	0.5** (0.2–0.8)
Atlantic provinces	*	*	*	0.6** (0.4–0.9)
All results reported in percentages. * High sampling variability, data suppressed. ** Use with caution (coefficient of variation from 16.6% to 33.3%).				

3.4 Section Summary

The CTADS data revealed that rates for some substances were higher among certain populations (e.g., alcohol and young males or pain medications and females). Cannabis use across Canada overall has increased and alcohol remains the most commonly used substance at 76.9%. Differences between Ontario and New Brunswick were minimal, but cannabis use was significantly more prevalent in Ontario than in New Brunswick, and sedative use was significantly more prevalent in New Brunswick. Cannabis use was higher among males than females and use peaked among those aged 19–24.

With respect to the three Ontario regions of interest for this study (i.e., Chalk River, Bruce and Pickering/Darlington), analyses of CAMH-M data revealed that alcohol, similar to Canada in general, was the most commonly reported substance used. Highest alcohol use was found among those aged 35–54 and heavy drinking most common among 18–34. Prescription opioids and cannabis were found to be the second and third most commonly used substances, respectively. Similar to the CTADS analyses, cannabis use was most common among those aged 18 to 24 and those who were never married.

Data from the 2012 CCHS provided a picture of prevalence rates for substance abuse or dependence nationally and at regional levels. Overall, Canadians aged 15 to 24 reported highest abuse and dependence for all three indicators (alcohol, cannabis and other drugs (excluding cannabis)) and reported highest abuse or dependence of cannabis and other drugs. For the majority of results, there were no significant differences between regions. Interestingly, although a comparison with CTADS data cannot be made directly, alcohol use and alcohol abuse or dependence might have an inverse relationship with respect to age. More research is needed to better understand this potential relationship. Other demographic characteristics such as gender were not explored and may reveal other details and potentially important differences.

Some of the above findings could have implications for CNSC depending on the characteristics of its workforce. For instance, if its workforce consists of predominantly young males, there could be an increased likelihood of the occurrence of cannabis use within this population. Employees aged 35–54 might be more likely to be the highest users of alcohol relative to younger employees; however,

these employees might be the most likely to be heavy drinkers. Nevertheless, these results reflect the general population and only a study of employee substance use would be able to provide the most accurate picture.

4 Potential Impact of Cannabis Legalization and Regulation (Task 4)

With the decision of the Government of Canada to legalize and regulate cannabis, businesses, agencies and organizations have expressed increased concern about what the impact will be on their operations. This impact is of particular concern to agencies, such as the CNSC, whose operations have a high safety-sensitive component and the risks of errors have the potential to negatively impact employees and the public. This section provides a brief overview of three areas related to the potential impact of cannabis legalization and regulation:

- The effects of cannabis on employees and the workplace;
- Experiences and evidence from other jurisdictions that have legalized cannabis; and
- The legal context and fitness for duty.

4.1 The Effects of Cannabis on Employees and the Workplace

4.1.1 Effects of Cannabis on Individuals

Acute

The immediate subjective effect of cannabis use is a general state of relaxation and euphoria. Performance effects include impaired motor control and coordination, balance and motor impulsivity. In terms of driving behaviours, cannabis use increases the variability of lane position, headway gap and speed. Reaction time is also increased. Although some studies report slower driving after cannabis use, arrest data show that most drivers arrested for driving under the influence of cannabis were initially stopped for speeding (Beirness & Porath-Waller, 2015; B. Logan, Kacinko, & Beirness, 2016).

The weight of the evidence indicates that cannabis doubles the risk of a motor vehicle crash (Asbridge, Hayden, & Cartwright, 2012). Not all the research shows a significant increase in crash risk (Lacey et al., 2016), however, and there are a few studies that indicate that crash risk increases with the dose of cannabis (Drummer et al., 2004; Longo, Hunter, Lokan, White, & White, 2000a, 2000b).

Cannabis is also associated with a variety of cognitive effects. These include deficits in attention, memory and learning, and time-distortion. They are associated with impaired decision-making, increased errors of commission and omission, and risk-taking. Higher-order tasks such as executive functioning (i.e., the ability to plan and execute a complex task) are also negatively affected by cannabis use (Ashton, 2001; Berghaus & Guo, 1995; Hartman & Huestis, 2013; McInnis & Porath-Waller, 2017; Ramaekers et al., 2006).

Chronic

The effects of chronic cannabis use are less well understood. The long-term effects of cannabis on attention, memory and learning are not necessarily profound, but are more prominent among those who initiate cannabis use in adolescence (McInnis & Porath-Waller, 2017; Volkow, Baler, Compton, &

Weiss, 2014). There is good evidence that chronic, frequent cannabis use is associated with an increased risk of developing schizophrenia or other psychoses, increased suicidal thoughts and attempts, and there is a slightly increased risk of developing a depressive disorder (Degenhardt et al., 2007; Henquet et al., 2005; National Academies of Sciences, 2017; van Os et al., 2002).

4.1.2 Impact of Cannabis Use and Occupational Performance and Safety

The acute effects of cannabis can profoundly hinder the ability to perform one's job in a safe and prudent manner. The physical effects of cannabis, such as impaired balance, coordination and motor control, can have obvious implications for one's own safety as well as that of co-workers and the public, particularly for those whose profession involves physical skills, specifically fine motor control. The dangers associated with operating motor vehicles and machinery while under the influence of cannabis are becoming increasingly apparent.

The cognitive effects of cannabis can be considerably more subtle than the physical effects. These effects, nevertheless, can have a profound impact on work performance. Impaired attention, memory, decision-making and executive functioning can lead to errors that can create dangerous situations and put others at risk. This is particularly the case in safety-sensitive positions where even small errors through delayed decision-making or inattention can put large numbers of people at risk.

At present, there is little evidence that cannabis is involved in a substantial proportion of workplace incidents. To a large extent, this could be a consequence of the relatively low frequency of testing of those involved in accidents — the exception being serious transportation-related incidents. In the absence of suspicion or probable cause, drug testing is rarely conducted.

4.1.3 Workplace Drug Screening

Screening employees for alcohol and drug use in the workplace is a contentious issue. Implementing a program of random alcohol and drug screening is particularly sensitive due to privacy issues. Nevertheless, it is also imperative that employers provide a safe workplace and take steps to protect the public from harm as well. The duty of care is greater in safety-sensitive areas.

As an alternative to random drug screening, consideration needs to be given to a program of screening based on suspicion. Supervisors can be trained to recognize the common signs and symptoms associated with various types of drugs. These signs and symptoms are different from those exhibited by people who are under the influence of alcohol. For example, cannabis use is often associated with dilated pupils, droopy eyelids, reddened conjunctiva, and eyelid tremors (Beirness & Porath-Waller, 2015; Canadian Centre on Substance Use and Addiction (CCSA), 2016; International Association of Chiefs of Police, n.d.). The type of training required is similar to that provided to police officers in the Advanced Roadside Impaired Driving Enforcement (ARIDE) program. This two-day course is an abbreviated version of the Drug Evaluation and Classification program that is used to provide evidence of drug-impaired driving.[20]

Finding suspicion of drug use and possible impairment would provide grounds for drug testing. In the past, on-site (also known as point-of-collection) drug testing primarily involved a urine screen. Because urine tests screen for drug metabolites, they provide evidence of past drug use, not necessarily recent use that would necessarily have an impact on work performance. Oral fluid drug screening offers two major advantages over urine. First, for most drugs of interest, the parent drug is

[20] For more information about the ARIDE program, see "The International Drug Evaluation & Classification Program" on the website of the International Association of Chiefs of Police (http://www.decp.org/training). For the training manual see

the primary substance detected in oral fluid. Hence, oral fluid indicates that the active drug is present in the individual (Drummer, 2005, 2006). Second, the collection of an oral fluid sample is less obtrusive than a urine sample and can be witnessed without compromising one's privacy, while helping to ensure there is no adulteration of the sample.

Current technology allows oral fluid samples to be tested for a variety of drugs of interest on-site. These on-site screening devices provide an objective indication of drug presence. On-site screening devices use immunoassay technology, which involves a reaction between the drug and chemicals embedded on the test strip. Not all drugs are necessarily included in a screen and not all drugs are detected with equal sensitivity (Beirness & Smith, 2017). The results are available in a few minutes and provide a qualitative indication of the presence of particular drugs (or drug classes) in the sample – i.e., it merely indicates whether there was sufficient drug in the sample to cause a reaction on the test strip. It does not provide information as to the concentration of the drug or impairment of the subject. As such, any action taken as the result of a positive oral fluid drug screen would have to be based on a policy of zero tolerance for drugs. The possibility (albeit low) of a false positive reading would suggest the need to confirm all positive results with a second test.

Oral fluid samples sent to a laboratory for analysis are typically screened using immunoassay technology then confirmed and quantified using mass spectrometry (e.g., GC/MS or LC/MS). This process requires time but provides a highly sensitive analysis of drug concentration, usually with lower limits of detection.

Although oral fluid drug concentrations are often correlated with blood drug concentrations (Drummer, 2006), there are limitations. For example, oral fluid samples can be contaminated by deposition of the drug in the oral cavity during ingestion. The smoke and residue from cannabis can remain in the oral cavity for up to 24 hours following use (Huestis & Cone, 2004). This can result in very high drug concentrations that do not reflect blood concentrations.

Oral fluid as a sample medium is also limited by the ability of the subject to produce the volume of fluid required for analysis (Aps & Martens, 2005). This can be caused by disease conditions or the use of drugs. For example, amphetamines and cannabis are known to produce "dry mouth" which can prolong the period of time required to produce a sample.

Cannabis presents particular issues in testing. The major component of cannabis responsible for its psychoactive effect is Δ^9-tetrahydrocannabinol or THC. Unlike many other drugs, THC is lipophilic, meaning it is not soluble in water but is soluble in fats. THC is stored in the fatty tissues of the body, which includes the brain. Individuals who use cannabis chronically have been shown to have positive blood THC readings up to one month after their last use (Bergamaschi et al., 2013). In this study, all THC concentrations were relatively low (maximum 2.9 ng/mL) and all were less than 1 ng/mL after seven days. There is, however, evidence that residual cognitive and motor deficits persist in individuals who use chronically for days after last use, possibly as a result of the continued release of THC stored in fatty tissues (Pope, Gruber, Hudson, Huestis, & Yurgelun-Todd, 2001, 2002).

4.2 Experiences and Evidence from other Jurisdictions

4.2.1 Impact of Cannabis Legalization on Colorado and Washington State

There is an opportunity to learn from the experiences of other jurisdictions that have legalized cannabis. In 2012, two states within the US, Colorado and Washington, legalized the recreational use of cannabis. Several initial observations from their experiences, as well as comparisons to the

national U.S. context, are reported here. However, it is important to remember that legalization was recent and therefore trends and conclusions cannot be inferred from such a short time frame. More years of data are needed. For an overview of the framework used by U.S. states that have legalized cannabis, see Appendix B.

Colorado

- In Colorado, since cannabis was legalized:
    - Use increased 20% among youth. Nationally, cannabis use among youth decreased 4%.
    - Among those of college age, cannabis use increased 17%. Nationally, the increase was 2%.
    - Among adults, use increased 63%. Nationally, use increased 21%.
    - In 2013–2014, cannabis use among those of college age in the past month was 104% higher than the national average; this compares to 51% higher in 2011–2012.
    - Emergency room visits related to cannabis use increased 29% in 2014 compared to 2013.
    - Hospitalizations related to cannabis use were 51% higher in 2013–2014 compared to 2011–2012.
    - Cannabis-related traffic deaths increased 48% in the three-year average (2013–2015) since Colorado legalized recreational cannabis compared to the three-year average prior to legalization (Rocky Mountain High Intensity Drug Trafficking Area, 2016).
- According to the Healthy Kids Colorado Survey, there was a statistically significant increase in current use among Grade 11 students between 2013 and 2015, and among female high school students between 2013 and 2015 (Cerdá et al., 2017).
- In contrast to the above findings, according to the Behavioral Risk Factor Surveillance System, there were no statistically significant increases in rates of use immediately following legalization (2014 versus 2015) (Colorado Department of Public Health and Environment, 2017). However, data are limited by the short amount of time since the policy change (January 2014).

Washington State

- In Washington state, random roadside surveys conducted prior to and following legalization of recreational cannabis found an increase of almost 50% in the proportion of drivers who tested positive for cannabis use (14.6% to 21.4%) (Ramirez et al., 2016). The increases were larger during daytime hours than during nighttime hours.
- The number and percentage of drivers who had a detectable concentration of THC in their blood approximately doubled from 49 (8.3%) in 2013 to 106 (17.0%) in 2014 (Tefft, Arnold, & Grabowski, 2016).

The above findings suggest that legalization of cannabis is associated with increased use, traffic fatalities, emergency room visits and hospitalizations. Of some interest is the increased use of cannabis among adults. Although one might naturally expect increased use among the primary user group (i.e., youth), the increased proportion of adults using cannabis was surprising. Of particular concern is the fact that adults in this age group (i.e., 25 years and over) are predominant among those in the workforce.

Another aspect of the results from the studies on the impact of legalization in Colorado and Washington was the fact that cannabis use among drivers was higher during daytime hours. This detail indicates that, unlike alcohol, cannabis use by drivers is not concentrated during weekend

hours but is more prevalent at all times of day. The transportation workforce is most active during daytime hours, suggesting there might also be increased use among drivers who are working.

With respect to the workplace, cannabis remains illegal at the federal level in the U.S.. Therefore, any employers receiving federal funding remain subject to testing under federal regulations (i.e., the *Drug-Free Workplace Act*). There are also professions and roles that are federally regulated, for example Commercial Driver's License holders. Many of these professions remain under zero tolerance policies. To date, workplace testing policies have held when challenged in court.

There is anecdotal evidence that employers in Colorado are reducing testing rates or recruiting out of state due to high fail rates in pre-employment drug testing and a competitive market for qualified workers (Subritzky, Pettigrew, & Lenton, 2016; Worthington, 2017). There is evidence from Quest Diagnostics (a U.S. company that provides clinical laboratory services, including drug testing) indicating a marked increase in positive THC oral fluid tests from 2012–2016 among the general U.S. workforce (Quest Diagnostics, 2017). There does not yet appear to be information or research about the impact of legalization specific to the workplace in Colorado and Washington at this time and more research is needed.

4.2.2 Impact of Cannabis Legalization on Social Norms

Social norms are the rules of behaviour that a group or society typically considers acceptable and that have an influence on an individual's behaviour. These norms evolve over time, and can be influenced by regulation and public education. For example, cigarette smoking in public and driving alcohol-impaired have evolved over time from being acceptable to unacceptable, in part due to regulation and public education about the associated harms.

People tend to behave in line with social norms; that is, what they perceive as normal or expected in a particular situation. Social norms theory explores the relationship between perception of peer behaviour and individual behaviour. When applied to substance use, it explains the observation that perceptions of peer consumption of substances impact individual use, regardless of the accuracy of these perceptions. Studies conducted on substance use among young adults, for example, have in fact demonstrated both that perceived norms of peer use influence individual use, and that youth and young adults tend to overestimate the level of peer consumption (Arbour-Nicitopoulos, Kwan, Lowe, Taman, & Faulkner, 2010). Research in the U.S. has demonstrated a correlation between perceived peer use of cannabis and personal use among high school seniors (Skinner & Cattarello, 1989). This correlation extends to and even intensifies in the late 20's (Patrick, Kloska, Vasilenko, & Lanza, 2016).[21] Although extensively explored among youth and young adults in school settings, there is considerably less research applying social norms theory to adults and to the workplace in particular. One such study conducted with a representative sample of working adults in the U.S. found that both injunctive norms (e.g., attitudes) and descriptive norms (e.g., peer behaviour) were significantly related to use in the workplace (Frone & Brown, 2010).

Examples from impaired driving and tobacco smoking indicate that shifting norms to improve public health is possible. There are many theories about how best to change social norms to support a desired behaviour. In the cases of impaired driving and smoking, a number of factors came together to achieve impact, including public campaigns about the damaging impacts of these behaviours, increased regulatory controls and public education about these regulatory controls. Theorists note that because social norms are rooted in perception, the actual establishment of a norm at a social

[21] The study by Patrick et al. (2016) was based on data from the Monitoring the Future survey (www.monitoringthefuture.org/). Due to sample limitations in that study, Patrick's research was not able to objectively measure the accuracy of perceived peer use or to rule out confounding factors such as peer selection.

level follows the perception of the norm at the individual level (Tankard & Paluck, 2016). Changing norms therefore relies on changing individual perception. This point is important in considering approaches to developing norms for cannabis use because it highlights the need to reach people at the individual level. It also highlights the need to consider how people's perceptions are influenced or how they access, interpret and prioritize information. Additionally, it recognizes that changing perception is, in most cases, an easier approach than changing intrinsic beliefs. For example, in influencing an individual to recycle, convincing him or her that most people in the community already recycle is likely an easier and more effective approach than trying to create an intrinsic individual enjoyment of putting cans in the blue bin. Also important is recognizing that people look to reference groups for social norms, which is why college students' drinking patterns are influenced by the perceived alcohol consumption of their peers and not their parents (Tankard & Paluck, 2016).

Education to counter norms in the workplace has been minimally studied and studies have not looked at education and cannabis specifically. However, there have been some important findings, particularly in terms of education as a general preventative measure (Ames & Bennett, 2011; Pidd et al., 2015). Education can include a focus on healthy living, the effects of substance use, stress management and occupational risks among other aspects (Ames & Bennett, 2011; Macdonald et al., 2006). It is important that organizations ensure all employees are familiar with and understand organization policies, norms, risks and expectations related to all forms of substance use. There is evidence that education can significantly reduce substance use, particularly education on drug use (Pidd et al., 2015). Punitive measures alone have been shown to be weak in reducing substance use, but when paired with education and other policy elements (e.g., support services) can be more useful (Pidd et al., 2015). The impact and effectiveness of substance use education is influenced by the method of delivery of the information. For instance, face-to-face programs versus web-based programs have had varying degrees of effectiveness and organizations will need to develop programs that are best suited for their context, needs and capacity.[22]

There is no single determinant of social norms, and therefore no single approach to changing them. According to Tankard and Paluck (2016), the following conditions predict effective influence on norms and behaviours:

- Individuals identify with the source of normative information;
- New norms are believable (even if they are not accurate);
- Individuals' personal views are close to the new normative information;
- The new normative information is widely shared; and
- When descriptive norms are contextualized (e.g., individual behaviour compared to norm).

Addressing risk more specifically, Gielen and Green (2015) point out that the shift in public opinion about drinking and driving and second-hand tobacco smoke coincided with an increased perception of risk and in particular the shift from personal risk associated with individual behaviour to the imposition of risk on others. They also point out that the relationship between normative change, education, environmental interventions and policy is synergistic rather than linear in terms of direction and sequence of influence. Studies of youth perception of risk associated with cannabis also generally demonstrate an inverse relationship (Keyes et al., 2016). Explanations external to

[22] One method that has been shown to be effective in addressing substance use and involves education, training and intervention is the "Team Awareness" program (Bennett, Lehman, & Reynolds, 2000).

cannabis risk (e.g., changes in complementary behaviour) are potential factors in cases where this relationship has not been observed (Fleming, Guttmannova, Cambron, Rhew, & Oesterle).

Canada is in a unique historical position of establishing social norms for cannabis, moving from the illegal to the legal market. The way in which these norms develop will influence patterns of use, and the degree of risks and harms associated with use, which may have implications for the Canadian workforce. During CCSA's work with stakeholders in Washington and Colorado, many felt that non-enforcement of regulations banning cannabis use in public was resulting in increased visibility of use, and therefore promoting acceptance and normalization of cannabis use (Canadian Centre on Substance Use and Addiction (CCSA), 2015a).

Some initial studies in Colorado and Washington have revealed mixed results about the impact of legalizing cannabis and people's perceptions of its associated harms.

Colorado

- According to a targeted analysis of Monitoring the Future survey results, perceived harmfulness of using cannabis did not change significantly for students in grades 8, 10 or 12 following legalization of cannabis (2010–2012 to 2013–2015) (Cerdá et al., 2017).
- According to a targeted state-level analysis of the U.S. National Survey on Drug Use and Health (NSDUH), there was evidence of a significant decrease in the perception of harms associated with using cannabis 1–2 times per week following the commercialization of medical cannabis in 2009 (based on comparing attitudes in 2005–2006, 2007–2009 and 2009–2010 among ages 12–17, 18–25 and 26+) (Schuermeyer et al., 2014).[23]

Washington State

- According to the Healthy Youth Survey, there was an increase in youth who thought that there was little to no risk of using cannabis regularly between 2012 and 2014, particularly those in the 12th grade (37% to 45%) (Colorado Department of Public Health and Environment, 2017).
- According to a targeted analysis of Monitoring the Future survey results, perceived harmfulness of using cannabis declined significantly for 8th and 10th graders (14.2% among 8th and 16.1% among 10th graders) but not for 12th graders from 2010-12 to 2013-15 (Cerdá et al., 2017).

Evidence from the NSDUH and the Monitoring the Future surveys suggests an inverse relationship between perceptions of harms associated with cannabis use and rates of use. That is, the results suggest that as perceptions of associated harms decrease, rates of use appear to increase. However, it is still unclear if increased tolerance towards cannabis use contributes to or results from legalization. More investigation of the potential relationships is needed.

4.2.2.1 Public Opinion on Cannabis

Several public opinion polls have been conducted regarding different aspects of cannabis and its use. These polls can help to better understand people's attitudes and opinions on the topic, which could provide some insights into how people will respond to legalization.

[23] This report presents a summary of findings from population and targeted surveys conducted in Colorado, including the Child Health Survey, Healthy Kids Colorado Survey, and National Survey on Drug Use and Health.

EKOS Public Opinion Survey, October/November 2015 (participants=1,227, 18+)

- Among participants, 71% agreed with the statement that possession of small amounts of cannabis for personal use should not be a crime; 20% disagreed.
- This rate of agreement has increased across studies conducted in 2000, 2010 and 2014 (although it was not possible to determine if the methodologies used in each study were comparable).
- Use in private residences was supported by 73%; only 23% supported public use.
- Of those polled, 41% would approve of a business selling cannabis openly in their neighbourhood; 37% would disapprove.

Ipsos Public Opinion Survey, August 2015 (participants=1,000, 18+)

- Results revealed that 65% supported decriminalizing the possession of cannabis (i.e., removing penalties and fines). This support has increased by 39% since 1987.

National Survey on Drug Use and Health

- Perception of risk of weekly/biweekly use of cannabis has been declining since approximately 2005.

Overall, the experiences in Colorado and Washington, as well as other evidence, might provide some insights into the potential impact of legalization on social norms in Canada. Decreasing public support for punitive responses to cannabis use provides preliminary evidence that Canadians' attitudes toward use are already becoming more tolerant. The Ontario Student Drug Use and Health Survey, for example, indicates that perception of risk associated with trying cannabis or regular use of cannabis has decreased among Ontario students in recent years (i.e., 2011–2015). Nevertheless, Canada does not have national population data on attitudes toward cannabis use, although there are some provincial-level data. Moving forward, collecting baseline data will be vital in monitoring the impact of legalization and regulation.

4.3 Legal Context and Fitness for Duty

The potential impact of cannabis legalization and regulation in Canada will also be influenced by the current legal and regulatory context and experiences from previous case law outcomes. The following sections describe legal considerations beginning with a background to the legal context; fitness for duty; complicating factors regarding discrimination (human rights stream and disciplinary stream); and the implications for the legalization and regulation of cannabis.

4.3.1 Background: The Legal and Regulatory Context

Employers have an interest in ensuring that employees attend work free from impairment, not only for safety reasons, but also on the basis of the employment contract, which at its core is an exchange of work for wages. If an employee is unable to meet his or her contractual obligation to provide work because of impairment due to alcohol or drugs, the employment contract will be frustrated. Employers, particularly those in safety-sensitive industries, also have a legal duty and obligation to maintain a safe workplace and to identify and ameliorate any workplace hazards. This legal obligation is found in all occupational and health regulations in every jurisdiction in Canada for all employers. For example, section 124 of the *Canada Labour Code*, R.S.C. 1985 c. L-2, provides

that "[e]very employer shall ensure that the health and safety at work of every person employed by the employer is protected." Section 25(2)(h) of the Ontario *Occupational Health and Safety Act*, R.S.O. 1990, c. 0.1 provides that the employer shall take every precaution reasonable in the circumstances for the protection of a worker. (Legal obligations with respect to all occupational and health regulations in every jurisdiction in Canada and for all employers are listed in Appendix C.) Certain industries also have regulations that impose an onus on employers to ensure a safe workplace, such as section 12(1)(c) of the *General Nuclear Safety and Control Regulations*, S.O.R./2000-202, which states that every licensee shall "take all reasonable precautions to protect the environment and the health and safety of persons and to maintain the security of nuclear facilities and of nuclear substances."

Impairment is an identified workplace hazard that employers must address, particularly in safety-sensitive workplaces where impairment can lead to injuries and accidents. Impairment can have numerous inter-related causes, including alcohol and drug consumption and its after-effects ("substance use"), as well as fatigue and stress. Employers, particularly those for whom impairment can cause or increase the likelihood of a serious workplace accident, have a legal obligation to address and ameliorate the hazards that substance use can pose and ensure that employees are reasonably fit for duty ("fit"). Most employers in safety-sensitive industries choose to address the hazards posed by substance use by implementing comprehensive and often zero tolerance policies that address alcohol and drug use and its after-effects. Unions have routinely challenged these policies, particularly where a policy contains a provision that permits the employer to require random alcohol and drug testing ("random testing").. Unions can challenge the policy in two ways; by filing a policy grievance arguing that the policy or portions of the policy are unreasonable or contrary to human rights legislation, or filing an individual grievance when an employee is disciplined or terminated for breaching the policy. While negotiating the terms and implementation of the policy with the union can insulate employers from policy grievances, neither party can contract out of human rights legislation, therefore policies are always subject to challenge on human rights grounds.

Some of these policy grievances have been argued, reviewed and appealed up to the Supreme Court of Canada (SCC). This area of law is not only complex, but constantly evolving. The most recent case argued before the SCC in 2013, called Irving, is a case where the majority of the Court found that while employers have a legal obligation to ensure a safe workplace and have a general right to implement a policy, random testing must be balanced with employees' right to privacy, finding that unionized employees have a heightened right to privacy.[24] Since the random test itself is considered a breach of the person's right to liberty under section 7 of the *Canadian Charter of Rights and Freedoms*, as it requires the employee to provide a breath, urine or blood test, the majority of the Court decided that employers must provide evidence of a general problem with drugs and alcohol in the workplace before it can implement random testing as a reasonable exercise of management rights. It is important to note, however, that the Irving case was in the context of a dangerous workplace, but not a workplace that would be considered highly dangerous or extremely hazardous, such as a nuclear facility.

[24] *Communications, Energy and Paperworkers Union of Canada, Local 30 v. Irving Pulp & Paper, Ltd.*, 2013 SCC 34. In this case the employer imposed mandatory random drug testing for employees holding positions it considered "safety sensitive." Ten per cent of these employees over the course of a year were required to take a breathalyzer to test for alcohol. Testing positive would result in disciplinary action with the possibility of dismissal. The union challenged the random testing aspect of the policy.

Irving Case

In Irving, which involved a paper mill, the employer had argued that because the workplace was dangerous, random testing was required to ensure employee safety. The majority of the Court held that while the dangerousness of the workplace was clearly a relevant factor, a dangerous workplace does not automatically justify random testing. Additional evidence must be adduced to show that there is an actual (not speculative) safety risk due to a "general problem with substance abuse in the workplace." In Irving, the employer provided evidence that there had been eight alcohol-related incidents over a 15-year period. The majority of the Court concluded that this was not enough to show a general problem and thus the employer had not met its onus to prove that increased safety concerns, such as workplace impairment, justified universal random testing, and therefore random testing was an unreasonable exercise of management rights.

The majority of the Court concluded that randomly testing particular employees in the context of a dangerous workplace will be permitted in the following situations:

- Where there are reasonable grounds to believe that the employee was impaired on duty (i.e., observable behaviour that indicates impairment);
- Where the employee was directly involved in a workplace accident or significant incident (i.e., near miss);
- Where the employee has returned to work after treatment for substance abuse; and

Since the Irving case, arbitrators have set a high evidentiary threshold for employers of dangerous workplaces (but not highly dangerous or extremely hazardous) to prove that random testing is reasonable in the circumstances.[25] This high threshold has created a situation where preventative programs and programs that focus on deterrence are sometimes considered unreasonable in administrative tribunals, such as labour arbitration and human rights tribunals, and those decisions have been upheld on review by the courts. In the case of Irving, because the employer implemented a program that was expected to prevent the problem, the employer did not have the required evidence to show a current problem with alcohol or drugs and it was put in a situation where it was unable to meet the evidentiary hurdle to support that very program. In short, employers who have implemented a program that is intended to prevent a problem from occurring might find themselves in a situation where they are not able to demonstrate evidence of the problem.

The most recent case that addresses random testing is *Amalgamated Transit Union, Local 113 v. Toronto Transit Commission*, 2017 ONSC 2078. The TTC implemented a "fitness for duty policy" that

[25] *Mechanical Contractors Assn. Sarnia v. UA, Local 663 (Alcohol and Drug Testing)*, 2013 CarswellOnt 18985. Application for judicial review was refused 2014 ONSC 6909, where the contractor adopted Suncor's directive to test all employees for alcohol and drugs prior to being permitted access to the Suncor worksite. The arbitrator found that pre-access testing was akin to random testing and therefore must meet the Irving threshold test, requiring employers to show the existence of a drug use problem that "create[d] a real potential" for "significant" adverse health and safety events, finding that the employer had failed to do so. Further finding that the pre-access drug testing case was "too broad of a net" and violated the *Ontario Human Rights Code* because it captured employees who were not impaired and presented no safety risk. In *Tech Coal Ltd. v. United Marine Workers of America, Local 1656 (Drug and Alcohol Policy Grievance)*, [2015] A.G.A.A. No. 59 the union challenged the employer's random testing policy. Employees who tested positive were assessed by an addiction specialist. Employees found to have addiction issues were required to complete treatment at the employer's expense prior to being eligible to return to work. On return they were subject to a monitoring agreement. The employer argued that the Irving standard did not apply because there were no disciplinary consequences. The evidence showed that for every year of random testing there were relatively few positive results. The arbitrator concluded that the evidence did not meet the "stringent" Irving threshold and rejected the argument that it was a deterrent as "not persuasive."

took effect in 2010 and provided for drug and alcohol testing of employees in safety-sensitive positions, as well as specified management and executive positions in certain circumstances (pursuant to the Irving case). The fitness for duty policy did not initially provide for random drug and alcohol testing, but when the policy was introduced the TTC advised the union that it reserved its right to implement random testing

The union filed a policy grievance in 2010, seeking to prohibit the implementation of the policy. The TTC added random testing to the policy in 2011, but the approval for implementing random testing was delayed until March 2016. The union applied to court for an interlocutory injunction that would prevent the TTC from testing union members until the completion of the arbitration hearing, where they had argued that the entire policy was contrary to the Ontario *Human Rights Code*. For the union to succeed in obtaining an interlocutory injunction, it needed to show that the union members would suffer irreparable harm if the injunction was not issued. The Court dismissed the union's motion, finding that they would not. First, persons seeking employment with the TTC were required to pass a pre-employment urine analysis test for drug use, and therefore a reasonable person would conclude that employees must continue to test negatively for drugs and alcohol should they wish to keep their job. Second, the Court found that the procedures and methods chosen by the TTC to randomly test for drugs and alcohol were minimally invasive and superior to other methods available for drug testing. Third, should the policy be found to contravene the collective agreement or the *Human Rights Code*, the law provided for the payment of money damages to employees whose privacy was wrongfully infringed by random testing.

Similarly, in a previous case the Alberta Court of Queen's Bench decision in the review of an arbitration award in *Suncor Energy Inc. v. Unifor Local 707A*, 2016 ABQB 269 found that setting such a high evidentiary threshold essentially "forecloses virtually any possibility of random testing regardless of the circumstances," which is counter to what the majority of the SCC had intended when it stated the employers must show a general problem of drugs and alcohol in the workplace.

In Suncor, the employer (oil and gas industry) imposed a random drug and alcohol testing policy for people in safety-sensitive positions in the context of a dangerous workplace. The court noted that in such cases, there was an inherent tension between privacy and safety. The hazards in the particular worksite were acknowledged to be extensive:

> 9. It is common ground that the Oil Sands Operations are, by their nature, dangerous. There are many hazards at the sites of the Oil Sands Operations, including heavy equipment, high voltage power lines, chemicals, radiation sources, high temperature steam, explosives, high pressure piping and high temperature, flammable liquids and gases.
>
> 10. Some of the largest and most complex mining and industrial equipment in the world is used at these sites. The equipment includes heavy haul trucks, weighing in excess of 400 tons, and cable and hydraulic shovels, standing 21 metres tall.
>
> 11. Much of the Base Plant is contained within a blast zone. At any particular time, thousands of workers may be working within the Base Plant. Further, the Oil Sands Operations are carried on close to communities and environmentally sensitive areas.

Suncor had implemented a comprehensive policy to address impairment from drugs and alcohol, a hazard they were particularly concerned about given the dangerous workplace. Their policies included the following:

- Employee education and training;
- Supervisor training;

- Post-incident, reasonable cause, return to work and follow-up drug and alcohol testing;
- An Employee and Family Assistance Program;
- Treatment for employees with dependencies;
- A Rapid Site Access Program for contractors' employees;
- A Drug Interdiction Procedure to detect drugs and alcohol at Suncor-owned accommodation facilities;
- An Alcohol Free Lodge Policy; and
- An extension of the Drug Interdiction Procedure that involves the use of sniffer dogs within Suncor's operating footprint.

The union had grieved Suncor's implementation of the random drug and alcohol policy for safety-sensitive positions. It criticized Suncor's evidence that there was a general problem of alcohol and drugs because it did not differentiate between unionized workers, non-unionized workers and contractors. Suncor argued that its workplace was "integrated" with union, non-union and contractor employees working together such that the actions of each affect all the others." The court agreed that it was reasonable to consider all of the evidence in a dangerous workplace in which the workplace was integrated, and that Suncor had met its burden to show that it had a general problem with alcohol and drugs in the workplace. The court also disagreed that the employer must show that there is a "significant" problem, finding the evidence that Suncor met the onus of showing a general problem of drugs and alcohol, which was what the SCC had described in Irving. The court quashed the arbitrator's decision and sent it back to be decided by a new panel.

The union in Suncor has appealed the court's ruling to the Alberta Court of Appeal. The case was heard in December, 2016, and a decision is expected shortly. It is likely that regardless of the Court of Appeal's decision, it will be appealed to the SCC. If the SCC grants leave to appeal, it will give them an opportunity to clarify the evidentiary threshold needed to prove a general problem of drugs and alcohol.

4.3.2 Duty to Maintain a Safe Workplace

This duty is particularly acute for employers who are in what could be described as ultra-dangerous industries, such as nuclear energy. Employers and individual employees can be charged criminally under occupational health and safety legislation should they be found to have been negligent in regard to safety in the workplace.

For instance, in *R. v. Dofasco Inc.,* 2007 ONCA 769, which involved a steel mill, the employer was charged under the Ontario *Occupational Health and Safety Act* after an employee suffered a serious hand injury. The employer had failed to equip the mill with a guard as required by the Regulations. The employer admitted it had not provided a guard, but argued that it had adopted an alternate procedure which rendered the guard unnecessary. The Court of Appeal disagreed, finding that the device, on its own, could not prevent access, while the guard could. The Court concluded that the Regulations required the guard to prevent injury due to both advertent and inadvertent employee conduct and, in particular, its purpose was to take individual discretion, judgment, degree of concentration and ability out of the equation. While the employee had not followed the employer's procedure, it did not relieve the employer of liability because "defects in the process … and the absence of a physical guard contributed significantly to the accident (see para. 27). The Court set out the employer's duty as follows:

> [21] Dofasco's third argument is that an employer cannot be held liable under s. 25 of the Regulation where an employee is injured as the result of his and a co-worker's deliberate conduct in failing to follow company procedures and protocols. Dofasco emphasizes the statement by the injured worker to his co-worker to the effect that "to hell with it lets [sic] do it the way we used to" to place the blame for the accident squarely on the shoulders of the injured worker, ... The justice of the peace adopted this view. We cannot accede to this position. It is contrary to the scheme of the OHSA and the Regulations. In our view, it is also at odds with the relevant jurisprudence and common sense.
>
> [22] On a plain reading of the Regulation, employee misconduct does not go to the actus reus of the offence. Rather, at least in relation to employees carrying out their work, an employer is strictly liable if it fails to comply with its obligations and there is no suggestion that employee misconduct constitutes any form of defence.
>
> [23] Further, Collins J. had this to say about the purpose of the OHSA in *R. v. Spanway Buildings Ltd.*, unreported, April 3, 1986 (Ont. Prov. Ct. (Crim. Div.)), at p. 4:
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> > . . . one of the purposes of the act is to protect workers in this very hazardous industry from their own negligence. No one in any occupation can work 100 percent of the time without occasional carelessness. However, the potential for serious consequences of momentary negligence is much greater in the construction industry than in almost any other.
>
> This admonition is particularly apposite in the context of the steel industry.
>
> [24] Moreover, as was noted by Laskin J.A. in his decision granting leave to appeal in this case, ". . . workplace safety regulations are not designed just for the prudent worker. They are intended to prevent workplace accidents that arise when workers make mistakes, are careless, or are even reckless". In our view, this principle also extends to deliberate acts of employees while performing their work.

In *R. v. Vadim Kazenelson*, 2016 ONSC 25, the project manager for a construction company was convicted of four counts of criminal negligence causing death and one count of criminal negligence causing bodily harm when five workers fell more than 100 feet to the ground when the swing stage on which they were working suddenly collapsed. None of the workers were attached to a lifeline as required by law. The project manager, who was with the workers, took no steps to ensure that lifelines were available or were used. He was well aware that each employee must be protected by a fall arrest system at all times was a fundamental rule for the protection of worker safety. He was sentenced to three and a half years of imprisonment for each count. The company was fined $750,000 for the same incident: see *R. v. Metron Construction Corp.*, [2013] ONCA 541 (CanLII).

While employers are required to take every reasonable precaution to prevent a workplace accident, they are not required to take every **conceivable** precaution. Employers can rely on a defence of due diligence when a worker does something that is truly not foreseeable. The due diligence defence is most often successful where a worker performs a task which is clearly outside their well-established job description. For instance, in *Ontario (Ministry of Labour) v. 679052 Ontario Ltd. (c.o.b. Auction Reconditioning Centre* [2012] O.J. no. 5849 (Ont. Ct. Jus.) an employee injured a worker when he drove a car at work without a licence. He acknowledged that the employer had a policy that prohibited driving without a valid driving licence and agreed that he had been told upon hiring that he was not to drive vehicles. The employer was charged and convicted of two breaches of the *Ontario Health and Safety Act*" (the "*OHSA*"). One breach was failing, as an employer, to provide information, instruction or supervision to a worker contrary to section 25(2)(a) of the *OHSA* (in this

case providing driving instruction) and the second, failing, as an employer, to take every precaution in the circumstances for the protection of a worker contrary to section 25(2)(h) of the *OHSA*. The conviction was set aside on appeal. The court concluded that as the employee was not hired to drive and was instructed not to drive, the employer could not be faulted for not providing him with driving instruction and had not breached the standard of care.

In workplaces in which a workplace accident could lead to injuries or deaths to the general public (i.e. aviation, trucking, and nuclear facilities), employers also owe a duty of care to the general public. In tort law, a duty of care is a legal obligation, which is imposed on an individual requiring adherence to a standard of reasonable care while performing any acts that could foreseeably harm others. In criminal law, if an employee's negligence causes death to members of the public, employees can be charged under the criminal code with criminal negligence causing death if it is found that they engaged in a marked and substantial departure from the standard of care of a reasonable employee in the circumstances.

In *R. v. Lilgert*, 2014 BCCA 493 (leave to appeal refused [2015] S.C.C.A. No. 52), the navigator of a passenger ferry was convicted for criminal negligence causing death when he continued on autopilot at full speed and failed to make a necessary course change. The ferry crashed into an island and sank and two passengers died as a result. The jury found that there was an extended period of time where the navigator failed to pay attention or safely navigate the ferry at all, which was a marked departure for a navigator's standard of care. He was sentenced to four year' imprisonment and his conviction was upheld on appeal.

It is reasonably foreseeable that a certain percentage of the population will use psychoactive substances, and some of those people will attend work impaired. To meet the employer's due diligence in an ultra-dangerous workplace, the employer must implement policies that protect employees from impaired workers. When there are reasonable grounds to suspect that someone is impaired, the employer must take steps to address that potential hazard, which, after inquiries, may include a requirement for a random test.

4.3.3 Preventing Impairment: Highly Dangerous or Extremely Hazardous Workplaces

Impairment by drugs or alcohol (i.e., substance use) is an identified workplace hazard that employers must address, particularly in highly dangerous or extremely hazardous workplaces where impairment can lead to injuries and accidents involving not only employees, but the general public. Impairment can have numerous inter-related causes, including fatigue and stress as well as alcohol and drug consumption (both illicit and prescription) and its after-effects. Cannabis, even when legalized and regulated, should be treated as any other substance that can be potentially impairing.

In regard to the unilateral imposition of random testing in the workplace, the SCC in *Communications, Energy and Paperworkers Union of Canada, Local 30 v. Irving Pulp & Paper, Limited*, 2013 SCC 34 found that employers could not unilaterally impose a rule that was "unreasonable," as follows:

> [4] A substantial body of arbitral jurisprudence has developed around the **unilateral** exercise of management rights in a safety context, resulting in a carefully calibrated "balancing of interests" proportionality approach. Under it, and built around the hallmark collective bargaining tenet that an employee can only be disciplined for reasonable cause, an employer can impose a rule with disciplinary consequences **only if the need for the rule outweighs the harmful impact on employees' privacy rights. The dangerousness of a**

workplace is clearly relevant, but this does not shut down the inquiry, it begins the proportionality exercise.

[5] This approach has resulted in a consistent arbitral jurisprudence whereby arbitrators have found that **when a workplace is dangerous, an employer can test an individual employee if there is reasonable cause to believe that the employee was impaired while on duty, was involved in a workplace accident or incident, or was returning to work after treatment for substance abuse.** In the latter circumstance, the employee may be subject to a random drug or alcohol testing regime on terms negotiated with the union.

[6] **But a unilaterally imposed policy of mandatory, random and unannounced testing for all employees in a dangerous workplace has been overwhelmingly rejected by arbitrators as an unjustified affront to the dignity and privacy of employees unless there is reasonable cause, such as a general problem of substance abuse in the workplace.** This body of arbitral jurisprudence is of course not binding on this Court, but it is nevertheless a valuable benchmark against which to assess the arbitration board's decision in this case.

. . .

[30] **In a workplace that is dangerous, employers are generally entitled to test individual employees who occupy safety sensitive positions without having to show that alternative measures have been exhausted if there is "reasonable cause"** to believe that the employee is impaired while on duty, where the employee has been directly involved in a workplace accident or significant incident, or where the employee is returning to work after treatment for substance abuse. [Emphasis in bold added.]

Should a union agree to random testing of all employees or employees in safety-sensitive positions (which it might, considering that unions have a shared interest in ensuring a safe workplace), the issue of random testing would only arise if the individual employee who was required to take the test filed a human rights complaint against both the employer and the union, arguing that the policy itself is discriminatory.

Should the government legislate random testing in highly dangerous or extremely hazardous workplaces, the union or individual employees could argue that the law violates section 15 or section 7 of the *Charter of Rights and Freedoms* or both. Section 15 of the Charter provides that every individual is equal before and under the law and has the right to equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age, or mental or physical disability. Section 7 of the Charter provides that everyone has the right to life, liberty and security of the person, and the right not to be deprived thereof except in accordance with the principles of fundamental justice. Should the law or the regulation be challenged, the court would engage in a balancing of interests and rights test, similar to what the SCC did in *Irving* (see above), but in the context of a highly dangerous or extremely hazardous workplace, which might tip the balance in favour of public safety over privacy rights.

While pursuant to *Irving,* employers in dangerous workplaces cannot unilaterally implement a policy of random testing of employees until they can show a general problem of substance use affecting the workplace, it is likely that workplaces with a heightened safety risk to the public, or "highly dangerous or extremely hazardous" workplaces, such as a nuclear facility, can do this. Ultra-dangerous (i.e., highly dangerous or extremely hazardous) workplaces pose a heightened safety risk to employees and the general public, and as such it is more probable that the balancing of interests would favour public safety over employee's privacy rights.

This issue was addressed as *Irving* made its way to the SCC. At the level of the New Brunswick Court of Appeal in *Irving Pulp & Paper Ltd v Communications Energy and Paperworkers Union of Canada, Local 30*, 2011 NBCA 58, the Court disagreed with the majority of the arbitration board's decision that the mill was not a ultra-dangerous worksite as follows:

> 2 .... the majority of the arbitration board determined that Irving failed to establish a need for the [random testing] policy in terms of demonstrating the mill operations posed a sufficient risk of harm that outweighs an employee's right to privacy. Specifically, the majority concluded Irving had not adduced sufficient evidence of prior incidents of alcohol related impaired work performance to justify the policy's adoption. **At the same time, the majority accepted that a "lighter burden of justification" was imposed on employers engaged in the operation of "ultra-hazardous" or "ultra-dangerous" endeavours.** On the facts, however, the majority concluded that, while the mill operation represented a "dangerous work environment", **the mill operation did not fall within the ultra-dangerous category such as a nuclear plant, an airline, a railroad, a chemical plant or a like industry. This explains why the majority went on to examine the evidence relating to alcohol use in the workplace**. Based on the evidence adduced the majority concluded there was insufficient evidence of a "significant degree of incremental safety risk that outweighed the employees' privacy rights". The dissenting panel member characterized the workplace as "highly dangerous" and, therefore, evidence of an alcohol problem in the workplace was not a condition precedent to establishing the reasonableness of the policy. Alternatively, the dissenting member held Irving had adduced sufficient evidence of such a problem. [Emphasis in bold added.]

The Court found that the majority of the arbitration board's conclusion, that the mill was not as dangerous as a chemical plant, was unreasonable:

> 26 While I have adopted the correctness standard in regard to the question of law posed above, there is one aspect of the arbitration board's decision for which the review standard of reasonableness does apply. The board held that Irving had failed to establish a "sufficient case" that its kraft mill could be placed in the same ultra-dangerous category of risk such as a "nuclear plant, an airline, a railroad or a chemical plant". **In my view, the finding that a kraft mill does not fall within the same dangerous category as a railroad or chemical plant is simply "unreasonable".** [Emphasis in bold added.]

A similar conclusion was arrived at by Arbitrator Dorsey in *Teamsters Local Union No. 213 v. Linde Canada Ltd. (Driver Periodic Medical Assessment Program Grievance)*, [2015] B.C.C.A.A.A. No. 106. In this case the issue was whether the employer could unilaterally implement a policy, without notice or consultation with the union, that imposed a periodic medical assessment on its drivers. The medical assessment included standard medical testing for the purpose of determining an employee's fitness to perform the essential duties of the driver position, and included a vision test, blood pressure test, urine analysis (to test for diabetes and kidney problems) and routine drug work. It did not include alcohol or drug testing. It applied to all drivers.

In *Teamsters*, the collective agreement between the employer and the union already contained a provision (Article 32) about medical exams, which stated that medical examinations requested by the employer shall promptly be complied with by all employees. The union acknowledged the tension between employees' rights to privacy and the employer's interest in maintaining a safe workplace and the safety of its employees and the public. There was no identified workplace problem at the time of the grievance. The union argued that without reasonable cause (i.e., an accident, near miss, return to work after an extended medical absence, observed physical or cognitive impairment, etc.), the employer cannot compel a driver to undergo a medical examination or discipline a driver who

refuses to undergo the examination. The employer submitted that rules or policies in a collective agreement are not subject to the *KVP* principles, which require that unilaterally imposed rules must be reasonable, easily understood, made known to employees, and administered fairly and consistently. The employer argued that Article 32 was negotiated and permitted random medical tests. Its second argument was as follows:

> 43 If this is not the case, the employer submits in a safety sensitive environment a less strict application of the KVP requisites should be applied and a less stringent standard is appropriate. The employer embraces the following cautionary or industry exception approach stated by Arbitrator Picher. The emphasis is the employer's.
>
> > One further theoretical concept needs to be addressed before turning to the specifics of CN's drug and alcohol policy on this matter. As a number of the arbitral awards reflect, it is generally accepted that in analyzing the reasonableness of a drug and alcohol testing policy for the purposes of KVP standards, there may be a burden upon the employer to first demonstrate the need for such a policy, including an examination of whether alternative means for dealing with substance abuse in the workplace have been exhausted. *While I do not disagree with those principles, I believe a note of caution should be registered, particularly with respect to that requirement. It seems to the Arbitrator that there are certain industries which by their very nature are so highly safety sensitive as to justify a high degree of caution on the part of an employer without first requiring an extensive history of documented problems of substance abuse in the workplace. Few would suggest that the operator of a* ***nuclear generating plant*** *must await a near meltdown, or that an airline must produce documentation of a sufficient number of inebriated pilots at the controls of wide-body aircraft, before taking firm and forceful steps to ensure a substance-free workplace, by a range of means that may include recourse to reasonable grounds drug and alcohol testing. The more highly risk sensitive an enterprise is, the more an employer can, in my view, justify a proactive, rather than a reactive, approach designed to prevent a problem before it manifests itself.* While more stringent thresholds may fairly be applied in non-safety sensitive work settings, as for example among clerical or bank employees, boards of arbitration should be cautious before requiring documented near disasters as a pre-condition to a vigilant and balanced policy of drug and alcohol detection in an enterprise whose normal operations pose substantial risks for the safety of employees and the public. [Emphasis in bold added, italics are original.] (*Canadian National Railway and CAW, Local 100* (Workplace Alcohol and Drug Policy230 L.A.C. (4th) 130 (Picher), para 20). (

In *Teck Coal Limited v United Steelworkers Local 9346 (Elkview Operations),* 2013 CanLII 82541 (BC LA) Arbitrator Taylor cited prior cases that held that highly dangerous or extremely hazardous workplaces do not have first to prove a substance use problem prior to implementing a policy of reasonable cause for drug and alcohol testing, as follows:

> [71] …One of the cases it relied on in that review was Fording Coal:
>
> > Weyerhaueser [*Weyerhaeuser Co. and Industrial Wood and Allied Workers of Canada*, 2004 B.C.C.A.A.A. No. 71 (Taylor)] also relied on Fording Coal (Arbitrator Hope) to substantiate the finding that proof of a substance abuse problem in the workplace is not necessary in cases where the employer's operations could be classified as inherently dangerous. In the latter case, there was a challenge to the employer's policy of reasonable cause testing for drugs and alcohol. *The employer*

> *operated an open pit mine. Arbitrator Hope concluded that employers were not required to establish the existence of an alcohol or drug problem in the workplace with respect to industries that are by their very nature safety sensitive* ***so long as the policy applied only to those who hold safety sensitive positions.*** He found the mining operation qualified as inherently dangerous because of the use of explosives, flammable, caustic and corrosive materials and chemicals. In reaching his conclusion, Arbitrator Hope relied heavily on the CN Rail decision of Arbitrator M.G. Picher. [Emphasis in bold and italics added.]
>
> See also *Continental Lime Ltd. and International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, Local Lodge No. D575*, (2002) 105 L.A.C. (4th) 263, where a drug and alcohol testing policy was upheld without evidence of an alcohol or drug problem in the workplace and the employer operated an open face quarry mine (para.41).

In the case of a highly dangerous or extremely hazardous worksite, it is advisable to start with an extremely conservative policy, for instance zero tolerance, that applies to all employees, whether safety-sensitive or not, random testing for all safety-sensitive employees, and reasonable cause testing for all non-safety-sensitive employees. As the union does have a shared interest in ensuring employee and public safety, it might agree to such strict provisions. If the union does not agree, its disagreement might only focus on specific provisions. Based on the jurisprudence, a policy with the terms mentioned above would likely withstand a *KVP* reasonableness challenge given the highly dangerous or extremely hazardous workplace and the very real threat workplace impairment would create for public safety.

4.3.4 Fitness for Duty: Impairment and Evaluation Considerations

Being fit for duty not only requires that employees are free from impairment from the use of alcohol or drugs, but also from the after-effects or side-effects of alcohol or drugs, as these can also be impairing (i.e., hangovers, lack of sleep). Policies should include this distinction. Another reason that the majority of the Court in the Irving case concluded that random testing was an unreasonable exercise of management rights was that most testing (with the exception of alcohol testing) cannot detect current impairment, only the presence of the drug's metabolites in the body, indicating recent use, but not necessarily impairment.

One of the major ongoing issues in implementing random testing policies is that, to date, drug tests are unable to accurately measure current impairment — they simply measure recent use. Drugs like cannabis are notoriously difficult to test for current impairment, as there are varying degrees of potency and individuals differ in their tolerance. The presence of cannabis metabolites does not provide any information on current impairment, so the presence of cannabis metabolites might indicate gross impairment in one person, whereas another would show no signs of impairment. As such, a non-negative random test is most often used as a "red flag" to alert the employer that further testing is required.

The federal government is currently working on a reliable way to test for impairment for cannabis for the purpose of addressing impaired driving. As tests for impairment improve, the current ambiguity regarding cannabis testing and impairment will be ameliorated.

Workplace Policies

Fitness for duty issues are best addressed in a comprehensive policy that provides for instances in which the employer will require the employee to undergo an alcohol and drug test. A comprehensive

policy should address the potential of a "no show," in which an employee refuses to submit to the test. Most policies equate a refusal with a positive test.

Polices should contain provisions that describe the circumstances in which a drug or alcohol test will be required. For instance, after an accident or near miss or where an employer has reasonable grounds to suspect that an employee is impaired and is thus a safety hazard, it can remove the employee from the workplace pursuant to its legal obligation to provide a safe workplace and not permit the employee to return to the workplace until the employee is deemed fit to return. This can include (subject to the terms in the policy) a requirement that the employee submit to a drug or alcohol test and provide medical evidence that the employee is fit to return to work, typically in the form of an assessment rather than a doctor's note.

Policies should also contain provisions that describe the type of medical information that the employer will seek in the above circumstances. Since impairment at work can be subject to discipline or accommodation, which increases the complexity, a comprehensive assessment is often essential in determining fitness for duty and the conditions for a return to work.

Addiction Experts and the Employer

As employers typically require clear, current and credible medical information on which to base their fitness-for-duty and return-to-work decisions, employers (pursuant to the policy) will often require an employee to undergo a medical assessment by a trusted SAP/SAE, preferably one who has a medical license and a specialization in addiction medicine. This preference is for both practical and legal reasons. Practically, physicians are regulated and have the ability to diagnose and prescribe medication, whereas other unregulated substance use professionals do not. Additionally, physicians with a specialization in addiction medicine can provide credible and comprehensive medical-legal assessments with fitness-for-duty and return-to-work recommendations given the safety-sensitive context of the workplace. These return-to-work recommendations will be the foundation for return-to-work agreements[26] signed by the employee, union and employer prior to the employee returning to work. Additionally, physicians with a specialization in addiction medicine tend not to act as advocates and are viewed as better able to provide objective and credible information, as opposed to treatment providers or family physicians who might act as an advocate for the employee (and thus provide information that is unhelpful or not objective).

Legally, using physicians with a specialization in addiction medicine to provide comprehensive assessments is extremely important as the employer will rely on the diagnosis to determine whether the misconduct is culpable and subject to discipline, or non-culpable and thus requires accommodation if the employer can accommodate the employee short of undue hardship (see below). Additionally, physicians with a specialization in addiction medicine will be able to provide expert evidence in an adjudication should that be required, particularly on the issue of whether the employee has been in gross noncompliance of the return-to-work agreement's terms.

Finding a reliable and trustworthy addiction expert and a reliable testing lab is extremely important. Addiction, as a specialty, is not a regulated field and is not a recognized specialty (and not recognized by the Royal College of Physicians and Surgeons of Canada as a specialty or subspecialty). Certifications in addiction medicine do not bestow any particular status on a physician who holds one. The Canadian Society of Addiction Medicine offers a certification process, albeit with

[26] Most comprehensive assessments provide recommendations for a return to work agreement and include terms such as abstinence coupled with two or more years of medical monitoring (which includes random testing and daily check-ins with the medical monitor), alcohol breath tests prior to operating safety-sensitive equipment (such as vehicles), participation in counselling and support groups (such as 12-step groups) and relapse prevention planning.

exams from other jurisdictions (typically in the U.S.). Some law firms use addiction experts who are medical doctors that have a certification in Addiction Medicine from the American Board of Addiction Medicine or American Society of Addiction Medicine. Expertise in the areas of addiction, however, is vital for the employer to not only meet its duty to keep the workplace safe, but also to ensure that it is compliant with its duties under human rights legislation.

To determine whether an employee is abusing substances (which can lead to disciplinary consequences) or is dependent (which will require accommodation short of undue hardship), requires a comprehensive independent medical examination that includes a diagnosis, prognosis and recommendations for treatment and return-to-work conditions — the independent medical evaluation (IME). The IME becomes the basis for next steps regarding treatment and the terms of any return-to-work or last chance agreement.[27]

As the primary evidence that the employer has met its duties, it is essential to find several trusted addiction experts. This is because in law there is an informal hierarchy of experts that are relied on to provide expert testimony in cases involving drug and alcohol use and impairment (see below).

Medical Evaluation

Employers have a duty to inquire prior to imposing any discipline or refusing to allow an employee to return to work and that includes seeking medical information where required. If employers rely on the employees' doctor's note or a note from their counsellor, there is a real concern that the counsellor or family doctor might not have sufficient experience to understand the nature of "enabling" (see the example below about doctor A in the *Kruger* case). Insufficient experience can be unhelpful and potentially problematic (e.g., by returning the employee to work too early without understanding the nature of relapse or the importance of medical monitoring). Without good medical information, there is a risk that an employee might return or will be permitted to work as a person who is not being treated effectively, which increases the risk of relapse or other potential issues.

For an employer to defend its decision to refuse to employ or refuse to return an employee who has been impaired at work, it will require evidence to either substantiate the discipline under "just cause principles" (for unionized employees) or under the "duty to accommodate short of undue hardship" under human rights principles. Both of these require evidence that either the worker was, in fact, impaired at work and in breach of the policy or that the employer cannot accommodate the employee without incurring undue hardship.

The IME will often contain a diagnosis, which typically employers are not entitled to on the basis of the right to privacy, but in the case of addiction there is an exception. The IME often contains highly sensitive and personal information to which the employer has no right. It is reasonable to seek the entire report, but ask that the employee's personal history that is not relevant be redacted. (Many reports go into an extensive personal history that can involve a description of abuse and trauma that the employee has experienced.) The IME, particularly for safety-sensitive workplaces, is crucial evidence for several reasons:

[27] Return-to-work/duty agreements, last chance agreements, and relapse agreements broadly refer to an agreement between an employee and employer (and union representative if warranted) on the conditions under which an employee who has been away from work due to an illness or injury can return to work. They are tailored to individual circumstances and are generally framed to accommodate the employee (e.g., returning to the same position, a different position, a modified position), describe objectives that the employee must meet over time, the time frame to meet these objectives, and, with respect to substance use, they can include monitoring and testing requirements among other requirements. Refer to the Government of Canada website on The Fundamentals – Return-to-Work Plan for more details at www.canada.ca/en/treasury-board-secretariat/services/values-ethics/diversity-equity/disability-management/fundamentals-return-to-work-plan.html.

- It provides the employer with information about whether the person has a substance use disorder (and thus requires accommodation short of undue hardship) or not (and thus can be disciplined pursuant to progressive disciplinary policies or under the applicable substance use policy, which might have a zero tolerance term or provision).
- It also provides recommendations for treatment.
- It provides the template for return to work, which typically will include a requirement for abstinence, medical monitoring and other recommendations. Since the employer is not an expert in addiction, it relies heavily on these recommendations when implementing a return-to-work or last chance agreement. Employers justify the terms of the last chance agreement or return-to-work agreement. If the employer includes a term in the agreement that is over and above what the medical expert recommended (e.g., the IME recommends two years of medical monitoring and the employer imposes five years), it will be less likely to be upheld if its breach results in the employee's termination. The IME will be the employer's evidence that the employer made decisions based on the best information available to it. Without it, the employer is simply guessing what to do.
- If the employee breaches the terms of the agreement (e.g., he or she relapses, does not attend monitoring or counselling sessions, etc.) the employer will rely on the IME recommendations to argue that the employee failed to participate in the accommodations process. Employees have a duty to participate in the accommodation process, which includes following the treatment recommendations from the IME. If they are deemed to not be participating, it allows the employer to argue it has reached undue hardship and the employment relationship is at an end.

In making a diagnosis, the addiction expert should be qualified to use the *Diagnostic and Statistical Manual (DSM) V of Mental Disorders*. The DSM IV was the prior diagnostic manual and distinguished between two distinct disorders, alcohol or substance abuse and alcohol or substance dependence, with specific criteria for each. (Refer to the section on legislation related to health professionals for a further discussion on the use of the DSM IV by many addiction specialists.)

The DSM V integrated the two DSM IV disorders, alcohol abuse and alcohol dependence, into a single disorder called alcohol use disorder (AUD) with mild, moderate and severe sub-classifications. The DSM V established nine types of substance use disorders, one each for alcohol, caffeine,[28] cannabis, hallucinogens, inhalants, opioids, sedatives, stimulants and tobacco, each listing several criteria. A mild disorder will include two to three criteria; four to five criteria is moderate; and six to seven criteria is severe. The following criteria are used to measure the severity of the disorder:

1. Taking the substance in larger amounts or for longer than the you meant to;
2. Wanting to cut down or stop using the substance but not managing to;
3. Spending a lot of time getting, using or recovering from use of the substance;
4. Cravings and urges to use the substance;
5. Not managing to do what you should at work, home or school because of substance use;
6. Continuing to use, even when it causes problems in relationships;
7. Giving up important social, occupational or recreational activities because of substance use;

[28] Consumption of caffeine is not considered a substance use disorder.

8. Using substances again and again, even when it puts you in danger;
9. Continuing to use, even when the you know you have a physical or psychological problem that could have been caused or made worse by the substance;
10. Needing more of the substance to get the effect you want; and
11. Development of withdrawal symptoms, which can be relieved by taking more of the substance.

Regardless of the particular substance, the diagnosis of a substance use disorder is based upon a pathological set of behaviours related to the use of the substance that falls into the four main categories described below.

1. **Impaired control**. This may include, for example, using for longer periods of time than intended or using larger amounts than intended. It could be coupled with a desire to reduce use, but being unsuccessful in those efforts. Impaired control is also evidence by spending an excessive amount of time obtaining, using and recovering from the substance. Impaired control can also include cravings that are so intense they become akin to an obsession.
2. **Social impairment**. This is evidenced by obtaining, using and recovering from the substance in such a way that it interferes with the person's relationships. For instance, only spending time with other individuals who use substances, abandoning relationships with people who do not use, and personal and professional relationships suffering or ending because of substance use.
3. **Risky use**. This is the failure to refrain from using the substance despite the harm that it causes. Some people will continue to use a substance despite knowing it is putting them or others at serious risk (i.e., using in a safety-sensitive employment situation, while driving a car or operating machinery).
4. **Pharmacological indicators** (tolerance and withdrawal). These include tolerance, which occurs when people need to increase the amount of the substance used to achieve the same desired effect, and withdrawal, which is the body's response to the abrupt cessation of the drug once the body has developed a tolerance for it. The symptoms of withdrawal vary depending on the specific drug. Withdrawal from some drugs, including alcohol, can be fatal for people who have become dependent.

4.3.5 Additional Complicating Factors: Human Rights and Disciplinary Streams

Employers also have a legal duty not to discriminate in employment. Every jurisdiction in Canada has human rights legislation that prohibits discrimination in employment on the basis of disability, which includes an alcohol or drug dependence (i.e., that would be considered a severe substance use disorder pursuant to the DSM V) (see Appendix D for a table of federal and provincial/territorial human rights legislation). For example, Section 5 of the Ontario *Human Rights Code* provides that every person has a right to equal treatment with respect to employment without discrimination because of disability. Disability is defined in Section 10 as including a mental disorder. Alcohol and drug abuse and dependence are listed in the DSM IV as a mental disorder and are captured in this definition. The reason many SAPs/SAEs, at least within British Columbia, continue to use the DSM IV, as opposed to the more current DSM V, is because it makes a distinction between abuse and dependence, which is particularly important in an employment and a human rights context. The DSM IV defines substance abuse as "a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances" (American Psychiatric Association, 1994). Those affected by this disorder demonstrate behaviours such as repeated failure

to meet major obligations, repeated substance use in dangerous situations, and repeated social and interpersonal issues. In contrast, substance dependence is defined as "a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues use of the substance despite significant substance-related problems" (American Psychiatric Association, 1994). Individuals affected by this disorder repeatedly use substance(s) to the point of tolerance, withdrawal and compulsive substance-taking behaviour, and often experience a craving for the substance.

Many of the SAPs/SAEs are asked to provide expert testimony in a hearing or trial should the employment consequences be challenged. There is a difference between a medical definition of "disability" and a legal definition of "disability." Making the distinction between abuse and dependence has, in legal terms, assisted employers and adjudicators in determining whether the employee should be disciplined or accommodated short of undue hardship or a hybrid of both. However, there is no agreed upon medical definition of disability. The DSM V has recommended utilizing the World Health Organization's Disability Assessment Scale to determine whether a person is disabled. This scale looks at functioning and replaces the DSM IV's Axis 5 functioning scale.[29] Generally speaking, courts and arbitrators will accept an expert opinion on whether someone is disabled. In contrast to the medical definition, the legal definition is defined either by legislation in the Human Rights Code/Act of various provinces, or in the common law, if there is no such definition. For instance, the definition for disability found in the Ontario *Human Rights Code* is defined as:

> (a) any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes diabetes mellitus, epilepsy, a brain injury, any degree of paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, or physical reliance on a guide dog or other animal or on a wheelchair or other remedial appliance or device,
> (b) a condition of mental impairment or a developmental disability,
> (c) a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or spoken language,
> (d) a mental disorder, or
> (e) an injury or disability for which benefits were claimed or received under the insurance plan established under the *Workplace Safety and Insurance Act, 1997*; ("handicap")

In *Quebec (Commission des droits de la personne et des droits de la jeunesse) v. Boisbriand (City)*, [2000] 1 SCR 665, 2000 SCC 27, the SCC's definition of disability (in relation to the definition of "handicap" in the Quebec *Charter of Human Rights and Freedoms*) was set out as:

> The Charter does not define the ground "handicap", and the word's ordinary meaning is not clear from the various dictionary definitions. Given its quasi-constitutional nature, the Charter must be interpreted in light of both its context and its objectives. The rules of interpretation do not support the argument that the word "handicap" means a physical or mental anomaly that necessarily results in functional limitations. A liberal and purposive interpretation and a contextual approach support a broad definition of the word "handicap", which does not necessitate the presence of functional limitations and which recognizes the subjective component of any discrimination based on this ground.
>
> The ground "handicap" must not be confined within a narrow definition that leaves no room for flexibility. Instead, courts should adopt a multidimensional approach that considers the

[29] For more on defining and understating the scale, refer to Gold (2014).

> socio-political dimension of "handicap". The emphasis is on human dignity, respect and the right to equality rather than merely on the biomedical condition. A handicap may be real or perceived, and a person may have no limitations in everyday activities other than those created by prejudice and stereotypes. Courts will, therefore, have to consider not only an individual's biomedical condition, but also the circumstances in which a distinction is made. A "handicap" may exist even without proof of physical limitations or other ailments. The emphasis is on the effects of the distinction, exclusion or preference rather than the precise cause or origin of the handicap.
>
> 82 These guidelines are not without limits. Although I believe that health may constitute a "handicap" and thus be a prohibited ground of discrimination under s. 10 of the *Charter*, the same cannot be said of personal characteristics or "normal" ailments. There is not normally a negative bias against these kinds of characteristics or ailments, and they will generally not constitute a "handicap" for the purposes of s. 10. As the emphasis is on obstacles to full participation in society rather than on the condition or state of the individual, ailments (a cold, for example) or personal characteristics (such as eye colour) will necessarily be excluded from the scope of "handicap", although they may be discriminatory for other reasons.

The case law has determined that an alcohol or drug dependence is a disability, whereas misuse of alcohol or drugs is not. This varies from province to province. In *Entrop v. Imperial Oil*, [2000] O.J. No. 2689 (ONCA), the initial Human Rights Board of Inquiry held, on the basis of uncontradicted expert evidence, that both substance abuse and substance dependence were disabilities pursuant to the definition of disability in the *Human Rights Code*:

> [89] The Board found, on uncontradicted expert evidence, that drug abuse and alcohol abuse -- together substance abuse -- are each a handicap. Each is "an illness or disease creating physical disability or mental impairment and interfering with physical, psychological and social functioning." Drug dependence and alcohol dependence, also separately found by the Board to be handicaps, are severe forms of substance abuse. Therefore, on the findings of the Board, which are not disputed on this appeal, substance abusers are handicapped and entitled to the protection of the Code.

Drug and alcohol dependence or addiction ("dependence") as a disability is thus protected from discrimination in employment. Therefore, employers have an obligation to accommodate dependent employees if they can do so short of undue hardship. Section 11 of the Ontario *Human Rights Code* provides a defence to an allegation of discrimination by proving that the qualification, requirement or factor (i.e., for employees to be free from impairment) is bona fide in the circumstances and cannot be accommodated without undue hardship, considering the cost, outside sources of funding, and health and safety requirements. In safety-sensitive workplaces, health and safety requirements can be a complete defence to a finding of discrimination.

Because employers are only legally obligated to accommodate people with a mental or physical disability, many employers create a two-tiered system in their policies should an employee have a confirmed non-negative random test (see above). One involves accommodation for employees who are found to be dependent (human rights stream); and the other is a disciplinary stream for employees who are found to not be dependent (disciplinary stream).

Typically, after a non-negative random test, employers will send the employee to a trusted SAP/SAE[30] for a comprehensive assessment, which should provide the following:

- Diagnosis using the DSM IV (which separates out substance abuse and substance dependence, substance dependence being classified as a disability but substance use or abuse not being so classified);
- Recommendations for treatment prior to any return to work (which is often abstinence-based and can involve day treatment, residential treatment and a period of abstinence confirmed by a random test);
- Recommendations for terms and conditions on the return to work, typically including ongoing treatment after the return to work, which often involves total abstinence coupled with some type of medical monitoring program in which the employee will undergo random tests for a period of up to two years or more to ensure the employee remains abstinent; ongoing counselling and support; in serious cases using an "ignition interlock" that prevents a person from driving; etc. It is the expert who determines the duration and terms of the medical monitoring required and generally speaking, the expert's opinion on such matters is accepted by arbitrators; and
- Prognosis for recovery (a poor prognosis, particularly after treatment and relapse, might show that the employee cannot return to a safety-sensitive position).

4.3.5.1 Human Rights Stream: Accommodation Short of Undue Hardship

Employers must accommodate dependent employees if they can do so short of undue hardship. Dependent employees in safety-sensitive positions are typically given the following accommodations:

- Referral to an addiction specialist (at the employer's expense) for a comprehensive assessment;
- Time off to attend residential treatment (many employers will either pay for treatment or implement a cost-sharing or loan program for the employee), counselling sessions, 12-step programs or other support groups;
- EAPs or EFAPs for ongoing counselling (more comprehensive programs which involve the employer can be implemented for complex cases of drug and alcohol dependence);
- Return-to-work agreements, which will typically include the specialist's recommendations for monitoring, abstinence, etc.;
- Time off to re-establish treatment should the employee relapse; and
- Last chance agreements should the employee continue to relapse and is not participating in treatment.

[30] This is important as the field of addiction is not regulated. Finding a specialist in addiction medicine, accessible and effective day-treatment and residential treatment options, as well as a specialist in toxicology to interpret random testing results is an important component of an effective drug and alcohol policy.

The Context of Relapse

In a recent study by the CCSA (McQuaid et al., 2017), Canadians recovering from addiction were surveyed about their various experiences while in recovery, including their relapse experiences. The survey targeted individuals from stakeholder organizations (i.e., it was not possible to use a representative sample from all individuals in recovery) and therefore the results cannot be generalized to the Canadian population. The survey also used self-reported data, which means that responses could have been biased. Nonetheless, the results present a picture of the potential context of relapse for these individuals. Among those who responded to the survey, 51.2% (*n*=438) reported never relapsing since they began recovery, 14.3% (*n*=123) reported relapsing once, 19.4% (*n*=166) reported relapsing two to five times, and the remaining 14.8% (*n*=128) reported relapsing six or more times. Some respondents also indicated that they continued to use their drug of choice, with some reporting use less frequently, use less often, use for pain management or use under certain circumstances.

Employers usually must endure two or more employee relapses in which the employee might need additional time off and further treatment prior to returning to work before the employer can take the view that any further accommodation would cause it undue hardship. The number of relapses an employer can be expected to sustain will depend on what constitutes undue hardship for the particular employer (e.g., severity of the relapse, how far apart are the relapses, prognosis). The SCC has stated clearly that when accommodating employees, employers must endure **some** hardship; it is only undue hardship that is not required. In the past, relapses were considered evidence that the employee was not participating in treatment, thus allowing the employer to take the position it had reached undue hardship. That view has since changed. Relapses are considered an expected part of recovery that should be managed. It is only where employees continue to relapse despite receiving treatment and ongoing support that employers can terminate the employment relationship on the basis of undue hardship.

Safety is a factor that is considered in the assessment of whether the employer can accommodate without undue hardship. Absolute safety, for the most part, is not a reasonable standard. In *British Columbia (Superintendent of Motors Vehicles) v. British Columbia (Council of Human Rights)*, (1999) S.C.R. 868, the issue was whether a disabled person would be permitted to hold a licence to drive on public roads. The individual, Mr. G, had a disability that impacted his peripheral vision and the Motor Vehicles Branch cancelled his licence. Mr. G. claimed that he could compensate for his vision loss through extra mirrors and prisms on his vehicle, but he was not given the opportunity to show that he could pass the test. The Superintendent argued that they could not accommodate him on the basis of safety; the risk of harm was too great. The Court found that the Superintendent had adopted an absolute safety standard, whereas only reasonable safety was required, particularly as there was no evidence to support an absolute prohibition without first providing Mr. G. with an opportunity to prove he could drive safely, and the evidence further showed that most motorists would not meet an absolute safety standard. The Superintendent was obligated to allow Mr. G. an opportunity to prove whether he was able to drive safely.

The significance of relapses is another area in which expert evidence is crucial, as SAPs/SAEs can provide their opinion on whether the employee is likely to relapse, and if the employee does relapse, whether the relapse is a mere “slip” or indicative of gross-non-compliance. A slip might not meet the threshold for undue hardship, but gross non-compliance, particularly if it is backed up by an expert opinion, could meet undue hardship as it indicates that the employee is not complying with her or his treatment.

In the context of a highly dangerous or extremely hazardous workplace, what constitutes undue hardship when accommodating a dependent employee into a safety-sensitive position will be assessed on a case-by-case basis, the safety of the workplace being the most significant factor. Without a way to test for impairment prior to each shift and depending on the circumstances, the employer could take the position that in a highly dangerous workplace it cannot tolerate the risk of a single relapse in a safety-sensitive position as the safety risks to both the workplace and the public would be too great. This position would be strengthened if it was backed up by a physician with a specialization in both addiction medicine and occupational medicine.

With respect to impairment in a highly dangerous or extremely hazardous workplace, the safety standard can be much closer to an absolute safety standard because of the real potential of catastrophic consequences for an industrial accident. The jurisprudence on how many relapses an employer must endure before termination provides little help, as the analysis is always context dependent, looking not only at the safety-sensitive nature of the work, but the length and severity of the employee's relapses and, importantly, his or her prognosis for treatment. While there is no rule of thumb, it seems clear from the jurisprudence that absent special circumstances, which could include a highly dangerous or hazardous workplace, employers will be required to endure a minimum of one relapse of moderate severity.

The presence of last chance agreements in some cases has been of assistance in upholding the termination, but because neither the employer nor the union can contract out of human rights obligations, last chance agreements are not iron clad and will not always be followed.

For example, in *Seaspan ULC v. International Longshore and Warehouse Union, Local 400 (G.H. Grievance)*, 2014 B.C.C.A.A.A. No. 10 (Larson), the grievor, a deckhand, admitted that he was an alcoholic pursuant to the employer's "Courage to Care" program. The employer accommodated him for seven years prior to his termination. He had four relapses in four years (none of which occurred at work) and was terminated after he tested positive for alcohol while on a last chance agreement that required abstinence. The expert in this case opined that he could not return to a safety-sensitive position as the risk of relapse was too great. The arbitrator held that he could be accommodated into a non-safety-sensitive position with appropriate terms and conditions.

> 98 I conclude that four relapses in four years (since 2006, five relapses in seven years), in a safety-sensitive position, has satisfied the Employer's duty to accommodate to the point of undue hardship. An additional factor in my analysis of the duty to accommodate to the point of undue hardship has been the Settlement/Last Chance Agreement wherein all parties came to a similar conclusion.
>
> 99 However, the parties had also considered in this same Agreement positions that were not safety sensitive should the Grievor not be fit to perform a safety sensitive position. It is at this point in respect to the duty to accommodate that I give significant weight to the circumstances of his past relapses — that he self-disclosed, that he never reported to work impaired, that there is no evidence of the use of alcohol or drugs at the workplace, and that there has been no workplace incident arising from drugs or alcohol. The Employer argues that these factors are "irrelevant". However, I have concluded that they are directly relevant to the issue of the duty to accommodate to the point of undue hardship. As [the doctor] noted, "All relapses are not created equal"; some have greater implications for the workplace and the process for recovery than do others. I also note [the doctor's] conclusion that the Grievor is now involved in a more comprehensive treatment plan — a plan that addresses his depression, his ADHD, and his addictions. Thus, in view of these off-duty relapses, which

> have not resulted in any workplace misconduct, I have determined that the Grievor is to be reinstated to a position that is not safety sensitive.

There are examples where the strict termination provisions in a last chance agreement have been upheld. In *Canadian Forest Products Ltd. (Isle Pierre Division) v. United Steelworkers, Local 1-424* (unreported February 20, 2017) (Peltz), the employee was a cut-off saw operator in a safety-sensitive sawmill and an alcoholic. Since his diagnosis in 2011 the employer had been accommodating him. He had returned from treatment under a last chance agreement and then relapsed. With the support of the parties, he entered into a second last-chance agreement with a term that he comply with monitoring for five years. During the Christmas holidays he breached the terms of the monitoring agreement and the last chance agreement. He did not report his vacation to his doctor and did not call in. Pursuant to the terms of the last chance agreement, this was considered a positive test. The employer interviewed the employee and discovered that the employee had not been meeting the terms of the last chance agreement in other areas; for instance, he had not attended 12-step meetings or found a sponsor. The doctor concluded that he was no longer invested in recovery and had not been honest about his participation in the Alcoholics Anonymous program. The employer terminated the grievor for breaching the last chance agreement and the union filed a grievance.

The arbitrator reviewed the entirety of the accommodation process and noted that accommodation is a reciprocal process. Employees must facilitate the accommodation process by following treatment recommendations. In upholding the termination, the arbitrator provided a useful summary of the employer and employee's duties to accommodate a dependent employee:

> Reasonable accommodation is a reciprocal process. From early days in the development of the legal doctrine, it has been recognized that employees have duties, not just employers. In *Board of School Trustees of School District No. 23 (Central Okanagan) v. Renaud*, [1992] 2 S.C.R. 970, the court stated (para. 43-44):
>
> > The search for accommodation is a multi-party inquiry. Along with the employer and the union, there is also a duty on the complainant to assist in securing an appropriate accommodation. The inclusion of the complainant in the search for accommodation was recognized by this Court in *O'Malley*. At page 555, McIntyre J. stated: ...
> >
> > To facilitate the search for an accommodation, the complainant must do his or her part as well. Concomitant with a search for reasonable accommodation is a duty to facilitate the search for such an accommodation. Thus in determining whether the duty of accommodation has been fulfilled the conduct of the complainant must be considered.
> >
> > This does not mean that, in addition to bringing to the attention of the employer the facts relating to discrimination, the complainant has a duty to originate a solution. While the complainant may be in a position to make suggestions, the employer is in the best position to determine how the complainant can be accommodated without undue interference in the operation of the employer's business. When an employer has initiated a proposal that is reasonable and would, if implemented, fulfil the duty to accommodate, the complainant has a duty to facilitate the implementation of the proposal. If failure to take reasonable steps on the part of the complainant causes the proposal to founder, the complaint will be dismissed. ...
>
> The employee duty to facilitate accommodation was reviewed in *International Forest Products, supra* (para. 39-40):

> Alcoholism is an illness; and, there is no dispute that [the grievor] is an alcoholic. He suffers the disability of addiction to alcohol — a disability of particular complexity. Once established, the disability is latent and ever-present. When an employee who works in a dangerous environment succumbs to the pressure of this addiction, he undermines production, and he poses a most serious threat to himself and his fellow employees.
>
> The employer has a duty to accommodate, and the employee has a duty to facilitate accommodation. The employer's duty is to a point "short of undue hardship". ...
>
> I would think that a similar standard of reasonableness would also apply to the employee's duty to facilitate accommodation. An employee need not facilitate an employer's unreasonably feeble effort to accommodate; and, an employer need not tolerate an employee's unreasonably feeble effort to facilitate. These obligations — to accommodate, and to facilitate — are not an equation, but a formula. Their purpose is the protection of the disabled employee from unreasonable discrimination. In this case, that protection would be the reasonable enablement of the continued employment of an alcoholic.

The arbitrator in *International Forest Products* added (para. 47), "In alcoholism cases, the employee facilitates accommodation by the promise of, and compliance with, a monitoring and treatment program."

The physician in this case had testified that without monitoring and attendance at a 12-step program, the relapse rate even after treatment was 96% after one year. The arbitrator found that when the employee breached the monitoring obligations and effectively abandoned the 12-step program, he was not meeting his accommodation duties. "It is an undue hardship for an employer to continue accommodating an employee for whom the prospects of success are marginal." The grievance was denied and the employee's termination for breaching the last chance agreement was upheld[31].

From the case law, when an employer knows or reasonably should know that an employee is impaired in a safety-sensitive workplace, the employer will typically be expected to take the following steps to accommodate a dependent employee:

1. Holding the employee out of service pending the receipt of medical information indicating whether the employee is dependent and the conditions for a return to work. While the employer is not required to pay for this assessment, many employers do in an effort to control who the assessing physician is and to show it is going above and beyond in its duty to accommodate.
2. Should the employee be found to be dependent, the pre-conditions for a return to work often involve a recommendation for a period of treatment. The employer is expected to grant a leave of absence for the employee to attend a residential treatment program (the assessment should contain recommendations as to the appropriate treatment facility based on the employee's needs). The employee is not required to provide paid time off work. Many employees will take advantage of short-term or long-term disability or enhanced EAPs or EFAPs. Providing these benefits is an accommodation.

[31] See also *Vancouver (City) Board of Parks and Recreation v. Canadian Union of Public Employees, Local 1004 (DG Grievance)*, [2011] B.C.C.A.A.A. No. 149, where Arbitrator Thorne found that the employee (suffering from opioid and alcohol dependence), who was required to drive, could not be accommodated without undue hardship after a drug test showed drugs in his system and there was evidence that he continued to use drugs post-termination. The grievor was legally required to participate in and take responsibility for his rehabilitation program and he failed to do so and was in gross non-compliance. The parties had explicitly agreed that termination would result and the employer was not required to offer further accommodation.

3. During treatment, many employers will cost-share or provide a loan to the employee to assist in the cost of residential treatment, although this is not required. This is also an accommodation.
4. Prior to the return to work, the employer will seek medical information that provides confirmation that the employee is fit to return to work (i.e. has completed treatment and has provided a negative drug or alcohol test) and under what terms and conditions. As mentioned above, the terms and conditions often includes a term requiring abstinence and a period of medical monitoring, along with other recommendations for after-care, counselling etc.
5. Returning the employee under either a return-to-work agreement or a last chance agreement is a form of accommodation. These agreements can contain a provision that breaches of the terms will result in immediate termination, but as stated, arbitrators will not be duty-bound to enforce this term as employers and unions cannot contract out of human rights obligations.
6. When an employee relapses, the employee will need to obtain medical clearance to return to work with specified conditions. The employer should seek information as to whether the relapse is a slip or is considered gross-non-compliance with the employee's duty to facilitate the accommodation process.
7. Once the employee is deemed fit to return to work again, she or he will return under an updated return-to-work agreement with similar terms as before (i.e., abstinence, monitoring, etc.), or more likely at this point, a last chance agreement that contains a provision that any breach of the agreement will result in immediate termination of employment.

Medical Cannabis and Alternatives

In a recent case, an employee of an oil and gas site self-disclosed use of medical cannabis. His position was as a dishwasher in an industrial kitchen, and the employer considered the entire kitchen and all positions in it safety-sensitive. The employee had been using medical cannabis for some time without disclosing and there had been no concern about impairment. He was then taken out of service and asked to see an addiction expert to determine whether he could work safely. He was not permitted to return to work until the IME was completed. The IME found a small risk of impairment, but it was based primarily on the employee's self-report. The IME also recommended alternate treatments. The employee was not permitted to return to safety-sensitive work until he agreed to the IME's recommendation of alternate treatment. The employee agreed to take a non-safety-sensitive position. (This case is currently ongoing and a final decision has not yet been made.)

4.3.5.2 Return-to-Work Agreements and Last Chance Agreements

Employers frequently impose strict return-to-work agreements and last chance agreements when returning a dependent employee to work after completing treatment. When the agreement is executed by the union, the employee and the employer, it is a legally enforceable agreement (subject to some exceptions noted below); its execution by all parties is typically a pre-condition to any return to work.

Since the duty to accommodate requires an individualized process, it is not recommended to use a standard form agreement, but instead to tailor the agreement to the specific circumstances of each case and in reliance on the return-to-work recommendations set out in the expert assessment.

As these agreements might become evidence in a legal proceeding, generally speaking the agreement starts off by setting out the history of the employee's issues at work, her or his dependency, and the employer's efforts to accommodate the employee to date. The next sections of the agreement contain provisions that set out the employee's agreement to abide by specific conditions regarding abstinence, participation in medical monitoring and after-care, among other stipulations. Since these types of terms are outside of the expertise of most employers, they are taken directly from the expert recommendations in the return-to-work assessment. For instance, in some cases the expert recommends two years of medical monitoring and in other cases five years. It is dependent on the assessment of the individual's circumstances, her or his participation in treatment, her or his supports, and prognosis. Since the employer is relying on the expert's recommendations, it is rare that these types of terms will be challenged. (Although some unions have challenged recommendations that force employees to attend 12-step groups if they are not religious. However, where the expert has been able to justify her or his expert opinion that it is necessary, the requirement will likely be deemed reasonable and enforceable).

Most agreements contain a term that alerts the employee to the serious consequences should the employee breach any term of the agreement, which is often termination of employment, as well as a term that allows the employer to use discretion when determining whether a breach will result in termination, without waiving its right to rely on the consequences of a breach in the future. As stated above, even where the union agrees to a term that states that termination of employment will result from a breach, should it be enforced, there is nothing preventing the union from filing a grievance or the employee from filing a human rights complaint because neither the employer nor the union can contract out of its human rights obligations. Generally, employers do not set out how many relapses will be considered undue hardship, as it must be assessed on a case-by-case basis; some relapses are more destructive than others. An employer might be required to accommodate three minor slips but only one major relapse, for instance.

Many agreements also contain a term that limits the arbitrator's jurisdiction to deciding whether the breach occurred, and, if it did, the arbitrator does not have the jurisdiction to interfere with the penalty. While the arbitrator might find this type of provision persuasive, for the reasons set out above, the arbitrator will not be bound by it. While the termination might ultimately not be upheld in arbitration, it can be extremely important for an employee to understand that his or her position is in serious jeopardy, as it is often the most significant motivator for continued recovery. Completely aside from a legal perspective, addiction experts have opined that the terms of a last chance agreement have the potential to save a person's life by keeping them in recovery and abstinent. Motivating factors and the impact of last chance agreements formed part of discussions during the case of *Kruger Paper Products Ltd. v. Communications, Energy and Paperworkers' Union of Canada, Local 456 (Cuipka Grievance)*, [2008] B.C.C.A.A.A. No. 217 (Gordon). The case was about an engineer who was dismissed for unauthorized absences from work, which were due to his addiction to crack cocaine. He had repeated two treatment programs that were provided via interest-free loans from the employer. The grievor was warned that future transgressions would lead to dismissal. Doctor A was called as an expert witness as he had performed one of the medical assessments.

> 78 [Doctor A's] evidence was that, for any crack cocaine addict who is returning to work in a safety sensitive position, it is critical that they be monitored for compliance with treatment, relapse and recovery recommendations, including random drug testing. When he prepared his supplemental report in April 2008, [doctor A] believed, based on what the Grievor had told him, that the drug testing was random. [Doctor A] would be "concerned" if he knew that the drug tests had been scheduled one week in advance, but would not change his view of the quality of the Grievor's recovery because he based his April report on interviews with the

> Grievor and his counselors, plus his acceptance of the Grievor's statement that he had been clean since June 2007. Importantly, however, [doctor A] clarified in cross-examination that his report in April 2008 was not intended to be a clearance for a return to work in a safety sensitive position because, consistent with his report in June 2007, the Grievor could only return to work in a safety sensitive position if a proper monitoring system was in place.
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> 79 When referred to an article he authored in April 2006 entitled "Managing Employees with Possible Substance Abuse Disorder: Best Practices for Organization", [doctor A] agreed that it is "unacceptable" to tell an employee the date of their next drug test and the proper protocol is to provide only 24 hours' notice. He also agreed that employees should not be encouraged to design their own recovery programs, and an employee's insistence on doing so should be viewed as behaviour that is inconsistent with a desire to be successfully treated. [Doctor A] acknowledged that for employees in safety sensitive positions, safety concerns take precedence over human rights such that employers must intervene urgently, and health professionals must do several things: perform a higher standard of care; assess return to work conditions with safety sensitive positions in mind; and, ensure a higher level of monitoring is in place after treatment to ensure compliance. He further explained that the concept of "enabling" refers to the conduct of others that deprives the addicted person of the experience of the consequences of their own behavior because "it is only when a person believes that the consequences of their behavior outweigh the comfort of drug use that they will change their behavior." Hence, if an employee continues to "get away with" using drugs, s/he does not become convinced that the job loss consequence outweighs the benefits of using. In his 2006 article [doctor A] opined that employees suffer irreversible harm when employers are too soft or give them too many last chances, and that many people are alive today because their employer correctly dismissed them.

In any return-to-work situation, but particularly in a return-to-work situation to an ultra-dangerous workplace, the recommendations and prognosis in the IME will be extremely important. The medical expert should be fully apprised of the nature of the ultra-dangerous work when making any return-to-work recommendations. It might be helpful in these situations to retain an addiction expert who has an additional specialty in occupational medicine.

It may be that the IME supports a conclusion that people with a substance use disorder cannot be accommodated in an ultra-dangerous workplace as a highly dangerous or extremely hazardous workplace cannot accommodate even a single relapse due to significant safety concerns. Alternatively, a return-to-work agreement might need to include significantly stricter terms, possibly daily monitoring for impairment, or a return to non-safety-sensitive work for a period without a relapse before permitting a return to safety-sensitive work.[32]

In a highly dangerous or extremely hazardous work environment, the employer might want to consider a policy that both encourages early disclosure and discourages breaches of the policy. People who suspect they might have a problem will receive support before it becomes a problem (i.e., prevention) and those that have a problem have a positive obligation to disclose. For deterrence, there could be a policy term that provides for automatic termination for any breach of the substance use policy. Prior to termination, however, the employer will need to determine whether the employee is disabled. Employees who breach the policy but are found to be disabled will be

[32] See *Seaspan ULC v. International Longshore and Warehouse Union, Local 400 (G.H. Grievance)*, (2014) B.C.C.A.A.A. No. 108, where Arbitrator Lanyon ordered an employee be returned to a non-safety sensitive position after medical expert evidence showed that the employee, a deckhand suffering from alcohol dependence, could not return to safety-sensitive work. He had had three relapses that breached the last chance agreement, but was seeking treatment and his prognosis was positive. Arbitrator Lanyon considered that the employer had not reached undue hardship.

accommodated if the employer can do so short of undue hardship. For employees found not to be disabled, the policy must clearly state that a breach of the policy will result in termination to meet the KVP standard of reasonable discipline, as discipline will not be reasonable if the employee is unaware of the consequences for misconduct. Employers then have the option of agreeing to replace the termination with a strict last chance agreement signed by all parties.

Return-to-work and last chance agreements must have an end date. The end is often based on the expert's recommendation for medical monitoring.

There are other types of return-to-work agreements (e.g., the Ulysses Agreement) that use the entire support system of the employee for the purpose of detecting and notifying the employee's named support person of any behavioural red flags that might indicated that a relapse is imminent. These agreements are helpful in preventing a relapse or ameliorating the negative impact of a relapse.

4.3.5.3 Disciplinary Stream

Where the employee is deemed not dependent and has violated the employer's policy (the policy should state the consequence of a breach), a progressive disciplinary response up to and including termination of employment is appropriate. The employer's policy should clearly outline what the consequence of a non-negative test will be (keeping in mind when the employer is entitled to conduct random testing; see above).

Some safety-sensitive employers choose to have a zero-tolerance policy in which termination will be the automatic result for a breach in cases where the employee is not dependent and risk the filing of a grievance. Some safety-sensitive employers choose to substitute the termination for a last chance agreement, signed by the union, employee and employer. This agreement might require the employee to attend some type of treatment to prove he or she is fit and then undergo a period of random testing on the return to work. A usual term of these last chance agreements is automatic termination should a further random test come back non-negative.

An example of the difference in outcome for the same misconduct is found in *Brewers Distributors Ltd. and Brewery, Winery and Distillery Workers Union, Local 3000 (Lawrence Grievance)*, [1998] B.C.C.A.A.A. No. 507 (Munroe). Two employees consumed alcohol while on duty and both were terminated pursuant to the employer's zero-tolerance policy. The arbitrator found that the first grievor engaged in culpable misconduct; he was not an alcoholic or addicted to alcohol and knew that he had breached the zero-tolerance policy. The arbitrator upheld the termination, finding the zero-tolerance policy determinative in his decision. The second grievor, who had engaged in the same misconduct, was reinstated with conditions because there was a direct link between his misconduct and the "disease of alcoholism" he was suffering.

Another example of a successful enforcement of a strict no-tolerance policy is found in *Re Brewers Warehousing Co. Ltd. v. United Brewers' Warehousing Workers' Provincial Board, Canadian Brewery Workers' Union* [1984] O.L.A.A. No. 97 (MacDowell). The employer had a very strict no-tolerance policy for impairment at work. The grievor was a truck driver who was immediately terminated after he was found intoxicated on the job. At the hearing the grievor claimed he had an alcohol problem and should be reinstated with the ability to attend a treatment program. He did not admit to being an alcoholic or admit to being impaired. The grievance was dismissed and the termination upheld. The arbitrator found that the arbitral jurisprudence was clear that driving a company vehicle under the influence of alcohol was a most serious offence warranting immediate discharge except in the most exceptional cases. The offence, while involving alcohol, was not clearly related to alcohol addiction and thus no duty to accommodate arose.

A Case of Balancing Workplace Safety and Privacy Rights

A recent decision by the SCC demonstrates how established workplace policies that require self-disclosure of substance use or dependence can help protect employers from liability. On June 6, 2017, the SCC dismissed an appeal from the Alberta Court of Appeal regarding an employee who worked as a loader operator for Elk Valley Coal Corporation.[33] He worked in a safety-sensitive position and the employer had a comprehensive drug and alcohol policy. As with many policies, there were two tracks for handling drug use in the workplace: those who suffered from an addiction would be provided treatment, while those who did not would be dealt with in a culpable manner. Employees were encouraged to step forward and voluntarily disclose if they suffered from an addiction and receive treatment before their problems compromised safety in the workplace.

The employee used cocaine on his days off, was involved in an accident in the workplace, and tested positive for cocaine. Following the test, the employee said he was addicted to cocaine and his employment was terminated. The employer stated that the employee was terminated not because of his addiction but rather his breach of the policy in failing to disclose his addiction.

In the initial decision before the Alberta Human Rights Tribunal, the panel found that the employee had failed to establish a *prima facie* case of discrimination. The employee was able to establish that he had a disability protected under the Act, and that he was subject to adverse treatment with regard to a term of employment, but failed to establish that the disability was a factor in the adverse treatment. He was terminated for a breach of the policy and not because of his addiction. Further, the Tribunal went on to conclude that even if it was wrong in that assessment, the employer had accommodated up to the point of undue hardship. The Tribunal indicated that the opportunity to self-disclose and access treatment without fear of discipline was an acceptable accommodation. Further, to dilute the penalty of discharge in this instance would dilute the deterrence effect and the remedial goals of the policy, thereby compromising workplace safety and that alone would amount to undue hardship.

The Court of Queen's Bench held that the standard for review on the threshold test of a *prima facia* case was correctness, and a more deferential threshold of reasonableness on the issue of reasonable accommodation. The Court affirmed the decision of no *prima facie* discrimination but found that there would not have been a reasonable accommodation in this case as the employee was not aware of his addiction thus was not in a position to access the offered accommodation.

At the next level, the Court of Appeal dismissed the appeal, finding that there was no *prima facia* discrimination and finding that the accommodation was reasonable. The Court noted that "…the employer cannot be required to premise workplace safety policy on flagrant demonstration of addiction … Employers should not be required to establish intrusive workplace rules to sniff out potential addictions."

The SCC dismissed the appeal and upheld the original Tribunal decision. The Court affirmed the original Tribunal finding that the policy did not adversely impact the employee because he had the capacity to comply with the terms. The Court focused on the letter of termination, which identified the grounds for termination as the failure to disclose voluntarily his addiction prior to the accident. The Court considered the expert evidence provided at the Tribunal, namely that the employee had the capacity to make choices about his drug use and the addiction did not diminish his ability to comply with the policy. At paragraph 39, the Court made the following observation:

[33] Refer to *Stewart v. Elk Valley Coal Corp.*, 2017 SCC 30; Chief Justice McLachlin wrote (Abella, Karakatsanis, Côté, Brown and Rowe JJ. concurring).

> ... It cannot be assumed that [the employee's] addiction diminished his ability to comply with the terms of the Policy. In some cases, a person with an addiction may be fully capable of complying with workplace rules. In others, the addiction may effectively deprive a person of the capacity to comply, and the breach of the rule will be inextricably connected with the addiction. Many cases may exist somewhere between these two extremes. Whether a protected characteristic is a factor in the adverse impact will depend on the facts and must be assessed on a case-by-case basis.

Implications of the Decision

This case represents a significant step forward in giving employers the tools to ensure a safe workplace. The Court said that based on the evidence in this case the employee's addiction did not preclude his ability to make choices about the timing of his drug use, nor take advantage of the opportunity to self-disclose. Other cases might be decided differently based upon the evidence adduced at the initial hearing. Accordingly, it is important that a thorough cross-examination of the employee be conducted at first instance to canvass evidence of volition and the day-to-day decisions made by the employee.

A second takeaway is the importance in drafting the letter of termination. In this case, the SCC referred to the termination letter and concluded that it was not the addiction *per se* that was the trigger for the termination, but rather the breach of the policy, a policy that the employee had the ability and capacity to comply with.

The third takeaway is to have a well-vetted and appropriate drug and alcohol policy that treats drug addiction as a disease and appropriately supports and accommodates those suffering from an addiction. An effective policy will enable non-disciplinary self-disclosures wherein an employee with an addiction can access appropriate treatment and support.

The case represents a reconciliation between workplace safety and privacy rights. If the employer is restricted in its access to medical information of its employees and restricted in the ability to impose random testing in the workplace, then the *quid pro quo* for that privacy is the responsibility of the person who has that information to use it responsibly. In this case, it is the employee. Where there is the opportunity to voluntarily disclose an addiction and receive treatment, employees who hide an addiction will now be held accountable for putting themselves and their co-workers at risk.

4.3.6 The Impact of the Legalization of Cannabis

The impending legalization and regulation of cannabis is of great concern to many employers, particularly those in safety-sensitive industries. Legalization, however, is not a new issue as the use of cannabis for medical purposes has been legal for a number of years. In any substance use policy there must be a term that includes an obligation on the part of the employee to disclose the use of any prescription drug that might be impairing and it should specifically include medical cannabis.

Where there is an issue is the possibility that an individual who uses for non-medical purposes or an individual who is not addicted to cannabis might be attending work impaired. In these situations, employers should treat it the same as it would treat an employee who might be impaired by alcohol (another legal drug): conduct random testing in the circumstances described above and refer employees who have non-negative random tests to an SAP/SAE to determine whether discipline for breach of the policy or accommodation short of undue hardship for dependence is warranted.

Regarding the use of cannabis for medical purposes, employees have an implied duty under Duties of Employees, Health and safety matters (section 126) of the Canada Labour Code: Part II,

Occupational Health and Safety to report to their employer should they be taking any prescribed drugs that could impact their ability to work safely.[34] All policies should acknowledge the employee's duty to report and expressly include medical cannabis as a drug that could impact an employee's ability to work safely. If an employee is taking medical cannabis to treat a disability, the employer will be required to accommodate the employee short of undue hardship. As the accommodation is a tri-partite process, with the employer, union and employee all having separate but inter-related obligations, including a duty to inquire, the employer can seek medical information to determine whether the employee could be treated with a medication that is non-impairing. In highly dangerous or extremely hazardous workplaces, employers should seek medical information from a reliable expert who is familiar with these types of work environments. If there is a substantial risk that the prescription drug is impairing and there are other treatments available that are non-impairing, the employer can hold the person out of service until it is confident that the employee is fit for duty and not impaired by prescription drugs. If the prescription drugs are the result of a disability, the employer again must accommodate short of undue hardship.[35]

4.4 Section Summary

The potential impact of cannabis legalization and regulation will be affected by various factors. Experiences in other jurisdictions have demonstrated changes in use, particularly increased use among older populations and drivers. Although more research is needed, this finding suggests that the impact of legalization and regulation in Canada could result in increased use in populations that have typically not used cannabis, particularly adults in the workforce. Economic constraints appear to have also produced unintended consequences where some U.S. businesses have reduced their screening and testing processes in order to find and retain employees. Given uncertain economic climates in some of Canada's safety-sensitive sectors, such as the oil and gas industry, Canadian organizations could be faced with similar choices.

An additional challenge for organizations is the screening for substances. Most testing can only indicate the presence of a substance and not the level of impairment, and the effects can differ between individuals. Substances such as cannabis can remain in an individual's system long after use, meaning that detection might not indicate impairment.

It also appears that social norms about cannabis use will be affected where less regulation could lead to increased acceptance of cannabis use among the general population. Perceptions about use by others, attitudes of use by others, and the behaviour of others related to use have been shown to increase and sometimes intensify use by individuals. Despite the possibility of increased cannabis use, there is evidence from efforts to reduce impaired driving and tobacco smoking that norms can

[34] Section 126 describes general responsibilities and duties of employees including taking reasonable precautions to ensure the health and safety of the employee, other employees, and individuals likely to be affected by the employee's acts or omissions, following health and safety procedures and cooperating with health and safety representatives and workplace committees, among other requirements. The expectation to report substances that may impair performance and risk health and safety may be considered under these broader duties.

[35] See also *Calgary (City) v. Canadian Union of Public Employees (CUPE 37)*, [2015] A.G.A.A. No. 43, where the majority of the arbitration board found that the City had discriminated against an employee when it removed him from a safety-sensitive position because of his medical cannabis use. He was an equipment operator, but had been authorized to use medical cannabis for chronic pain. He notified two supervisors of his medication and continued to operate heavy equipment for almost two years without an incident. There were no reports of cognitive impairment or concerns about his job performance. When another layer of management discovered his medical cannabis use he was removed from his safety-sensitive position. He underwent an IME, who recommended a return to safety-sensitive work under certain conditions. The employer refused, taking the position that a return to work in a safety-sensitive position would constitute an unjustifiable risk to him, his co-workers and the public. The majority of the board found that because there was no evidence over a two-year period that the employee had been impaired while at work and the IME recommended reinstatement, the employee was to be reinstated to safety-sensitive work. This case shows how important medical evidence is. Had the IME made different recommendations, the employer could have had an evidentiary foundation for its decision.

be influenced and shifted to improve public health. Studies have shown that clear messaging that explains risks associated with certain behaviours can have a positive effect. Employers can benefit by using clear, evidence-informed messaging with employees about the risks associated with cannabis use; however, as shown by the research, this messaging will need to be delivered in collaboration with experts in messaging, communication and substance use in order to avoid unintended consequences.

The legal context suggests that medical cannabis will likely be treated as a prescription medication. As such, addressing fitness for duty, particularly in safety-sensitive industries, can benefit by focusing on impairment of any kind and workplace safety, which includes comprehensive policies that incorporate employee education, supervisor and management training, procedures for observing potential issues, guidelines for testing, treatment and assistance options, and consultation and collaboration with various experts and stakeholders, among others. Cases have also demonstrated the importance of a qualified professional in the substance use and addiction field, discussed in greater detail in the following section. Although safety-sensitive industries have been represented in various court cases in Canada with differing outcomes, these cases have not involved highly dangerous or extremely hazardous workplaces such as nuclear facilities. It is conceivable that these types of safety-sensitive industries might warrant more specialized approaches in the courts. Previous court cases led to a heavy burden on employers to justify the need for random testing, yet more recent ongoing cases may result in changes to the extent to which employers must prove the need for testing. For instance, well-developed policies and procedures that are followed by organizations and supported by evidence from the workplace have improved employer capabilities in developing and upholding safe workplaces that effectively balance human rights concerns.

5 Provincial and Territorial Legislation Related to Health Professionals and Their Role in Monitoring and Evaluating Substance Use: Summary Review (Task 3)

SAPs/SAEs often play an important role in the monitoring and evaluation of employees affected by substance use issues. However, there is no legislative framework to enforce their work or decisions related to substance use issues in the workplace. In contrast, certain other professions, such as medical doctors and registered psychologists, are granted legislative authority to practice medicine or psychology, which includes rendering diagnoses and prescribing treatment. This section discusses the role of different medical professionals, both those under legislation and not, and examples of how their expertise has been used in the legal context. The legislative framework that grants certain SAPs/SAEs this authority is included in Appendix E.

Experts are typically used initially for assessment purposes when an employer believes an employee might be impaired at work or has breached a drug and alcohol policy. In the assessment, the SAP will make a diagnosis, provide treatment recommendations and a prognosis for a safe return to work. In conducting the assessment, the SAP typically interviews the employee, requires a drug test, receives a workplace history from the employer, and might interview members of the employee's family. The resulting expert assessment is to determine whether the employee was, in fact, impaired and whether the employee is substance dependent, to make appropriate treatment recommendations prior to a return to work, and to establish fitness to return to work and appropriate terms and conditions on the employee's return to work. As employers are not experts in addiction medicine, they rely heavily on these expert recommendations to determine how to move forward in either disciplining or accommodating the employee.

Experts are also used in the litigation process. In the employment context, employers face potential liability regarding employee substance use where there has been an accident causing injury or death (pursuant to workers compensation legislation and possible criminal liability), where an employer has disciplined, terminated or imposed other adverse consequences on an employee who is substance dependent (raising human rights issues and claims of wrongful dismissal), or in the unionized context when implementing policies that address substance use affecting the workplace (policy grievances pursuant to labour legislation and human rights claims in the non-unionized setting). In each of these proceedings, expert evidence by a SAP will be of assistance, often to both parties (the employer using the expert to show it can no longer accommodate and the employee using the expert to show that he or she has been rehabilitated and should be returned to work).

During a human rights, arbitration or court hearing, witnesses are not permitted to give evidence that contains their opinion, generally speaking. Lay witnesses are only permitted to give evidence about their direct experience (i.e., what they have seen, heard, smelt or felt). Any witness who is not qualified as an expert witness (i.e., the majority of witnesses) is considered a lay witness and will not be permitted to provide opinion evidence. Generally, experts are usually individuals with a Ph.D., psychiatrists, medical doctors with specialties and psychologists with specialties.

5.1 General Role of Addiction Experts

In a typical employment situation, employers become aware of an employee's substance problem in two ways; either the employee self-discloses or it is discovered through medical information or drug testing after the employer has reasonable grounds to believe that the employee might be impaired (e.g., a near miss, excessive and odd patterns of lateness or attendance problems, behaviours that provide reasonable grounds for seeking medical information). Prior to imposing discipline (for instance, for excessive absenteeism or poor performance), if the employer knows or should know there is a potential substance use issue (i.e., by observing behavioural indicators), it must seek medical information to determine the following factors:

1. Whether the employee is disabled (i.e., is substance dependent according to the DSM IV or has a severe substance use disorder according to the DSM V) and thus requires accommodation should the employer be able to do so without incurring undue hardship; or the employee is not disabled and thus the employer can impose discipline;
2. Return-to-work recommendations, which typically include drug and alcohol treatment along with recommendations to attend counselling and 12-step programs or other self-help groups post-treatment; and, in safety-sensitive positions, often an abstinence-based approach is recommended including medical monitoring for a period of two to four years to ensure compliance; and
3. Prognosis for recovery and successful return to work (i.e., if the person has insight into the disorder, has a support network, what is the probability of relapse, etc.).

Having clear, current and, most importantly, credible medical information, particularly in an area like substance use where professionals can and do disagree with each other's opinion, is crucial to the employer. It lays the foundation for the duty to accommodate, which will be the basis for any return-to-work agreement or last chance agreement, and that medical information will be used as evidence in any subsequent litigation to defend the employer's decisions.

Having a medical expert who specialized in addiction to provide their opinion on the above factors is critical because the adjudicator will make determinations on the weight to give an expert's opinion (i.e., how important the expert evidence is in making findings and drawing conclusions). In the hierarchy of what evidence will be given more weight, a specialist in a particular area (i.e., a true experts) will be given more weight than a general practitioner; a psychiatrist's evidence is often given more weight than a psychologist (due to the medical background); a psychologist's evidence will be given more weight than a SAP/SAE (due to the difference in education), and so on.

Expert evidence becomes important when defending a disciplinary decision or termination, where the employer's position is that there is just cause for discipline, or that it could not accommodate a substance dependent employee without incurring undue hardship because of either safety considerations, excessive costs, employee morale or because the accommodation requires the employer to create an entirely new position that is basically a make work project.

The accommodation process imposes duties and obligations on all parties, including the union and the employee. Employees must participate in the accommodation process, which requires them to comply with reasonable treatment directions and accept a reasonable accommodation. Thus, employers can also reach undue hardship should the substance dependent employee not participate in their treatment plan on their return to work. This is where expert evidence proves to be crucial.

DG Grievance

In *Vancouver (City) Board of Parks and Recreation v. CUPE, Local 1004 (DG Grievance)*, [2011] B.C.C.A.A.A. No. 149 (Thorne), the grievor was terminated after breaching his return to work agreement (signed by the union) when he consumed drugs and failed to participate in the monitoring process. The employer argued that the grievor's failure to meaningfully participate in his recovery process relieved the employer of its duty to accommodate. Both the union and the employer called expert evidence. Arbitrator Thorne noted that both experts "are impressive addiction medicine experts. Their respective opinions were very informative about the nature of addictions. Suffice to say that they have a number of divergent views about the appropriate methods for dealing with patients who have alcohol or other drug addictions." Arbitrator Thorne agreed with one of the medical experts, however, in that the grievor was in gross noncompliance with his recovery, finding that the grievor was legally required to participate in and take responsibility for his rehabilitation program. The employer had no further duty to accommodate and the grievor's termination was upheld.

5.2 The Test for Expert Evidence

Expert opinion evidence in litigation is presumptively inadmissible. A party wishing to present expert evidence must prove its admissibility to the Court:

> Experts take information accumulated from their own work and experience, combine it with evidence offered by other witnesses, and present an opinion as to a factual inference that should be drawn from that material. The trier of fact must then decide whether to accept or reject the expert's opinion as to the appropriate factual inference. Expert evidence has the real potential to swallow whole the fact-finding function of the court, especially in jury cases. Consequently, expert opinion evidence is presumptively inadmissible. The party tendering the evidence must establish its admissibility on the balance of probabilities: Paciocco & Stuesser at pp. 184, 193; S. Casey Hill *et al.*, *McWilliams' Canadian Criminal Evidence*, 4th ed., looseleaf (Aurora, Ont.: Canada Law Book, 2009), at para. 12:30.10. (*R v. Abbey,* 2009 ONCA 624 (*"Abbey"*))

The SCC set out the test for admission of expert evidence in *R v. Mohan*, [1994] 2 S.C.R. 9 (*"Mohan"*). The party calling the expert must demonstrate how the following criteria apply to the proposed evidence:

1. Relevance;
2. Necessity in assisting the trier of fact;
3. Absence of any exclusionary rule; and
4. Properly qualified expert.

Both the Ontario Court of Appeal in *Abbey* and the B.C. Court of Appeal in *R v. Orr,* 2015 BCCA 88 (*"Orr"*), described these four factors as the "preconditions" for admissibility. If the evidence passes the preliminary stage, the Court must engage in a balancing of the probative value versus the prejudicial effect of admitting the evidence or, in other words, consideration of the costs and benefits.

As part of this exercise, the Court considers the reliability of the opinion evidence, including:

> … not only the subject matter of the evidence, but also the methodology used by the proposed expert in arriving at his or her opinion, the expert's expertise, and the extent to which the expert is shown to be impartial and objective (*Abbey,* para. 87).

While adjudicators in administrative tribunals (i.e., arbitration and human rights) are not as formal as courts, they do look to rules of evidence that have been established through the courts. Factors the court will consider when assessing whether the expert evidence is **reliable** include:

1. To what extent is the field in which the opinion is offered a recognized discipline, profession or area of specialized training?
2. To what extent is the work within that field subject to quality assurance measures and appropriate independent review by others in the field?
3. What are the particular expert's qualifications within that discipline, profession or area of specialized training?
4. To the extent that the opinion rests on data accumulated through various means such as interviews, is the data accurately recorded, stored and available?
5. To what extent are the reasoning processes underlying the opinion and the methods used to gather the relevant information clearly explained by the witness and susceptible to critical examination by a jury?
6. To what extent has the expert arrived at his or her opinion using methodologies accepted by those working in the particular field in which the opinion is advanced?
7. To what extent do the accepted methodologies promote and enhance the reliability of the information gathered and relied on by the expert?
8. To what extent has the witness, in advancing the opinion, honoured the boundaries and limits of the discipline from which his or her expertise arises?
9. To what extent is the proffered opinion based on data and other information gathered independently of the specific case or, more broadly, the litigation process? (*Orr*, at para 78; *Abbey* at para 119)

5.3 Purpose and Use of Expert Evidence

The Court in *Mohan* also discussed the use and purpose of expert evidence:

> 23 As in the case of relevance, discussed above, the need for the evidence is assessed in light of its potential to distort the fact-finding process. As stated by Lawton L.J. in *R. v. Turner*, [1975] Q.B. 834, at p. 841, and approved by Lord Wilberforce in *Director of Public Prosecutions v. Jordan*, [1977] A.C. 699, at p. 718:
>
> > An expert's opinion is admissible to furnish the court with scientific information which is likely to be outside the experience and knowledge of a judge or jury. If on the proven facts a judge or jury can form their own conclusions without help, then the opinion of an expert is unnecessary. In such a case if it is given dressed up in scientific jargon it may make judgment more difficult. The fact that an expert witness has impressive scientific qualifications does not by that fact alone make his opinion on matters of human nature and behaviour within the limits of normality any more helpful than that of the jurors themselves; but there is a danger that they may think it does.

As neither adjudicators nor employers have expertise in addiction, expert evidence can be critical to make determinations of:

1. Whether the employee has a disability (as opposed to a misuse of a substance);
2. Whether the terms of the return-to-work or last chance agreement are reasonable;
3. The employee's prognosis in the circumstances;
4. Whether any subsequent relapses are merely a "slip" or are better categorized as gross non-compliance and an abandonment of the treatment process (thus relieving the employer of the duty to accommodate); and
5. Whether the employee can safely return to safety-sensitive work.

5.4 Threshold Qualifications versus Weight

An expert must not only be qualified generally, but also qualified to express the specific opinion provided to the Court (*Orr,* at para 67). The Court must look for evidence of "subject-matter expertise" and "simply because a person has lectured and written extensively on a subject that is of interest to him or her does not constitute him or her an expert for the purposes of testifying in a court of law on the subject of that speciality" (at para 67; citing *R v. McIntosh*, [1997] O.J. No. 3172 at para 14). For example, in *Hildebaugh v. Hildebaugh,* [2000] BCSC 692, the B.C. Supreme Court held that a doctor, who was not a registered clinical psychologist, was not qualified to critique the opinion evidence provided by a registered clinical psychologist about the administration of psychological tests (at para 4 and 5).

The SCC has given somewhat contradictory statements about how strictly one must apply the admissibility test with respect to qualifications. In *R. v. Marquard* [1993] 4 S.C.R. 223, the Court stated that the only requirement for the admission of expert opinion was that the "expert witness possess special knowledge and experience going beyond that of the trier of fact": *R. v. Beland*, [1987] 2 S.C.R. 398 at p. 415, and that "deficiencies in the expertise go to weight, not admissibility" (para 35). However, in a later case, *R. v. J.-L.J.,* [2000] 2 S.C.R. 600 (S.C.C.) the Court stated at p. 613:

> ... the Court has emphasized that the trial judge should take seriously the role of "gatekeeper''. The admissibility of the expert evidence should be scrutinized at the time it is proffered, and not allowed too easy an entry on the basis that all of the frailties could go at the end of the day to weight rather than admissibility.

Generally, the test for admission as an expert is seen as a fairly stringent one.

5.5 Substance Abuse Professionals/Substance Abuse Experts

In Canada, there is no single certification program for a "substance abuse professional/substance abuse expert" (SAP/SAE), but there are various organizations that provide certification or accreditation for professionals working in this field (i.e., for Certified Addiction Counsellors).

While the following cases are in the criminal law context, the general principles for admitting expert evidence is similar. It is important, however, to keep in mind that labour arbitrators are granted the authority to apply wider latitude in admitting evidence than a court would. Labour arbitrators, thus, can admit evidence that would not be admissible in a court.

In *R v. Bruce,* [2011] M.J. No. 335, the Manitoba Court considered whether a person employed as a "key worker and assessment worker" at a residential treatment facility could be qualified as an expert and provide evidence with respect to assessment of the issue of abuse of alcohol by an individual, and the provision of treatment of a non-medical nature relative to alcohol abuse. In that case, the worker did not have any particular education or specialized training, but had worked in the field for eight years. He estimated he counselled approximately 30 patients per year and conducted 20 to 25 assessments per year.

In *Bruce*, the Court held the worker was not qualified to provide expert evidence. The Court considered several cases in which addiction counsellors provided evidence, but were not qualified as experts. The Court noted that in two cases, *R v. Kalyniak*, [1996] A.J. No. 370 and *R v. Gray,* [2004] A.J. No. 1119, addiction counsellors were qualified as experts, but no information in the decisions was provided with respect to their qualifications, and it was unclear whether the opposing counsel challenged their qualifications. Both of these cases, however, were in regard to impaired driving charges; in each case the accused sought "curative discharge". The probation order contained conditions relating to alcohol treatment.

In order for the accused to obtain a curative discharge he had to prove, on a balance of probabilities, that he was in need of curative treatment for alcohol abuse and that the discharge would not be contrary to the public interest. Both parties called expert evidence from SAPs/SAEs to give evidence primarily on their treatment compliance, motivation for treatment, and prognosis. Expert evidence indicated that the accused was an alcoholic and in need of curative treatment. In *Kalyniak* the court found that the accused had a bona fide intention to seek treatment that was unrelated to the threat of incarceration, but instead to "cure" the accused of alcohol addiction and restore his ability to lead a normal life. Based in part on the testimony of the addiction, the accused proved that it would not be contrary to the public interest to receive a curative discharge.

In *Gray*, the issue was sentencing for an offence of driving while impaired. The SAP/SAE was permitted to give evidence regarding the accused's prognosis for re-offending. The provincial court certified an individual who had worked as an addiction counsellor for 30 years as an expert. As indicated above, no particulars were provided with respect to her background or training.

> [5] The accused, in support of the curative discharge application, adduced a package of documents outlining his battle with alcohol dependence and efforts made by him through AADAC at assessment, counselling and treatment. (Exhibit 3). As well, viva voce evidence was called. The accused testified on his own behalf, along with his common-law wife, [the wife], and his AADAC counsellor, [the counselor].
>
> [6] The accused is 45 years of age. He has a B.Sc. degree in geology. He has worked as a geologist for 20 years. He has been fighting an admitted alcohol dependence problem since 1989. Alcohol has been an issue for him both at home and at work. His addiction has caused the loss of his employment, his wife and child. In 1996 he was divorced. Because of his addiction, he relinquished custody of his 10 year old son and only saw him on supervised visits. Over the past 17 years he has acquired three drinking driving convictions. His most recent conviction in 1997 resulted in gaol [sic] [jail]. Over the years, the accused has made a serious effort to abstain from alcohol and has done so for substantial periods of time. He has participated in assessment, counselling, and treatment with [the counselor], at AADAC. In 2002 he met his present common-law spouse, [the wife]. She is an occupational therapist, and has supported him in his battle with alcohol. She attends with him for regular counselling with [the counselor], at AADAC, and is part of an extensive safety net put

> in place to assist him when needed. On June 21, 2004, after the accused entered his guilty plea before me, he admitted to "falling off the wagon" and consuming alcohol on a business trip outside Calgary. To his credit, he did not drive a motor vehicle on that occasion.
>
> [7] [The counselor] has been an addictions counsellor at AADAC for over 30 years, and was qualified by the Court to give expert opinion evidence. She counsels the accused and [the wife] on a regular basis. She has been instrumental in assisting the accused manage his alcohol problem. Her opinion in terms of the treatment of alcohol addiction is that the problem is not cured but managed. Success is accompanied by detours and is measured by following the process put in place for an individual to deal with the problem. The accused is well motivated and if he follows the process put in place for him, he has a reasonable chance of managing his alcoholism. She was not prepared to say that the accused had a reasonable chance of overcoming his alcoholism. In her view, it was unlikely that the accused would ever drive while his ability to do so was impaired by alcohol again.

It is possible that a person working as a SAP/SAE could give opinion evidence to answer the question of whether the employee has been compliant with treatment and prognosis for a return to work. To be qualified as an **expert** in an arbitration or human rights proceeding, however, depends on that person's specific qualifications, education and training, with respect to the particular type of evidence they are tendering.

In determining whether an expert will be qualified to give expert testimony, the **nature** of their expertise gained by experience must be related to the purpose of providing expert testimony. The Court in *Bruce* stated the following:

> 39 In *R. v. Thomas,* the Court said that although how a witness acquires "special" or "peculiar" knowledge does not matter, when assessing the qualifications of a proposed expert, judges generally consider factors such as professional qualifications, actual experience, participation or membership in professional associations, nature and extent of publications, involvement in courses in the area, and efforts to keep current with literature in the field.
>
> ...
>
> 47 Although the requirement for "special" or "peculiar" knowledge going beyond that of the Court may suggest that anyone doing a particular type of work, for a period of time, with a certain segment of the public, may seem to set a relatively low bar for someone to be considered an "expert", in fact when cases in which a proposed expert's qualifications are challenged by the Crown are considered, it becomes apparent that the test is, in fact, a relatively strict one. In *R v. Thomas*, for example, a highly trained nurse with many years of experience conducting physical examinations of victims of sexual assaults was found not to be qualified to give expert evidence on the issue of whether, in a particular case, injuries sustained by a victim were more consistent with non-consensual or consensual sexual intercourse. Clearly, the "special" or "peculiar" knowledge must be relative to exactly the area of expertise proposed.
>
> 48 It may well be that there are people who do addictions assessments and/or counsel addicts that can be qualified as "expert" witnesses, and can properly give opinion evidence about addiction and treatment. In this case, I must consider Mr.

Thomas only, and whether he is an "expert" in the assessment of alcohol abuse and in the provision of non-medical treatment for alcohol abuse.

5.6 Employment Context

In the employment context, the union or employee will attempt to introduce expert evidence from a SAP/SAE to give opinion evidence of the employee's compliance with treatment and prognosis subsequent to the termination, in order to argue for reinstatement or to argue that the employer failed to accommodate the employee. Expert opinion evidence on prognosis is critical to the second question an arbitrator must answer when determining whether discipline (i.e., termination) is a proportional response to misconduct and if termination is found to be disproportional to the misconduct, whether reinstatement is appropriate in the circumstances.

There are several arbitration cases in which employees have been terminated for breach of a last chance agreement or breach of the drug and alcohol policy, only to be reinstated because, subsequent to the termination, they put forward expert evidence that suggested that they had been compliant with treatment and their prognosis was deemed to be good. In such cases a "battle of the experts" situation can arise. Where there are two equally qualified experts, the adjudicator will need to determine which one is more credible. This is why when some law firms assist employers in choosing experts to provide substance use assessments and return-to-work recommendations, they not only look to their reputation as an expert, but their reputation as an expert witness. To determine the latter, firms often review the jurisprudence to decide whether the expert has been perceived as a credible and reliable witness in other cases. This is important because if an expert witness's credibility has been damaged during cross-examination on the very issue that they are needed to provide expert evidence, there is a high risk that that case will be used to damage the expert's credibility in subsequent cases.

For instance, in *Kruger*, discussed above, doctor A testified on behalf of the union and was qualified as an expert in the fields of addiction and occupational medicine for the union. The issue in this case was whether termination of an employee with 25 years seniority, who had received five suspensions and attended two treatment programs to treat his addiction to crack cocaine, was justified. The employer had been accommodating the grievor for over three years.

Doctor A tendered expert opinion evidence that the grievor's relapse was not serious, as the treatment the employee had received was a "disaster" for someone with the employee's history of trauma; therefore, the length of time it took the grievor to achieve sustained remission was not "inordinate". Doctor A believed that the grievor should have a second chance. Doctor A was taken to an article he co-authored in April 2006, which stated the exact opposite, that "employees suffer irreversible harm when employers are too soft or give them too many last chances, and that many people are alive today because their employer correctly dismissed them."

Under cross-examination, doctor A also admitted that he had not reviewed several important records, including reports from the treatment centres and reports from other addiction specialists, prior to preparing his report. He based his conclusions on the grievor's representations only, including a representation that he had been "clean", which, doctor A learned at the hearing, was not the case.

In *Kruger,* the employer sought a medical-legal opinion from another doctor (doctor B), who was qualified as an expert in addiction medicine to dispute doctor A's findings. Doctor B opined that the employee's relapse was due to his failure to follow treatment recommendations. In determining the weight to give to these experts, Arbitrator Gordon noted the following:

> 122 I turn now to the differing expert opinion evidence relating to this issue.

> 123 It is not disputed that treatment programs at rehabilitation facilities such as Edgewood and The Orchard are individualized according to each patient's particular issues and needs. I find [doctor B's] opinion is enhanced by his exhaustive review of all relevant records, documents and information pertaining to this issue, and weakened by the absence of any personal assessment of the Grievor. I find [doctor A's] opinion is enhanced by his personal assessment of the Grievor, and weakened his failure to review relevant records, documents and information pertaining to the Grievor's case. For example, shortly after his completion of the Edgewood treatment program, the Grievor reported a positive experience at Edgewood to [doctor C], whose report was not reviewed by [doctor A] when he prepared his June 2007 report. The Grievor's evidence at the arbitration hearing further undermined the weight of [doctors A's] opinion to some extent.

Arbitrator Gordon dismissed the grievance and upheld the grievor's termination:

> 141 For all of the foregoing reasons, I find this employment relationship is no longer viable. In all of the circumstances of this case, the Employer has established just and reasonable cause for dismissal. Even if a pure human rights analysis applied in this case, the Employer has established that, by the date of dismissal, its duty to accommodate the Grievor's disability to the point of undue hardship had been exhausted and the employment relationship was no longer viable. Arbitrator McPhillips' concluding remarks at page 31 of the *Pacific Blue Cross* case are à propos here:
>
> > ...To reinstate [the Grievor] in this case would be to conclude that the law requires that there are no boundaries and that there is no practical limit to which an employer must go in situations involving cocaine addiction. There was an obligation on this employer to provide reasonable rehabilitation opportunities and it did so.

Doctor A's testimony was contradicted on cross-examination, which not only hurt his credibility in the hearing, but could possibly be used to hurt his credibility in future hearings by prepared counsel.

In regard to other arbitral jurisprudence that addresses how employers use SAPs/SAEs in a practical sense, in *International Brotherhood of Electrical Workers, Local Union 1620 v. Lower Churchill Transmission Construction Employers' Assn*. (Kearley Grievance), [2016] N.L.L.A.A. No. 1 (Oakley), two assemblers in a construction company building a power line in Labrador grieved their dismissal for smoking cannabis on the job in violation of the zero tolerance policy for drug and alcohol use. The dismissal was upheld against one grievor, who refused to take the mandatory drug test. The other grievor, who tested positive, succeeded in his grievance because the employer had failed to follow the requirement of the *Canadian Model for Providing a Safe Workplace* (a workplace policy), which stated that an employee who tested positive was to be suspended indefinitely without pay pending the completion of a rehabilitation program. The *Canadian Model for Providing a Safe Workplace* is not law, but one of several best-practice alcohol and drug policy models that stakeholders in the construction industry can adopt and follow. The purpose of the *Canadian Model* policy is to ensure a safe workplace for all workers by reducing the risks associated with the inappropriate use of alcohol and drugs. The *Canadian Model* defines SAEs as follows:

> SAEs all have one aspect in common. Each is a licensed or certified professional who has met the educational, experiential and competency criteria to be in good standing with a professional agency that governs their respective discipline.

> The SAE providing the assessment evaluation can be a licensed physician, registered psychologist, or a certified or licensed social worker as allowed to diagnose within their respective provincial regulated health professionals, who also has experience or a specialization in the field of addiction.
>
> He or she has received training specific to the SAE roles and responsibilities, has knowledge of and clinical experience in the diagnosis and treatment of substance abuse-related disorders, and has an understanding of the safety implications of substance use and abuse (Construction Owners Association of Alberta (COAA), 2014).

Arbitrator Oakley deferred deciding the issue of reinstatement until such time as further information was available following the substance use assessment and the outcome of any recommended subsequent treatment programs, finding that reinstatement would be subject to completion of the rehabilitation program and the conditions for reinstatement as might be set by the employer under the *Canadian Model*.

Employers can also run into difficulty if they attempt to put standard terms provided by experts into their individual assessments (i.e., two years medical monitoring on the return to work) into a policy as the duty to accommodate is an individualized process based on the individual and employer's particular circumstances. In *Teamsters Local 879 v. Holtz Environmental (Envirosystems) (G.B. Grievance)*, [2016] O.L.A.A. No. 45 (Knopf), the employer had a term in their *Drug & Alcohol Prevention Policy* that stated that after returning to work employees with substance abuse issues were required to comply with unannounced follow-up testing. Specifically, the policy stated that on receipt of a negative return-to-work clearance test, "the employee must comply with unannounced follow-up testing. Follow-up testing shall include at least six (6) tests in the first twelve (12) months following the employee's return to the workplace." The policy then stated that the SAP can "terminate the requirement for follow-up testing at any time if the SAP determines that the testing is no longer necessary."

The employer in *Holtz* defined a SAP as "[a] person who is knowledgeable about and who has clinical experience in the diagnosis and treatment of alcohol and controlled substances related disorders and who evaluates Employees who have violated this Policy and makes recommendations concerning education, treatment, follow-up testing and aftercare." The employer in *Holtz* hired a licenced physician to serve as the SAP under the policy.

Arbitrator Knopf held that it was reasonable for the employer to demand drug or alcohol testing of an employee who had given cause to suspect impairment in the performance of a safety-sensitive job, provided that such testing allowed for individualized treatment of the employee, which would be dependent on the particular circumstances of the case. While the employer stressed that the intention of the policy was for it to be applied on a case-by-case basis, the wording of the policy did not clearly indicate that. Arbitrator Knopf directed the employer to amend the wording to ensure that it did not prescribe a minimum time or frequency of testing or suggest that everyone who violated the policy would be treated as a substance abuser.

Of interest in *Holtz*, the union raised an issue that has recently been raised by unions in B.C.; the allegation that because the SAP/SAE was retained by the employer she or he would not provide an "independent" evaluation of employees because SAPs/SAEs are "unregulated" practitioners who have a contractual or financial relationship with the employer. Arbitrator Knopf noted that the union had provided no evidence on this point, and noted that medical doctors who are licensed to practice in Ontario are bound by the regulations governed by their profession.

> 52 ... While it is true that there may be a financial relationship with the Employer, as medical practitioners the SAPs must apply their professional judgment objectively according to scientific and diagnostic criteria. If any abuses occur, they can be dealt with on a case-by-case basis. In the context of this kind of an Award, there is nothing to suggest that the use of SAPs is unreasonable or inappropriate.

5.7 Section Summary

Addiction experts can play a multitude of roles when it comes to addressing substance use affecting the workplace. They can be called upon to assess individuals, provide prognoses for recovery and return to work, make recommendations for treatment and return-to-work plans, monitor return-to-work progress, and testify in arbitration or court cases among other roles. SAPs/SAEs often fill this role; however, employers may also rely upon physicians, psychiatrists, counselors or other suitable professionals. Due to the unique nature of addiction and the wide-range of substances that are available for use (i.e., alcohol, illegal drugs, and prescription drugs), professionals called upon to assist employers should have expertise or a specialization in substance use and additions.

In contrast to medical professionals such as doctors or psychiatrists, there is no legislative framework for SAPs/SAEs to enforce their work or decisions related to substance use issues in the workplace. As such, employers typically utilize addiction experts to provide diagnoses and recommendations regarding whether employees are fit to return to work, and if not, what the employee would be required to do prior to returning to work. Since this will become evidence should a grievance be filed, employers are advised to use what adjudicators would consider an "expert," namely a physician or psychiatrist with a specialization in addiction medicine, and ideally occupational medicine.

For example, in a current ongoing case in which an employee attended work apparently under the influence of alcohol in a safety-sensitive position, the employee was held out of service and referred to an addiction specialist (a licensed physician) for a determination as to whether the employee was fit to return to work. The employee was diagnosed as alcohol dependent. The recommendation for the employee was to attend a residential treatment facility for at least 28 days (the specialist named three such treatment facilities) and, following treatment, he was to enroll in a relapse prevention program which contained medical monitoring, and to remain abstinent for two months prior to any recommendation for a return to work. The specialist also included numerous treatment recommendations for when the employee returned to work, including two years of medical monitoring with 24 random drug tests, counselling, attendance at self-help groups, and a further five years of follow-up to ensure continued abstinence. Based on those recommendations, the employer agreed to loan the employee money to attend treatment under a "treatment agreement." where the terms mirrored the recommendations of the addiction specialist, and included a term that should he not successfully complete treatment his employment could be terminated for failure to participate in the duty to accommodate. The case was still in progress at the time of writing this report and a decision has not yet been made.

The evidence from the legal perspective demonstrates that medical professionals may disagree and, therefore, it is important to have an individual that can provide clear, current, and most importantly credible medical information, particularly as it relates to addiction. At the arbitration/court level, although SAPs/SAEs have provided testimony on occasion, cases have typically relied upon medical professionals in this area such as doctors or psychiatrists.

When choosing a SAP/SAE to provide fitness-for-duty and return-to-work recommendations, it is highly recommended to use an expert who would be considered by an adjudicator to have a high level of expertise and authority in the area of specialization, knowing that all reports and

recommendations will not only form the basis for treatment, return-to-work and last chance agreements, but will be used as evidence should a grievance be filed.

6 Effectiveness and Impact of Workplace Substance Testing: A Brief Review of the Literature

In the workplace context, testing for substances has received extensive scrutiny and debate in Canada, particularly in striking a balance between workplace safety and the privacy rights of employees. Specifically, random testing that is conducted during an organization's every day and ongoing operations (i.e., routine random testing), have been at the centre of this debate. However, these types of testing processes are seen by many employers in the safety-sensitive industry as one option to help reduce the potential risks associated with substance use affecting the workplace. This section provides a brief review of the published literature on substance testing in the workplace in order to summarize the evidence related to the effectiveness and impact of random testing.

6.1 Context of Workplace Substance Testing

Substance use affecting the workplace can have a wide range of potentially negative effects on the employee affected by the substance, other employees, the organization and, in some cases, the public and the environment. Of primary concern is the potential negative impact on the health and safety of the affected employee, co-workers and, for certain industries, especially safety-sensitive industries, additional risks to the public (Cashman, Ruotsalainen, Greiner, Beirne, & Verbeek, 2009; Macdonald et al., 2010; Spicer, Miller, & Smith, 2003). Beyond these concerns, substance use can affect the workplace in other ways, contributing to increased costs, absenteeism, turnover, disciplinary actions and use of organization resources; as well as potential lower productivity and workplace morale (Ames, Grube, & Moore, 1997; Cashman et al., 2009; Frone, 2004; Pidd, Kostadinov, & Roche, 2015). Due to the various potential implications of employee substance use for people and organizations, some organizations have implemented one or more processes for substance testing as a means to deter use and reduce workplace injuries or accidents.

In general terms, testing for impairing substances (i.e., alcohol and drugs) is the process of analyzing a biological specimen from an individual to determine the presence of a substance (Cashman et al., 2009; Christie, 2015; Keay, Macdonald, Durand, Csiernik, & Wild, 2010). The specimen can include blood, urine, saliva, sweat, hair or breath samples. For many substances, such as cannabis, tests can only detect the presence of a substance and not necessarily the level of impairment. This is due to various factors, such as substances differing in the amount of time it takes for the body to break them down (e.g., up to a few weeks), the quantity of substance used, the biology of the individual who uses the substance (e.g., males versus females) or the sensitivity of the test (i.e., some tests can detect some substances better than others) (Beirness & Smith, 2017; Christie, 2015). On the other hand, substances such as alcohol have generally accepted criteria for established levels of impairment that correlate with certain levels of alcohol concentration in the blood or breath, although impairment levels can still vary between individuals depending on several factors (e.g., gender, weight, height, etc.) (Christie, 2015).

There are a number of different ways in which organizations may incorporate substance testing processes into their practices (Meister, in review). These often include random testing, post-incident testing, reasonable cause testing, follow-up testing (following treatment of a diagnosed substance use disorder), pre-employment testing or site access testing. Random testing typically refers to a random selection of employees for testing that is conducted on an unannounced basis. Follow-up

testing is performed on employees that are being monitored during return to duty/work periods. Testing may also be triggered by an event (e.g. injury or property damage incident, near-miss incident), usually referred to post-incident or near-miss incident or reasonable cause (e.g., employee behaviour, decline in performance, supervisor/co-worker concern). Testing may also be context specific, such as pre-employment testing or site access testing (e.g., employees may be required to undergo testing before entering a safety-critical location).

Substance testing has been challenged in terms of whether it is effective in deterring substance use or reducing accidents and injuries (Christie, 2015; Kraus, 2001). The basis of testing is often rooted in deterrence theory, which suggests that an employee's desire to avoid punitive measures (e.g., sanctions, fear of detection, termination, suspension) results in lower substance use, accidents and injuries among employees (Christie, 2015; Konovsky & Cropanzano, 1991; Macdonald et al., 2010). There are a number of study design challenges to investigating effectiveness of testing in workplaces (e.g., eliminating other causes such as improved safety measures, presence of support options, establishing a control group, small sample sizes, etc.) and many studies, at best, have only demonstrated correlations between testing and deterrence and reduced injuries or accidents rather than causation (Cashman et al., 2009; Macdonald et al., 2010; Pidd & Roche, 2014).

Beyond effectiveness, there are also a number of other potential ways in which workplace substance testing can have an impact on organizations. Substance testing has been controversial in Canada and has been challenged on various fronts (see above). At a functional level, the imprecise nature of some types of testing methods and the inability to determine level of impairment based solely on the presence of substances for several drugs is often used to question the reliability and applicability of testing (Christie, 2015; Holland, Pyman, & Teicher, 2005). At an ethical level, testing has been challenged as a violation of one's right to privacy (Cashman et al., 2009; Holland et al., 2005). At a financial level, costs for testing can be considerably high depending on the test used, if a testing agency is used or the frequency of testing (French, Roebuck, & Alexandre, 2004; Pidd et al., 2015). At a workplace culture level, substance testing can have a negative impact on employee morale, productivity, trust in management and commitment to the organization (Christie, 2015; French et al., 2004; Konovsky & Cropanzano, 1991)

Given that a number of organizations use or are considering using substance testing as one tool to reduce those risks in the workplace that result from use of substances, it is important for organizations to have accurate information regarding testing in order to make well-informed decisions regarding practices. An examination of studies that investigate effectiveness in reducing substance use, injuries and accidents and those that examine other potential impacts of testing on organizations can be useful in guiding organization decisions. This brief and targeted overview of the literature seeks to examine and report on findings related to the effectiveness and impact of substance testing on organizations.

6.2 Method

This brief review of the literature seeks to identify studies pertaining to the effectiveness of workplace testing to deter substance use and reduce injuries or accidents. Due to time constraints to conduct this review (i.e., three weeks), the method for this investigation used a targeted systematic overview approach (Grant & Booth, 2009). The overview methodology allows for the flexibility of providing a broad and sometimes comprehensive summary of the general characteristics of a subject using different levels of systematicity. However, overviews can sometimes be too broad or not identify the system used. In order to improve on the overview methodology, this study

incorporated a targeted and systematic approach to narrow the scope and quantity of literature reviewed.

To first identify studies for this review, information was collected from peer-reviewed and grey literature (e.g., journal articles, independent studies) and any other relevant scientific evidence that examined substance testing and the workplace. Searches were made using online journal databases (PubMed and PsycNet) and search engines (e.g., Google, Google Scholar). A wide selection of terms were used in order to capture as many studies as possible:

- employee, workplace, worker, occupation, random testing, drug testing, unannounced testing, substance use testing, substance abuse testing, substance abuse detection, working conditions, occupational safety, industrial accidents, occupational health, work related illnesses, working conditions, organizational climate, personnel, organizational behaviour, organizations, workplace intervention, job performance, and drug usage screening.

The targeted systematic approach included the identification and selection of studies based on the following criteria:

- In recognition of advances in technology and testing, as well as an attempt to capture studies that reflect more current legislation, the results of the data collected were narrowed to research conducted from 2002 onwards (i.e., last 15 years). The date was arbitrarily chosen but, as the majority of studies were from the United States (U.S.), this date ensured sufficient time following the implementation of legislated random substance testing for certain industry sectors that occurred prior to 2000. The implementation of mandatory random testing was likely to result in a large number of studies on the subject as well as generate further advances in technology.
- The title or abstract described the study as addressing one or more of the following: random testing, deterrence, injuries or accident rates, effectiveness and impact.
- The study examined only random testing that occurred during routine organization operations. For instance, testing pertaining to return-to-duty/work monitoring was excluded.
- The design of the study had to be described sufficiently in the study in order to be able to analyze the strength or quality of the findings.
- Literature reviews that examined the effectiveness of workplace testing in general were also specifically targeted as these were most likely to have conducted systematic reviews of a broad range of research and evaluated the methods and strength of the findings.
- In order to help reduce any errors or omissions from conducting a brief and quick overview, the literature reviews served as a second check against the data to identify any potential studies missing from this overview, and to compare quality of the methods used by the identified studies.

A search of the journal databases resulted in 3,124 articles and results from Google Scholar produced an additional 13 studies. Studies were screened out for duplicates or if they were clearly outside of the scope of the overview (e.g., analyzed the effectiveness of urine tests), resulting in 150 articles, and then screened again for year of publication. Article titles and abstracts were first reviewed for content that indicated the study was a literature review of other relevant studies, as well as reviewed for any relevant articles in their references to check for studies that may have been missed through the database and Google searches. Three literature reviews and four individual studies met the targeted criteria.

Another objective of this review was to examine the potential impact of substance testing on workplaces. This included examining financial costs, legal and ethical considerations or workplace

culture and employee attitudes, among others. As the CNSC has already indicated its intention to pursue testing, it is assumed that effects such as financial costs and legislation have already been taken into consideration. Therefore, this current review focused on gathering only studies pertaining to the potential impact of testing on employee attitudes and implications for the workplace.

Limitations

There are several limitations to this brief summary, which must be considered when interpreting the results. First, as this investigation used a rapid approach to collect and analyze data, it was possible that some relevant studies were missed. The literature reviews were used to partially mitigate this issue by examining studies included in the reviews and identifying if any were missed. Second, the method adopted for this review did not use a full and detailed systematic approach to selecting and analyzing the findings. As such, the findings from this study may be weakened by the reduced scrutiny and indicators for observing for effectiveness. Finally, since older studies were excluded, it is possible that important or relevant data are not presented in the findings for this study. Again, the literature reviews served as a check for any potential unique or important findings discovered for earlier time periods.

6.3 Results

A total of three literature reviews and four individual studies (three in the U.S. and one in Portugal) were identified as meeting the inclusion criteria for this review (see Appendix F). The following summary provides an overview of the general characteristics of the studies with the relevant findings being discussed.

Literature Reviews

No literature reviews were found that examined the effectiveness of only random testing during routine organization operations. Rather, the reviews that were identified evaluated studies that conducted multiple types of testing (e.g., pre-employment, post-incident, site access) and not just random testing during routine operations. Nonetheless, some of the studies reviewed were specific to only random testing. Furthermore, the broader nature of the literature reviews provides an overview of the general context of substance testing. Examples of reviews excluded from this overview included those that examined drug analysis effectiveness (e.g., Cody, 1994) or pre-employment (e.g., Levine & Rennie, 2004).

Among the literature reviews (Cashman et al., 2009; Macdonald et al., 2010; Pidd & Roche, 2014), two used an established systematic approach to evaluate the design and findings of a broad range of studies, while authors of the third study developed their systematic approach. Cashman et al. (2009) applied a quantitative systematic Cochrane review, Macdonald et al. (2010) conducted a systematic review (Grant & Booth, 2009) that put a particular focus on studies with statistically (quantifiable) analyzed results and Pidd and Roche (2014) used the Effective Public Health Practice Project (EPHPP) qualitative assessment tool for quantitative studies. Each of the studies had inherent limitations, the most relevant to this overview being that Cashman et al. (2009) only investigated drivers in the transportation industry, the choice of specific evaluation tools by Cashman et al. (2009) and Pidd and Roche (2014) were both similar and therefore other assessment tools with different criteria may have produced different results and Macdonald et al. (2010) focused on a single drug and testing technique (i.e., cannabis and urinalysis). In total, Cashman et al. (2009) reviewed two studies (Spicer & Miller, 2005; Swena & Gaines Jr, 1999), Macdonald et al. (2010) did

not quantify the number of studies included in their review and Pidd and Roche (2014) reviewed six studies on deterrence and 17 related to reducing injuries or accidents.

For the purposes of this brief review, the most relevant finding consistent across all three literature reviews was that the methods and underlying methodologies used by the majority of studies reviewed were inherently weak and of poor quality (Cashman et al., 2009; Macdonald et al., 2010; Pidd & Roche, 2014). The authors reported that no studies conducted randomized control trials, which is considered one of the strongest methods for conducting a study because the approach generally examines data at the individual level (homogenous samples), includes a control group, controls for other variables (e.g., gender, age) and therefore results can often be used to establish causal relationships (Thiese, 2014). This means that effectiveness of substance testing, if any effect is detected, can be attributed to testing. In contrast, a large number of the studies reviewed were reported to be based on ecological designs. This particular method typically uses an observational approach that examines aggregate data (groups of individuals) connected by a common exposure characteristic (e.g., employed versus not employed, has undergone substance testing versus has not) collected from data sets (e.g., injury reports from organizations, national surveys) of which the results can generally only demonstrate correlations. In this case, without proper controls, it is not possible to conclude that any effects, if detected, are attributable to testing alone, only that they both occurred. Designs frequently reported in the literature reviews included ecological, pre- and post-test, cross-sectional, time-series and interrupted time-series studies. The reviews described various reasons for determining weakness of method and methodology in studies and examples of some are provided in Table 57.

Table 57: Selection of reasons given by authors of the literature reviews that describe the methodological issues found in the various studies reviewed.

Cashman et al. (2009)	Macdonald et al. (2010)	Pidd and Roche (2014)
• lack of a control group • quasi-experimental design • lack of pre-test measurements for comparison with post-test	• lack of a non-equivalent control group • studies not accounting for broader population trends (e.g., the overall decline of substance use in the U.S. population during study periods) • inability to differentiate from confounding variables such as presence of other safety measures (e.g., employee assistance programs (EAPs), structural improvements to worksites, mechanical improvements to equipment)	• lack of a control group • measurement of substance use at one point in time (cannot establish causal relationship) • selection bias • use of group data to explain individual behaviour • inability to differentiate from confounding variables such as safety programs • failure to report size of an effect (large or small) • small sample sizes • reliance on aggregate/ ecological data

After accounting for the quality of the study designs, the literature reviews reviewed the findings from the different studies. Among the two studies reviewed by Cashman et al. (2009), the first by Spicer and Miller (2005) examined the impact of a peer support program (PeerCare) in the transportation industry, which included various initiatives (e.g., training, workplace culture change, education) introduced over time (Spicer & Miller, 2005). Random drug testing was introduced three years after the PeerCare program began. Cashman et al. (2009) obtained the raw data and examined only the data related to testing (as opposed to the data reported on the PeerCare program). The results of the

analyses by Cashman et al. (2009) showed declines in injuries associated with random and reasonable cause testing in the short term, but not significant in the long term (see Table 58). In terms of drugs, there was a significant association between the increase in injuries and the introduction of random testing and then a significant decrease in injuries over time.

Table 58: Results of injury rates after the implementation of substance testing through a re-analysis of data collected by Spicer and Miller (2005)

Testing type	Injury rates immediately after testing (short term)	Injury rates over years (long term effect)
Random and reasonable cause alcohol testing	-1.25 injuries/100 person years	-0.28 injuries/100 person years
Random drug testing	+1.26 injuries/100 person years*	-0.19 injuries/100 person years*

*significant association
Data reproduced from Cashman et al. (2009).

The second study, Swena and Gaines Jr (1999), evaluated the frequency of fatal large truck accidents before and after the implementation of random drug testing for the transportation industry mandated by the U.S. federal government. Data were obtained from the Fatality Analysis Reporting System (FARS) database, managed by the National Highway Traffic Safety Administration (NHTSA), which records fatalities resulting from motor vehicle collisions. In their review, Cashman et al. (2009) reported that there was no immediate (short term) significant reduction in injuries associated with the introduction of random drug testing (-1.36 injuries/100 person years), but there was a significant association between the introduction of drug testing and long term injury rates (-.83 fatal accidents/100 million vehicle miles travelled per year).

Overall, Cashman et al. (2009) concluded that the results of the two studies did not provide enough evidence that random drug testing decreases injuries. The results in the short term were contradictory and the effect sizes in the long term were small. As such, the authors cannot advise for or against the use of substance testing.

Macdonald et al. (2010) did not assess each study individually, but rather provided generalized observations on effectiveness related to deterrence and related to reduction of injuries or accidents. Two of the studies reviewed pertaining to deterrence (Carpenter, 2007; French et al., 2004) are reviewed as part of the four individual studies identified by this review and are discussed in detail below. In general, Macdonald et al. (2010) reported that it was not possible to conclude whether substance testing was effective or not in deterring drug use based on study designs; however, the review pointed out that there is a large volume of research that generally suggests positive test rates decline for a proportion of employees with the implementation of random substance testing. Nonetheless, confounding variables exist and other factors may be producing or contributing to these results.

With respect to reducing injuries or accidents, Macdonald et al. (2010) found wide-ranging results between studies. Furthermore, the studies were a mixture of routine testing, pre-employment, post-incident and reasonable cause, and, as mentioned above, pertained to cannabis and urine analysis. For instance, the authors reported that some studies revealed little (non-significant) or no reductions in injuries or accidents, such as Wickizer, Kopjar, Franklin, and Joesch (2004), and other studies found significant reductions, such as a 51% reduction in injury rates (Gerber & Yacoubian Jr, 2002). The authors also warned of the limitations of the methods in the various studies, the most prominent being the presence of confounding variables, where several studies did not account for the implementation of broader safety measures and programs alongside the introduction of substance

testing. With respect to reducing injuries or accidents, Macdonald et al. (2010) concluded that there was not enough evidence to demonstrate that testing reduces injuries or accidents.

In the review conducted by Pidd and Roche (2014), they reported that only one study falling under reduction of injuries or accidents met the criteria of having strong methodology (Brady et al., 2009). This study is discussed below. The remaining 16 studies examining reduction rates were deemed a mixture of weak and poor study designs, and the six studies examining effectiveness as a deterrent were deemed weak. The studies used a variety of research designs but the majority that investigated deterrence analyzed results of national surveys and the majority that investigated injury or accident rates used either time series designs or cross-sectional survey designs. The studies examined various forms of testing (e.g., pre-employment, random, reasonable cause, post-incident testing) and three studies did not indicate what type of testing was investigated.

Among the studies which examined effects on deterrence, it was reported that all found associations between lower employee substance use and workplace testing (Pidd & Roche, 2014). Eleven of the 17 studies reviewed for injury or accident rates found an association between workplace testing and reduced rates, three reported no association, and three found mixed results. Overall, the authors of the literature review found that the study design for the majority of studies was weak and therefore the evidence to suggest a causal relationship between substance testing and deterrence or reduced injury or accident rates was poor.

Individual Studies

Four studies related to random substance testing were examined for this brief review: Brady et al. (2009); Carpenter (2007); French et al. (2004); Marques, Jesus, Olea, Vairinhos, and Jacinto (2014).

The study by Brady et al. (2009) examined the fatality rates of commercial truck drivers in the U.S. before and after the implementation of mandatory random alcohol testing. The study and its findings are described in greater detail below, in the section discussing the impact of random testing on the transportation industry. The study design was deemed robust, also confirmed through the literature review by Pidd and Roche (2014). The authors found that the implementation of random alcohol testing was effective in reducing fatalities due to collisions between commercial truck drivers and other vehicles.

The study by Carpenter (2007) examined the effect of substance testing in relation to deterring use of cannabis. The study conducted a cross-sectional analysis of data collected from the U.S. National Household Surveys on Drug Abuse (NHSDA) from 2000 to 2001 and from the 2002 National Survey on Drug Use and Health (NSDUH). The two databases collect self-reported data from U.S. citizens on a variety of health and substance use issues, as well as demographic data. The objective of the study was to determine associations between self-reported cannabis use or no use by those individuals employed in organizations that conduct testing (pre-employment, random, post-incident and reasonable cause), organizations that do not conduct testing and those in organizations that have substance use policies and programs (e.g., education, training) but do not conduct testing. Also included were outcome variables that compared organizations that immediately terminated employees for a positive test result to those that offered other options.

Data pertaining to respondents' self-reported use of cannabis within the past month were compared with the different types of employment workplace substance use practices (described above). The study method was weaker and could not determine causal effects (only correlations), could not differentiate between different types of policies and programs used, and could not eliminate all confounding variables. Nonetheless, the study attempted to account for organizations that used

other substance use strategies, which are often considered one of the more prevalent confounding variables.

The study determined that there was an association between workplace testing for cannabis and respondent's substance use. Specifically, Carpenter (2007) found that the likelihood of cannabis use was significantly lower among respondents who were employed in organizations that conduct both pre-employment and random testing combined. The study also found the likelihood of cannabis use was significantly lower in organizations that had an official policy, education or EAP pertaining to substance use in place but no testing.

In the next study, French et al. (2004) examined the deterrent effect of substance testing among those who used a substance within the past year and those who used substances at least once a weak (chronic). A cross-sectional study of data from the 1997 and 1998 NHSDA were analyzed to determine associations between self-reported substance use among those who used weekly, yearly or not at all and were employed with organizations that do not conduct testing and those that conduct pre-employment, random, reasonable cause or any testing. As the study used a similar design and dataset as Carpenter (2007), it was subject to similar study design issues, and is thus a weaker study.

French et al. (2004) found a significant association between those who reported no use of substances within the past year (in comparison to those with use in the past year or weekly) and pre-employment, random or any type of testing. Differences were not significant between respondents who worked for organizations that conducted reasonable cause testing.

In a more recent study, Marques et al. (2014) examined the impact of substance testing on the rate of injuries or accidents, after undergoing a test, in a large railroad transportation company in Portugal. Data pertaining to accidents, alcohol and drug tests and biographical and occupational records were mined and 1,589 work accidents analyzed between 2003 and 2009. The dataset contained information on 31,123 alcohol and drug tests. The study also attempted to determine the optimal frequency of testing in order to balance costs of testing with the best rate or injury or accident reduction.

The study design used an ecological approach by conducting a review of the data and records collected and maintained by the railroad company. Employees were randomly selected at unannounced times and places for substance testing through a computer-generated process. A control group was established using individuals not selected for random testing during the period of analysis. The study attempted to control for exposure and bias by only including employees present during the entire study period and classifying them into three groups based on similarities between various occupational criteria within the organization (e.g., similar job types, similar risks). Relative to the above previous studies, the method used in this study was somewhat stronger; however, could not establish fully homogenous groups, eliminate all confounding variables, low testing frequency among workers tested, and could not differentiate between testing for just alcohol and testing for alcohol and drugs.

Marques et al. (2014) took a different approach to examining effectiveness and compared accident and injury rates between those never tested for substances and accident and injury rates among those who had undergone at least one random and unannounced substance test. They found that employees who had undergone substance testing had significantly lower accident rates in comparison to employees who had not yet undergone substance testing. The effect size was calculated as moderate to strong and varied depending on the occupation group. It was also found that an optimal frequency for testing existed before injuries or accidents began to increase again, and this varied depending on the group.

Random Alcohol and Drug Testing in the Transportation Context

Examples of random alcohol and drug testing can be found in both commercial transportation and general driver populations. For example, the state of Victoria in Australia introduced random breath testing for all drivers in 1976. Over the subsequent twelve years, other states adopted the practice. Random drug testing has been a more recent addition. In the U.S., random drug and alcohol testing for transportation employees in safety sensitive positions was implemented in 1995. Although both involve the testing of motor vehicle operators, the situations are very distinct.

Random alcohol testing in Australia was implemented in response to the large number of serious road crashes involving a drinking driver. The strategy was based on principles of deterrence theory (see above). Essentially, it was posited that increasing the perceived (and actual) risk of detection would reduce the likelihood that drivers would operate a vehicle after consuming alcohol. Although the application of random breath testing (RBT) in Australia varies somewhat by state, the general approach typically involves highly visible, large-scale police checkpoints that are conducted at unpredictable times and locations. These checkpoints are conducted throughout the year. Every driver stopped is required to provide a breath sample. Every year, police throughout Australia conduct millions of breath tests. The ratio of breath tests to licensed drivers can be as high as 1:1, indicating that a driver can expect to be breath tested once every year.

Several studies have examined the impact of RBT in Australia (Matthew Baldock, Wundersitz, & McLean, 2007; Ferris, Devaney, Sparkes-Carroll, & Davis, 2015; Ferris et al., 2013; Henstridge, Homel, & Mackay, 1997; Moloney, 1995; Peek-Asa, 1999). These studies examine data from various states, use a variety of research designs and employ various statistical techniques to examine rates of drink-driving and alcohol-involved crashes. Regardless of the approach, the results typically reveal substantial reductions in alcohol use by drivers and unprecedented decreases in alcohol-involved fatal crashes. Other factors such as publicity, education programs, rehabilitation programs, lower alcohol limits and enhanced sanctions undoubtedly contributed to these changes.

In December 2003, the state of Victoria was the first to expand the random alcohol testing program to include drugs. Using point-of-contact oral fluid drug screening devices, the police began testing drivers for the presence of cannabis and methamphetamine. MDMA (3,4-methylenedioxymethamphetamine; i.e., ecstasy) was added to the drug screen in September 2006. The random drug testing program was modelled on the random breath test model; however, the significantly greater cost associated with drug screening dictated that flexibility to apply the program should be determined at an operational level, targeting areas with a known high incidence of drug use, the commercial transport industry and drug user groups associated with electronic dance music environment (Boorman, 2007). In essence, not every driver could be tested for drugs so it was necessary that the program target high-risk groups.

Evaluations of random drug screening in Australia have focused on enforcement and detection rather than the incidence of drug driving and drug-involved crashes (M. Baldock & Woolley, 2013). This can be attributed, in part, to the fact that drivers involved in serious and fatal crashes are not routinely tested for the presence of drugs. The results of drug screening varied somewhat by state, but was typically between 2-5% of all tests conducted being positive for one of the targeted substances. It was noted that drug drivers detected through traditional enforcement (i.e., those exhibiting signs and symptoms of drug use) were more likely than those detected through random drug testing to be using different types of drugs, to be older, unemployed, unlicensed and to have a criminal history. Cleary, both methods of enforcement were necessary to identify the varied populations of drug drivers.

Mandatory alcohol and drug testing (without cause or suspicion) is also conducted in many countries throughout Europe and Scandinavia. Although testing might not be as frequent as in Australia, the police can generally require a driver to provide a breath or oral fluid sample at any time, without cause or suspicion. The practice has become accepted by the public as a means to help keep the roads safe.

Following a series of high-profile incidents in the transportation industry related to the use of drugs, the U.S. Congress passed the Omnibus Transportation Employee Testing Act of 1991. This bill outlined the framework for a system of random alcohol and drug testing for employees in the transportation industry in safety sensitive positions. Over the years, as the proportion of positive tests has fallen, the percentage of employees that are to be tested has been reduced. In 2016, the minimum annual percentage testing rate for controlled substances was lowered from 50% to 25% of the average number of driver positions. The testing rate for alcohol remained at 10%.

Alcohol involvement in fatal multivehicle crashes of motor carriers and non-motor carriers over the years 1982 through 2006 was examined by Brady et al. (2009) as a way to assess the impact of the introduction of mandatory alcohol testing of motor carriers in 1995. Using data from the FARS, the researchers identified a total of 69,295 motor carrier and 83,436 non-motor carrier drivers who were involved in 66,138 crashes in which two or more vehicles were involved and at least one person was fatally injured. The sample excluded 15,743 single motor carrier fatal crashes and 1,658 cases involving multiple motor carriers but no other vehicle.

A logistic regression model was constructed to assess the effectiveness of mandatory alcohol testing in reducing the risk of alcohol involvement in fatal crashes by motor carriers. The design of the study was quasi-experimental and used matched pairs (commercial truck drivers with non-commercial, personal drivers) based on tempo-spatial characteristics (e.g., they were matched based on corresponding year, month, day of the week, time of day of the crash, geographic region, US state, location, road conditions, weather conditions). The design accounted for potential confounding factors such as driver age, sex, history of impaired driving, and survival status in the crash. These and other aspects of the study made it more robust, which was also noted by the literature reviews that included this study (Pidd & Roche, 2014). Over the years examined, alcohol involvement in fatal motor carrier crashes decreased by 80%; non-motor carrier alcohol involvement declined by 41%. Overall, the study found that mandatory alcohol testing was associated with a 23% reduced risk of alcohol involvement in fatal motor carrier crashes.

Impact of Testing: Employee Attitudes

Beyond examining the effectiveness of workplace substance testing on deterrence and injuries or accidents, testing may have other implications for the workplace. Implications may include financial costs, ethical issues, legal issues, workplace culture and employee attitudes all may be affected by the implementation of testing. As stated above, this brief will examine the potential impact on employee attitudes.

Employee attitudes towards, and perceptions of, their jobs and employers can be affected in a number of ways that could be problematic for the organization, especially if implementation of a testing program is not well designed or managed. For instance, one study found that employee commitment to the organization and trust in management were dependent upon whether or not the testing procedure was perceived as fair, more so than for instance, whether or not the test result was perceived as fair (Konovsky & Cropanzano, 1991). Perceptions of unfairness may lead to low employee morale, higher employee turnover or poorer work performance.

Organizations that implement testing, particularly pre-employment and random testing, may find a potentially reduced pool of qualified employees (Christie, 2015). Potential employees who use substances may self-select out of applying to organizations. Although this may be the goal of some organizations, the effect may also deter good candidates who only use substances occasionally or previously from applying (French et al., 2004; Pidd & Roche, 2014).

Organization response to positive test results can also affect existing employee attitudes. The choice to use strong punitive measures (e.g., immediate termination) may negatively affect employee attitudes. In contrast, supportive measures (e.g., education, treatment programs) may lower absenteeism and improve morale (Kraus, 2001). Organizations may also find underreporting of minor injuries, accidents or near misses due to employees avoiding punitive measures, which counters the purpose for substance testing (Cashman et al., 2009).

6.4 Section Summary

This brief review was conducted to examine the literature concerning effectiveness and impact of workplace substance testing to deter use or reduce injuries or accidents. Due to time constraints, a targeted systematic overview method was used in order to provide the most current and relevant findings in an efficient and timely manner.

The results of this summary revealed that it is not possible at this time to conclude that workplace substance testing is effective at deterring or reducing injuries or accidents. Methods used by the majority of studies were weak and had a variety of methodological issues. The more common limitations observed were the use of ecological study designs, inability to establish causal effects, inability to eliminate confounding factors that could be contributing to effects (e.g., other safety measures or substance use programs) and lack of a control group. These methodological limitations and the conclusion that, due to these limits, it is not possible to state that substance testing is effective based on current research was consistent across the literature reviews. Some of the individual studies also reached this conclusion and earlier research has also concluded an inability to confirm the effectiveness of workplace testing (Kraus, 2001). Although randomized control trials would be one of the strongest methods to determine a causal relationship between the implementation of testing and effectiveness, it is very difficult to conduct such studies in workplace environments. Nonetheless, other issues related to methods can be eliminated to help improve the quality and applicability of findings. Beyond the use of randomized control trials, some studies used other appropriate alternative designs and rigour, such as matched pairs and highly controlled variables (e.g., tempo-spatial pairing) used by Brady et al. (2009). Future studies will need to consider more precise and rigorous designs in order to make more firm conclusions about effectiveness.

Since the majority of studies have used weak or poor quality methods to test for effectiveness, "...one is not permitted to conclude that random drug testing does not work; the proper conclusion is that there is an absence of evidence" (Christie, 2015). Additionally, most of the reviewed studies noted correlations between the presence of substance testing and lower positive tests by employees and reduced injuries or accidents. Several of these correlations were found to be significant. It is therefore possible that substance testing may be contributing some form of effect on deterrence and injury or accident reduction. This may be more evident by examining one of the higher quality design studies. For instance, Brady et al. (2009) found that the implementation of random testing in the transportation industry was associated with a 23% reduction in fatal collisions.

An interesting finding by Carpenter (2007) was that employees working in organizations which had other safety measures, policies and programs in place, but did not conduct testing, were also

significantly more likely to report lower cannabis use. This suggests that other factors (e.g., policies, education and EAPs) may help contribute to deterrence. Environments that discourage substance use and provide support for those affected by this disability may contribute to an overall better workplace culture (Pidd & Roche, 2014). As such, any potential effectiveness of substance testing may be improved upon by introducing an entire, well-balanced comprehensive program around substance use affecting the workplace. More research in the area of comprehensive workplace policies and programs is required.

Workplace substance testing can have other impacts on organizations, including increased financial costs or challenges in meeting ethical and legal requirements. Of potential interest to this review is the impact on employee attitudes. Poor implementation of substance testing and, in particular, testing policies and practices perceived as unfair, can have a detrimental effect on employee commitment to the organization or work performance. Testing may also result in potential job candidates self-selecting out of applying to organizations who use testing. On the one hand, this may mean that job candidates affected by substance use issues may work more predominately for organizations without testing, which could have implications for those organizations (French et al., 2004). On the other hand, testing organizations may be losing out on candidates with good credentials who may use substances occasionally or used substances more frequently in the past and so choose not to apply at these organizations. All of these impacts suggest that organizations need to consider a broader range of implications with substance testing since they may counter or diminish any potential anticipated benefits from testing.

Finally, it is important to keep in mind that the findings of this review are almost entirely based on studies conducted in the U.S.. There are important legal and cultural differences between the Canadian and American work contexts (Christie, 2015; Keay et al., 2010), which means that the results observed in the U.S. studies may not have the same effects or result in different implications for Canadian organizations. Studies on the Canadian context of testing in the workplace are generally absent and more are needed to better understand the implications in Canada.

7 Report Summary and Discussion

In an effort by the CNSC to better understand the current context of substance use workplace policies and practices, and to be proactive in responding to substance use affecting the workplace, this report was prepared to address five areas of interest to the CNSC about substance use: the context of workplace policies among select safety-sensitive sectors; prevalence rates of substance use in Ontario, New Brunswick, Canada and select regions of Ontario; health professionals and their role in monitoring and evaluating substance use; the potential impact of the legalization and regulation of cannabis on the workplace; and the effectiveness and impact of workplace substance testing (a brief review of the literature).

Context of Workplace Policies: Environmental Scan, National Survey and Key Informant Interviews

To better understand the context of workplace policies and best practices among Canadian safety-sensitive industries, an environmental scan, national survey and key informant interviews were conducted across six industries of interest to the CNSC. The results of the environmental scan revealed that policies addressing substance use in six safety-sensitive sectors (aviation, marine, rail, oil and gas, construction, and law enforcement) appeared to be highly developed among large organizations in most sectors, but less so or completely absent among smaller organizations. The limited presence of policies among some organizations, however, may be due to the documents not being publicly available. Amid the policies that were available, some of the strongest policies included comprehensive elements such as testing, monitoring, evaluation, treatment, employee support services (e.g., EFAPs), guides, training, and tools, and resources as well as other items. Of potential interest to the CNSC may be the policies in the rail, oil and gas, and construction sectors, which provide details regarding evaluation and testing.

Similarly, some organizations within these industries have developed their policies from their experiences with unions and legal actions; which has likely helped shape and tighten their policies. Other important observations included the minimal or absent policies among marine and law enforcement, the impact that unions have had on the development and implementation of policies, and the reliance on blanket government regulations/other organization policies by some organizations.

A total of 87 individuals who represented the six select safety-sensitive industries responded to the national survey. The majority of respondents operated only in Canada, two-thirds were unionized, and the number of employees were distributed relatively equally among small, medium and large organizations. Encouragingly, the results of the survey revealed that most of the select safety-sensitive organizations surveyed had substance use policies, most appeared to be comprehensive in nature and the policies appeared to focus on employee health and safety (e.g., refer employees for assessment, provide support programs and rely on addiction specialists such as SAPs/SAEs for monitoring and evaluation). Although it was not possible to independently determine the effectiveness of workplace substance use policies, among those respondents that reported their organization evaluated their policies (38), most reported that policies were effective in addressing alcohol and illegal drug use.

However, respondents also reported that organization policies had a number of weaknesses. Many policies did not involve consultation or evaluation from employees and did not provide guidelines or information for treatment and support; many relied on employees to self-report issues; and one-quarter of respondents indicated that employees could be dismissed or terminated due to non-

compliance with policies during the return-to-work period. Importantly, most organizations do not appear to evaluate the effectiveness of their policies, particularly against important indicators such as reduced substance use, reduced absenteeism or increased productivity.

The majority of respondents indicated they were concerned or very concerned about the legalization and regulation of cannabis in Canada, which suggests more information is needed to help prepare employers to deal with the potential impact of medical and recreational cannabis on the workplace.

In most cases, results similar to the survey were found among key informant interviews; however, the interviews allowed for the collection of additional details and potential explanations related to the development and implementation of workplace substance use policies. Almost all of the informants reported having comprehensive policies that addressed multiple areas of substance use issues including education, treatment and support options and some form of return-to-duty/work programs. Two informants, however, indicated that employees were terminated if substance use was detected and some informants reported that, due to unions handling aspects such as treatment and support, their policies and practices were more limited than other organizations. Generally speaking, most organizations represented by key informants employed a team of people to address substance use issues, including medical professionals, lawyers, human resource personnel and others; however, most treatment and evaluation of employees was handled by an external SAP/SAE or equivalent.

Legal barriers experienced by key informants included the changing scope of legal decisions, where policies and practices were frequently challenged and amended in courts; the issue of ongoing random testing, where safety must be balanced with human rights; and the lack of a national unified legal framework to address substance use, where different jurisdictions have varying criteria and ambiguity in the meaning of various terms. Given the CNSC's interest the use of ongoing random testing, the one key informant that represented an organization which used this type of testing (not subject to U.S. DOT regulations) explained that it was necessary to create a very specific and narrow definition of safety-sensitive positions in order to meet the legal requirements.

Some important observations from the interviews were the lessons learned and the subsequent recommended best practices. A number of key informants stated that employee commitment to their own recovery and to treatment programs was the biggest factor in the success of reducing substance use issues. Achieving this success may be linked to best practices concerning workplace culture. Several informants indicated the importance of a workplace culture that sets out clear expectations that impairment from substance use will not be tolerated; however, that the organization is a trusted environment that will support employees affected by substance use issues. Other important best practices included creating a comprehensive, well-developed policy informed by legal and regulatory requirements, involvement of other stakeholders (e.g., unions, professional associations) and the education of employees about policies and their obligations.

Overall, the environmental scan, survey and key informant interviews provided a strong overview of the context and nature of substance use policies and practices across the selected safety-sensitive industries. In particular, the key informant interviews provided additional insights into gaps, decision-making, lessons learned and best practices related to workplace substance use issues. Further research would augment and broaden these initial findings.

Prevalence of Substance Use: Ontario, New Brunswick, Canada and Select Regions of Ontario

Analyses of CTADS prevalence data from Ontario, New Brunswick (i.e., areas where nuclear facilities exist) and Canada suggests that rates of use for certain substances among some groups of people

may be of interest to the CNSC and its employees. Alcohol, for instance, continues to be the most commonly used substance in Canada across all age groups, and cannabis use across Canada has increased. Cannabis use was higher in Ontario than New Brunswick and predominately used by young male adults. Although use of pain medications and sedatives was found to be lower than alcohol, use generally increased with age and was more prevalent among females in some age groups.

CAMH-M data, which collects data across Ontario, revealed similar findings to that of the CTADS data. Alcohol use was highest among adults aged 35 to 54 and heavy drinking most common among those aged 18 to 34. Prescription opioids and cannabis use was also found to be the second and third most commonly used and therefore a potential for concern.

Results of the 2012 CCHS revealed that substance abuse or dependence is most prevalent among Canadians aged 15 to 24. Substance abuse or dependence rates generally declined as people aged. Overall, the majority of results did not differ significantly between regions. Other demographic characteristics were not explored at the time of writing this report (e.g., gender), which may provide additional details and insights into abuse and dependence.

The above findings could have implications for CNSC if its workforce comprises a substantial number of individuals with these population characteristics. In contrast, the lower prevalence rates for cannabis use among adults aged 25 years and over may mean cannabis could be less of a concern if the primary age group of employees at the CNSC is over this age. However, the legalization of cannabis as experienced in Colorado might alter the impact on this age group as discussed below. Although more research specific to substance use among employees of safety-sensitive industries needs to be conducted, prevalence rates of the general population suggest there is potential for cannabis use among at least some employees. The physical and cognitive effects of cannabis (e.g., impaired motor control, coordination and decision-making; deficits in attention, memory and learning; or impaired executive functioning skills including completing complex tasks) could pose risks to safety if an employee is impaired by the drug, whether used for medical or recreational purposes.

Beyond cannabis, the CNSC may also wish to explore the potential impact of other substances on their workplace, particularly alcohol, but also opioids and sedatives. With respect to opioids, Canada is the world's second largest per capita consumer of prescription opioids (National Advisory Committee on Prescription Drug Misuse, 2013) and the CNSC may wish to further examine the potential impact of this substance due to the relatively recent rapid rise of opioid-related overdoses and deaths across Canada. Both use of illegal and psychoactive prescription drugs have risen and the related deaths are largely attributable to fentanyl (an opioid), which is 50 to 100 times more potent than morphine (Canadian Centre on Substance Use and Addiction (CCSA), 2017; National Advisory Committee on Prescription Drug Misuse, 2013). Whether opioids are used non-medically or as prescribed, their impairing effects include drowsiness, sedation and droopy eyelids, similar to sleeping; while other effects can also include inability to concentrate (Canadian Centre on Substance Use and Addiction (CCSA), 2015c). As such, impairment by opioids is not just a concern among those affected by substance use issues but also among those Canadians who use prescription opioids to manage health issues, which may include some employees in safety-sensitive industries.

Potential Implications of Cannabis Legalization and Regulation

The potential implications of cannabis legalization and regulation were examined in three contexts: the effects of cannabis on employees and the workplace; experience and evidence from other jurisdictions; and, the legal context and fitness for duty. Potential implications will be shaped by a

number of factors. Cannabis may produce varying acute and chronic effects on an individual's mental, physical and emotional state. For employees, this has the potential to negatively impact their work performance and the safety of others and themselves. Initial experiences from Colorado and Washington, which have recently legalized cannabis, have revealed a mixture of findings. One finding that may be of potential interest to the CNSC was the reported increased use among adults aged 25 and older. This demographic is likely to comprise the majority of the employees of Canada's high security nuclear facilities. However, caution is warranted when considering this result as more investigation is needed to determine what contributed to a noticeable change among this particular demographic (e.g., it may be unique to Colorado). Another finding of potential interest to the CNSC was that cannabis use among drivers, in contrast to alcohol-impaired driving, was higher during daytime hours. This coincides with the typical operational hours of most organizations, which may have an impact on transportation operations and daytime organization operations in general.

There is also mixed evidence that social norms related to cannabis are changing, with more evidence suggesting that there is increased acceptance of cannabis use among people in general. Of concern, however, is that perceptions regarding the potential harms of cannabis are decreasing. This finding suggests the need for a strategic, evidence-informed approach to public education about the risks and harms associated with cannabis use in order to mitigate these risks following legalization and regulation. Employers, such as CNSC, may wish to consider this option as a potential preventative measure to improving workplace safety and supporting employee well-being.

The exploration of the legal context revealed that there have been mixed outcomes to legal cases where decisions have moved between the rights of the individual versus the safe operation of an organization. In particular, the evidentiary process has been onerous for employers. In some case implementing preventative programs has had the unintended consequence of limiting the ability of employers to demonstrate proof of substance use problems when, for instances, an employer wishes to implement random drug testing. More recent court cases have resulted in changes to this outcome, such as with the TTC and in cases where employers have developed sound policies and practices that can be upheld during a grievance.

An important issue related to screening for substances is that most testing can only demonstrate the presence of drugs and not the level of impairment, which can differ from one individual to the next. This may produce additional considerations for employers when developing policies which could result in grievances that call into question whether or not an employee was impaired. Cannabis poses an important challenge in this area as the substance can remain in the blood stream long after initial use. Also of note is the development of a two-tiered system in the workplace that results in some employees receiving support and treatment and others receiving disciplinary action. Further exploration of this issue is required as well as the potential implications for both employers and employees.

Health Professionals and Their Role in Monitoring and Evaluating Substance Use

Addiction experts play an important role in the monitoring and evaluation of employees with respect to substance use issues affecting the workplace. They can be involved at various levels of policy development and implementation including assessing individuals, providing prognoses or making return-to-work recommendations. Professionals who support employers and employees in this role should not only have expertise in substance use and addiction, but also be able to provide clear, current and credible medical information about employees affected by substance use. This requirement is important not only for the benefit of the employee to help address an issue, but also for the employer to effectively respond to workplace substance use issues and, if a grievance is

brought against an employer, the extent to which the employer will be able to defend decisions made will be based on the expert recommendations of the professional.

SAPs/SAEs are one such professional who can fill the role of an addiction specialist for organizations. However, these individuals are not regulated in Canada and other professionals, such as medical doctors or psychiatrists, might be called upon to meet legal requirements, especially if a workplace issue becomes a grievance for arbitration or the court. Regardless of who is engaged in the legal context, professionals can disagree regarding the assessment, treatment, prognosis or fitness for duty of an employee. This potential for disagreement means that employers will need to ensure professionals are duly qualified to perform their role.

The implications of these findings suggest that all employers, including the CNSC, require the engagement of highly qualified addiction experts in the development and implementation of their workplace substance use policies and practices, particularly in terms of initial assessment, ongoing evaluation and return-to-work monitoring. Although it appears that many SAPs/SAEs (who have been thoroughly qualified and vetted) are well placed to perform this role, within the legal context, courts are more likely to rely on the testimony of certified medical professionals such as doctors or psychiatrists. As SAPs/SAEs are currently unregulated in Canada, are not subjected to a consistent set of standards and best practices across the country, and the context of their work can vary widely, it is difficult to provide recommendations on how to control for differences in professional practices. The regulation of SAPs/SAEs has been an ongoing area of interest and discussion for a number of organizations, particularly in the substance use and mental health fields, and more work is needed in this area. Equally important is the need to be aware of and prepared for the likelihood of differing medical opinions, which might not be revealed until proceedings during an arbitration or court case.

Effectiveness and Impact of Workplace Substance Testing

The results of brief review of the literature on workplace substance testing revealed that it is not possible at this time to conclude that testing is effective at deterring or reducing injuries or accidents. Methods used by the majority of studies were weak and had a variety of methodological issues. The more common limitations observed were the use of ecological study designs, inability to establish causal effects, inability to eliminate confounding factors that could be contributing to effects (e.g., other safety measures or substance use programs) and lack of a control group. Despite the inability to make conclusions, most of the reviewed studies noted correlations between the presence of substance testing and lower positive tests by employees and reduced injuries or accidents. Several of these correlations were found to be significant. It is therefore possible that substance testing may be contributing some form of effect on deterrence and injury or accident reduction. What all of this suggests is that although some correlations appear to exist, more robust studies are needed in order to make accurate conclusions about effectiveness of testing and the magnitude of the effect. As such, employers considering substance testing will need to determine what objectives

While the research does not support or dispute testing, there appears to be some evidence that a combination of factors may contribute to reduced substance use affecting the workplace. Substance testing as part of the broader package of comprehensive policies and well-developed practices that address multiple areas of substance use (e.g., education, treatment, accommodation, etc.) together are likely to have a better impact on the workplace. Evidence of this was seen while examining the impact on employee attitudes and more broadly workplace culture. For instance, policies on substance testing need to be perceived as fair by employees. The implication for CNSC and other organizations is that implementing substance testing in isolation of other activities may prove

counterproductive and requires considering implementation and guidance from broader policies and best practices.

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9 Appendices

9.1 Appendix A: Organizations Reviewed for the Environmental Scan

Table 59 lists the organizations reviewed for the environmental scan based on six sectors of interests to CNSC: aviation, marine, rail, oil and gas, construction, and law enforcement.[36] The information presented includes the industry sector; whether the organization operates only in Canada (CAN) or internationally (INT); if the organization is subject to US DOT regulations (where possible to determine); key text or policy wording; related documents; key components of policy; and any other information. With respect to key components of policies, documents were reviewed to determine if they discussed or addressed the following:

- alcohol and drug, alcohol only, drug only;
- evaluation, testing (e.g., random, monthly);
- treatment;
- measures/cut-offs/limits (i.e., what are an organization's limits for being under the influence, such as 0.03 for alcohol);
- detection (i.e., how the organization determines employees may have a problem);
- fitness for duty/work;
- monitoring;
- position specific (i.e., describes rules for certain positions);
- support/health services;
- consequences/discipline/termination;
- who is responsible for testing/monitoring: substance use professional (SAP), substance use expert (SAE), nurse, doctor; and
- other key words/components as revealed during the scan.

[36] The names of the organizations have been made anonymous for several reasons. It is a common research practice to make individuals, groups, organizations, etc. anonymous in order to promote confidentiality. In this particular study, the objective was to obtain a picture of the workplace policy environment and not to critique any one organization. It was also not possible to obtain policies from all organizations and, therefore, in some cases analyses was limited to other sources, which may not have provided the full context.

Table 59: Organizations reviewed for environmental scan across six safety-sensitive sectors: aviation, marine, rail, oil and gas, construction, and law enforcement

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
Aviation 1	INT	Unsure - no mention of US standards/ regulations	**Code of Conduct** • The Company is committed to maintaining a drug-free and alcohol-free workplace. Drinking alcoholic beverages is prohibited while on duty or on the premises of the Company, except at specified Company-sanctioned events. Possessing, using, selling or offering illegal drugs and other controlled substances is prohibited in all circumstances while on duty or on the premises of the Company. Smoking (including the use of e-cigarettes) in the workplace, except in designated areas, is also prohibited. Likewise, employees are prohibited from reporting to work under the influence of alcohol or any illegal drug or controlled substance. Such policy is essential to the Company as many of its employees hold safety sensitive positions.	Code of conduct refers to a specific "Substance Abuse Policy" (not publicly available).	Fitness for duty, alcohol, illegal drugs, location, illegal activities	
Aviation 2	INT	Unsure - no mention of US standards/ regulations	**Code of Conduct** • You are expected to report to work fit for duty and to remain fit for duty, free of any negative impacts of alcohol or other drug use. You cannot use, possess, distribute, sell or consume illegal drugs or alcoholic	Code of Conduct refers to an Alcohol and Drug Policy, which was not publicly available.	Fitness for duty, alcohol, illegal drugs, insurance, EFAP, self-disclosure, treatment program, testing, support, reported by co-worker	

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			beverages while working on or off [company] premises or in [company] aircraft or other equipment. Every [employee] must read and be aware of the Alcohol and Drug Policy and you are expected to: ○ Participate in the testing program when required to do so, as outlined in the Alcohol and Drug Procedure; ○ Ask for advice and follow appropriate treatment if you have a problem with drugs or alcohol. ○ Remember that [the company] also has an employee and family assistance program (EFAP) to support and assist you; ○ Encourage co-workers to seek assistance before an alcohol or drug problem impacts safety and job performance; and ○ Report any fellow [employee], partner or vendor who appears to be impaired by drugs or alcohol as soon as you can to your leader. Don't endanger our guests and fellow [employees] by assuming someone else will take care of it.	Corporate Social Responsibility Report - mentions that the Employee and Family Assistance program (EFAP) provides help to employees with issues related to drug or alcohol misuse		
Aviation 3	CAN	Unsure - no mention of US standards/ regulations	**Code of Business Conduct** Includes a section on preventing substance use which states: Our ability to perform our jobs well requires that we work in a professional manner free from the influence of alcohol or drugs. The	Code of Conduct mentions a Drug and Alcohol Policy, which is not publicly available.	Fitness for duty, alcohol, illegal drugs, prescription drugs, consequences/ discipline, position specific, support services	Wellness Programs are available to assist employees needing support with problems

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			use, sale, unlawful possession, manufacture or distribution of controlled or illicit substances is strictly prohibited. It is also strictly prohibited to be on duty, to be in control of a [company] vehicle or to be operating equipment while under the influence of alcohol or drugs, including the aftereffects of such use. You should not report to, return to, or remain at work while under the influence of alcohol or any illicit substance (including the after-effects of use). The use or presence in the body of these substances while on the job or on company business on or off the premises is prohibited. Similarly, alcohol should not be consumed on [company] property unless sanctioned by senior management for the purpose of official functions or events. Under no circumstances will alcohol or illicit substances be consumed in [company] vehicles. The abuse of over-the-counter or prescription drugs is also prohibited. You are responsible for knowing when their use: • might impair your ability on the job; • might endanger the safety of others in the workplace; or • is inconsistent with its intended or medically-prescribed purpose. [company's] Drug & Alcohol Policy sets out expectations and aims to eliminate the risk of impaired performance due to illegal, illicit or inappropriate substance use. [Company] is committed to helping any employee who may have a problem related to alcohol or			related to alcohol or drugs

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			drugs. Employees who require support are encouraged to seek assistance and can refer to the Wellness Programs for assistance. However, violations of the Drug & Alcohol Policy are grounds for disciplinary action up to and including termination of employment for just cause. Because of the greater risk involved in performing certain functions, some positions have been designated "safety sensitive" and individuals holding these positons will be expected to meet additional standards as outlined in the Policy.			
Aviation 4	CAN	N/A	**Discussed position on alcohol and drugs, no policy found.** Admissions information Admission into flight training programs generally requires Transport Canada Category 1 Aviation Medical Certificate Civil Aviation Medical Examination Report Requires examiner to report on patients' past treatment for alcohol and substance use	Transport Canada: Assessing medical fitness of pilots and air traffic controllers Transport Canada SSRI Specifies that: "At the present time, all new applicants, current aviators and air traffic controllers using mood-altering medications, will initially be refused certification or have their medical certification suspended until the circumstances	Alcohol and drugs, pre-enrollment substance use assessment	In general, aviation training institutions such as this one appear to require a Transport Canada Medical Examination with a physician designated by Transport Canada Aviation Medical Advisors. If drug and alcohol policies exist for students once they are admitted, they are not generally publicly available.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
				of the case are reviewed."		

Aviation 5	CAN	N/A	**Discussed position on alcohol and drugs, no policy found.**
			Degree in Aviation Technology:
			• Individuals who are offered admission must:
			  • Pass a medical exam administered by a designated Transport Canada Aviation Medical Examiner; students must meet Transport Canada's Physical and Mental Requirements Category 1.
			  • Pass a drug and alcohol test.
			Aviation Safety
			• Admissions requirements note that: "It is common practice for the Aviation Industry to require police criminal checks and drug testing on employment."
				See above links related to Transport Canada Aviation Medical	Alcohol and drugs, pre-enrollment substance use assessment and testing	Same note as Aviation 4

Marine 1	INT	Unsure - no mention of US standards/ regulations	**Drug & Alcohol Policy**		Fitness for work, alcohol, illegal drugs, zero tolerance, termination, social events, consequences	Brief policy with fairly broad statements and few details
Marine 2	CAN	Unsure - no mention of US	**Discussed position on alcohol and drugs, no policy found.**		Fitness for work, alcohol and drug	The company is just one of many members of the BC Maritime

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
		standards/ regulations	The company is a member of the BC Maritime Employers Association, which has the following alcohol and drug workplace policy: • No person shall enter or be permitted to remain in a workplace while his or her ability to work is affected by any substance which could endanger his or her health or safety or that of any other person. Additionally, no person shall enter or be permitted to remain in a workplace or industry associated facility while in possession of or using, making, selling or distributing a substance likely to have an effect on safety.			Employers Association; many other companies have also adopted this brief and basic alcohol and drugs policy.
Marine 3	CAN		**Code of Business Conduct and Ethics** • [The company] seeks to provide its employees with a substance-free environment. Employees must report to work free from the presence of prohibited drugs in their system and not under the influence of alcohol. Drug and alcohol use on the job is strictly prohibited. It is the individual's responsibility to abide by the drug and alcohol policy of his or her workplace, including drug or alcohol testing requirements where applicable.		Fitness for duty, alcohol and drugs, testing	The company requires pre-employment drug and alcohol testing for deckhand position, as well as physical examination by a medical examiner authorized and approved by Transport Canada

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
Marine 4	CAN		**Discussed position on alcohol and drugs, no policy found.** Safety Requirements for Contractors • Includes a Policy to Prevent Workplace Alcohol and Drug Problems	An outdated report on operations makes reference to the "Alcohol and Drug Abuse Policy," but this policy does not seem to be publicly available.	Fitness for duty, contractor, alcohol, illegal drugs, prescription drugs, illegal activity, suspension/removal consequences	
Rail 1	INT	Subject to US DOT and/or border regulations	**Alcohol & Drug Policy** Policy "applies to all Canadian-based [company employees] employees, as well as contractors, subsidiaries, tenants, and guests" Canadian-based employees who operate in the United States are subject to the rules and regulations governing cross-border operations. U.S.-based employees of [the company] are subject to the rules and regulations of that jurisdiction. **Policy Statement** All employees are required to report and remain fit for duty, free of the negative effects of alcohol and other drugs. It is strictly prohibited to be on duty or to be in control of a [the company] vehicle or equipment while under the influence of alcohol or other drugs, including the after-effects of such use. Specifically, the use, possession, presence in the body, distribution or sale of illegal drugs while on duty (including during breaks), on or off	**Rule G and Rule G By Pass** This policy supplements but does not modify the General Safety Rule 1.1, Canadian Rail Operating Rules (C.R.O.R.) Rule G and the Union/Management Agreement on The Control of Drug and/or Alcohol Abuse. (Rule G By Pass). Nothing in this policy reduces the requirements of Rule G (given in the policy guidelines) or changes the provisions of the	Fitness for duty, contractors, other, alcohol, illegal drugs, prescription drugs, expectations, self-disclosure, insurance, co-workers, education, job-specific testing, reasonable cause testing, post-incident testing, medical review, monitoring, recognize disability, agreement, searches, hosting, refusal, referral, provides support, participate in a program, definitions, duty to accommodate, return to work/duty differentiation, confidential, suspension, non-compliance procedures, termination, SAP/SAE, return-to-work testing, alcohol testing,	Policy provides detailed guidelines. Describes standards and procedures for contractors and tenants. Has medical services which work with supervisors and staff on A&D issues. They make the decisions related to employee fitness for duty. Has its own police force that may be involved in investigations, administering

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			company premises, on company business, or on company premises including vehicles and equipment, is prohibited. Possession, distribution or sale of beverage alcohol, and the consumption of any form of alcohol, is prohibited while on duty (including during breaks), on company premises, including vehicles and equipment, off company premises, or on company business. Employees are expected to use over-the-counter or prescription medications responsibly. All employees, in particular those in safety sensitive positions or who can be in the control of a [the company] vehicle or equipment, are responsible for investigating whether the medication will affect safe operations. Employees are required to check with their own physician or pharmacist, report any concerns to [the company's] designated medical provider and abide by their recommendations to ensure safety. **Off-Duty Activities** In addition to the above, [the company] will investigate any situation where off-the-job activities involving alcohol or drugs (e.g. impaired driving convictions, conviction for trafficking, bootlegging, etc.) may have implications for the workplace and will take appropriate action.	Rule G By Pass agreement (summarized in the policy guidelines). Employees are eligible for only 1 Rule G By Pass in their career at CN. Union: Rule G By Pass Agreement states: "Employees who have consumed alcohol and/or drugs while subject to duty or while on duty will not be dismissed on the first occasion when the incident is reported by a co-worker to management." [The company] acknowledges Transport Canada guidelines for rail operations (i.e., Rule G). TC's railway guidelines only refer to drugs and not alcohol.	drug testing, method of testing, impaired driving, US DOT	breathalyzers, conducting searches, etc.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
Rail 2	INT	Employees from Canada operating in the US are subject to cross-border rules and regulations. Follows USDOT regulations for urine analysis	**Alcohol and Drug Policy** Employees and contractors occupying safety critical or safety sensitive positions are governed as well by the requirements of applicable policies, rules and regulations (e.g. Canadian Rail Operating Rules – Rule G). **Alcoholic Beverages** The consumption, possession, distribution, offering or sale of alcoholic beverages on Company premises is prohibited except on Vice President or higher approval. Sealed containers of alcoholic beverages in personal vehicles on Company premises are permitted as per provincial law. Alcoholic beverage consumption is not permitted during working hours, while subject to duty, on call or on scheduled call-out, for all persons occupying safety critical and safety sensitive positions, and for all employees when they are directly affecting or involved in Operations or are present at an Operations site. **Illicit/Illegal Drugs** The use, possession, distribution, offering or sale of illicit drugs, illegal drugs or drug paraphernalia, and the possession, distribution, offering or sale of prescription medication for which a prescription has not legally been obtained, are prohibited on Company premises, on Company business and at Company social functions. **Medications**		Alcohol, illegal drugs, prescription drugs, searches, insurance, EFAP, escort procedures, testing, job-specific testing, testing as a condition of employment for SS positions, hosting policy, medical review, random testing, post-incident testing, reasonable cause testing, refusal, POCT, method of testing, US DOT, illegal activities	Unsure how current the policy documents are as they were found on a union website. **Testing policy** The company has a policy for all staff and, for those in SS positions, they are subject to a second policy. Policy for testing of substances and only applies to those in safety-critical and safety-sensitive positions. Policy describes specific situations in which testing may occur including: pre-employment/placement, for cause, post-accident/incident, and unannounced (random). Employees can refuse for cause

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			Medications, both prescribed and over-the-counter, are to be used in a responsible manner. The intentional misuse of prescribed and over-the-counter medications (e.g. not using the medication as it has been prescribed or using someone else's prescription medication) on Company premises or on Company business is prohibited. Medications of concern are those that have the potential to inhibit an employee's ability to perform their job safely and productively. **Substance Testing Policy** This policy applies to all employees and contractors of [the company] and its subsidiaries in Canada who occupy safety critical and safety sensitive positions. Canadian based employees who are required to operate into the United States are subject to the rules and regulations governing cross-border operations. Substance testing consists of three processes: • Sample (breath for alcohol and urine for drugs) collection is done under controlled conditions at a designated collection site by trained and authorized personnel of an agency specified by the company which ensures privacy during collection as well as the security and integrity of the sample. Urine collection is done			and post-accident/incident testing, but will be investigated. A Medical Review Officer and a Chief Medical Officer is part of the substance testing policy. Explicitly states that Management will not be a part of the chain of custody in the testing process.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			using a split sample procedure following the North American recognized standards of the United States Department of Transportation (U.S. DOT 49). Chain of custody documentation follows the sample throughout the process. Point of Collection Tests (POCTs) may be considered for pre-employment / pre-placement substance testing in order to expedite the hiring process related to the medical assessment. POCTs may also be considered for post-accident / incident substance testing in order to expedite the return to duty of an individual with a negative test result. • Laboratory analysis is done by qualified laboratories meeting established guidelines and certification. • Medical review is performed by a Medical Review Officer, who is a qualified licenced physician acting as an independent and impartial reviewer of the substance test results.			
Rail 3	CAN	Contractor policy mentions U.S. Departmen	**Contractor Policy available (organization policy not found)** Code of Ethics	The company has an established alcohol and drug policy for all employees, but it	(From Contractor Policy) Fitness for duty, alcohol, illegal drugs, prescription drugs, expectations, contractor, location,	Contractor policy discusses “unfit for work investigations”.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
		t of Health and Social Services, but not DOT or SAMHSA	• Mentions alcohol, drugs, and other substances (basic expectations related to fitness for duty) • Mentions that Employee Assistance Program can help to address "alcohol or drug use or some other behaviour leading to addiction" Alcohol and Drug Policy for Contractors	is not publicly available. Only the contractor's policy is available.	illegal activities, reasonable cause testing, removal, impaired driving, refusal, termination, suspension, definitions, post-incident testing, testing procedures, US DOT, medical review testing, measurements, alcohol testing, drug testing, method of testing, consequences	Appendix to policy for contractors mentions that testing procedures must be "in accordance with standards established by the U.S. Department of Health and Human Services (DHHS) and accepted in Canada."
Rail 4	CAN	N/A	**Fitness for Duty Policy**		Fitness for duty, alcohol, illegal drugs, recognizes disability, definitions, contractors, prescription drugs, other workers, alcohol testing, drug testing, method of testing, SAP, medical review, location, review, expectations, self-disclosure, return-to-work program, treatment program, return to work/duty differentiated, duty to accommodate, co-worker report, insurance/EFAP, alcohol testing, drug testing, provide support, non-compliance procedures,	The FFD policy for contractors is fairly well developed, although contractors are also encouraged to develop their own policies.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
					education, training, medical review treatment, agreement, confidentiality, duty to inquire, reasonable cause testing, behavioural indicators, post-incident testing, job-specific testing, random testing, termination, return-to-work testing, impaired driving, searches, non-compliance procedures	
Oil and Gas 1	INT	Unsure - no mention of US standards/ regulations	**Alcohol & Drug Policy** Policy based on a model developed by an oil and gas industry association.	Has specific checklists and an alcohol and drug testing guideline. These are not public.	Alcohol, illegal drugs, prescription drugs, expectations/rules, objectives, clear, testing, location, cut-off limits, refusal, reasonable cause, incident, certain positions, monitoring testing, hosting, testing guidelines	
Oil and Gas 2	CAN	Unsure - no mention of US standards/ regulations	**Alcohol & Drug Policy**		Fitness for work, expectations, alcohol, illegal drugs, contractors, location, prescription drugs, illegal activities, clear, hosting policy, refusal, alcohol testing, drug testing, post-incident testing, reasonable cause testing, job-specific testing, random testing, return-to-work testing,	Policy applies to all employees engaged in any company business activities on or off company premises; contractors can either develop comparable policies or adopt

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
					measurements, termination, suspension, consequences	and enforce this policy. While the policy applies to all employees, it outlines stricter standards for those in Safety-Sensitive Positions within the company.
Oil and Gas 3	INT	Mentions SAMHSA, US DOT, and US DHSS	**Follows the model of an oil and gas industry association** A&D Policy excerpt: The following are expressly prohibited while on Company business or premises: • The use, possession, distribution and offering for sale of drugs or drug paraphernalia • The unauthorized use, possession, distribution, offering for sale of beverage alcohol • Possession of prescribed medications not authorized for personal use • Reporting for duty with the presence in the body of alcohol or drugs above the accepted standards adopted in [the company's] Alcohol & Drug Practices	Has a manual that describes what policies/practices Contractors need in place in order to meet the A&D requirements.	**Company A&D policy:** Alcohol, illegal drugs, prescription drugs, prohibits illegal activities, provides support/assistance, EFAP, termination **Contractor A&D policy** Illegal activities, reasonable cause testing, prohibits alcohol, job-specific testing, expectations, policy statement, contractors, location, reasonable cause testing. Searches, alcohol testing, illegal drugs testing, measurements, method of testing, medical review of testing, confidentiality testing, refusal, non-	Has one general policy for the corporation and one detailed policy for contractors. It may be that the detailed corporate policy is not public. Refers to Alcohol & Drug Practices, but could not find documents on this. A&D fit for work policy for contractors, includes testing for SS positions.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			Contractor Compliance excerpt: To maintain fitness for work, contractors must ensure their staff do not: • Use or possess any drugs or drug paraphernalia that are illegal • Use prescription medications that are not prescribed to them • Inappropriately use any prescription or non-prescription medications that could cause impairment • Consume any product containing alcohol during their work hours, meals, breaks and when on scheduled call if in a safety-sensitive position at [the company] camp locations, stricter requirements (e.g. zero tolerance) may be in place.		compliance, definitions, US DOT, suspension	
Oil and Gas 4	CAN	N/a	**Alcohol and Drug Policy Model**: provides templates on how to develop a corporate alcohol and drug policy. Evaluation manual Testing guide Point of Collection Testing guide Worksheets		Alcohol, illicit drugs, medications, searches, EFAP, escort procedures, testing, monitoring, training, support, SAE	Provides a comprehensive policy and development model for alcohol and drugs in the SS industry. The Model manual provides a detailed process as well as information in the application of an alcohol and

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
						drug policy (e.g., info on SAEs, legislation, guide books, etc.).
Oil and Gas 5	INT	Unsure - no mention of US standards/ regulations	**Code of Business Conduct** • [The company] is committed to providing a safe, healthy and productive work environment. Personnel make a valuable contribution to [the company's] success through safe, efficient and conscientious performance of their duties. Personnel are required to be fit for duties when reporting for work and remain fit for duties at all times while at work. All Personnel are required to report any unsafe work, including when Personnel are not fit for duties. The use of alcohol and/or drugs may adversely affect job performance, productivity, business decisions and the safety and well-being of our people and the communities in which we operate. Personnel are required to declare if they are not fit for duties to ensure the continued safe operations of our business. Personnel who have a drug or alcohol dependency or any concerns related to the use or abuse of drugs and/or alcohol are encouraged to seek assistance at	Code of conduct mentions a drug and alcohol policy as well as a Family Assistance Program Policy, which are not publicly available.	Fitness for duty, alcohol, illegal drugs, prescription drugs, self-disclosure, insurance/EFAP, provides support	

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			the earliest opportunity. Through our Employee and Family Assistance Program, the Company will provide employees who have drug or alcohol related problems the opportunity and the support to help them overcome these problems.			
Oil and Gas 6	INT	Unsure - no mention of US standards/ regulations	**Alcohol and Drug Policy** Contractor Alcohol and Drug policy		Fitness for duty, alcohol, illegal drugs, definitions, searches, expectations, self-disclosure, co-worker reporting, training, referral for assessment, clear, definitions, prescription drugs, EFAP, alcohol testing, drug testing, education, recognizes disability, provides support, treatment program, SAP, medical review treatment, return-to-work program, return-to-work monitoring/testing, insurance, non-compliance procedures, duty to accommodate, removal, duty to inquire, post-incident testing, reasonable cause testing, impaired driving, social events, termination, agreement, privacy and confidentiality, confidentiality	Policy applies to all of the company's employees, but contractors are expected to enforce alcohol and drug standards that are equivalent to the company's alcohol and drug policy. The Contractor alcohol and drug policy identifies minimum standards expected of contractors to mitigate risks associated with alcohol and drugs.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
					maintenance, measurements, MRO, medical review testing, contractors, observation - behavioural indicators, job-specific testing	
Oil and Gas 7.	CAN	Mentions that contractors may be subject to US DOT requirements	**Discussed position on alcohol and drugs, no policy found.** Statement on Business Conduct • Describes commitment to a drug and alcohol-free workplace, and the requirement for employees to report to work "fit for duty and free from the influence of alcohol or drugs"	Statement on Business Conduct mentions an alcohol and drug policy which is not publicly available	Fitness for duty, alcohol, illegal drugs, co-worker reporting, testing	
Oil and Gas 8	CAN	Mentions that the limits set out are identical to those used by US DOT, and that drug testing is done by laboratories certified by SAMHSA	**Drug and Alcohol Policy**		Fitness for work, searches, zero tolerance, recognizes disability, alcohol, illegal drugs, contractors, definitions, self-disclosure, prescription drugs, SAP, provides support, clear, illegal activities, refusal, impaired driving, non-compliance procedures, referral for assessment, job-specific testing, post-incident testing, reasonable cause testing, observation-behaviour, searches, return-to-work testing, alcohol testing,	Policy applies to company employees, but also outlines expectations for contractors (including expectations to have in place a policy that meets or exceeds the standards of the company's drug and alcohol policy, as well as an active testing program).

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
					drug testing, MRO, medical review testing, testing methods, duty to accommodate, agreement, medical review treatment, differentiates between RTW and RTD, SAP monitors, hosting, expectations, training, education, confidentiality, termination, non-compliance procedures, measurements, US DOT, intervention procedures,	
Construct in 1	CAN	N/a	**Alcohol and Drug Policy** Under this Policy, the following are prohibited: (a) Use of a substance at the work place or during working hours; (b) Being under the influence of a substance during working hours; (c) Reporting to work under the influence of a substance; and (d) The unlawful manufacture, distribution, possession, transfer, storage, concealment, transportation, promotion or sale of a substance or substance related paraphernalia at the work place.		Alcohol and drug, medical review officer, testing, monitoring, consequences	A&D policy applies to all union construction workers.
Construct ion 2	CAN	N/a	**Alcohol and Drug Policy** Guide Supervisor training		Fitness for duty, alcohol, illegal drugs, clear, definitions, prescription drugs, expectations, measurements, alcohol	Produced a comprehensive and detailed

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			This Alcohol & Drug Policy applies to unionized construction Employers and Employees … and is a condition of employment where adopted. An Employee may not: (a) use, possess or offer for sale alcohol and drugs while at a company workplace. (b) report to work or work (i) with an alcohol level that exceeds forty milligrams of alcohol in one hundred milliliters of blood or the equivalent concentration for breath, urine or saliva, (ii) with a drug level for the drugs set out below equal to or in excess of the concentrations set out in [Table of limits] Oral Fluid Drug Concentration Limits (provides Table) Urine Drug Concentration Limits (provides table) (iii) while unfit to work on account of the use of a prescription or non prescription drug, (c) refuse to (i) comply with a request made by a representative of the company to submit to an alcohol and drug test or (ii) provide a sample for an alcohol and drug test or (iii) follow instructions of the Third Party Administrator.		testing, drug testing, refusal, education, training, job-specific testing, method of testing, observation – behavioural indicators, illegal activities, report to authorities, self-disclosure, insurance, EFAP, treatment program, post-incident testing, reasonable cause testing, privacy and confidentiality, alcohol testing, drug testing, intervention procedures, duty to inquire, removal, medical review treatment, medical review testing, testing procedures, referral for assessment, scheduled testing, termination, leave with pay, leave without pay, provides support, recognizes disability, searches, confidentiality maintained, MRO, non-compliance procedures, termination, SAP, duty to accommodate, location, agreements, return-to-work program, return-to-work testing, who	manual available on line. Provides A&D supervisory training courses. Offers a guide that summarizes the contents of the manual.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			(d) tamper with a sample for an alcohol and drug test. An Employee complies with … of the alcohol and drug work rule if he or she is in possession while at a company workplace of a prescription drug prescribed for him or her or a non-prescription drug and (a) the Employee is using the prescription or non-prescription drug for its intended purpose and in the manner directed by the Employee's physician or pharmacist or the manufacturer of the drug, and (b) the use of the prescription or non-prescription drug does not adversely affect the Employees ability to safely perform his or her duties, or (c) the Employee has notified his or her supervisor or manager before starting work of any potentially unsafe side effects associated with the use of the prescription or non-prescription drug.		monitors employee, testing procedures	
Construction 3	CAN	References US DOT website that certifies labs acceptable for testing in Canada	**Alcohol and Drug Policy** Work standards • No worker shall distribute, possess, consume or use alcohol or illegal drugs on any company workplace. • No worker shall report to work or be at work under the influence of alcohol or drugs that may or will affect their ability to work safely.		Fitness for duty, unfit for work, consultative, objectives, alcohol, illegal drugs, expectations, US DOT, education, training, measurements, alcohol testing, drug testing, location, refusal, methods of testing, prescription drugs, self-disclosure, SAP, EAP, insurance, referral for	Part of the reasoning behind developing the guidelines was the need to standardize policies across different labour categories that often intersected/overlapped (e.g.,

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			• No worker shall test positive for any alcohol or drugs at concentrations as specified in Section 3.1 of the alcohol and drug work rule. • No worker shall misuse prescription or non-prescription drugs while at work. If a worker is taking a prescription or non-prescription drug for which there is a potential unsafe side effect, he or she has an obligation to report it to the supervisor. An employee shall not (a) use, possess or offer for sale alcohol and drugs or any product or device that may be used to attempt to tamper with any sample for a drug and alcohol test while on company property or at a company workplace, (b) report to work or work (i) with an alcohol level equal to or in excess of 0.040 grams per 210 litres of breath, (ii) with a drug level for the drugs set out below equal to or in excess of the concentrations set out below: (Table: urine drug concentration limits/oral fluid drug concentration limits) or		assessment, medical review treatment, who monitors employee, non-compliance procedures, observation – behavioural indicators, post-incident testing, random testing, contractors, job-specific testing (on sites), POCT, privacy and confidentiality, confidentiality maintained, medical review testing, MRO, clear, termination, definitions, testing procedures, return-to-work testing, intervention procedures, reasonable cause testing, agreement, treatment program, duty to accommodate, recognizes disability	contractors from one business working on site at another business). Provides online training for their course.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			(iii) while unfit for work on account of the use of a prescription or non-prescription drug, (c) refuse to (i) comply with a request made by a representative of the company under ..., or (ii) comply with a request to submit to an alcohol and drug test made under ..., or (iii) provide a sample for an alcohol and drug test under ..., (d) tamper with a sample for an alcohol and drug test given under .... An employee complies with ... of the alcohol and drug work rule if he or she is in possession while at a company workplace of a prescription drug prescribed for him or her or a non-prescription drug and (a) the employee is using the prescription or non-prescription drug for its intended purpose and in the manner directed by the employee's physician or pharmacist or the manufacturer of the drug, and (b) the use of the prescription or non-prescription drug does not adversely affect the employee's ability to safely perform his or her duties, or (c) the employee has notified his or her supervisor or manager before starting work of any potentially unsafe side effects associated with the use of the prescription or non-prescription drug.			

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			The supervisor or manager who has received a notification under … may not disclose any information provided under … to any person other than a person who needs to know, to discharge a statutory or common-law obligation.			
Construction 4	CAN	N/a	**Drug and Alcohol Policy**		Fitness for duty, alcohol, illegal drugs, prescription drugs, provide support, definitions, refusal, self-disclosure, recognize disability, co-worker report, location, reasonable cause testing, observation – behaviour, measurements, methods of testing, random alcohol testing,, drug testing, non-compliance procedures, treatment program, termination, suspension without pay, expectations, return-to-work testing, duty to accommodate	
Construction 5	CAN	N/a	**Drug & Alcohol Policy** For the purposes of this policy, the following are prohibited: 1. Being impaired by alcohol/drugs while at work. 2. The possession or use of illicit drugs on Company premises, at Company worksites, or in Company vehicles.		Fitness for duty, alcohol, illegal drugs, education, self-disclosure, prohibited, refusal, illegal activities, prescription drugs, suspension, job-specific testing, random testing, reasonable cause testing, post-incident testing, medical review,	This company sits under a parent company, which does not appear to have any policies on A&D.

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			3. The presence in the body of illicit drugs (or their metabolites) while at work. 4. Refusal to submit to drug/alcohol testing, failure to report to a Company-designated facility for a drug/alcohol test, or tampering or attempting to tamper with a test sample. Employees who violate the provisions of this policy are subject to disciplinary action up to and including termination of employment. **Work Rules Governing Drug/Alcohol Abuse** Employees are not to report to work or be at work if they are impaired by alcohol or drugs. An employee who is taking legal medication (whether or not prescribed by a physician) which may affect or impair judgment, co-ordination or perception so as to adversely affect his/her ability to perform work in a safe and productive manner, must notify his/her supervisor prior to commencing work. The supervisor will determine whether the employee will be permitted to work or whether work restrictions will be applied. Employees who are not capable of competently and safely performing their job duties will not be permitted to work and will be required to leave the Company premises/job site. When an employee, considered to be in an unfit condition, is requested to leave Company premises, transportation to his/her residence will be arranged by his/her		RTW monitoring testing, treatment program, complete treatment program, no company program but provides resources	

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			supervisor. The Company reserves the right to temporarily remove, re-assign or suspend an employee pending a determination of the employee's fitness for work, assessment of a drug/alcohol problem, or completion of an investigation into a possible violation of this policy.			
Law enforcement 1	CAN	N/a	**Discussed position on alcohol and drugs, no policy found.** Police Act, Code of Conduct A member who consumes or uses alcohol or drugs in a manner prejudicial to the carrying out of their duty in any of the following ways commits a disciplinary default: (a) reporting for duty, being on duty or standing by for duty while unfit to do so because of the use of alcohol or a drug; (b) without proper authority, using or possessing alcohol or drugs prohibited by law.		Fitness for duty, alcohol, illegal drugs, prescription drugs, consequences	
Law enforcement 2	CAN	N/a	**Code of Conduct** Requires fitness for duty and reporting to work free from influence of alcohol or drugs Process overview: describes what happens in the event of a possible contravention of the code of conduct	Specifies that applicants to job positions must not have engaged in any criminal behaviour, which includes non-medicinal drug/steroid use	Fitness for duty, alcohol and drugs, detection (Code of Conduct investigation), consequences	
Law enforcement 3	CAN	N/a	**Discussed position on alcohol and drugs, no policy found.**		Fitness for duty, alcohol, illegal drugs, consequences	

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			Police Act Officer's conduct: • A police officer shall not… ○ … while on duty be under the influence of alcohol or non-prescribed narcotic drugs; ○ … while on duty drink or receive alcoholic liquor • A police officer who fails to comply with or otherwise contravenes a provision of these regulations is guilty of an offense.			
Law enforcement 4	CAN	N/a	**Discussed position on alcohol and drugs, no policy found.** Police Act, Code of Conduct Any chief of police or other police officer commits misconduct if he or she engages in (i) consuming alcohol or drugs in a manner prejudicial to duty, in that he or she, (i) is unfit for duty, while on duty, through consumption of drugs or alcohol, (ii) is unfit for duty when he or she reports for duty, through consumption of drugs or alcohol, (iii) except with the consent of a superior officer or in the discharge of duty, consumes or receives alcohol from any other person while on duty, or		Fitness for duty, alcohol and drugs, consequences	Does not appear to have its own policy; however adheres to provincial police act requirements

Industry sector	CAN/ INT	US DOT/ border	Key text or policy wording	Related documents	Key elements referred to in policy or other documents (e.g., Code of Conduct)	Other information
			(iv) except in the discharge of duty, demands, persuades or attempts to persuade another person to give or purchase or obtain for a member of a police force any alcohol …			
Law enforcement 5	CAN	N/a	**Discussed position on alcohol and drugs, no policy found.** Police Act Defines police misconduct in terms of misuse of intoxicating liquor or drugs: "Subject to subsection …, any of the conduct described in the following paragraphs constitutes a disciplinary breach of public trust, when committed by a member: (l) "misuse of intoxicants", which is (i) owing to the effects of intoxicating liquor or any drug, or any combination of them, being unfit for duty when on duty or reporting for duty, or (ii) without proper authority, making use of or accepting from any other person intoxicating liquor when on duty or when off duty but in uniform in a public place; Provincial Act also defines misuse of intoxicating liquor or drugs as misconduct.		Fitness for duty, alcohol and drugs, consequences	Does not appear to have its own policy; however adheres to provincial police act requirements

9.2 Appendix B: Overview of Cannabis Legalization Regulation in US States

Table 60, obtained from the CCSA report *Cannabis Regulatory Approaches* (2015b), provides an overview of the regulatory details developed in Colorado, Washington state, Oregon, Alaska and Uruguay. Note that this overview does not provide a comprehensive description of all associated fees, regulations and so on, and that regulations continue to evolve as this report is being published. Readers should consult with the respective jurisdictional regulatory authorities for additional details and to ensure currency of information.

Table 60: Legalization Regulation at a Glance

	Colorado	Washington State	Oregon	Alaska	Washington, DC
Status	Retails sales began January 1, 2014	Retail sales began July 8, 2014	Limited sales from existing medical marijuana dispensaries began October 1, 2015 Oregon Liquor Control Commission accepting license applications Retail sales expected in mid-2016 Final rules to be developed and reported to legislative bodies by January 1, 2017	Law in force as of February 24, 2015 Retail licenses to be issued in May 2016	In effect as of February 26, 2015
Personal possession and/or sales limits	1 oz	1 oz dried 16 oz infused solid product 72 oz infused liquid product	1 oz dried 16 oz infused solid product 72 oz infused liquid product 5 g extracts or concentrate 4 immature plants 10 plant seeds	1 oz; can also possess all product grown from home 7g concentrate Products containing up to 5,600 mg THC	2 oz

	Colorado	Washington State	Oregon	Alaska	Washington, DC
Age restrictions	21	21	21	21	21
Personal production	Up to 6 plants (max. 3 mature) Must be in enclosed, locked space	No	Up to 4 plants and 8 oz dry marijuana 16 oz in solid form 72 oz in liquid form 16 oz concentrates Can transfer these amounts for non-commercial purposes (limit of 1 oz dried product) Production of extracts prohibited	Up to 6 plants in a household residence (max. 3 mature)	Up to 6 plants in a primary personal residents (max. 3 mature)
Commercial production	Yes, state licensed Mandatory tracking system	Yes, state licensed and capped Mandatory tracking system	Yes, state licensed Mandatory tracking system	Yes, state licensed, indoor and outdoor permitted Mandatory tracking system for plants over 8" high	No
Retail distribution	Yes, state licensed	Yes, state licensed and capped Licenses initially allocated via lottery	Yes, state licensed In person sales and home delivery	Yes In-person sales only	No Individuals can transfer up to 1 oz, but there can be no remuneration
On-site retail consumption	No	No	No	Yes, if separate space within shop is provided	No

	Colorado	Washington State	Oregon	Alaska	Washington, DC
Licensing body	Colorado Department of Revenue	Washington State Liquor and Cannabis Control Board	Oregon Liquor Control Commission	Alcohol and Marijuana Control Office	N/A
License fees	Application fees: • New applicants: $5,000 • Licensed medical expanding to retail: $3,000 • Testing facility: $1,000 License fees: • Cultivation facility: $2,200 • Manufacturing: $2,200 • Retail: $3,000 • Testing: $2,200	Application: $266; Annual fee: $1,062	Application: $250 Production: • Micro Tier I: $1,000 • Micro Tier II: $2,000 • Tier I: $3,750 • Tier II: $5,750 • Processors, wholesalers, retailers and laboratories: $4,750 Changes to license: $1,000	Application: $1,000 Retail: $5,000 Limited cultivation: $1,000 Cultivation: $5,000 Extract-only manufacturing: $1,000 Manufacturing: $5,000 Testing: $1,000 Handler permit: $50	N/A
License types	Retail store, cultivation facility, product manufacturer	Producer, processor, retailer	Production; processor; wholesale; retail, laboratory	4 types: retail, cultivation (small grower subcategory for <500 square feet of canopy), manufacturing (subcategory for concentrates only), and testing	N/A
License caps	Individual with controlling interest in 3 or more cultivation facilities must have controlling interest in at least 1 retail store for each multiple of 3 cultivation licenses	Currently 556	No caps on quantity of licenses or number of licenses that can be held by an individual	No caps on quantity of licenses or number of licenses that can be held by an individual or company	N/A

	Colorado	Washington State	Oregon	Alaska	Washington, DC
Local options	Can prohibit or impose additional licensing or approval requirements for retail businesses	Caps at regional levels Business must notify local authority before opening	Can only prohibit licensed facilities through voter referendum	Can prohibit licensed facilities Cannot prohibit personal use or possession	N/A
License restrictions (size or structure)	Standard manufacturing license permits up to 1,800 plants Extended count licenses available for 6,000 and 10,200 plants	3 tiers of production based on canopy size (2,000, 2,001–10,000 and 10,001–30,000 sq. ft)	Indoor (max. sq. ft): • Micro Tier I: 625 • Micro Tier II: 1,250 • Tier I: 5,000 • Tier II: 10,000 Outdoor (max. sq. ft): • Micro Tier I: 2,500 • Micro Tier II: 5,000 • Tier I: 20,000 • Tier II: 40,000	1 company can hold all types of license except testing Testing licensees can hold only testing licenses	N/A
Location restrictions	Cannot be co-located with alcohol, tobacco or food sales Min. 1,000 ft from schools and child care centres	Min. 1,000 ft from schools, parks, playgrounds, public transit centres, game arcades, etc.	Min. 1,000 ft from schools Licenses are transferable Cannot be co-located with liquor licensee	Min. 500 ft from school, recreation, youth, religious or correctional centres Cannot be co-located with liquor licensed premises Licenses are non-transferable	N/A

	Colorado	Washington State	Oregon	Alaska	Washington, DC
Taxation	15% excise; 10% sales + municipal taxes (approx. 30% of total price)	Initially, 25% excise tax at each of production, processing and retail sale + state and local sales taxes (approx. 50% of total price) Revised in July 2015 to single 37% excise tax	Retail sales tax of 17% plus up to 3% local tax	Excise tax of $50/oz	N/A
Dedicated revenues	Targeted to prevention, treatment and administration	Targeted but a portion re-allocated to the general fund	Marijuana Control and Regulation Fund distinct from General Fund	No	N/A
Forms of sale	Dried marijuana, extracts, infusions, concentrates As of October 1, 2016, edibles must be stamped to indicate presence of THC Colorado Cannabis Chamber of Commerce implementing voluntary restriction on edibles formats: no human or animal shapes as of October 1, 2016	Dried marijuana and infusions	Dried marijuana, solids, liquids, concentrates, extracts, plants, seeds	Dried marijuana, edibles, concentrates Product cannot be adulterated food or drink, or resemble familiar food or drink items, including candy Serving size must be clearly marked	N/A
Potency and size restrictions	Edibles can be no stronger than 10 mg per serving; no more than 10 servings per package	Edibles can be no stronger than 10 mg per serving; no more than 10 servings per package	Edibles can be no stronger than 5 mg per serving; up to 10 servings per package	Edibles can be no stronger than 5 mg per serving; up to 10 servings per package	N/A

	Colorado	Washington State	Oregon	Alaska	Washington, DC
Packaging	No more than 100 mg THC per individually packaged edible; servings up to 10 mg must be clearly marked and separable Child-resistant and not appealing to children (i.e. cartoons or similar characters); cannot include the word "candy" as of October 1, 2016 Usage instructions for non-edibles; health warnings; THC and CBD content listed	Child resistant and tamperproof Edible servings must be packaged individually; liquid product must include a serving-size measuring device Standard warnings must be included on the label Must indicate THC and CBD levels, business or trade name and inventory ID number	Child resistant and not attractive to minors Re-sealable if more than 1 serving Potency, activation time, contents and health warnings Edible products, extracts and concentrates must list serving size and number of servings Standard warnings must be provided	No cartoon characters or other graphics that might appeal to children Opaque, re-sealable, child-resistant Identifies store, THC content Provides standard health warnings	N/A
Marketing, advertising and sponsorship	Restrictions on number and location of signs Restriction on advertising or sponsorship where more than 30% of the audience is under 21 Cannot target out-of-state persons	Restrictions on number and location of signs	No advertising that is attractive to minors, promotes excessive use, promotes illegal activity under state law, or otherwise presents a threat to public health and safety	Restrictions on number and location of signs	N/A
Residency restrictions	¼ oz purchase limit for non-residents 2-year residency requirement for retailers, producers	3-month residency requirement for retailers, producers	2-year residency requirement for production and sale until 2020	Owners of marijuana companies must have lived in Alaska for min. of 1 year	No However, no opportunities for non-residents to purchase

	Colorado	Washington State	Oregon	Alaska	Washington, DC
Driving restrictions	Yes 5 nanograms of THC per ml of blood	Yes 5 nanograms of THC per ml of blood	Details of restrictions in development Consumption while on the highway is a Class B violation	Yes Included in existing impaired driving prohibition	Yes Cannot operate a vehicle while under the influence
Public use	No	No	No	No	No
Medical access	Licensed medical production and retail system pre-dates retail licensing and continues to operate in parallel with retail	Medical and retail merging under one system, but with separate regulations (e.g., age of access, purchase quantity, taxation) Retailers will need an endorsement to also conduct medical marijuana sales	Oregon Health Authority administers Oregon Medical Marijuana Act independently Medical and recreational processing and sales cannot be co-located; growth can be co-located with a special license Personal production limits for medical: 6 plants; can grow for up to 4 cardholders	Medical marijuana registry permits personal production or production by a designated caregiver No state-licensed medical dispensaries	Licensed medical cultivation and dispensary system
Other			Outlines a process for the certification of researchers Includes good Samaritan and medical care exclusions	Product cannot be labelled organic Handler permits obtained through completion of an education course and written test	

9.3 Appendix C: Employer's Duty to Ensure Safety

The following table contains relevant legislation regarding workplace safety at the federal and the provincial/territorial levels.

Jurisdiction and Applicable Legislation	Provision
Federal *Canada Labour Code*, RSC 1985, c L-2, s 124.	**General duty of employer** **124** Every employer shall ensure that the health and safety at work of every person employed by the employer is protected.
British Columbia *Workers Compensation Act*, RSBC 1996, c 492, s 115.	**General duties of employers** 115 (1) Every employer must (a) ensure the health and safety of (i) all workers working for that employer, and (ii) any other workers present at a workplace at which that employer's work is being carried out, and (b) comply with this Part, the regulations and any applicable orders. (2) Without limiting subsection (1), an employer must (a) remedy any workplace conditions that are hazardous to the health or safety of the employer's workers, (b) ensure that the employer's workers (i) are made aware of all known or reasonably foreseeable health or safety hazards to which they are likely to be exposed by their work, (ii) comply with this Part, the regulations and any applicable orders, and (iii) are made aware of their rights and duties under this Part and the regulations, (c) establish occupational health and safety policies and programs in accordance with the regulations, (d) provide and maintain in good condition protective equipment, devices and clothing as required by regulation and ensure that these are used by the employer's workers, (e) provide to the employer's workers the information, instruction, training and supervision necessary to ensure the health and safety of those workers in carrying out their work and to ensure the health and safety of other workers at the workplace, (f) make a copy of this Act and the regulations readily available for review by the employer's workers and, at each workplace where workers of the employer are regularly employed, post and keep posted a notice advising where the copy is available for review, (g) consult and cooperate with the joint committees and worker health and safety representatives for workplaces of the employer, and (h) cooperate with the Board, officers of the Board and any other person carrying out a duty under this Part or the regulations.
Ontario *Occupational Health and Safety Act*, RSO 1990, c 0.1, s 25.	**Duties of employers** 25.(1) An employer shall ensure that, (a) the equipment, materials and protective devices as prescribed are provided; (b) the equipment, materials and protective devices provided by the employer are maintained in good condition; (c) the measures and procedures prescribed are carried out in the workplace;

Jurisdiction and Applicable Legislation	Provision
	(d) the equipment, materials and protective devices provided by the employer are used as prescribed; and (e) a building, structure, or any part thereof, or any other part of a workplace, whether temporary or permanent, is capable of supporting any loads that may be applied to it, (i) as determined by the applicable design requirements established under the version of the Building Code that was in force at the time of its construction, (ii) in accordance with such other requirements as may be prescribed, or (iii) in accordance with good engineering practice, if subclauses (i) and (ii) do not apply. **Idem** (2) Without limiting the strict duty imposed by subsection (1), an employer shall, (a) provide information, instruction and supervision to a worker to protect the health or safety of the worker; (b) in a medical emergency for the purpose of diagnosis or treatment, provide, upon request, information in the possession of the employer, including confidential business information, to a legally qualified medical practitioner and to such other persons as may be prescribed; (c) when appointing a supervisor, appoint a competent person; (d) acquaint a worker or a person in authority over a worker with any hazard in the work and in the handling, storage, use, disposal and transport of any article, device, equipment or a biological, chemical or physical agent; (e) afford assistance and co-operation to a committee and a health and safety representative in the carrying out by the committee and the health and safety representative of any of their functions; (f) only employ in or about a workplace a person over such age as may be prescribed; (g) not knowingly permit a person who is under such age as may be prescribed to be in or about a workplace; (h) take every precaution reasonable in the circumstances for the protection of a worker; (i) post, in the workplace, a copy of this Act and any explanatory material prepared by the Ministry, both in English and the majority language of the workplace, outlining the rights, responsibilities and duties of workers; (j) prepare and review at least annually a written occupational health and safety policy and develop and maintain a program to implement that policy; (k) post at a conspicuous location in the workplace a copy of the occupational health and safety policy; (l) provide to the committee or to a health and safety representative the results of a report respecting occupational health and safety that is in the employer's possession and, if that report is in writing, a copy of the portions of the report that concern occupational health and safety; and (m) advise workers of the results of a report referred to in clause (l) and, if the report is in writing, make available to them on request copies of the portions of the report that concern occupational health and safety. **Idem**

Jurisdiction and Applicable Legislation	Provision
	(3) For the purposes of clause (2)(c), an employer may appoint himself or herself as a supervisor where the employer is a competent person. **Same** (3.1) Any explanatory material referred to under clause (2) (i) may be published as part of the poster required under section 2 of the Employment Standards Act, 2000. **Idem** (4) Clause (2)(j) does not apply with respect to a workplace at which five or fewer workers are regularly employed.
Alberta Occupational Health and Safety Act, RSA 2000, c 0-2, s 2 (1).	**Obligations of employers, workers, etc.** **2(1)** Every employer shall ensure, as far as it is reasonably practicable for the employer to do so, (a) the health and safety of (i) workers engaged in the work of that employer, and (ii) those workers not engaged in the work of that employer but present at the work site at which that work is being carried out, and (b) that the workers engaged in the work of that employer are aware of their responsibilities and duties under this Act, the regulations and the adopted code.
Saskatchewan *The Occupational Health and Safety Regulations*, 1996, RRS c 0-1.1 Reg 1, s 12.	**General duties of employers** 12 The duties of an employer at a place of employment include: (a) the provision and maintenance of plant, systems of work and working environments that ensure, as far as is reasonably practicable, the health, safety and welfare at work of the employer's workers; (b) arrangements for the use, handling, storage and transport of articles and substances in a manner that protects the health and safety of workers; (c) the provision of any information, instruction, training and supervision that is necessary to protect the health and safety of workers at work; and (d) the provision and maintenance of a safe means of entrance to and exit from the place of employment and all worksites and work-related areas in or on the place of employment.
Manitoba *Workplace Safety and Health Act*, CCSM c W210, s 4 (1).	**General duties of employers** 4(1) Every employer shall in accordance with the objects and purposes of this Act (a) ensure, so far as is reasonably practicable, the safety, health and welfare at work of all his workers; and (b) comply with this Act and regulations.
New Brunswick *Occupational Health and Safety Act*, SNB 1983, c 0-0.2, s 9.	9(1) Every employer shall (a) take every reasonable precaution to ensure the health and safety of his employees; (b) comply with this Act, the regulations and any order made in accordance with this Act or the regulations; and (c) ensure that his employees comply with this Act, the regulations and any order made in accordance with this Act or the regulations. 9(2) Without limiting the generality of the duties under subsection (1), every employer shall (a) ensure that the necessary systems of work, tools, equipment, machines, devices and materials are maintained in good condition and are of minimum risk to health and safety when used as directed by the supplier or in accordance with the directions supplied by the supplier;

Jurisdiction and Applicable Legislation	Provision
	(a.1) ensure that the place of employment is inspected at least once a month to identify any risks to the health and safety of his employees; (b) acquaint an employee with any hazard in connection with the use, handling, storage, disposal and transport of any tool, equipment, machine, device or biological, chemical or physical agent; (c) provide the information that is necessary to ensure an employees' health and safety; (c.1) provide the instruction that is necessary to ensure an employees' health and safety; (c.2) provide the training that is necessary to ensure an employees' health and safety; (c.3) provide the supervision that is necessary to ensure an employees' health and safety; (d) provide and maintain in good condition such protective equipment as is required by regulation and ensure that such equipment is used by an employee in the course of work; (e) co-operate with a committee, where such a committee has been established, a health and safety representative, where such a representative has been elected or designated, and with any person responsible for the enforcement of this Act and the regulations. 9(3) An employer shall develop a program for the inspection referred to in paragraph (2)(a.1) with the joint health and safety committee, if any, or the health and safety representative, if any, and shall share the results of each inspection with the committee or the health and safety representative.
Newfoundland and Labrador *Occupational Health and Safety Regulations*, 2012, NLR 5/12, s 14.	**General duties of employers** **14.** (1) An employer shall ensure, so far as is reasonably practicable, that all buildings, structures, whether permanent or temporary, excavation, machinery, workstations, places of employment and equipment are capable of withstanding the stresses likely to be imposed upon them and of safely performing the functions for which they are used or intended. (2) An employer shall ensure that necessary protective clothing and devices are used for the health and safety of his or her workers. (3) The employer shall ensure that safe work procedures are followed at all workplaces. (4) An employer shall ensure, so far as is reasonably practicable, that work procedures promote the safe interaction of workers and their work environment to minimize the potential for injury.
Nova Scotia *Occupational Health and Safety Act*, SNS 1996, c 7, s 13.	**Employers' precautions and duties** 13 (1) Every employer shall take every precaution that is reasonable in the circumstances to (a) ensure the health and safety of persons at or near the workplace; (b) provide and maintain equipment, machines, materials or things that are properly equipped with safety devices; (c) provide such information, instruction, training, supervision and facilities as are necessary to the health or safety of the employees; (d) ensure that the employees, and particularly the supervisors and foremen, are made familiar with any health or safety hazards that may be met by them at the workplace; (e) ensure that the employees are made familiar with the proper use of all devices, equipment and clothing required for their protection; and

Jurisdiction and Applicable Legislation	Provision
	(f) conduct the employer's undertaking so that employees are not exposed to health or safety hazards as a result of the undertaking. (2) Every employer shall (a) consult and co-operate with the joint occupational health and safety committee, where such a committee has been established at the workplace, or the health and safety representative, where one has been selected at the workplace; (b) co-operate with any person performing a duty imposed or exercising a power conferred by this Act or the regulations; (c) provide such additional training of committee members or the representative as may be prescribed by the regulations; (d) comply with this Act and the regulations and ensure that employees at the workplace comply with this Act and the regulations; and (e) where an occupational health and safety policy or occupational health and safety program is required pursuant to this Act or the regulations, establish the policy or program. (3) The employer at a subsea coal mine shall provide such additional resources or information for the committee as may be prescribed by the regulations.
Prince Edward Island *Occupational Health and Safety Act*, RSPEI 1988, c O-1.01, s 12.	**Duties of employers** 12. (1) An employer shall ensure (a) that every reasonable precaution is taken to protect the occupational health and safety of persons at or near the workplace; (b) that any item, device, material, equipment or machinery provided for the use of workers at a workplace is properly maintained, and is properly equipped with the safety features or devices, as recommended by the manufacturer or required by the regulations; (c) that such information, instruction, training, supervision and facilities are provided as are necessary to ensure the occupational health and safety of the workers; (d) that workers and supervisors are familiar with occupational health or safety hazards at the workplace; (e) that workers are made familiar with the proper use of all safety features or devices, equipment and clothing required for their protection; and (f) that the employer's undertaking is conducted so that workers are not exposed to occupational health or safety hazards as a result of the undertaking. **Idem** (2) An employer shall (a) consult and cooperate with the joint occupational health and safety committee or the representative, as applicable; (b) cooperate with any person performing a duty or exercising a power conferred by this Act or the regulations; (c) provide such additional training of committee members as may be prescribed by the regulations; (d) comply with this Act and the regulations and ensure that workers at the workplace comply with this Act and the regulations; and (e) where an occupational health and safety policy or occupational health and safety program is required under this Act, establish the policy or program.
Quebec	**§ 2. – General obligations**

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An Act Respecting Occupational Health and Safety, CQLR c S-2.1, s 51.	51. Every employer must take the necessary measures to protect the health and ensure the safety and physical well-being of his worker. He must, in particular, (1) see that the establishments under his authority are so equipped and laid out as to ensure the protection of the worker; (2) designate members of his personnel to be responsible for health and safety matters and post their names in a conspicuous place easily accessible to the worker; (3) ensure that the organization of the work and the working procedures and techniques do not adversely affect the safety or health of the worker; (4) supervise the maintenance of the workplace, provide sanitary installations, drinking water, adequate lighting, ventilation and heating and see that meals are eaten in sanitary quarters at the workplace; (5) use methods and techniques intended for the identification, control and elimination of risks to the safety or health of the worker; (6) take the fire prevention measures prescribed by regulation; (7) supply safety equipment and see that it is kept in good condition; (8) see that no contaminant emitted or dangerous substance used adversely affects the health or safety of any person at a workplace; (9) give the worker adequate information as to the risks connected with his work and provide him with the appropriate training, assistance or supervision to ensure that he possesses the skill and knowledge required to safely perform the work assigned to him; (10) post up in a conspicuous place easily accessible to the worker all information transmitted by the Commission, the agency and the physician in charge, and put that information at the disposal of the workers, the health and safety committee and of the certified association; (11) provide the worker, free of charge, with all the individual protective health and safety devices or equipment selected by the health and safety committee in accordance with paragraph 4 of section 78 or, as the case may be, the individual or common protective devices or equipment determined by regulation, and require that the worker use these devices and equipment in the course of work; (12) allow workers to undergo the medical examinations during employment required under this Act and the regulations; (13) give, to the workers, the health and safety committee, the certified association, the public health director and the Commission, the list of the dangerous substances used in the establishment and of the contaminants that may be emitted; (14) cooperate with the health and safety committee, or as the case may be, the job-site committee and with any person responsible for the application of this Act and the regulations and provide them with all necessary information; (15) put at the disposal of the health and safety committee the equipment, premises and clerical personnel necessary for the carrying out of its functions.
Yukon *Occupational Health and Safety Act*, RSY 2002, c 159, s 3.	**Employer's duties** 3(1) Every employer shall ensure, so far as is reasonably practicable, that (a) the workplace, machinery, equipment, and processes under the employer's control are safe and without risks to health;

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	(b) work techniques and procedures are adopted and used that will prevent or reduce the risk of occupational illness and injury; and (c) workers are given necessary instruction and training and are adequately supervised, taking into account the nature of the work and the abilities of the workers. (2) Without limiting the generality of subsection (1), every employer shall, so far as is reasonably practicable, (a) ensure that workers are made aware of any hazard in the work and in the handling, storage, use, disposal, and transport of any article, device, or equipment, or of a biological, chemical, or physical agent; (b) cooperate with and assist safety and health representatives and committee members in the performance of their duties; (c) ensure that workers are informed of their rights, responsibilities, and duties under this Act; and (d) make reasonable efforts to check the well-being of a worker when the worker is employed under conditions that present a significant hazard of disabling injury, or when the worker might not be able to secure assistance in the event of injury or other misfortune.
Northwest Territories *Safety Act*, RSNWT 1988, c S-1, s 4.	**Duty of employer** 4. (1) Every employer shall (a) maintain his or her establishment in such a manner that the health and safety of persons in the establishment are not likely to be endangered; (b) take all reasonable precautions and adopt and carry out all reasonable techniques and procedures to ensure the health and safety of every person in his or her establishment; and (c) provide the first aid service requirements set out in the regulations pertaining to his or her class of establishment. **Coordination of employers** (2) If two or more employers have charge of an establishment, the principal contractor or, if there is no principal contractor, the owner of the establishment, shall coordinate the activities of the employers in the establishment to ensure the health and safety of persons in the establishment.
Nunavut *Safety Act*, RSNWT (Nu) 1988, s 4.	**Duty of employer** 4. (1) Every employer shall (a) maintain his or her establishment in such a manner that the health and safety of persons in the establishment are not likely to be endangered; (b) take all reasonable precautions and adopt and carry out all reasonable techniques and procedures to ensure the health and safety of every person in his or her establishment; and (c) provide the first aid service requirements set out in the regulations pertaining to his or her class of establishment. **Coordination of employers** (2) If two or more employers have charge of an establishment, the principal contractor or, if there is no principal contractor, the owner of the establishment, shall coordinate the activities of the employers in the establishment to ensure compliance with subsection 4(1).

9.4 Appendix D: Human Rights Legislation

The following table contains relevant legislation regarding human rights at the federal and the provincial/territorial levels.

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Federal *Canadian Human Rights Act*, RSC 1985, c H-6, ss 7-8, 10-11.	*Employment* 7. It is a discriminatory practice, directly or indirectly, (a) to refuse to employ or continue to employ any individual, or (b) in the course of employment, to differentiate adversely in relation to an employee, on a prohibited ground of discrimination. *Employment applications, advertisements* 8. It is a discriminatory practice (a) to use or circulate any form of application for employment, or (b) in connection with employment or prospective employment, to publish any advertisement or to make any written or oral inquiry that expresses or implies any limitation, specification or preference based on a prohibited ground of discrimination. *Discriminatory policy or practice* 10. It is a discriminatory practice for an employer, employee organization or employer organization (a) to establish or pursue a policy or practice, or (b) to enter into an agreement affecting recruitment, referral, hiring, promotion, training, apprenticeship, transfer or any other matter relating to employment or prospective employment, that deprives or tends to deprive an individual or class of individuals of any employment opportunities on a prohibited ground of discrimination. Exceptions **15** (1) It is not a discriminatory practice if (a) any refusal, exclusion, expulsion, suspension, limitation, specification or preference in relation to any employment is established by an employer to be based on a bona fide occupational requirement; (b) employment of an individual is refused or terminated because that individual has not reached the minimum age, or has reached the maximum age, that applies to that employment by law or under regulations, which may be made by the Governor in Council for the purposes of this paragraph; (c) [Repealed, 2011, c. 24, s. 166] (d) the terms and conditions of any pension fund or plan established by an employer, employee organization or employer organization provide for the compulsory vesting or locking-in of pension contributions at a fixed or determinable age in accordance with sections 17 and 18 of the *Pension Benefits Standards Act, 1985*; (d.1) the terms of any pooled registered pension plan provide for variable payments or the transfer of funds only at a fixed age under sections 48 or 55, respectively, of the *Pooled Registered Pension Plans Act*; (e) an individual is discriminated against on a prohibited ground of discrimination in a manner that is prescribed by guidelines, issued by the Canadian Human Rights Commission pursuant to subsection 27(2), to be reasonable; (f) an employer, employee organization or employer organization grants a female employee special leave or benefits in connection with pregnancy or child-birth or

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	grants employees special leave or benefits to assist them in the care of their children; or (g) in the circumstances described in section 5 or 6, an individual is denied any goods, services, facilities or accommodation or access thereto or occupancy of any commercial premises or residential accommodation or is a victim of any adverse differentiation and there is bona fide justification for that denial or differentiation. *9.4.1.1.1.1 Accommodation of needs* (2) For any practice mentioned in paragraph (1)(a) to be considered to be based on a bona fide occupational requirement and for any practice mentioned in paragraph (1)(g) to be considered to have a bona fide justification, it must be established that accommodation of the needs of an individual or a class of individuals affected would impose undue hardship on the person who would have to accommodate those needs, considering health, safety and cost. **25 In this Act,** **disability** means any previous or existing mental or physical disability and includes disfigurement and previous or existing dependence on alcohol or a drug
British Columbia *Human Rights Code*, RSBC 1996, c 210, s 13.	**Discrimination in employment** 13 (1) A person must not (a) refuse to employ or refuse to continue to employ a person, or (b) discriminate against a person regarding employment or any term or condition of employment because of the race, colour, ancestry, place of origin, political belief, religion, marital status, family status, physical or mental disability, sex, sexual orientation, gender identity or expression, or age of that person or because that person has been convicted of a criminal or summary conviction offence that is unrelated to the employment or to the intended employment of that person. (2) An employment agency must not refuse to refer a person for employment for any reason mentioned in subsection (1). (3) Subsection (1) does not apply (a) as it relates to age, to a bona fide scheme based on seniority, or (b) as it relates to marital status, physical or mental disability, sex or age, to the operation of a bona fide retirement, superannuation or pension plan or to a bona fide group or employee insurance plan, whether or not the plan is the subject of a contract of insurance between an insurer and an employer. (4) Subsections (1) and (2) do not apply with respect to a refusal, limitation, specification or preference based on a bona fide occupational requirement.
Ontario *Human Rights Code*, RSO 1990, c H.19, s 5.	*Employment* 5(1) Every person has a right to equal treatment with respect to employment without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, record of offences, marital status, family status or disability. *Harassment in employment* (2) Every person who is an employee has a right to freedom from harassment in the workplace by the employer or agent of the employer or by another employee because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sexual orientation, gender identity, gender expression, age, record of offences, marital status, family status or disability. 10. (1) In Part I and in this Part, **"disability"** means,

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	(a) any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes diabetes mellitus, epilepsy, a brain injury, any degree of paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, or physical reliance on a guide dog or other animal or on a wheelchair or other remedial appliance or device, (b) a condition of mental impairment or a developmental disability, (c) a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or spoken language, (d) a mental disorder, or (e) an injury or disability for which benefits were claimed or received under the insurance plan established under the Workplace Safety and Insurance Act, 1997; ("handicap") **Constructive discrimination** 11. (1) A right of a person under Part I is infringed where a requirement, qualification or factor exists that is not discrimination on a prohibited ground but that results in the exclusion, restriction or preference of a group of persons who are identified by a prohibited ground of discrimination and of whom the person is a member, except where, (a) the requirement, qualification or factor is reasonable and bona fide in the circumstances; or (b) it is declared in this Act, other than in section 17, that to discriminate because of such ground is not an infringement of a right. R.S.O. 1990, c. H.19, s. 11 (1). **Idem** (2) The Tribunal or a court shall not find that a requirement, qualification or factor is reasonable and bona fide in the circumstances unless it is satisfied that the needs of the group of which the person is a member cannot be accommodated without undue hardship on the person responsible for accommodating those needs, considering the cost, outside sources of funding, if any, and health and safety requirements, if any. R.S.O. 1990, c. H.19, s. 11 (2); 1994, c. 27, s. 65 (1); 2002, c. 18, Sched. C, s. 2 (1); 2009, c. 33, Sched. 2, s. 35 (1).
Alberta *Alberta Human Rights Act*, RSA 2000, c A-25.5, ss 6-8.	**Discrimination re employment practices** 7(1) No employer shall (a) refuse to employ or refuse to continue to employ any person, or (b) discriminate against any person with regard to employment or any term or condition of employment, because of the race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation of that person or of any other person. (2) Subsection (1) as it relates to age and marital status does not affect the operation of any bona fide retirement or pension plan or the terms or conditions of any bona fide group or employee insurance plan. (3) Subsection (1) does not apply with respect to a refusal, limitation, specification or preference based on a bona fide occupational requirement. **Applications and advertisements re employment**

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	8(1) No person shall use or circulate any form of application for employment or publish any advertisement in connection with employment or prospective employment or make any written or oral inquiry of an applicant (a) that expresses either directly or indirectly any limitation, specification or preference indicating discrimination on the basis of the race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation of that person or of any other person, or (b) that requires an applicant to furnish any information concerning race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status or sexual orientation. (2) Subsection (1) does not apply with respect to a refusal, limitation, specification or preference based on a bona fide occupational requirement. 44(1) In this Act, ... (h) "mental disability" means any mental disorder, developmental disorder or learning disorder, regardless of the cause or duration of the disorder;
Saskatchewan *The Saskatchewan Human Rights Code*, SS 1979, c S-24.1, s 16.	2(1) In this Act: (d.1) "disability" means: (ii) any of: (A) an intellectual disability or impairment; (B) a learning disability or a dysfunction in one or more of the processes involved in the comprehension or use of symbols or spoken language; or (C) a mental disorder; (i.1) "mental disorder" means a disorder of thought, perception, feelings or behaviour that impairs a person's: (i) judgment; (ii) capacity to recognize reality; (iii) ability to associate with others; or (iv) ability to meet the ordinary demands of life; *Discrimination prohibited in employment* 16(1) No employer shall refuse to employ or continue to employ or otherwise discriminate against any person or class of persons with respect to employment, or any term of employment, on the basis of a prohibited ground. (2) No employee shall discriminate against another employee on the basis of a prohibited ground. (3) No employment agency shall discriminate against any person or class of persons in receiving, classifying, disposing of or otherwise acting on applications for the agency's service or in referring an applicant or applicants to an employer or anyone acting on an employer's behalf on the basis of a prohibited ground. (3.1) No employer shall use, in the hiring or recruitment of persons for employment, an employment agency that discriminates against any person or class of persons seeking employment on the basis of a prohibited ground. (4) No provision of this section relating to age prohibits the operation of any term of a bona fide retirement, superannuation or pension plan, or any terms or conditions of any bona fide group or employee insurance plan, or of any bona fide scheme based upon seniority. (5) Nothing in this section deprives a college established pursuant to an Act of the Legislature, a school, a board of education or the Conseil scolaire

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	fransaskois of the right to employ persons of a particular religion or religious creed where religious instruction forms or may form the whole or part of the instruction or training provided by the college, school, board of education or Conseil scolaire fransaskois pursuant to The Education Act, 1995. (6) Repealed. 1989-90, c.23, s.12. (7) The provisions of this section relating to any discrimination, limitation, specification or preference for a position or employment based on sex, disability or age do not apply where sex, ability or age is a reasonable occupational qualification and requirement for the position or employment. (8) This section does not prohibit an employer from refusing to employ or refusing to continue to employ a person for reasons of any prohibited ground of discrimination where the employee is: (a) employed in a private home; or (b) living in the home of the employer. (9) The provisions of this section shall not be construed to prohibit distinctions in terms or conditions of employment where those distinctions are permitted by virtue of Part II of *The Saskatchewan Employment Act* or the regulations made pursuant to that Act. (10) This section does not prohibit an exclusively non-profit charitable, philanthropic, fraternal, religious, racial or social organization or corporation that is primarily engaged in serving the interests of persons identified by their race, creed, religion, colour, sex, gender identity, sexual orientation, family status, marital status, disability, age, nationality, ancestry, place of origin or receipt of public assistance from employing only or giving preference in employment to persons similarly identified if the qualification is a reasonable and bona fide qualification because of the nature of the employment. (11) This section does not prohibit an employer from: (a) granting employment to, continuing to employ or advancing a person who is the parent, child or spouse of another employee of the employer where a reasonable and bona fide cause exists for the employer's action; or (b) refusing to employ, to continue to employ or to advance a person who is the parent, child or spouse of another employee of the employer where a reasonable and bona fide cause exists for the employer's refusal.
Manitoba *The Human Rights Code*, CCSM c H175, s 14.	**Reasonable accommodation required** 12 For the purpose of interpreting and applying sections 13 to 18, the right to discriminate where bona fide and reasonable cause exists for the discrimination, or where the discrimination is based upon bona fide and reasonable requirements or qualifications, does not extend to the failure to make reasonable accommodation within the meaning of clause 9(1)(d). *Discrimination in employment* 14(1) No person shall discriminate with respect to any aspect of an employment or occupation, unless the discrimination is based upon bona fide and reasonable requirements or qualifications for the employment or occupation. *"Any aspect", etc. defined* 14(2) In subsection (1), "any aspect of an employment or occupation" includes (a) the opportunity to participate, or continue to participate, in the employment or occupation; (b) the customs, practices and conditions of the employment or occupation; (c) training, advancement or promotion; (d) seniority;

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	(e) any form of remuneration or other compensation received directly or indirectly in respect of the employment or occupation, including salary, commissions, vacation pay, termination wages, bonuses, reasonable value for board, rent, housing and lodging, payments in kind, and employer contributions to pension funds or plans, long-term disability plans and health insurance plans; and (f) any other benefit, term or condition of the employment or occupation. *Employment advertising* 14(3) No person shall publish, broadcast, circulate or display, or cause to be published, broadcast, circulated or displayed, any statement, symbol or other representation, written or oral, that indicates directly or indirectly that any characteristic referred to in subsection 9(2) is or may be a limitation, specification or preference for an employment or occupation, unless the limitation, specification or preference is based upon bona fide and reasonable requirements or qualifications for the employment or occupation. *Pre-employment inquiries* 14(4) No person shall use or circulate any application form for an employment or occupation, or direct any written or oral inquiry to an applicant for an employment or occupation, that (a) expresses directly or indirectly a limitation, specification or preference as to any characteristic referred to in subsection 9(2); or (b) requires the applicant to furnish information concerning any characteristic referred to in subsection 9(2); unless the limitation, specification or preference or the requirement to furnish the information is based upon bona fide and reasonable requirements or qualifications for the employment or occupation. *Discrimination by employment agencies, etc.* 14(5) No person who undertakes, with or without compensation, to (a) obtain any other person for an employment or occupation with a third person; or (b) obtain an employment or occupation for any other person; or (c) test, train or evaluate any other person for an employment or occupation; or (d) refer or recommend any other person for an employment or occupation; or (e) refer or recommend any other person for testing, training or evaluation for an employment or occupation; shall discriminate when doing so, unless the discrimination is based upon bona fide and reasonable requirements or qualifications for the employment or occupation. *Discrimination by organizations, etc.* 14(6) No trade union, employer, employers' organization, occupational association, professional association or trade association, and no member of any such union, organization or association, shall (a) discriminate in respect of the right to membership or any other aspect of membership in the union, organization or association; or (b) negotiate on behalf of any other person in respect of, or agree on behalf of any other person to, an agreement that discriminates; unless bona fide and reasonable cause exists for the discrimination. *Employee benefits* 14(7) Subject to subsection 21(7.1) of The Pension Benefits Act, the Lieutenant Governor in Council may make regulations prescribing distinctions, conditions, requirements or qualifications that, for the purposes of this section, shall be

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	deemed to be bona fide and reasonable in respect of an employee benefit plan, whether provided for by individual contract, collective agreement or otherwise. **Onus of proof** 52(1) In any proceeding under this Code, the onus of proving that a provision of this Code has been contravened lies on the person alleging the contravention, but the onus of proving (a) the existence of a bona fide and reasonable cause for discrimination; or (b) that a requirement or qualification for an employment or occupation is bona fide and reasonable; or (c) that reasonable accommodation has been made or is not possible in the circumstances; or (d) the applicability of any other exception to the prohibitions enacted by this Code; lies on the respondent.
New Brunswick *Human Rights Act*, RSNB 2011, c 171, s 4.	*Discrimination in employment* **Definitions** 2 The following definitions apply in this Act. "mental disability" means (a)a condition of mental retardation or impairment, (b)a learning disability, or dysfunction in one or more of the mental processes involved in the comprehension or use of symbols or spoken language, or (c)a mental disorder.(incapacité mentale) 4(1) No employer, employers' organization or other person acting on behalf of an employer shall, because of race, colour, religion, national origin, ancestry, place of origin, age, physical disability, mental disability, marital status, sexual orientation, sex, social condition or political belief or activity, (a) refuse to employ or continue to employ any person, or (b) discriminate against any person in respect of employment or any term or condition of employment. 4(2) No employment agency shall discriminate against a person seeking employment because of race, colour, religion, national origin, ancestry, place of origin, age, physical disability, mental disability, marital status, sexual orientation, sex, social condition or political belief or activity. 4(3) No trade union or employers' organization shall, because of race, colour, religion, national origin, ancestry, place of origin, age, physical disability, mental disability, marital status, sexual orientation, sex, social condition or political belief or activity, (a) exclude any person from full membership, (b) expel, suspend or otherwise discriminate against any of its members, or (c) discriminate against any person in respect of his or her employment by an employer. 4(4) No person shall (a) use or circulate a form of application for employment, (b) publish or cause to be published an advertisement in connection with employment, or (c) make an oral or written inquiry in connection with employment, that expresses either directly or indirectly a limitation, specification or preference, or requires an applicant to furnish any information as to race, colour, religion,

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	national origin, ancestry, place of origin, age, physical disability, mental disability, marital status, sexual orientation, sex, social condition or political belief or activity. 4(5) Despite subsections (1), (2), (3) and (4), a limitation, specification or preference on the basis of race, col-our, religion, national origin, ancestry, place of origin, age, physical disability, mental disability, marital status, sexual orientation, sex, social condition or political belief or activity shall be permitted if the limitation, specification or preference is based on a bona fide occupational qualification as determined by the Commission. 4(6) The provisions of subsections (1), (2), (3) and (4) as to age do not apply to (a) the termination of employment or a refusal to employ because of the terms or conditions of any bona fide retirement or pension plan, (b) the operation of the terms or conditions of a bona fide retirement or pension plan that have the effect of a minimum service requirement, or (c) the operation of terms or conditions of a bona fide group or employee insurance plan. 4(7) The provisions of subsections (1), (2), (3) and (4) as to age do not apply to a limitation, specification, exclusion, denial or preference in relation to a person who has not attained the age of majority if the limitation, specification, exclusion, denial or preference is required or authorized by an Act of the Legislature or a regulation made under that Act. 4(8) The provisions of subsections (1), (2), (3) and (4) as to physical disability and mental disability do not apply to (a) the termination of employment or a refusal to employ because of a bona fide qualification based on the nature of the work or the circumstance of the place of work in relation to the physical disability or mental disability, as determined by the Commission, or (b) the operation of terms or conditions of a bona fide group or employee insurance plan.
Newfoundland and Labrador *Human Rights Act*, 2010, SNL 2010, ss 14-16.	**Definitions** 2. In this Act (c) "disability" means one or more of the following conditions: (i) a degree of physical disability, (ii) a condition of mental impairment or a developmental disability, (iii) a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or language, and (iv) a mental disorder; **Discrimination in employment** 14. (1) An employer, or a person acting on behalf of an employer, shall not refuse to employ or to continue to employ or otherwise discriminate against a person in regard to employment or a term or condition of employment on the basis of a prohibited ground of discrimination, or because of the conviction for an offence that is unrelated to the employment of the person. (2) Subsection (1) does not apply to the expression of a limitation, specification or preference based on a good faith occupational qualification. (3) An employer, or a person acting on behalf of an employer, shall not use, in the hiring or recruitment of persons for employment, an employment agency that discriminates against a person seeking employment on the basis of a prohibited ground of discrimination.

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	(4) A trade union shall not exclude a person from full membership or expel or suspend or otherwise discriminate against one of its members or discriminate against a person in regard to his or her employment by an employer, on the basis of a prohibited ground of discrimination. (5) A person shall not use or circulate a form of application for employment or publish an advertisement in connection with employment or prospective employment or make a written or oral inquiry in connection with employment that expresses either directly or indirectly (a) a limitation, specification or preference based on a prohibited ground of discrimination; or (b) an intent to (i) dismiss from employment, (ii) refuse to employ or rehire, or (iii) discriminate against a person on the basis of a prohibited ground of discrimination, but this subsection does not apply to the expression of a limitation, specification or preference based on a good faith occupational qualification. (6) The provisions of subsections (1) , (4) and (5) as to age shall not apply to (a) prevent the operation of a good faith retirement or pension plan; (b) operation of the terms or conditions of a good faith retirement or pension plan which have the effect of a minimum service requirement; or (c) operation of the terms or conditions of a good faith group or employee insurance plan. (7) Paragraph (6) (a) does not apply to a provision of a good faith retirement or pension plan requiring a person to retire at an age set out in the plan. (8) This section does not apply to an employer (a) that is an exclusively religious, fraternal or sororal organization that is not operated for private profit, where it is a reasonable and genuine qualification because of the nature of the employment; or (b) with the exception of subsection (5) as it applies to advertising, in respect of the employment of a person to provide personal services. (9) The right under this section to equal treatment with respect to employment is not infringed where a judge is required to retire on reaching a specified age under the Provincial Court Act, 1991. (10) In paragraph (8) (b) and subsection 15(5) , (a) “employer” means a person who employs a person to provide personal services to him or her or to a member of his or her family; and (b) “personal services” means work of a domestic, custodial, companionship, personal care, child care, or educational nature, or other work within the private residence that involves frequent contact or communication with persons who live in the residence. **Discrimination re: attachment of wages, etc.** 15. (1) An employer, or a person acting on behalf of an employer, shall not refuse to employ or to continue to employ or otherwise discriminate against a person in regard to employment or a term or condition of employment because of that person’s pay (a) from another or previous employer having been; or (b) from him or her or another employer being or becoming subject to (c) attachment or seizure in satisfaction of a claim against; or (d) alienation, assignment or transfer by

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	that person, but discrimination based on a good faith occupational qualification with respect to persons whose duties include the collecting, receiving or depositing of money belonging to the employer does not constitute a failure to comply with this subsection. (2) An employer, or a person acting on behalf of an employer, shall not use, in the hiring or recruitment of persons for employment, an employment agency that discriminates against persons seeking employment for a reason that would be, in regard to an employer or person acting on behalf of an employer, discrimination under subsection (1) . (3) A trade union shall not exclude a person from full membership or expel or suspend or otherwise discriminate against a member or discriminate against a person in regard to his or her employment by an employer for a reason that would be, in regard to an employer or a person acting on behalf of an employer, discrimination under subsection (1) . (4) A person shall not use or circulate a form of application for employment or publish an advertisement in connection with employment or prospective employment or make a written or oral inquiry in connection with employment that expresses either directly or indirectly (a) a limitation, specification or preference as to a person; or (b) an intent to (i) dismiss from employment, (ii) refuse to employ or retire, or (iii) discriminate against a person for a reason that would be, in regard to an employer or a person acting on behalf of an employer, discrimination under subsection (1) . (5) This section, with the exception of subsection (4) as it applies to advertising, does not apply to an employer in respect of the employment of a person to provide personal services.
Nova Scotia *Human Rights Act*, RSNS 1989, c 214, ss 5, 8.	**Interpretation** 3 In this Act, (l) "physical disability or mental disability" means an actual or perceived (i) loss or abnormality of psychological, physiological or anatomical structure or function, (ii) restriction or lack of ability to perform an activity, (iii) physical disability, infirmity, malformation or disfigurement, including, but not limited to, epilepsy and any degree of paralysis, amputation, lack of physical co-ordination, deafness, hardness of hearing or hearing impediment, blindness or visual impediment, speech impairment or impediment or reliance on a hearing-ear dog, a guide dog, a wheelchair or a remedial appliance or device, (iv) learning disability or a dysfunction in one or more of the processes involved in understanding or using symbols or spoken language, (v) condition of being mentally impaired, (vi) mental disorder, or (vii) dependency on drugs or alcohol; **Prohibition of discrimination** 5 (1) No person shall in respect of

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	(a) the provision of or access to services or facilities; (b) accommodation; (c) the purchase or sale of property; (d) employment; (e) volunteer public service; (f) a publication, broadcast or advertisement; (g) membership in a professional association, business or trade association, employers organization or employees organization, discriminate against an individual or class of individuals on account of (h) age; (i) race; (j) colour; (k) religion; (l) creed; (m) sex; (n) sexual orientation; (na) gender identity; (nb) gender expression; (o) physical disability or mental disability; (p) an irrational fear of contracting an illness or disease; (q) ethnic, national or aboriginal origin; (r) family status; (s) marital status; (t) source of income; (u) political belief, affiliation or activity; (v) that individuals association with another individual or class of individuals having characteristics referred to in clauses (h) to (u). **Sexual harassment** (2) No person shall sexually harass an individual. (3) No person shall harass an individual or group with respect to a prohibited ground of discrimination. **Employment** 8 (1) No employment agency shall accept an inquiry in connection with employment from an employer or a prospective employee that, directly or indirectly, expresses a limitation, specification or preference or invites information as to a characteristic referred to in clauses (h) to (v) of subsection (1) of Section 5, and no employment agency shall discriminate against an individual on account of such a characteristic. (2) No person shall use or circulate a form of application for employment or publish an advertisement in connection with employment or prospective employment or make an inquiry in connection with employment that, directly or indirectly, expresses a limitation, specification or preference or invites information as to a characteristic referred to in clauses (h) to (v) of subsection (1) of Section 5. (3) The exceptions referred to in Section 6 apply mutatis mutandis to subsections (1) and (2). 6 – Exceptions (f) where a denial, refusal or other form of alleged discrimination is (i) <u>based upon a bona fide qualification,</u> (ia) <u>based upon a bona fide occupational requirement; or</u>

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	(ii) a reasonable limit prescribed by law as can be demonstrably justified in a free and democratic society; (g) to prevent, on account of age, the operation of a bona fide pension plan or the terms or conditions of a bona fide group or employee insurance plan;
Prince Edward Island *Human Rights Act*, RSPEI 1988, c H-12, ss 6-7.	**Definitions** 1. (1) In this Act disability (c.1) "disability" means a previous or existing disability, infirmity, malformation or disfigurement, whether of a physical, mental or intellectual nature, that is caused by injury, birth defect or illness, and includes but is not limited to epilepsy, any degree of paralysis, amputation, lack of physical coordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, or physical reliance on an assist animal, wheelchair or other remedial device; **Discrimination in employment prohibited** 6.(1) No person shall refuse to employ or to continue to employ any individual (a) on a discriminatory basis, including discrimination in any term or condition of employment; or (b) because the individual has been convicted of a criminal or summary conviction offence that is unrelated to the employment or intended employment of the individual. **Employment agencies** (2) No employment agency shall accept an inquiry in connection with employment from any employer or prospective employee that directly or indirectly expresses any limitation, specification or preference or invites information that is discriminatory and no employment agency shall discriminate against any individual. **Application for employment forms** (3) No person shall use or circulate any form of application for employment or publish any advertisement in connection with employment or prospective employment or make any inquiry in connection with employment that directly or indirectly expresses any limitation, specification or preference or invites information that is discriminatory. **Application of section** (4) This section does not apply to (a) a refusal, limitation, specification or preference based on a genuine occupational qualification; (b) employment where disability is a reasonable disqualification; (c) an exclusively religious or ethnic organization or an agency of such an organization that is not operated for private profit and that is operated primarily to foster the welfare of a religious or ethnic group with respect to persons of the same religion or ethnic origin as the case may be, if age, colour, creed, disability, ethnic or national origin, family status, gender expression, gender identity, marital status, political belief, race, religion, sex, sexual orientation, or source of income is a reasonable occupational qualification. **Discrimination in pay prohibited** 7. (1) No employer or person acting on behalf of an employer shall discriminate between his employees by paying one employee at a rate of pay less than the rate of pay paid to another employee employed by him for substantially the

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	same work, the performance of which requires equal education, skill, experience, effort, and responsibility and which is performed under similar working conditions, except where the payments are made pursuant to (a) a seniority system; (b) a merit system; or (c) a system that measures earnings by quantity or quality of production or performance, but where the systems referred to in clauses (a) to (c) are based on discrimination, the exemptions do not apply. **Reduction of pay prohibited, where** (2) No employer or person acting on his behalf shall reduce the rate of pay of an employee in order to comply with subsection (1). **Causing an employer to pay in contravention of ss.(1)** (3) No business, professional or trade association, employees' or employers' organization, or employees, as the case may be, or its agents, shall cause or attempt to cause an employer to pay to his employees rates of pay that are in contravention of subsection (1). **Remedies of employee** (4) Where an employee is paid less than the rate of pay to which the employee is entitled under this section, the employee is entitled, subject to subsection (5), (a) to recover from the employer by way of action in Supreme Court the difference between the amount paid and the amount to which the employee was entitled, together with costs; (b) to enforcement of all other rights and remedies against the employer which the employee would have been entitled to had the employer not failed to comply with this section, but (c) proceedings under clause (a) or (b) shall be commenced within twelve months from the date upon which the cause of action arose and not afterwards; (d) the proceedings under clauses (a) and (b) apply only to wages of an employee during the twelve month period immediately preceding the termination of the employee's services or the commencement of the proceedings, whichever occurs first; (e) the proceedings under clause (a) or (b) may not be commenced or proceeded with where the employee had made a complaint on the prescribed form to the Commission in respect of the contravention of this section; and (f) no complaint by an employee in respect to a contravention shall be acted upon by the Commission where proceedings have been commenced by the employee under this section. **Idem** (5) An employee is not entitled to the recovery and enforcement referred to in subsection (1) if an appeal or grievance procedure is provided for the employee under the Civil Service Act R.S.P.E.I. 1988, Cap. C-8 the *Education Act* R.S.P.E.I. 1988, Cap. E-.02 or the Labour Act R.S.P.E.I. 1988, Cap. L-1 or where the employee is a party to a proceeding before an arbitration board constituted under the Arbitration Act R.S.P.E.I. 1988, Cap. A-16 and the arbitration board has jurisdiction to adjudicate on the question of rates of pay.
Quebec *Charter of Human Rights and Freedoms*, CQLR c C-12, ss 16, 18-20.	**16.** No one may practise discrimination in respect of the hiring, apprenticeship, duration of the probationary period, vocational training, promotion, transfer, displacement, laying-off, suspension, dismissal or conditions of employment of a person or in the establishment of categories or classes of employment.

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	18. No employment bureau may practise discrimination in respect of the reception, classification or processing of a job application or in any document intended for submitting an application to a prospective employer. **18.1.** No one may, in an employment application form or employment interview, require a person to give information regarding any ground mentioned in section 10 unless the information is useful for the application of section 20 or the implementation of an affirmative action program in existence at the time of the application. **18.2.** No one may dismiss, refuse to hire or otherwise penalize a person in his employment owing to the mere fact that he was convicted of a penal or criminal offence, if the offence was in no way connected with the employment or if the person has obtained a pardon for the offence. **19.** Every employer must, without discrimination, grant equal salary or wages to the members of his personnel who perform equivalent work at the same place. A difference in salary or wages based on experience, seniority, years of service, merit, productivity or overtime is not considered discriminatory if such criteria are common to all members of the personnel. Adjustments in compensation and a pay equity plan are deemed not to discriminate on the basis of gender if they are established in accordance with the Pay Equity Act (chapter E-12.001). **20.** A distinction, exclusion or preference based on the aptitudes or qualifications required for an employment, or justified by the charitable, philanthropic, religious, political or educational nature of a non-profit institution or of an institution devoted exclusively to the well-being of an ethnic group, is deemed non-discriminatory.
Yukon *Human Rights Act*, RSY 2002, c 116, ss 9, 15.	*Prohibited discrimination* 9 No person shall discriminate (a) when offering or providing services, goods, or facilities to the public; (b) in connection with any aspect of employment or application for employment; (c) in connection with any aspect of membership in or representation by any trade union, trade association, occupational association, or professional association; (d) in connection with any aspect of the occupancy, possession, lease, or sale of property offered to the public; (e) in the negotiation or performance of any contract that is offered to or for which offers are invited from the public. **Reasonable cause** 10 It is not discrimination if treatment is based on (a) reasonable requirements or qualifications for the employment; (b) a criminal record or criminal charges relevant to the employment; (c) sex, so as to respect the privacy of the people to whom accommodations or a service or facility is offered; or (d) other factors establishing reasonable cause for the discrimination. **Interpretation** 37 In this Act, "mental disability" means any mental or psychological disorder such as organic brain syndrome, emotional or mental illness, or learning disability; « incapacité mentale
Northwest Territories	**Definitions** **1. (1) In this Act,** "disability" means any of the following conditions:

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Human Rights Act, SNWT 2002, c 18, ss 7-9.	(a) any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness, (b) a condition of mental impairment or a developmental disability, (c) a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or language, (d) a mental disorder; (incapacité)*Employment* 7. (1) No person shall, on the basis of a prohibited ground of discrimination, (a) refuse to employ or refuse to continue to employ an individual or a class of individuals; or (b) discriminate against any individual or class of individuals in regard to employment or any term or condition of employment. *Retirement, pension and insurance plans* (2) In respect of the age, marital status and family status of an individual or a class of individuals, subsection (1) does not affect the operation of any bona fide retirement or pension plan or the terms and conditions of any bona fide group or employee insurance plan. *Bona fide occupational requirement* (3) Subsection (1) does not apply with respect to a practice based on a bona fide occupational requirement. *Duty to accommodate* (4) In order for a practice described in subsection (1) to be considered to be based on a bona fide occupational requirement, it must be established that accommodation of the needs of an individual or class of individuals affected would impose undue hardship on a person who would have to accommodate those needs. *Exception* (5) It is not a contravention of subsection (1) for an organization, society or corporation to give preference in employment to an individual or class of individuals if the preference is solely related to the special objects in respect of which the organization, society or corporation was established and the organization, society or corporation (a) is not operated for private profit; and (b) is (i) a charitable, educational, fraternal, religious, social or cultural organization, society or corporation, or (ii) an organization, society or corporation operated primarily to foster the welfare of a religious or racial group. *Owner of business may give preference in employment* (6) It is not a contravention of subsection (1) for an owner of a business to give preference in employment, on the basis of family affiliation, to a member of his or her family. ***Bona fide* occupational requirement** (2) Subsection (1) does not apply with respect to a practice based on a bona fide occupational requirement. **Duty to accommodate** (3) In order for a practice described in subsection (1) to be considered to be based on a bona fide occupational requirement, it must be established that accommodation of the needs of an individual or class of individuals affected would impose undue hardship on a person who would have to accommodate those needs
Nunavut	Interpretation

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Human Rights Act, SNu 2003, c 12, ss 9-10.	1. In this Act, "disability" means any previous or existing or perceived mental or physical disability and includes disfigurement and previous or existing dependency on alcohol or a drug; (déficience) *Employment* 9. (1) No person shall, on the basis of a prohibited ground of discrimination, (a) refuse to employ or refuse to continue to employ an individual or a class of individuals; or (b) discriminate against any individual or class of individuals in regard to employment or any term or condition of employment, whether the term or condition was prior to or is subsequent to the employment. *Retirement, pension and insurance plans* (2) In respect of the age and marital status of an individual or a class of individuals, subsection (1) does not affect the operation of any genuine retirement or pension plan, or the terms and conditions of any genuine group or employee insurance plan. *Genuine retirement or pension plan* (3) For the purposes of subsection (2), a genuine retirement or pension plan is one that is established in accordance with an Act of Canada or Nunavut. *Justified occupational requirement* (4) Subsection (1) does not apply with respect to a practice based on a justified occupational requirement. *Duty to accommodate* (5) When a practice referred to in subsection (1) results in discrimination, in order for it to be considered to be based on a justified occupational requirement, it must be established that accommodation of the needs of an individual or class of individuals affected would impose undue hardship on a person who would have to accommodate those needs. *Exception* (6) It is not a contravention of subsection (1) for an organization, society or corporation to give preference in employment to an individual or class of individuals if the preference is solely related to the special objects in respect of which the organization, society or corporation was established and the organization, society or corporation (a) is a not for profit organization, society or corporation; and (b) is (i) a charitable, educational, fraternal, religious, athletic, social or cultural organization, society or corporation, or (ii) an organization, society or corporation operated primarily to foster the welfare of a religious or racial group.

9.5 Appendix E: Summary of Legislation

The following is a summary of provincial and territorial legislation as it pertains to medical professionals (i.e., physicians and psychologists) whose roles parallel that of SAPs/SAEs (which are not regulated).

9.5.1 Authority of Physicians

Province	Legislation Title	Provision
British Columbia	*Health Professions Act*, [RSBC 1996] Chapter 183 *Medical Practitioners Regulation*	Reserved Titles 2 (1) The following titles are reserved for exclusive use by registrants: (a) medical practitioner; (b) physician; (c) surgeon; (d) doctor. Scope of practice 3 A registrant may practise medicine.
Alberta	*Health Professions Act,* Chapter H-7, Schedule 21	Practice 3(1) In their practice of medicine, physicians, surgeons and osteopaths do one or more of the following: (a) assess the physical, mental and psychosocial condition of individuals to establish a diagnosis, (b) assist individuals to make informed choices about medical and surgical treatments, (c) treat physical, mental and psychosocial conditions, ...
Saskatchewan	*The Medical Profession Act,* 1981, Chapter M-10.1	Rights of registered practitioners 71 Every person registered under this Act and not under suspension is entitled to practise in the province within any restrictions, limitations, or conditions fixed by the council on the services that he may provide and to demand and recover reasonable charges in any court of competent jurisdiction in the province with full costs of suit. Practising defined 79 Every person is deemed to practise medicine within the meaning of this Act who: (a) holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, disability or physical condition; or (b) offers or undertakes by any means or methods to diagnose, treat, operate or prescribe for any human disease, pain, injury, disability or physical condition.
Manitoba	*The Medical Act*, C.C.S.M. c.M90	Persons deemed practising medicine 2(1) Without restricting the generality of the definition of practice of medicine, a person shall be deemed to be practising medicine within the meaning of this Act who (a) by advertisement, sign, or statement of any kind, written or oral, alleges or implies or states that he is, or holds himself out as being, qualified, able, or willing, to diagnose, prescribe for, prevent, or treat, any human disease, ailment, deformity, defect, or injury, or to perform any operation or surgery to remedy any

Province	Legislation Title	Provision
		human disease, ailment, deformity, defect, or injury, or to examine or advise upon the physical or mental condition of any person; or (b) diagnoses, or offers to diagnose, or attempts by any means whatsoever to diagnose, any human disease, ailment, deformity, defect, or injury, or who examines or advises upon, or offers to examine or advise upon, the physical or mental condition of any person; or (c) prescribes or administers any drugs, serum, medicine, or any substance or remedy, whether for the cure, treatment, or prevention, of any human disease, ailment, deformity, defect, or injury; or (d) prescribes or administers any treatment, or performs any operation or manipulation, or applies any apparatus or appliance, for the cure, treatment, or prevention, of any human disease, ailment, deformity, defect, or injury, or acts as a midwife; ... Unauthorized practice 5(1) No person other than a licensed member or associate member or a medical corporation shall practise medicine in the province, and such a person shall not practise medicine in the province except as permitted by this Act and the person's licence.
Ontario	*Medicine Act*, 1991, S.O. 1991, c. 30	4. In the course of engaging in the practice of medicine, a member is authorized, subject to the terms, conditions and limitations imposed on his or her certificate of registration, to perform the following: 1. Communicating a diagnosis identifying a disease or disorder as the cause of a person's symptoms. ... 8. Prescribing, dispensing, selling or compounding a drug.
Quebec	*Medical Act*, R.S.Q., chapter M-9	31. The practice of medicine consists in assessing and diagnosing any health deficiency in a person in interaction with their environment, in preventing and treating illness to maintain or restore health or to provide appropriate symptom relief. The following activities in the practice of medicine are reserved to physicians: (1) diagnosing illnesses; (2) prescribing diagnostic examinations; (3) using diagnostic techniques that are invasive or entail risks of injury; (4) determining medical treatment; (5) prescribing medications and other substances; (6) prescribing treatment; (7) using techniques or applying treatments that are invasive or entail risks of injury, including aesthetic procedures; (8) providing clinical monitoring of the condition of patients whose state of health is problematic; (9) providing pregnancy care and conducting deliveries; (10) making decisions as to the use of restraint measures;

Province	Legislation Title	Provision
		(11) deciding to use isolation measures in accordance with the Act respecting health services and social services (chapter S-4.2) and the Act respecting health services and social services for Cree Native persons (chapter S-5); and (12) administering the drug or substance allowing an end-of-life patient to obtain medical aid in dying under the Act respecting end-of-life care (chapter S-32.0001).
New Brunswick	*Medical Act,* 1981	"practice of medicine" includes the practice of medicine, surgery, and osteopathic medicine and the specialties and subspecialties thereof; ... 40(1) A medical practitioner who holds a licence is, subject to any condition or limitation contained in his licence, and subject to subsection 26(5), entitled to practise medicine in the Province and to demand and recover in any court of law with full costs of suit, reasonable charges for professional services rendered, and the costs of any medicine or medical appliances rendered or supplied to any person.
Nova Scotia	Nova Scotia *Medical Act*	(af) "practice of medicine" means the practices and procedures usually performed by a medical practitioner and includes (i) the art and science of the assessment, diagnosis or treatment of an individual, (ii) the related promotion of health and prevention of illness, and (iii) such other practices and procedures as taught in universities or schools approved by the Council for licensing purposes under this Act and regulations; 3 The words "duly qualified medical practitioner", "duly qualified practitioner", "legally qualified medical practitioner", "legally qualified physician", "physician" or any like words or expressions implying a person recognized by law as a medical practitioner or member of the medical profession in the Province, when used in any regulation, rule, order or by-law made pursuant to an Act of the Legislature enacted or made before, at or after the coming into force of this Act, or when used in any public document, includes a person registered on a register pursuant to the regulations, and who holds a licence entitling such person to engage in the practice of medicine. 21 (3) No person shall engage in the practice of medicine unless (a) that person is currently registered and licensed with the College; or (b) that person is otherwise authorized to engage in the practice of medicine pursuant to this Act or the regulations.
Prince Edward Island	*Medical Act*, Chapter M-5	56. (1) Except as provided in this Act, and the regulations, no person, other than a medical practitioner who holds a license or a professional corporation which holds a license, shall

Province	Legislation Title	Provision
		(a) publicly or privately, for hire, gain or hope of reward, practise or offer to practise medicine; (b) hold himself or itself out in any way to be entitled to practice medicine; or (a) assume any title or description implying or designed to lead the public to believe that he or it is entitled to practice medicine. Regulations: Full licence—permitted activities 22 A full licence holder is permitted to do all of the following: (a) practise medicine in accordance with the Act, the regulations and the bylaws;
Newfoundland	*Medical Act*, 2011	"practice of medicine" means the practice of medicine or surgery on the human body, and includes cardiology, dermatology, geriatrics, gynecology, neurology, obstetrics, ophthalmology, orthopedics, pathology, pediatrics, psychiatry and radiology and other specialities and subspecialties of medicine; Licence to practise 24. (1) A person may apply for a licence to practise medicine in the province and the registrar shall issue the licence provided that (a) the person is registered in the medical register; and (b) the person has met the requirements for licensure set out in this Act and the regulations. (2) A person who receives a licence under this section is only entitled to practice medicine in accordance with the scope of practice and terms and conditions that the council may, subject to the regulations, attach to the licence.
Northwest Territories	*Medical Profession Act*, S.N.W.T. 2010, c.6	"licence" means a licence to practice medicine as a general or family practitioner, issued to a person registered in Part One of the Medical Register, or a licence to practice medicine as a specialist, issued to a person registered in Part Two of the Medical Register; (*licence*) "medical practitioner" means a person who holds a licence or temporary permit; (*médecin*) "practice medicine" means to offer or undertake by any means or method to diagnose, treat, operate or prescribe for any human disease, pain, injury, disability or physical condition, or to hold oneself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, disability or physical condition; (*exercer la médecine*) 13. A person who is registered in Part One of the Medical Register and holds a licence is entitled to practice medicine as a general or family practitioner.

Province	Legislation Title	Provision
Yukon	*Medical Profession Act*, RSY 2002, c.149	Prohibitions relating to the practice of medicine 40(1) No person may practise, or offer to practise, medicine in the Yukon unless they (a) are included in a register other than the Corporate Register; and (b) are not suspended from the practice of medicine in the Yukon under this Act. (2) A person shall be deemed to practise medicine within the meaning of this Act who (a) by advertisement, sign, or statement of any kind, written or verbal, alleges or implies that they are, or hold themselves out as being, qualified, able, or willing (i) to diagnose, prescribe for, prevent, or treat any human disease, ailment, deformity, defect, or injury, (ii) to perform any operation to remedy any human disease, ailment, deformity, defect, or injury, or (iii) to examine or advise on the physical or mental condition of any person; (b) diagnoses, or offers to diagnose, any human disease, ailment, deformity, defect, or injury; (c) examines or advises on, or offers to examine or advise on, the physical or mental condition of any person; (d) prescribes or administers any drug, serum, medicine, or other substance or remedy for the cure, treatment, or prevention of any human disease, ailment, deformity, defect, or injury; (e) prescribes or administers any treatment or performs any operation or manipulation, or supplies or applies any apparatus or appliance for the cure, treatment, or prevention of any human disease, ailment, deformity, defect, or injury; or (f) acts as the agent, assistant, or associate of any person, firm, or corporation in the practice of medicine.
Nunavut	*Medical Profession Act*, RSNWT (Nu) 1988, c M-9	"practise medicine" means to offer or undertake by any means or method to diagnose, treat, operate, or prescribe for any human disease, pain, injury, disability or physical condition or to hold oneself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, disability or physical condition; Right to practise 2. Except as provided in this Act, no person shall practise medicine in Nunavut unless he or she is registered and licensed or holds a permit issued under this Act. S.Nu. 2012,c.17,s.18(3).

9.5.2 Authority of Psychologists

Province	Legislation Title	Provision
British Columbia	*Health Professions Act*, *Psychologists Regulation*	"practice of psychology" includes, for a fee or reward, monetary or otherwise, (a) the provision, to individuals, groups, organizations or the public, of any service involving the application of principles, methods and procedures of understanding, predicting and influencing behaviour, including the principles of learning, perception, motivation, thinking, emotion and interpersonal relationships, (b) the application of methods and procedures of interviewing, counselling, psychotherapy, behaviour therapy, behaviour modification, hypnosis or research, or (c) the construction, administration and interpretation of tests of mental abilities, aptitudes, interests, opinions, attitudes, emotions, personality characteristics, motivations and psychophysiological characteristics, and the assessment or diagnosis of behavioural, emotional and mental disorder. ... Scope of practice 4 A registrant may practise psychology.
Alberta	*Health Professions Act,* Chapter H-7, Schedule 22	Practice 3 In their practice, psychologists do one or more of the following: (a) assess, diagnose, treat, guide and support persons or groups of persons in order to enhance development, effective living and quality of life or to prevent, remedy or ameliorate mental, emotional, cognitive, behavioural and interpersonal difficulties; (b) teach, supervise or consult in the practice of psychology; (b.1) manage and conduct research in the science, techniques and practice of psychology; (c) provide restricted activities authorized by the regulations.
Saskatchewan	*Psychologists Act*, 1997, Chapter P-36.01	Authorized practices 23(1) An authorized practice is the communication of a diagnosis identifying, as the cause of a person's symptoms, a neuropsychological disorder or a psychologically-based psychotic, neurotic or personality disorder. (2) No person shall perform an authorized practice described in subsection (1) in the course of providing services to an individual unless the person is a practicing member authorized by council pursuant to his or her licence or the bylaws to perform that authorized practice. (3) Prior to authorizing a member to perform an authorized practice, the council may require that member to successfully complete any examinations as may be prescribed in the bylaws. (4) This section does not apply to a duly qualified medical practitioner.
Manitoba	*The Psychologists Registration Act*, C.C.S.M. c. P190	Prohibition

Province	Legislation Title	Provision
	Regulation R.M. 32/2006	12 No person who is registered under this Act shall treat any person for any type of mental disorder except in association with a duly qualified medical practitioner. “practice of psychology” means the assessment of behavioural, mental, neuropsychological and personality characteristics, functions and conditions; the diagnosis, treatment and prevention of behavioural , mental , neuropsychological and personality disorders; and the maintenance and enhancement of physical, intellectual, emotional, social, vocational and interpersonal functioning. Practice of psychology prohibited 5.2(1) A member who is registered on the inactive register is not authorized to carry out the practice of psychology.
Ontario		1. Scope of practice 3. The practice of psychology is the assessment of behavioral and mental conditions, the diagnosis of neuropsychological disorders and dysfunctions and psychotic, neurotic and personality disorders and dysfunctions and the prevention and treatment of behavioral and mental disorders and dysfunctions and the maintenance and enhancement of physical, intellectual, emotional, social and interpersonal functioning. 1991, c. 38, s. 3. 2. Authorized acts Authorized acts 4. In the course of engaging in the practice of psychology, a member is authorized, subject to the terms, conditions and limitations imposed on his or her certificate of registration, to perform the following: 1. To communicate a diagnosis identifying, as the cause of a person’s symptoms, a neuropsychological disorder or psychologically based psychotic, neurotic or personality disorder. 2. To treat, by means of psychotherapy technique delivered through a therapeutic relationship, an individual’s serious disorder of thought, cognition, mood, emotional regulation, perception or memory that may seriously impair the individual’s judgement, insight, behaviour, communication or social functioning. 2007, c. 10, Sched. R, s. 18. See: 2007, c. 10, Sched. R, ss. 18, 20 (2).
Quebec		36. No person shall in any way whatsoever: ... (e) use the title “Psychologist” or any other title or abbreviation which may lead to the belief that he is a psychologist, or use initials which may lead to the belief that he is a psychologist, unless he holds a valid permit for that purpose and is entered on the roll of the Ordre professionnel des psychologues du Québec; ... CHAPTER VI.1 PSYCHOTHERAPIST’S PERMIT 1998, c. 18, s. 3; 2009, c. 28, s. 11.

Province	Legislation Title	Provision
		187.1. With the exception of physicians and psychologists, no person shall practise psychotherapy or use the title of "Psychotherapist" or any other title or abbreviation which may lead to the belief that he is a psychotherapist, unless he holds a psychotherapist's permit and is a member of the Ordre professionnel des conseillers et conseillères d'orientation et des psychoéducateurs et psychoéducatrices du Québec, the Ordre professionnel des ergothérapeutes du Québec, the Ordre professionnel des infirmières et infirmiers du Québec or the Ordre professionnel des travailleurs sociaux et des thérapeutes conjugaux et familiaux du Québec. *(see notes 1 and 2 below)* Psychotherapy is psychological treatment for a mental disorder, behavioural disturbance or other problem resulting in psychological suffering or distress, and has as its purpose to foster significant changes in the client's cognitive, emotional or behavioural functioning, his interpersonal relations, his personality or his health. Such treatment goes beyond help aimed at dealing with everyday difficulties and beyond a support or counselling role. The Office shall establish by regulation a list of actions which relate to psychotherapy but do not constitute psychotherapy within the meaning of the second paragraph, and shall define those actions. 187.2. Every physician, psychologist or holder of a psychotherapist's permit shall practise psychotherapy in accordance with the laws and regulations governing the physician, psychologist or permit holder, and with the following rules: (1) establish a structured process of interaction with the client; (2) do a thorough initial evaluation; (3) apply therapeutic procedures based on communication; and (4) use scientifically recognized theoretical models and proven intervention methods that respect human dignity
New Brunswick	*The College of Psychologists Act*, (1980)	10(2) The holding of a valid license under this Act authorizes a member to engage in the practice of psychology, subject however to limitations contained in the said license.
Nova Scotia	*Psychologists Act*, CHAPTER 32 OF THE ACTS OF 2000	(l) "psychology" includes (i) the practice of examining the behaviour of children and adults, (ii) diagnosing psychological and emotional disorders, (iii) providing consultation and therapy, (iv) counselling individuals, groups and organizations to enhance physical and mental health and to achieve more effective personal, social and vocational development and adjustment, (v) teaching and applying psychological theory and principles regarding behaviour and mental processes such as learning, memory, perception and human development, and (vi) designing, conducting and communicating the results of psychological research;

Province	Legislation Title	Provision
		... Practice by person other than registered psychologist 22 (1) A person who is not a registered psychologist and who is not registered on the Register of Candidates and who (a) holds himself or herself out to the public by any title or description of services containing the word "psychology", "psychologist" or "psychological" or any abbreviation or derivative; (b) publicly or privately, for hire, gain or hope of reward, practises or offers to practise psychology; or (c) holds himself or herself out in any way to be entitled to practise psychology, is guilty of an offence.
Prince Edward Island	*Psychologists Act*, (2009)	(i) "practice of psychology" means (i) the assessment of behavioural, mental, neuropsychological and personality characteristics, functions and conditions, (ii) the diagnosis, treatment and prevention of behavioural, mental, neuropsychological and personality disorders, (iii) the maintenance and enhancement of physical, intellectual, emotional, social, vocational and interpersonal functioning, (iv) the teaching and application of psychological theory and principles regarding behaviour and mental processes such as learning, memory, perception and human development, or (v) the design, conduct and communication of the results of psychological research; ... (m) "psychologist" means an individual who is registered, or deemed to be registered, in the Register of Psychologists under section 13; 57 ((6) No person, other than a registrant or a professional psychology corporation, shall use any title, name or description incorporating the words "psychology", "psychological" or "psychologist", or any abbreviation or derivative, implying that the person practices psychology
Newfoundland	*An Act Respecting the Registration of Psychologists,* Chapter P-34.1	Use of "psychologist" 31. (1) A registered psychologist may use the designation "psychologist". (2) A person other than a registered psychologist who holds himself or herself out to the public by a title or description of services as a psychologist or as a person who practices psychology is guilty of an offence.
Northwest Territories	*Psychologists Act*, R.S.N.W.T. 1988,c.P-11	13. Registration under this Act, or the issue of a licence under this Act, does not authorize the person registered, or the licensee, to administer any drug or medicine to any person. 16. (1) Subject to this section, no person shall hold himself or herself out to the public as a psychologist, psychotherapist or psychoanalyst, or any grammatical variation of these terms, unless he or she is the holder of a licence to practise psychology issued under this Act.
Yukon	No psychologist association/regulation	

Province	Legislation Title	Provision
Nunavut	*Psychologists Act*, R.S.N.W.T. 1988,c.P-11	16. (1) Subject to this section, no person shall hold himself or herself out to the public as a psychologist psychotherapist or psychoanalyst, or any grammatical variation of these terms, unless he or she is the holder of a licence to practise psychology issued under this Act.

9.6 Appendix F: Studies Reviewed for the Brief Literature Review

Literature Reviews

Cashman, C. M., Ruotsalainen, J. H., Greiner, B. A., Beirne, P. V., & Verbeek, J. H. (2009). Alcohol and drug screening of occupational drivers for preventing injury. The Cochrane Library.

Macdonald, S., Hall, W., Roman, P., Stockwell, T., Coghlan, M., & Nesvaag, S. (2010). Testing for cannabis in the work-place: a review of the evidence. Addiction, 105(3), 408-416. doi:10.1111/j.1360-0443.2009.02808.x

Pidd, K. and Roche, A.M. (2014). How effective is drug testing as a workplace safety strategy? A systematic review of the evidence. Accident Analysis and Prevention, 71,154-165.

Individual Studies

Brady, J. E., Baker, S. P., DiMaggio, C., McCarthy, M. L., Rebok, G. W., & Li, G. (2009). Effectiveness of Mandatory Alcohol Testing Programs in Reducing Alcohol Involvement in Fatal Motor Carrier Crashes. American Journal of Epidemiology, 170(6), 775-782. doi:10.1093/aje/kwp202

Carpenter, C.S. (2007). Workplace Drug Testing and Worker Drug Use. Health Services Research, 42(2), 795-810.

French, M. T., Christopher Roebuck, M., & Kébreau Alexandre, P. (2004). To test or not to test: do workplace drug testing programs discourage employee drug use? Social Science Research, 33(1), 45-63. doi:https://doi.org/10.1016/S0049-089X(03)00038-3

Marques, P. H., Jesus, V., Olea, S. A., Vairinhos, V., & Jacinto, C. (2014). The effect of alcohol and drug testing at the workplace on individual's occupational accident risk. Safety Science, 68, 108-120. doi:http://dx.doi.org/10.1016/j.ssci.2014.03.007